

May 2017

Housing Adjustment Behaviors of Korean Elderly Immigrants Residing in Affordable Housing: The Cultural Aspects of Residential Experiences

Myounghee Jorn

University of Wisconsin-Milwaukee

Follow this and additional works at: <https://dc.uwm.edu/etd>



Part of the [Architecture Commons](#), and the [Other Medicine and Health Sciences Commons](#)

Recommended Citation

Jorn, Myounghee, "Housing Adjustment Behaviors of Korean Elderly Immigrants Residing in Affordable Housing: The Cultural Aspects of Residential Experiences" (2017). *Theses and Dissertations*. 1494.
<https://dc.uwm.edu/etd/1494>

This Dissertation is brought to you for free and open access by UWM Digital Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of UWM Digital Commons. For more information, please contact open-access@uwm.edu.

HOUSING ADJUSTMENT BEHAVIORS OF KOREAN ELDERLY IMMIGRANTS

RESIDING IN AFFORDABLE HOUSING:

THE CULTURAL ASPECTS OF RESIDENTIAL EXPERIENCES

by

Myounghee Jorn

A Dissertation Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

in Architecture

at

The University of Wisconsin-Milwaukee

May 2017

ABSTRACT

HOUSING ADJUSTMENT BEHAVIORS OF KOREAN ELDERLY IMMIGRANTS RESIDING IN AFFORDABLE HOUSING : THE CULTURAL ASPECTS OF RESIDENTIAL EXPERIENCES

by

Myounghee Jorn

The University of Wisconsin-Milwaukee, 2017
Under the Supervision of Professor Gerald Weisman and Brian Schermer

The present study is an explorative study that employs mixed methods for examining the daily life patterns and housing adjustment behaviors of low-income elderly Korean immigrants residing in public housing in the Chicago metropolitan area. It particularly focuses on identifying the cultural practices of research participants and the influence of those cultural practices on using residential features, evaluating them, and developing coping responses to satisfy dwelling needs.

The study develops upon Canter's theories of place (1977; 1991; 1997) and Weisman's model of place (2001), and integrates Rapoport's concepts of culture (1980; 2008) for exploring the residential experiences of elderly Korean immigrants from a practical standpoint. The housing adjustment behaviors are developed from Morris and Winter's housing adjustment and adaptation model (1978). It is modified considering the characteristics of research participants and their living conditions. In this study, housing adjustment behaviors are categorized into five modes: residential mobility, structural adaptation, normative adaptation, behavioral adaptation, and residential alteration.

Two focus group meetings with elderly Korean neighborhood representatives were conducted for developing and refining the questionnaire and interview protocol. Two-hour in-depth interviews with open-ended questions were conducted with 138 participants from 15 affordable housing complexes. The collected information includes demographic information, cultural orientation, relocation experiences, daily activity patterns, residential evaluation, and housing adjustment behaviors. Interviews were audio-taped upon participants' approval, and photographs of individual dwellings were taken after each interview. Data were analyzed using quantitative, qualitative, and photographic analysis. Various statistical tests were performed to identify the characteristics, trends, and patterns of the collected data sets, and interpretive analysis was performed with interview transcripts as well as the photographs of individual dwellings.

The study results indicate that many research participants maintained their cultural practices of daily living accumulated from their past experiences but also made adjustments as they complied with their aging body and new living conditions. The former group includes sleeping, dining individually or in small groups, cooking, and doing laundry, while the latter group relates to participants' dietary habits, washing of self, cleaning residential floors, and participating in social activities. Participants considered more of their cultural context when they evaluated the social environment rather than the physical setting of their dwelling. All five modes of housing adjustment behaviors were observed with research participants within their residential settings. More importantly, normative and behavioral adaptations along with residential alterations occurred more simultaneously rather than sequentially when the respondents perceived discrepancy between their needs and their dwelling environment.

The research findings identify that elderly immigrants' cultural needs are not limited to the use of language and ethnic goods, but are also embedded deeply in their daily life patterns and influence their use of their dwellings in a broader sense. The findings also provide more insights of understanding the participants' residential life and experiences, which will be useful for housing authority and administrators in creating culturally rich contexts for elderly immigrants. The housing adjustment behaviors are useful for architects, designers, and builders with respect to developing the design guidelines and details of creating culturally sensitive housing. For future studies, the study framework should be expanded to include other ethnic elderly immigrants residing in public housing or to elderly Korean immigrants residing in private housing. This will be effective for identifying and understanding the role of culture on their dwelling lifestyles as well as residential experiences.

©Copyright by Myounghee Jorn, 2017
All Rights Reserved

To
my parents,
my husband,
and my two little ones,
Hailey and James

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION	1
RATIONALES FOR STUDY	3
STATEMENT OF RESEARCH PROBLEM	5
Purpose of Research and Research Questions	7
Significance of the Study	8
DISSERTATION ORGANIZATION	9
 CHAPTER 2 THEORETICAL FRAMEWORK	 11
APPROACHES TO STUDYING PLACE AND PLACE EXPERIENCES	11
Place and Place Experience	11
Place and Culture: Culture as a Variable	16
Meaning, Practice, and Place Experience	19
INTEGRATING CULTURE INTO PERSON-ENVIRONMENT RELATIONS.....	23
 CHAPTER 3 LITERATURE REVIEW	 28
CULTURE AND INDIVIDUALS: CULTURAL PARTICULARITIES.....	28
Definition of Culture	28
Culture and Individuals	31
Cultural Adjustment Process	35
Challenges specific to elderly Korean immigrants.	39
CULTURE AND THE BUILT ENVIRONMENT: RESIDENTIAL ENVIRONMENT.....	42

META-ANALYSIS OF THE RESIDENTIAL ENVIRONMENTS IN KOREA	45
Methods	46
Historical Background: Modernization Movements of Korean Houses	47
Characteristics of the Residential Environment in Korea	52
Floor-sitting culture.....	52
Multi-use of residential spaces.	60
Influences from traditional thoughts.	64
 CHAPTER 4 RESEARCH DESIGN.....	 71
CONCEPTS AND CONCEPTUAL FRAMEWORK	71
Concept I: Cultural Practices and Daily Activities.....	72
Daily activities in present study.	73
Concept II: Housing Adjustment Behaviors.....	77
Shift of focus: From functions to experiences.	79
Adding behavioral adaptation.....	80
Adjusting concepts.	80
Conceptual Framework	82
RESEARCH METHODS	85
Research Participants and Residential Settings	86
Recruitment of research participants.	86
Residential settings.	88
<i>Individual dwelling unit.</i>	<i>90</i>
Methods and Strategies Applied for Data Collection	90
Focus group meeting.....	90
In-depth interview.....	91
Data Collection: Categories and Techniques.....	92

Demographic information.	93
Cultural orientation.	93
Relocation experiences.	94
Residential evaluation: Satisfaction levels and rationales.	95
Sense of home and residential attachments.	96
Housing adjustment behaviors.	96
Data Analysis	97
Quantitative analysis.	98
Qualitative analysis.	99
Photographic analysis.....	101

CHAPTER 5 RESEARCH PARTICIPANTS AND CULTURAL PRACTICES ...103

RESEARCH PARTICIPANTS..... 103

Demographic information.	104
Immigration experiences.....	104
<i>Motive for immigration.</i>	<i>105</i>
<i>SMAS and cultural orientation.</i>	<i>105</i>
<i>Intercultural experiences.</i>	<i>106</i>
Relocation experiences to current residence.	110

CONTINUITY OF CULTURAL PRACTICES 113

Daily Activities: Types and Aspects of Changes.....	114
Sleeping.	114
Eating.....	115
<i>Cooking.</i>	<i>116</i>
<i>Dining.....</i>	<i>117</i>
Self-hygiene.	118
Laundry.....	119

Cleaning residential floors.....	121
Socializing with others.....	121
Daily Activities and Uses of Residential Space(s)	123
 CHAPTER 6 RESIDENTIAL EVALUATION	126
 OVERVIEW OF RESIDENTIAL EVALUATION	126
 Satisfaction Levels: Residential Spaces, Individual Unit, and Apartment Complex....	126
Positive and negative features.....	127
<i>Positive evaluation.</i>	<i>129</i>
<i>Negative evaluation.</i>	<i>130</i>
Residential Attachment: Feel at Home	131
Individual past efforts to make them feel at home.	133
Necessary features to feel at home.	133
 FACTORS INFLUENCING RESIDENTIAL EVALUATIONS	135
 Quantitative Analysis: Variables.....	135
Demographic features.....	136
<i>Gender.</i>	<i>136</i>
<i>Age group.</i>	<i>137</i>
<i>Number of household members.</i>	<i>137</i>
Immigration experience and cultural orientation.....	137
<i>Cultural orientation.</i>	<i>138</i>
Other variables.....	139
 Qualitative Analysis: Attitudes of Participants	139
Attitudes toward aging and housing.....	139
<i>Life stage perspective.</i>	<i>140</i>
<i>Aging body and residential features.</i>	<i>141</i>
Attitudes as tenants of public housing.....	141

<i>Low expectations toward dwelling.....</i>	142
<i>Positions as tenants.....</i>	142
Attitudes toward government supports.	144
CULTURAL ASPECTS OF RESIDENTIAL EVALUATION	146
Evaluation of the Physical Environment	146
Evaluation of the Social Environment.....	148
Daily Activities and Residential Evaluation	149
Inconveniences in performing daily activities.....	150
 CHAPTER 7 HOUSING ADJUSTMENT BEHAVIORS	 151
Residential Mobility and Structural Adaptation	151
Residential mobility.....	151
Structural adaptation.	152
Normative Adaptation	154
Perceptions on public housing.	154
<i>Changing to positive attitudes: Feel at home.....</i>	<i>155</i>
<i>Maintaining negative attitudes: Resignation.....</i>	<i>156</i>
Priorities and standards of residential evaluation.	158
Perceptions on cultural identity.....	160
Social relationships: Family and friends.	162
Behavioral Adaptation	164
Relinquishing behaviors.	165
Compromise behaviors.	167
Emerging behaviors.....	170
Residential Alteration	173
Shoeless lifestyle and floor-sitting behaviors.	173
Separating spaces.....	177

Expanding spaces.	180
Personalizing spaces: Display of self.	184
CHAPTER 8 CONCLUSION	190
RESIDENTIAL EXPERIENCES OF ELDERLY KOREAN IMMIGRANTS	192
The Cultural Aspects of Residential Experiences.....	192
Cultural practices and daily activities.....	193
Residential uses.	194
Residential evaluation: Physical and social environments.	195
Housing Adjustment Behaviors	197
Complexity of housing adjustment behaviors.	198
Making of Home.....	199
CONCLUDING STATEMENT	202
Significance and Implication of the Study.....	202
Strength and Limitation of the Study.....	205
Future Directions	207
REFERENCES.....	210
APPENDICES.....	229
APPENDIX A: Studies included in Meta-analysis	230
APPENDIX B: The modernization process of Korean houses	243
APPENDIX C: Institutional Review Board Approval Letter.....	245
APPENDIX D: Interview Protocol	247
APPENDIX E: Informed Consent Form.....	257

APPENDIX F: Themes and Issues Identified through Focus Group Meetings	264
APPENDIX G: Visual Analog Scale	267
APPENDIX H: Data Coding Categories from Analyzing Interview Transcripts	269
 CURRICULUM VITAE.....	 273

LIST OF FIGURES

<i>FIGURE 1.1. CONCEPTUAL MODEL OF CURRENT STUDY</i>	<i>6</i>
<i>FIGURE 2.1. THE CONCEPTUALIZATION OF PLACE PRESENTED BY CANTER.....</i>	<i>12</i>
<i>FIGURE 2.2. THEORY OF PLACE APPLYING FACET THEORY.....</i>	<i>14</i>
<i>FIGURE 2.3. MODEL OF PLACE BY WEISMAN (2001)</i>	<i>15</i>
<i>FIGURE 2.4. COMBINED DIAGRAM OF THE TUB DISMANTLING OF ‘CULTURE’</i>	<i>18</i>
<i>FIGURE 2.5. THEORETICAL FRAMEWORK OF THE PRESENT STUDY</i>	<i>25</i>
<i>FIGURE 3.1. VARIOUS MODELS PRESENTED FOR INTERCULTURAL ADJUSTMENT PROCESSES ...</i>	<i>37</i>
<i>FIGURE 3.2. ACCULTURATION STRATEGIES OF ETHNO-CULTURAL GROUP</i>	<i>38</i>
<i>FIGURE 3.3. VARIOUS FLOOR-SITTING POSTURES FOR PERFORMING DAILY ACTIVITIES</i>	<i>53</i>
<i>FIGURE 3.4. ONDOL ROOM AND DAECHEONG-MARU OF TRADITIONAL KOREAN HOUSES.....</i>	<i>55</i>
<i>FIGURE 3.5. FLOOR-HEATING SYSTEM AND FLOORINGS OF APARTMENT HOUSING BUILT IN THE 2000S</i>	<i>57</i>
<i>FIGURE 3.6. FURNITURE OF TRADITIONAL AND MODERN KOREAN HOUSES</i>	<i>59</i>
<i>FIGURE 3.7. SPATIAL DIVISION IN TRADITIONAL KOREAN HOUSE (HANOAK)</i>	<i>61</i>
<i>FIGURE 3.8. SERVICE AREAS AND AUXILIARY KITCHEN OF MODERN HOUSES IN KOREA</i>	<i>63</i>
<i>FIGURE 3.9. INFLUENCES OF TRADITIONAL THOUGHTS ON HOUSES BUILT IN KOREA</i>	<i>68</i>
<i>FIGURE 3.10. NATURALNESS APPEARING IN THE FEATURES OF TRADITIONAL KOREAN HOUSES</i>	<i>69</i>
<i>FIGURE 4.1. CAUSAL MODEL OF FAMILY HOUSING ADJUSTMENT BEHAVIOR</i>	<i>78</i>
<i>FIGURE 4.2. RESEARCH PHASES AND PLANS: FOCUS, CONCEPTS, & METHODS</i>	<i>83</i>

<i>FIGURE 4.3. LOCATION AND SURROUNDING AREA OF PARTICIPANTS' APARTMENT COMPLEXES</i>	
.....	88
<i>FIGURE 5.1. THE SMAS SCORE OF PARTICIPANTS.....</i>	106
<i>FIGURE 5.2. IMPORTANCE LEVELS OF FEATURES IN SEARCHING PUBLIC HOUSING FOR THE</i>	
ELDERLY	112
<i>FIGURE 5.3. FLOOR-SITTING ACTIVITIES AND USES OF RESIDENTIAL SPACES.....</i>	117
<i>FIGURE 5.4. BATHROOM SETTING: PRESENCE OF PROPS FOR WASHING SELF AND DOING</i>	
LAUNDRY	119
<i>FIGURE 5.5. BATHROOM SETTING: PRESENCE OF PROPS FOR SELF-HYGIENE AND LAUNDRY ..</i>	120
<i>FIGURE 6.1. SATISFACTION LEVELS WITH RESIDENTIAL SPACES</i>	127
<i>FIGURE 6.2. DESCRIPTIVE STATISTICS OF POSITIVE AND NEGATIVE FEATURES.....</i>	127
<i>FIGURE 6.3. NECESSARY FEATURES TO CREATE HOMEY FEELING.....</i>	134
<i>FIGURE 7.1. DIFFERENCES IN COVERING AREA(S) AND FLOOR MAT(S): LIVING ROOM</i>	176
<i>FIGURE 7.2. DESIGNATED AREA(S) FOR FLOOR-SITTING ACTIVITIES: PROPS AND CULTURAL</i>	
ITEMS.....	177
<i>FIGURE 7.3. DIFFERENT TYPES AND LEVELS OF RESIDENTIAL ALTERATION: ENTRY SPACE</i>	178
<i>FIGURE 7.4. SEPARATION OF RESIDENTIAL SPACE(S)</i>	180
<i>FIGURE 7.5. EXPANDING STORAGE SPACES IN RESPECT TO DIETARY HABITS</i>	181
<i>FIGURE 7.6. EXPANDING SPACES NEAR LIVING ROOM WINDOW.....</i>	182
<i>FIGURE 7.7. EXPANDING STORAGE SPACES.....</i>	182
<i>FIGURE 7.8. EXPANDING STORAGE SPACES: BATHROOM</i>	184
<i>FIGURE 7.9. PERSONALIZATION: DISPLAY OF PERSONAL PHOTOS.....</i>	185

<i>FIGURE 7.10. DISPLAY OF SELF: ARTIFACTS & COLLECTIONS</i>	<i>186</i>
<i>FIGURE 7.11. DISPLAY OF SELF: OBJECTS, RELIGIOUS ARTIFACTS, & CULTURAL ITEMS</i>	<i>187</i>
<i>FIGURE 7.12. DISPLAY OF SELF: CULTURAL ITEMS.....</i>	<i>188</i>
<i>FIGURE 7.13. DESIGNATED AREA: VARIOUS TYPES OF SUPPORTING FURNITURE</i>	<i>188</i>
<i>FIGURE 7.14. DESIGNATED AREA: RELIGIOUS ACTIVITIES & PERSONAL HOBBIES</i>	<i>189</i>
<i>FIGURE 8.1. THE PROCESS OF MAKING A HOME.....</i>	<i>201</i>

LIST OF TABLES

TABLE 4.1. <i>MODIFIED CONCEPTS OF MORRIS & WINTER'S HOUSING ADJUSTMENT AND ADAPTATION MODEL (1978)</i>	81
TABLE 4.2. GENERAL INFORMATION ABOUT APARTMENT COMPLEXES	89
TABLE 4.3. <i>ADJUSTED QUESTIONNAIRE OF STEPHENSON MULTIGROUP ACCULTURATION SCALE (SMAS): ASSESSING IMMERSION LEVEL TO AMERICAN CULTURE</i>	94
TABLE 4.4. <i>DETAILED DESCRIPTION OF DATA CODING</i>	100
TABLE 5.1. <i>BIVARIATE CORRELATIONS BETWEEN SMAS DOMAINS</i>	107
TABLE 5.2. <i>ONE-WAY ANOVA RESULTS OF SMAS SCORE (GROUPED BY EDUCATION LEVEL)</i>	109
TABLE 5.3. <i>DAILY ACTIVITIES AND SPATIAL USES</i>	125
TABLE 6.1 <i>DETAILED DESCRIPTION OF CATEGORIES: POSITIVE AND NEGATIVE FEATURES WHEN EVALUATING RESIDENTIAL SPACES</i>	128
TABLE 6.2 <i>SKEWNESS AND KURTOSIS VALUES OF SATISFACTION LEVELS</i>	136
TABLE 6.3 RANKS AND TEST STATISTICS WHEN GROUPED BY PARTICIPANT'S GENDER	137
TABLE 6.4 CORRELATIONS BETWEEN SMAS SCORES AND SATISFACTION LEVELS	138

Chapter 1

Introduction

The current study explores the daily life patterns and residential experiences of elderly Korean immigrants residing in affordable housing at the level of everyday life. The study particularly focuses on the cultural aspects of their residential experiences in terms of how their cultural practices influence their residential uses as well as their evaluations of their residential environment. The study postulates individuals as socially constructed beings who learn and develop appropriate norms, values, and behaviors of a given society through constant socialization processes. ***Cultural practices*** in this study regard the enduring norms and values and customary behaviors that a person develops from and embodies through his/her accumulated past experiences (see Banks & McGee, 1989; Bourdieu, 1984; Cregan, 2006; Csordas, 1990; Damen, 1987; Giddens, 1991; Kim & Ruben, 1988; Lederach, 1995; Lightfoot et al., 1998; Pred, 1981; Shim & Schwartz, 2007).

This study acknowledges the importance of incorporating culture into the studies of the built environment and behavior, as this broadens one's view for focusing on the collective processes while exploring the organization and integration of beliefs and actions into a patterned whole (Lawrence-Zúñiga, 1997). The study also seeks to gather broader understanding of how elderly Korean immigrants actually use and evaluate their residential environment at the level of everyday life from a pragmatic standpoint. In this sense, the study builds upon Weisman's model of place (2001) while incorporating Canter's place theories (1977;

1991; 1997) and Rapoport's concepts of cultural variables (1980; 2008) into its framework (see Fig. 2.4 & Fig. 2.5). For them, the built environment is socially constructed and developed upon the sociocultural and psychological contexts within a given society—the built environment reflects the consensual understanding and expectations of its group members (Canter, 1977; 1991; 1997; Weisman, 2001) and is congruent with the norms, values, and lifestyles of its people (Rapoport; 1969; 1980; 2000; 2008). Associating with these stances, the current study seeks to explore individual uses of dwellings when there is a discrepancy between the underlying sociocultural backgrounds of individual (i.e., Korean culture) and residential settings (i.e., American culture).

From this perspective, the study seeks to understand how the cultural particularities of elderly Korean immigrants influence individual uses of dwellings in terms of supporting the immigrants' physical, psychological, and cultural needs. Physical needs include individual performances of daily activities, while psychological needs include one's preferences for (re)creating a sense of home. Cultural needs consider the cultural practices of elderly Korean immigrants with respect to their perceptions of the dwelling environment and their behaviors during everyday domestic activities. The present study particularly focuses on identifying individual coping responses—referred as ***housing adjustment behaviors*** (see Chapter 4 for more details)—developed and applied by elderly Korean immigrants to fulfill and/or to compensate for their domestic needs. Considering the interactive relations between individuals and their dwellings, housing adjustment behaviors in this study include the changes of residential features and/or individual attributes (i.e., individual particularities across notions, behaviors, and activity patterns) resulting from one's daily interactions with residential features.

Rationales for Study

The U.S. Census Bureau (2012) projected the actual numbers and ethnic composition of the older population to increase over the next five decades. In 2050, the number of Americans aged 65 and older is projected to double, from 40.2 million to 88.5 million (Vincent & Velkoff, 2010). Its ethnic composition is also projected to show a rapid increase in minority groups, from 20.7 percent to almost 40 percent; —the White group alone is projected to decrease while the other race groups are to see large growth, from threefold up to almost sevenfold (Ortman, Velkoff, & Hogan, 2014). These demographic projections support the need for incorporating cultural contexts in the process of aging, which has already appeared across various realms of studies and services regarding this population group (e.g., Day & Cohen, 2000; Guttmann, 1988; Johnson & Smith, 2002; Lee, 2007; Shim & Schwartz, 2007; Wood & Wan, 1993; Yee, 2002; Yeo & Gallagher-Thompson, 1996).

In the process of aging, culture can either function as a barrier or as a therapeutic resource based upon the ways it is understood and utilized by people including service providers, family members, and older adults themselves. Past studies identified that the mismatch of culturally based needs and behaviors from those of the mainstream culture may generate maladaptive behaviors, reduce the psychological well-being of the elderly (Henderson, 1994; Lee, 2007), and thus result in disability in daily activities (Brody, 1977; Day & Cohen, 2000). On the other hand, cultural context can be utilized as a supportive and therapeutic resource for promoting the well-being of the elderly psychologically and physically——cultural heritage could serve as an essential aspect of self-identity for older adults (Day & Cohen, 2000),

a key ingredient in health care provision (Yeo & Gallagher-Thompson, 1996) that is useful for promoting healthy aging in terms of supporting their functions for daily activities (Guttmann, 1988).

Despite the aforementioned identification of culture as an essential context for elderly immigrants, there is less knowledge of how these cultural elements collaboratively influence their residential experiences at a practical level. Past studies regarding elderly immigrants with respect to their cultural contexts mostly concern their overall immigration experiences (Hurh & Kim, 1990; Nandan, 2007; Pang, 1991; Shin & Shin, 1999; Yoon et al., 2009), physical and psychological well-being (Chow, 2010; Jang et al., 2005, 2007; Kim-Goh, 2006; Lai, 2004; Lee & Holm, 2012; Markides et al., 2008; Shin, Han, & Kim, 2006; Soonthornchaiya & Dancy, 2006), meanings and practices of cultural/ethnic identity (Akresh, 2010; Dasgupta, 1998; Min, 2000)¹, and intergenerational conflicts within family members (Kwak & Berry, 2001; Mui & Shibusawa, 2008). Although these studies indicate that many elderly immigrants maintain their past lifestyles even after immigration, few have addressed how this population group practically uses their cultural traits and resources to support their daily needs and better adjustments in the new sociocultural environment at large.

Moreover, there have been few studies conducted on the living environments of elderly immigrants with respect to their cultural characteristics of everyday life. Most studies on residential environments are concerned with institutional settings in terms of their services (Day & Cohen, 2000; Lee, 2010); the residential choices and living arrangements of elderly

¹ These studies do not necessarily target elderly immigrants as their main research subjects but encompass all ages of particular ethnic groups.

immigrants (Kritz et al., 2000; Lai, 2005; Min, 2005; Wilmoth, 2001; Yoo & Sung, 1997); place attachments, meanings, and cultural identity (Hwang, 2006, 2008; Lewin, 2001; Seo & Mazumdar, 2011); and their relations to ethnic communities for accessing ethnic resources and services (Kim & Lauderdale, 2002; Lee, 2006). However, these studies identify that many elderly immigrants hold on to their cultural practices based upon their home culture, and the studies indicate the lack of culturally sensitive environments that can better support the immigrants' culturally specific needs. In this context, the current research seeks to fill the gap by identifying the role of culture in the residential experiences of elderly Korean immigrants in terms of using their dwelling and of evaluating the overall settings at the level of everyday life.

Statement of Research Problem

The current dissertation expands from a previous in-depth study that explored the daily life patterns and home environments of five elderly Korean households residing in public housing in Milwaukee area (Jorn, 2009). This preliminary study focused on identifying the cultural characteristics of participants that influenced their residential experiences in general. The study results identified that all participants mainly maintained their past Korean lifestyles and lived in accordance with Korean cultural customs. However, participants also indicated minor levels of adjustment in their norms, values, and behavioral manners to those of the host culture (i.e., American culture). Participants also modified their dwelling to a certain degree as they reproduced certain residential features of Korean houses to support their culturally

specific needs (i.e., floor-sitting behaviors). Expanding on these findings, the present study seeks to gain further understanding of how elderly Korean immigrants mediate the cultural continuity of everyday life through the dwelling environment.

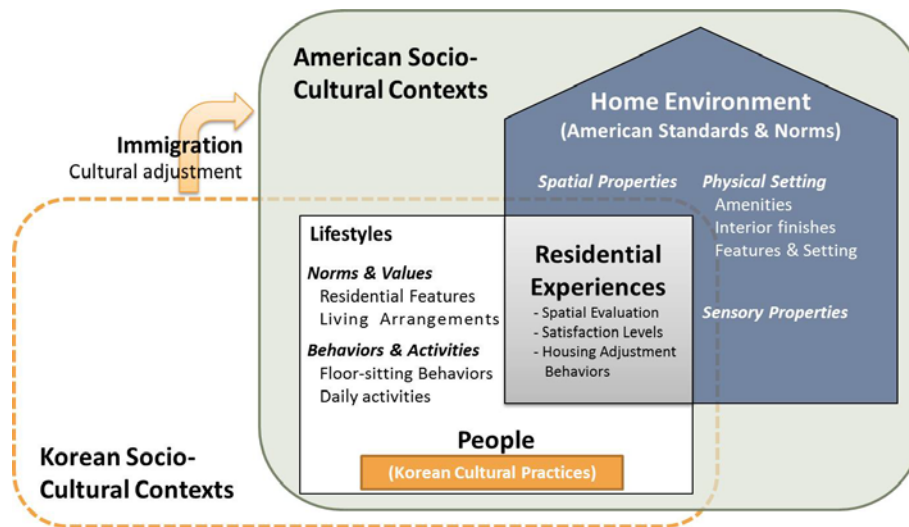


Figure 1.1. Conceptual model of current study

This research takes an intercultural perspective into account for examining the residential experiences of elderly Korean immigrants, as it acknowledges the differences in the sociocultural contexts of individuals (i.e., the people) and of their residential setting (i.e., the dwelling). The study postulates certain discordance levels to exist between individual cultural practices and their residential environments: The cultural practices of individuals are more likely to be in accordance with Korean sociocultural contexts while their current residential settings are built upon American sociocultural contexts reflecting the norms and values of American society in general. From this stance, the study seeks to identify the discordance levels between individuals and their dwelling environment (i.e., environmental fits and misfits), and how the users resolve any conflicts emerging from this discordance. These research concepts

and focuses are presented in the following figure as they are developed from Weisman's model of place (Fig. 1.1). The present research explores individual subjective evaluations of residential settings based upon one's lifestyles and daily uses, and how elderly Korean immigrants adjust their notions, values, behaviors, and/or residential settings to support their needs.

Purpose of Research and Research Questions

The main purpose of the current dissertation is to construct a practical understanding of the residential experiences of elderly Korean immigrants. It seeks to gain insights into how this population group actually uses their dwelling to support their daily needs and preferences while negotiating their cultural particularities. From this process, it seeks to identify the residential needs of elderly Korean immigrants, and their corresponding coping strategies for fulfilling and/or compensating for those needs. In this regard, their residential experiences are explored from two perspectives: (1) How individual cultural attributes influence one's residential evaluations and uses of the dwelling, and (2) how the residential setting influences individual norms, values, and behavioral patterns of everyday life. The research questions constructing and leading the overall dissertation are as follow:

RQ 1. Continuity of cultural practices:

How do elderly Korean immigrants maintain their culture through everyday activities? What types of cultural practices are maintained or changed?

RQ 2. Influences on residential evaluation:

To what extent do the daily activities influence their residential evaluation?

How do they influence individual perception on environmental fits/misfits regarding their everyday uses?

RQ 3. Individual coping responses (housing adjustment behaviors):

How do elderly Korean immigrants adapt to residential misfits to satisfy their needs? What are their means for coping, and what are their reasons for making certain decisions?

Significance of the Study

The present study explores the residential needs and experiences of elderly Korean immigrants in various aspects of everyday life. It examines the physical uses of their dwelling (i.e., performing daily activities), the psychological needs of dwelling life (i.e., individual preferences and residential attachment), and the environmental support levels for their culturally specific needs. The study identifies the residential needs of this population group and the residential features important to them in terms of supporting their basic activities and of satisfying their preferences. The housing adjustment behaviors of elderly Korean immigrants, especially residential alteration (i.e., modifying residential features and setting), provide insights into how they actually use residential features for fulfilling their needs and the preferences of everyday life. In this sense, it also provides post-occupancy evaluation of elderly Korean immigrants to some extent, as it identifies the discrepancy between the designers' original intention and dwellers' actual uses of the residential setting. In addition, participants' housing adjustment behaviors provide insights into how this population group converts a mere physical setting into a meaningful home and the critical features of this home-making activity.

The findings of this study provide practical knowledge of how elderly Korean immigrants use dwelling features to fulfill their domestic needs as well as their preferences in everyday life. The framework and methods applied to the current study can be expanded to other ethnic groups for exploring their daily life patterns, residential experiences, and culturally specific needs.

Dissertation Organization

The current dissertation consists of eight chapters, including this initial introductory one. The second chapter presents the theoretical framework that served as the basis for designing and leading the current study and of interpreting the findings. The third chapter consists of two sections. The first section reviews literature in the field regarding the concepts of culture and its influences on people as well as the built environment. In regard to the intercultural experiences of elderly Korean immigrants, theories and factors of cultural adjustment process are also examined. The second section presents the methods and findings of meta-analysis, which explore the residential environments in Korea from a diachronic perspective, after the Korean War to contemporary Korean society. The fourth chapter outlines the research design in terms of its main concepts (i.e., cultural practices and housing adjustment behaviors), conceptual framework, and applied methods for collecting and analyzing data. It also describes the recruitment process of research participants and the general characteristics of their residential settings.

The research findings are presented from Chapter 5 to Chapter 8, each chapter providing answers to each research question. Chapter 5 starts with the general information and the distinctive characteristics of research participants, and presents the results of data analysis regarding participants' continuity of cultural practices in performing everyday domestic activities. Chapter 6 examines the characteristics of participants' residential evaluation and identifies the cultural aspects of their assessment and rationales. It also explores the positive and negative features of dwelling, residential attachment levels, and factors influencing the residential evaluation of elderly Korean immigrants. Participants' housing adjustment behaviors are presented in Chapter 7. It identifies the types of adjustment behaviors, participants' means and intensity levels in making certain changes, and their rationales for making such choices. The final chapter summarizes the findings of the present study with respect to understand the residential experiences of elderly Korean immigrants collectively. The strengths and limitations of the current study and implications for future research are also included in the final chapter.

Chapter 2

Theoretical Framework

The theoretical framework of the present study integrates Canter's theories of place (1977; 1991; 1997) and Weisman's model of place (2001) for approaching the residential experiences of elderly Korean immigrants from a practical standpoint. In addition, the study adopts Rapoport's dismantlement of culture regarding the intercultural aspects of research participants and their residential experiences (Rapoport, 1980; 2008). As the study explores individual responses and experiences of dwelling through daily activities, it also takes into account of the concepts of meaning(s) and practice(s) presented by cultural geographers, including Creswell (2004; 2009), Tuan (1977; 1980), and Seamon (1996, 2007), for refining the concepts of its theoretical framework.

Approaches to Studying Place and Place Experiences

Place and Place Experience

Canter and Weisman both examine place and people's experiences of it from a pragmatic standpoint while considering the sociocultural contexts of a given society at large. They both indicate that socially agreed-upon expectations and consensual understanding of place to be the essential contexts for understanding place and people's experiences of it.

However, while Canter focuses more on the cognitive aspects of people-environment relations, Weisman stresses the role of experiential program regarding people's interactions with place.

As an architectural psychologist, Canter (1977) focuses on the cognitive aspects of people in their environmental interactions to present a practical model for understanding and evaluating place as well as people's experiences of it. He indicates the necessity of identifying the conceptions and activities of the users in examining place and its nature. From this stance, he presents his notion of "cognitive systems of place," which refers to the patterns and expectations of a place that draw their meanings from people's conceptual system of the place. His cognitive systems include people's psychological and behavioral processes of experiencing the physical forms, as he indicates actions (activities), physical attributes, and conceptions as the major constituents of a place (Fig. 2.1.1). For him, place and its nature is defined by the relationships between these constituents. In other words, Canter argues that one needs to know the behaviors associated with a place, the physical parameters of it, and people's conception of the appropriate behaviors in that physical setting in order to identify place (Canter, 1977:159).

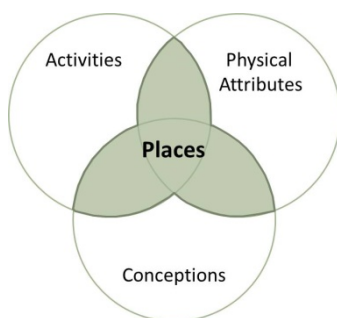


Fig. 2.1.1 A visual metaphor for the nature of places

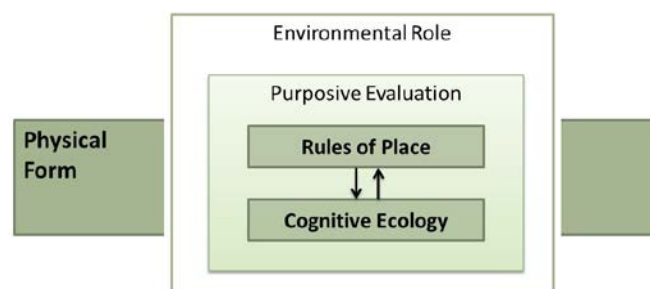


Fig. 2.1.2 The process of place experience

Figure 2.1. The conceptualization of place presented by Canter

In his later development of place theory, Canter (1991) indicates human agency as a core for place experience in terms of one's role as an integrating focus of person-environment transactions. He considers the purposive orientation of place experiences, and presents a multi-dimensional model that integrates the three domains of environmental psychology—action, cognition, and evaluation (Fig. 2.1.2). Through this model, he considers the personal objectives of the human cognitive framework and behaviors, and seeks to identify their relationships for understanding and for evaluating places as well as people's experiences of them. He argues that environmental evaluation derives from the interplay between "rules of place" and "cognitive ecology." His rules of place are distinguished from simple patterns of space use and refer to the ways human actions (i.e., goal-oriented behaviors) fit into a place in which they occur (Canter, 1991:197).

Cognitive ecology concerns with people's internal representations of a place and include people's expectations about agencies and activities within a certain place. However, Canter puts "physical form" on a different plane, as he focuses more on the cognitive aspects and the social knowledge of humans for evaluating places. For him, "the physical shape and form of the environment do not have direct significance for cognition, action, and evaluation" (Canter, 1991:205). Instead, he considers their significance to derive from the ways of embedding knowledge (i.e., environmental cues) about the people and actions that the place encompasses within the physical settings.

Canter (1977; 1991; 1997) acknowledges that the differences in people's conceptual systems result in different environmental interactions of place, which reciprocally influence their conceptual systems. From this, he indicates people's relevant roles, culture, class, and sex

as a set of potentials that may influence people’s environmental interactions, and incorporates them in his last line of place theory—facet theory (1977). He proposes multi-facets of paradigms for understanding people’s experiences using the facet approach as he hypothesizes how personal, social, and cultural transactions amalgamate into one’s location-specific experiences (Fig. 2.2.1). The four facets for examining place experiences are the functional differentiation of central and peripheral activities within a place (Facet A: functional differentiation); the personal, social, and cultural objectives of a place (Facet B: place objectives) regarding activities; the scale of interaction (Facet C: level of interaction) at immediate, local, and distant levels; and aspects of design (Facet D) achieved by place in terms of its function, space, and form. For example, the domestic activities of modern Japanese apartments (Fig. 2.2.2) can be categorized into three domains of cultural, personal, and social realms regarding their primary functions and the effective goals of a place (Canter & Lee, 1975). Therefore, at this stage of his place theory, Canter defines place as “a technical term for describing the system of experience that incorporates the *personal, social, and culturally significant aspects* of situated activities” (Canter, 1997:117).

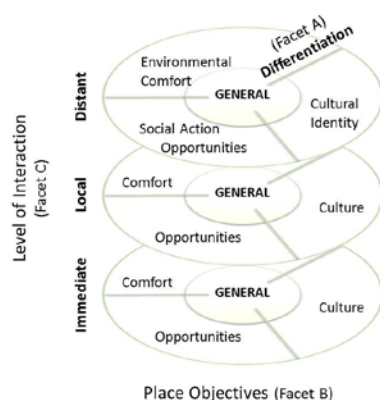
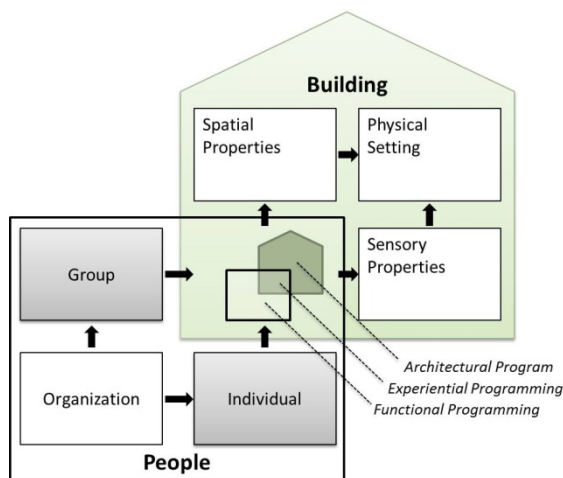


Fig. 2.2.1 Model of place evaluation structure
Figure 2.2. Theory of place applying facet theory



Fig. 2.2.2 Representation of domestic activities

Similar to Canter's notions, Weisman (2001) presents his model of place and indicates **building**, **people**, and **program** as the three components of place (Fig. 2.3). Based upon systemic worldview and pragmatic standpoint, he identifies the issues of human needs and the use of built environment, and seeks to integrate them effectively into architectural design process. In his model, building refers to the physical setting of a certain place and its sensory as well as spatial properties. The people component refers to three levels of human systems consisting of individual, group, and organization. Program is defined as the description of essential features and characteristics of a project, which derives from people's consensual expectations of place.



Building

Physical Setting: the actual built environment consisting of structural elements, enclosure system, mechanical systems, and interior finishes and furnishing

Sensory & Spatial Properties: the properties created by environmental control system.

People

individual, group, and organization

Program

Architectural: architectural codes and dimensions

Experiential: the kinds of qualities people attribute to their place-experience.

Functional: who, what, when, and why of a project.

Figure 2.3. Model of place by Weisman (2001)

Weisman indicates **program** as a bridge to connect **building** and **people**. Expanding from Silverstein and Jacobson's concept of *hidden program* (1985)—the consensual understanding of specific place types—Weisman focuses on both explicit and implicit aspects of program regarding people's interactions with place. For Weisman, it is the "**experiential program**" that

links the traditional architectural program (i.e, the space program of architectural codes and dimensions presented by architects and planners) and the functional program (i.e., the details of the who, what, when, and why of a project, traditionally developed by the client) effectively to support the activities of the users. In other words, people experience place through these programs in terms of the accumulated qualities we attribute to places (i.e., attributes of place experience) derived from our environmental interactions with them.

Weisman considers the attributes of place experience as the most effective ways of addressing and linking human concerns to architectural design. As aforementioned, these qualities are what people attributed to certain place types through their accumulated interactions with the physical settings rather than being inherited in the building itself. Compared to traditional modalities of place experiences (i.e., perception, cognition, behavior, emotion, and meaning), Weisman indicates these qualities (i.e., comfort, privacy, control, legibility, etc.) to better integrate people's issues in decision-making processes by practitioners. Finally, based upon a pragmatic standpoint, Weisman indicates patterns as "a natural and effective device" for applying research-based knowledge to architectural design (Weisman, 2001:169). For him, patterns are effective devices for communicating people's needs, desires, and aspirations and for guiding architectural decision-making by practitioners.

Place and Culture: Culture as a Variable

The concept of culture is rather broad and abstract for examining its influence on the built environment as well as individual experiences of places. From this stance, this study adopts Rapoport's subdivision of culture for identifying the cultural particularities of elderly

Korean immigrants with regard to their residential experiences (2000; 2008). He subdivides the notions of culture into subordinate concepts for examining their influences on the built environment at an operational level (1980; 2000; 2008). Particularly focusing on his concept of *“life-styles”* and *“activity systems,”* the present study identifies the cultural particularities of elderly Korean immigrants to indicate their influences on residential experiences.

Rapoport (1969; 1980; 2000; 2008) views culture and environmental design to be intimately related, and stresses the need to consider the cultural characteristics of the group and their built environment in tracing environmental effects. After reviewing the definition and conceptualization of culture across various realms and studies, he (1980) suggests that they fall into three general views: a way of life typical of a group; a system of symbols, meanings and cognitive schemata transmitted through symbolic codes; and a set of adaptive strategies for survival. Rapoport regards these views to be in complementary relation to one another, and subdivides culture into worldviews, values, lifestyles, and activity systems to examine their influences on the built environment at an operational level. He argues that culture typically leads to a particular “worldview” that reflects the ideals of a group; “values” are one aspect of worldviews and result in particular “life-styles” in terms of making choices and allocating resources; “activity systems” are the most specific aspects of life-styles for examining the culture-environment relations regarding human behavior. For Rapoport, the built environment, especially housing, is congruent with the values and lifestyles of the group members of a particular society as they respond to their culturally defined needs and interrelate with their allocation of possible resources for fulfilling those needs (Rapoport, 1969; 1980; 2000; 2008).

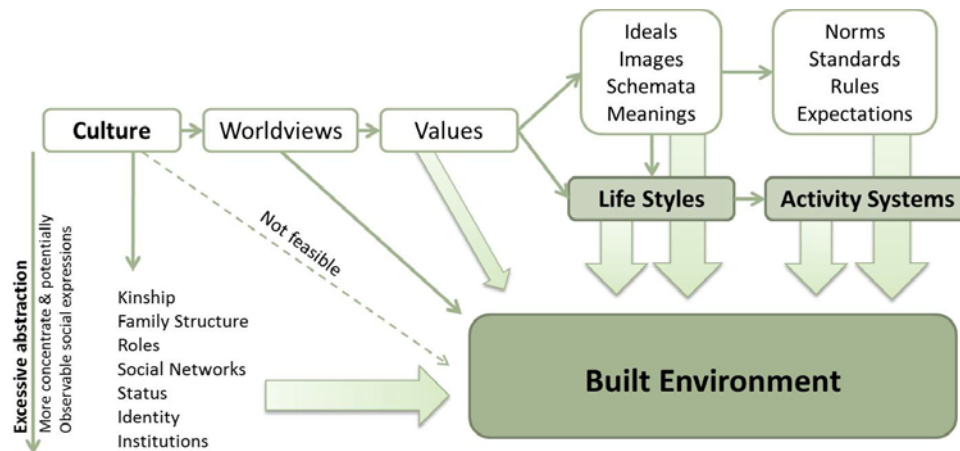


Figure 2.4. Combined diagram of the Tub Dismantling of ‘culture’

The width of the arrows corresponds approximately to the feasibility and ease of relating various elements (from A.Rapoport, “Some further thoughts on culture and environment”, *International Journal of Architectural Research* , 2(1), p.19)

Among these hierarchical variables consisting of culture, Rapoport indicates **life-styles** and **activity systems** to be the most feasible variables for examining the influence of culture on the built environment (Rapoport, 1980; 2000). He regards life-style as the most useful criterion for defining group characteristics and indicates activity systems to be the most specific expression of cultural manifestation (Rapoport, 2000). He also indicates values as the operational definition of life-style as they relate to people’s appraisals of “goods” and lead to differences in allocating resources (Rapoport, 2000:151). These values also influence the forming of certain life-styles of group members as they are expressed through ideals and images through media (Rapoport, 2000).

Activity system is a useful starting point for exploring the cultural characteristics of a group and its built environment, as it easily relates to behavior setting system and has been much used by planners as well as designers (Rapoport, 1977; 1980; 2000). For Rapoport, examining the differences of “simple molecular activities” such as cooking, eating, and sheltering can lead to molar concepts of higher cultural variables including life-styles, values,

worldviews, and, eventually, culture (1980; 2000). Based upon this stance, he suggests four components for analyzing any activity: the activity itself including its manifest or instrumental aspects; the specific way and place for an activity; the system of activity including additional, adjacent or associated sub-activities; and the symbolic aspects and meaning of the activity (Rapoport, 1980; 2000). As the activity systems relate closely to environmental features, he argues, this examination helps us to explain the various types and forms of dwelling and its constituting elements.

Rapoport (2008) also proposes the culture core/periphery distinction as he considers the rapid cultural changes in developing countries and their impacts on the built environment. “Culture core” refers to the cultural sub-variables that change little, slowly, or not at all due to its centrality of a group, its identity, and, possibly, its survival as a distinct group. On the other hand, “culture periphery” changes rapidly, easily, and even eagerly as people interact with modern or new cultural inflow. Rapoport suggests this culture core/periphery distinction to be useful for not only studying and understanding patterns of culture change but also for understanding culture more generally.

Meaning, Practice, and Place Experience

In the realm of human geography, the ideas of *meaning* and *practice* are central to studying place and to defining its nature. Place is commonly conceptualized as a particular geographic location that has acquired definition and “sense of place”—a set of meanings and attachments endowed with places (Cresswell, 2009; Rubinstein & Parmalee, 1992; Seamon, 2007; Tuan, 1977). Scholars in this field view humans as “knowing and feeling subjects” rather

than “objects” or “rational beings” following the rules of the rational world (Cresswell, 2009; Tuan, 1977). In this sense, they argue the need for placing humans at the center for examining places, and focus on the meanings people developed through experiencing a particular place through their unique ways of life. The focus lies on examining the ways people **experience** their outside world, and convert an “abstract space” into an “experienced place” by developing meanings and attachments to it.

Cresswell (2004; 2009) seeks to define place and its nature, as he introduces the basic premises and concepts of the theories in humanistic geography. As do other scholars in the field, Cresswell puts humans at the center of his work, and identifies **meaning** and **practice** as essential features in studying places. In his early work on places, he simply regards place as a “meaningful location that people grew attached to through various place-making activities (2004). In his later work (2009), he indicates that meaning has been central in studying places in humanistic geography as scholars focus on identifying how people form relationships with the world through experiencing it. They invest special meanings to a portion of space and develop some sorts of attachments. These meanings can be personal as they connect to individual life experiences, or they can be social as they are shared through social interactions with other members of a society (Cresswell, 2004, 2009; Rubinstein & Parmalee, 1992). These meanings are also open to changes rather than being fixed. For example, individual feelings and thoughts of a place may change throughout time or by certain experiences. On a larger scale, shared meanings of a place are open to counter-meanings produced through other representations of the society. In this sense, Cresswell indicated that all types of places remain unfinished as they are always open to questions and transformations (2009:6).

In his later work, Cresswell (2009) includes the concept of **practice** into his definition of place, as he indicates it to be critical in creating places as well as their associating meanings. People do things at places. In other words, places hold various activities of the users, from mundane daily activities to occasional extraordinary events. They also hold imprints of historical events that arouse special meanings to certain people. However, amid the different types and levels of activities, Cresswell points out everyday activities to be more decisive in creating people's sense of place in regard to their reiteration on a regular basis. In this sense, he defines places as "the locations imbued with meaning that are sites of **everyday practice**" (2009:9).

Cresswell also indicates that places influence people's behaviors and activities through their material structures to different degrees. In combination with people's knowledge and shared conformity, places convey meanings to the users in terms of affording or limiting certain behaviors and activities. For example, people know the types of activities held in particular places and try to comply with the associating behavioral rules shared by other group members. In this aspect, Cresswell indicates materiality, meaning, and practice to exist in any given place, and focuses on their closely interlinked relations in defining places. The material structure and landscape are created by people as they do things and inscribe meanings to places. The material structure also has influences on practice, as it affords or limits people's behaviors and activities within a particular place.

With regard to studying places, Tuan argues for the importance of having experiential perspective rather than a scientific approach, and seeks to define the nature of experience as well as experiential perspective. In his essay "Space and Place" (1980), he indicates experience

as the key element of understanding what “being-in-the-world” is truly like. As do other scholars in humanistic geography, Tuan also views humans as “feeling and thinking” subjects who experience the world through the body and mind——through all senses as well as active and reflective mind. He considers that reality is learned and constructed through people’s experiences of it. In other words, he regards that objects and places achieved their concrete realities when people experienced them in total. Based on this stance, Tuan seeks to identify the ways people attach meanings; he organizes space and place under three themes: the biological fact; the relations of space and place; and the range of experience or knowledge.

In terms of biological facts, Tuan is concerned with how human bodily postures, divisions, and values (i.e., spatial values such as spatial schemata and spatial hierarchy) relate to developing/learning sophisticated concepts of space and place. He also indicates the reciprocal relations of space and place for defining each concept, and seeks to clarify their relations (e.g., how does space become place). Lastly, the range of experience or knowledge refers to the levels of directness (i.e., direct or indirect) and of intimacy (i.e., intimate or conceptual) in experiencing space and place. Tuan tries to focus on the general aspects of human dispositions, capacities, and needs that transcend the cultural particularities of every group.

Seamon (1979; 1996; 2000; 2007) approaches people’s experiences of place with his focus on the bodily and habitual movements of everyday behaviors. He examines the *everyday environmental experiences* of people (i.e., the personal experiential descriptions of everyday places, spaces, and environments) and indicates the body as the foundation of everyday environmental behaviors (Seamon, 1979; 2007). Similar to *body-subject*——used by French phenomenologist Merleau-Ponty to describe the bodily and habitual movement of body to be-

in-the-world—Seamon proposes his idea of *body-ballet* to explain how the body moves habitually as it performs certain tasks in everyday life. He argues that many movements in everyday life are conducted without the person being consciously aware of their actions and happening (Seamon, 1996, 2007). For example, most people don't need to think about their behaviors and actions when they perform everyday tasks such as washing the dishes, taking a shower, and so forth. In his later work, *body-ballet* develops into *body-routine* and *time-space routine* as he seeks to describe human bodily dimensions of experiencing the lifeworld. *Body-routine* is defined as “a set of integrated gestures, behaviors, and actions that sustain a particular task or aim” and *time-space routine* refers to “a set of more or less habitual body actions that extends through a considerable portion of time” (Seamon, 2007:5). For Seamon, place is the product of everyday habitual mobilities (Cresswell, 2009).

Integrating Culture into Person-Environment Relations

The concepts, theories, and models reviewed in previous section were selectively integrated to serve as the theoretical foundation of the present study, considering its focus and purpose. The foundation integrates Canter's conceptualization of place (i.e., his first model, see Fig. 2.1.1) with Weisman's model of place to understand the residential experiences of elderly Korean immigrants residing in public housing from a practical standpoint (Fig. 2.5). It also incorporates Rapoport's subdivision of culture into its framework as it focuses on the role of culture on individual daily lifestyle, residential uses, and residential experiences. Particular

focus is placed on the immigrants' daily activities and behavioral patterns of performing these activities for exploring individual experiences of dwelling environment. These theory, model, and concepts guide the overall study in collaboration from developing research questions to identifying meaningful research findings

Canter and Weisman both consider the sociocultural context of a given society for understanding the underlying social and cultural processes of sharing conceptions and activities of a certain place type (Canter, 1991; Silverstein & Jacobson, 1985; Weisman, 2001). However, their considerations of culture are rather broad for identifying their imminent influences on people's lifestyles and uses of the built environment in everyday life. In addition, they are mostly concerned with the transactions between people and their built environment from the same sociocultural background, and thus provide less understanding of place experiences from an intercultural perspective, —i.e., place experiences of sojourners, immigrants, and so forth. For example, possible discordance may exist for this population group regarding their conceptions of place between those constructed in their home country and those they encounter in the new sociocultural environment.

On the other hand, Rapoport's dismantlement of culture is practical for identifying the lower-level variables (i.e., more operational and measureable variables) that construct culture. Rapoport's approach is also useful for understanding the lower-level variables and their mechanism of lower-level variables on influencing people's daily lifestyles and uses of the built environment. However, his subdivision is rather hierarchical, sequential, and uni-dimensional for understanding the interactive relations among culture, people, and the built environment.

Therefore, the current study selectively adopts his concepts for examining the role of culture in the daily lifestyles and the residential experiences of elderly Korean immigrants.

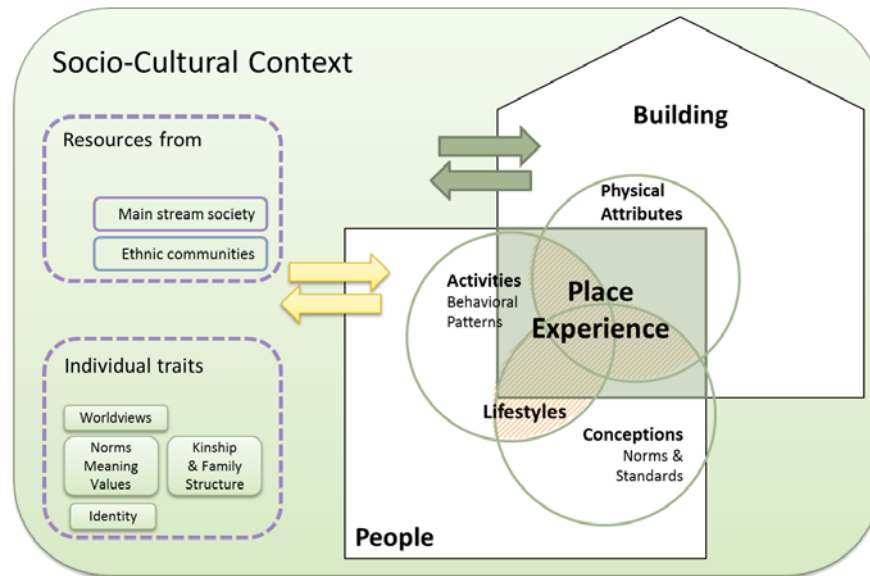


Figure 2.1. Theoretical framework of the present study

Among the different developmental stages of Canter's place theory, this study particularly adopts his first conceptualization of place for two reasons. It identifies the place component more concisely and effectively for examining place at different levels (i.e., distant, local, and immediate levels), and places the built environment into its framework rather than separating it on a different plane. Taken from Weisman's three components of human systems, this study particularly focuses on individual experiences of dwelling in terms of how people use dwelling features and respond to residential misfits. However, it also seeks to identify those patterns shared by the cultural group members, including their conceptions of residential features, their behaviors in everyday activities, and their interrelations with the dwelling

environment. Those shared notions regarding the physical attributes of the dwelling environment will be explored and identified through the research process as well.

The cultural aspects of the residential experiences of elderly Korean immigrants are explored through their daily activity patterns and changes in individual traits, and by identifying their main sources for gaining supporting resources (i.e., including information, goods, materials, and so forth). More specifically, the cultural particularities of elderly Korean immigrants are explored through their daily activity patterns in two ways: (1) their bodily movements and behavioral patterns while performing daily activities, and (2) the norms and standards of residential features, especially with regard to supporting daily activities. This focus on behavioral patterns will provide practical understanding and knowledge of how this population group uses and interacts with the residential features.

As the study takes into account the intercultural experiences of elderly Korean immigrants, the changes appearing in individual traits (including norms, values, family structures, and so forth) and their possible relations to residential experiences are included in the research analysis. The elderly Korean immigrants participating in this study are in the midst of cultural adjustment processes to different degrees. In other words, they get constant influences from the norms, values, and standards of the American society; interact with the people from the host culture; and need to seek resources within the sociocultural environment of the new setting. In this context, the framework includes the types and sources of support that elderly Korean immigrants use for gaining necessary resources to better support their adjustment processes (i.e., adjusting to one's dwelling and the new sociocultural environment).

This theoretical framework served as the foundation for refining research questions, designing and leading the overall research, performing the data analysis, and finding meaningful outcomes of the present study.

Chapter 3

Literature Review

The literature review begins with reviewing the various definitions of culture presented and accepted by different schools of thought. As the study particularly focuses on the cultural context of individual residential experiences, it is essential to understand culture with regard to its nature and wide ranges of influences culture has on people and the built environment. This is followed by examining theories of cultural adjustment. The general characteristics and influencing factors are reviewed, followed by exploring additional challenges specific to elderly Korean immigrants. Lastly, Korean dwellings are examined through meta-analysis to identify their distinguishing characteristics as they are closely interrelated to the dwelling lifestyles of many common Koreans. The analysis suggested these characteristics as: floor-sitting culture, multi-use of residential spaces, and features influenced by traditional thoughts including *Fengshui*, Confucianism, Buddhist thoughts, and folk beliefs.

Culture and Individuals: Cultural Particularities

Definition of Culture

Culture . . . is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.

— Excerpted from *Primitive Culture* (1971) by Edward Burnett Tylor

According to Raymond Williams, known for his significant contribution to the Marxist critique, the term culture was not commonly used as a significant, independent noun before the 19th century (as cited in Halton, 1992). The term *culture* derives from the Latin word *cultūra* which means to till, cultivate, dwell, or inhabit. However, this notion (or term) provoked a lively dispute during the 20th century that continues to the present day. Many scholars engaging in social studies regarding human beings and their interactions to the surrounding environment have produced various definitions, each with its own unique characteristics.

Talcott Parsons, who belongs to social action theory, seeks to locate culture systematically within his theory of social systems in three development stages: —culture and symbolism, culture as a system, and culture as a code (Schmid, 1992). During his first stage, Parsons defines culture as “(the) patterns relative to behavior and human action which may be inherited, that is, passed on from generation to generation independently of the biological genes” (Parsons, 1949:8). He regards the actors as maintaining the equilibrium of a social system through externalizing their mental states, using symbols for coordinating different actions. During his second stage, Parsons views culture as a system with its own logic, as he places more importance on the “action” part, and defines it as a “set of norms for action” and as a “set of symbols of communication (as cited in Schmid, 1992). Later on, he understands culture more as a code that is best reflected in a concrete symbolic medium and interprets it as “all forms of personal interaction and inter-systemic exchange as based on a language-like code” (as cited in Schmid, 1992, p.95).

Symbolic anthropology generally views culture as a symbolic system emerging from human interaction, and assumes culture to exist in individuals’ interpretations of events and

things within the surrounding environment (McGee & Warms, 2004). Clifford Geertz, primarily influenced by Max Weber and Talcott Parsons, focuses on symbols, as he perceives them to be the major operating means for culture (Geertz, 1973; Ortner, 1994). With a degree of objectivity to culture, he primarily focuses on identifying how symbols impact the way social members see, feel, and think about the world (Ortner, 1994). From this aspect, he defines culture as “a system of inherited conceptions expressed in symbolic forms by means of which people communicate, perpetuate, and develop their knowledge about and attitudes toward life” (Geertz, 1973:89).

Heavily influenced by the Marxist school for developing his role theory, Ralph Linton indicates status and role as the essential concepts for analyzing a social structure. He argues that every individual in a society occupies several statuses (i.e., positions), and the master status among different ones defines the person socially (Linton, 1945). From this stance, he points out that every status holds a set of expected behavior patterns and defines culture as “a configuration of learned behaviors and results of behaviors whose component elements are shared and transmitted by the members of a particular society” (Linton, 1945:32).

The notion of culture also appears in the works of scholars with their foundations on Structuralism. Claude Lévi-Strauss, as a structural anthropologist, places structure at the center of analyzing a society and seeks to find a universal law that exists across every society (Nam, 2001). Drawing on linguistics and communication theory, and considering himself influenced by Marx and Freud, he seeks to identify the fundamental units of myths across various cultures as he applies the structural linguistics of Ferdinand Mongin de Saussure to anthropology (Nam, 2001; Ortner, 1994). Typical for the field, Lévi-Strauss also regards culture as a system of

symbolic communication and defines it as “primarily systems of classification, as well as the sets of institutional and intellectual productions built upon those systems of classification and performing further operations upon them” (as cited in Ortner, 1994:380).

After reviewing the definitions and nature of culture presented by various theorists, the present study takes the stance that these general views of culture are in complementary relations to one another. They need to be understood collectively within the larger contexts of a given society for studying the interactive relations between the people and their living environment. Therefore, the present study regards culture as the shared patterns of cognitions, values, and behaviors internalized and embodied through a period of time by its group members (e.g. Banks & McGee, 1989; Damen, 1987; Kroeber & Kluckhohn, 1952; Lederach, 1995; Parsons, 1949; Useem & Useem, 1963).

Culture and Individuals

Culture has indivisible relations with its group members as the basal footing and as collective social product simultaneously. It manifests itself in its broadest terms on the group members and appears in their notions, values, and behaviors, and, even further, in social organizations and institutions (see Banks & McGee, 1989; Kim & Ruben, 1988; Hofstede, 1984; Markus & Kitayama, 1991; Rhee et al., 1996; Singelis et al., 1995; Thinkers, 2002). The group members not only develop and internalize normative attributes of their society but also reproduce culture and its constituting elements by making certain choices and decisions over time (see Duncan, 1981; Kim & Ruben, 1988; Rapoport, 1980).

The cultural traits and particularities shared by the members of a specific society are internalized and embodied through a constant socialization process with various social institutions of the society at the level of everyday life (Kim & Ruben, 1988; Linton, 1945; Parsons, 1949). Berger and Luckmann (1966) regard socialization as an ongoing dialectical progress that enables individuals to become members of a society by acquiring (or internalizing) common sense knowledge of human reality into their consciousness. In a similar vein, practice theories also regard the ordering of daily life as a microcosm of the broader organizational principles (Lightfoot et al., 1998), and view socialization and social reproduction to occur at the scale of actual human practices on a daily basis (Pred, 1981).

Bourdieu and Giddens, the two prominent scholars regarding practice theories, have different opinions of interpreting certain factors of society as well as the socialization process, but they both regard everyday life as a microcosm of a broader organizational principle. Bourdieu (1968) explains the regulation mode of practice with his concept of *habitus*, which he regards as the system of lasting and transposable dispositions constructed out of one's past experiences (Lizardo, 2009). He argues that *habitus* goes beyond individual consciousness and will and functions in everyday life as a matrix of perceptions, appreciations, and actions. Giddens (1991) places more importance on the roles of agents and focuses on the recurrent social practices and their transformation. He proposes a conceptual scheme of structuration theory that refers to the continuous, ongoing dialectical interplay between structure and everyday practices (Giddens, 1991).

These socializations and everyday practices influence people of the same cultural milieu to behave in similar ways and to share similar mindsets as well as thought processes to a

certain extent (see Banks & McGee, 1989; Csikszentmihalyi & Rochberg-Halton, 1981; Damen, 1987; Gorgorió & Planas, 2005; Hall, 1983; Kim & Ruben, 1988; Kluckhohn & Kelly, 1945; Kroeber & Kluckhohn, 1952; Lederach, 1995; Spencer-Oatey, 2000). Individual activities are driven by one's intentions formed as a result of socialization (Csikszentmihalyi & Rochberg-Halton, 1981), resulting in people behaving within the culturally acceptable boundaries. Culture, in this sense, works as a guide or a discipline as it sets behavioral limits acceptable within a cultural group (Damen 1987; Kluckhohn & Kelly, 1945; Kroeber & Kluckhohn, 1952; Hall, 1983).

The group members also tend to interpret social phenomena in similar ways as their shared cognitive, affective, and behavioral attributes become critical for selecting and receiving information from the socio-physical environment (Gorgorió & Planas, 2005; Kim & Ruben, 1988; Spencer-Oatey, 2000). Therefore, people from the same cultural groups tend to interpret and perceive social phenomenon, other's behaviors, and tangible cultural elements in similar manners acceptable within the boundaries of its society (Banks & McGee, 1989; Damen, 1987; Kim & Ruben, 1988; Lederach, 1995).

Culture is constantly reproduced and reformed by the group members as it reflects their changing values and lifestyles at any given time. Rapoport (1980) views lifestyles (including the habits, foods, manners, and behaviors of individuals) as the accumulated results of individual decisions and the acts of many people. Therefore, changes in these constituting elements of lifestyles naturally lead to adjusting people's cognitive, affective, and behavioral particularities. In a similar vein, Duncan (1981) focuses on the interrelations between various structures and structuring relations of a society, and indicates individuals as the active determining variables for reproducing the social structure of the group.

The changes of traditional thoughts and virtues in contemporary Korean society are good examples of illustrating the aforementioned interrelations between culture and its group members. The cardinal virtues of Confucianism had significant impact on forming Korean culture during the Joseon Dynasty, influencing its values, beliefs, and social structures. However, the power and influence of Confucianism have lessened (or have shifted their ways of practice to be in accordance with the modern lifestyles of many Koreans) in contemporary Korean society—the status system and sexual separations have been abolished while people’s obligation to filial piety has attenuated over time.

Among the cultural traits and particularities shared by the group members, those embedded deeply in people’s everyday life become “taken-for-granted” qualities as people constantly practice them over a prolonged period (Bourdieu, 1984; Brubaker, 1993; Cregan, 2006; Csordas, 1990; Giddens, 1991; Lightfoot et al., 1998; Pred, 1981). These internalized and embodied practices of everyday life—henceforth referred as ***cultural practice(s)***—tend to be enduring in general (Shim & Schwartz, 2007), and far less subject to change unless it becomes necessary. In this aspect, Bourdieu (1980) regards embodiment (i.e., *bodily hexis* in his terminology) as the materialization of *habitus*, which turns into permanent dispositions through everyday practices (Cregan, 2006).

This tendency is more applicable to behaviors once they become part of our bodily movements and routines of daily activities. As reviewed in previous chapter, Seamon (1996; 2007) explores how individual experiences take place through one’s bodily movements and behaviors at the level of everyday life. Through his concept of body-routine, he argues that many aspects of everyday environmental behaviors are preconscious and habitual. This focus

on behavioral aspects and bodily movements, however, does not necessarily steer us into the Cartesian dualism of detaching the mind from the human body. The concept of embodiment, rather, considers individuals to experience the world with their socially informed and integrated body through interactions based on contextual factors (Keddy, 2006; Shusterman, 2007; Wilde, 1999). As stated by Wilde (1999), “Embodiment is a form of experiencing and understanding the world through body in lived experiences” (28).

Although cultural practices tend to be enduring, they are subject to change, as they are socially constructed features developed and learned through socialization processes. As mentioned earlier, the norms, values, and behaviors of a given society are opened to change in accordance with the changing needs and lifestyles of each time period. Another extreme example of this would be the intercultural experiences of immigrants and sojourners as they encounter the new sociocultural contexts of a new society different from their own. The general characteristics and nature of their cultural adjustment processes are discussed further in the following sections. This is followed by identifying the additional challenges that elderly Korean immigrants are likely to experience during their cultural adjustment processes.

Cultural Adjustment Process

The cultural patterns (including traits, particularities, and practices) get influenced by those of the host culture when an individual moves to another sociocultural setting different from his or her own (see Berry, 1994; Kim & Choi, 1994; Kim & Ruben, 1988; Shepard, 1998; Shim & Schwartz, 2007). The differences in the overall cultural milieu of the new setting—including cultural values, beliefs, behavioral patterns and social norms—may provoke

surprise and uncertainty in general. During the early stages of immigration, when individuals seek to resolve the cultural conflicts between home and host cultures, many immigrants may experience cultural fatigue and show negative reactions such as irritability, insomnia, a sense of loss, and a feeling of impotence (Berry, 1980; Kim & Ruben, 1988; Lee, 2007). For example, the term *culture shock* refers to “a form of personality maladjustment that is a reaction to a temporary, unsuccessful attempt to adjust to new surroundings and people” (Lundstedt, 1963:8). Although intercultural experiences are unique to individuals, as they are influenced by various factors and circumstances of the person, many scholars have identified and considered the negative reactions during the early stage caused by cultural dislocation.

During the early years of studying cultural adjustment, many studies viewed life in a foreign country to be difficult and attempted to identify the “stages” of cultural adjustment processes with uni-dimensional approaches. For example, Valle (1989) explained the acculturation process as a continuum characterized by three main phases:—culture of origin, bi-cultural experience, and mainstream culture. Individuals retain beliefs and behaviors from their culture of origin at the “traditional” end of the continuum, while individuals adopt the values and behaviors of the mainstream culture at the opposite end. Oberg (1960) divided the cultural adjustment process into four consecutive stages: the honeymoon stage, with fascination and optimism; the crisis stage, with hostility and stereotyped attitudes toward the host culture; the recovery stage, when one starts to gain some knowledge of the host culture; and the final adjustment stage (Fig. 3.1.1). Criticizing Oberg’s model for its strict linear sequences, Marx presented a dynamic model that “integrates a dynamic and repetitive cycle of positive and negative phases” (Fig. 3.1.2).

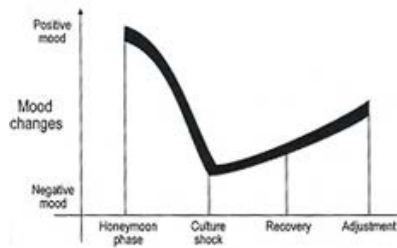


Fig. 3.1.1 Oberg's Culture Shock Model

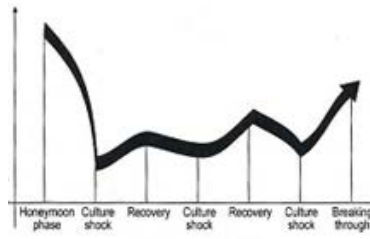


Fig. 3.1.2 Marx's Dynamic Culture Shock Model

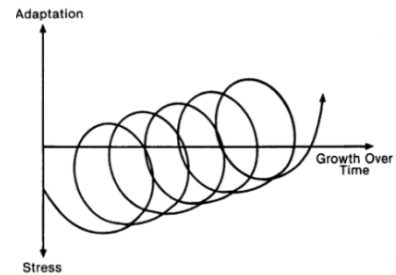


Fig. 3.1.3 Kim & Ruben's Stress-Adaptation-Growth model

Excerpted from Manz, S., (2003)"Culture Shock - Causes, Consequences and Solutions: The International Experience"

Figure 3.1. Various models presented for intercultural adjustment processes

Contrary to these uni-dimensional approaches to cultural adjustment, Kim and Ruben (1988) present a stress-adaptation-growth dynamic model based upon the principles of general systems theory (Fig. 3.1.3). Systems theory emphasizes the holistic nature of a system, with its function, while assuming the dynamic interactions among its parts and the environment. From this perspective, their model integrates the culture shock phenomenon with adaptive changes by individuals. For them, individuals seek to adapt to the new sociocultural environment when they encounter cultural differences in the new setting and experience culture shock. In this model, Kim and Ruben indicate stress as a generic feature that motivates a person to go through an intercultural transformation, which consists of "draw-back-to-leap" cycle(s) for gaining further intercultural competence (see Fig. 3.1.3). The person, through this process, gains more understanding of the other culture and learns adaptive activities for acting in the other culture as well as responding to it.

These aforementioned models show the general aspects and nature of the cultural adjustment process that one may experience when encountering a new sociocultural setting different from one's own. However, intercultural experiences and cultural adjustment

processes are unique to individuals, as they are influenced by various factors of the individuals and his/her surroundings. These factors include one's attitude toward intercultural experiences, voluntariness of movement, level of preparation, the discordance levels between home and host cultures, and demographical characteristics such as age differences (Bennett, 2004; Berry, 1997; Kim & Ruben, 1998; Shim & Schwartz, 2007; Yeh, 2003).

For example, individual attitudes and relations toward “culture of origin” and “host culture” could help to understand the possible cultural adjustment types and accompanying the characteristics of individuals. Berry (1992) introduces five types of acculturation strategies based upon the migrant-host relationships and individual attitudes toward each other's cultures (Fig. 3.2).

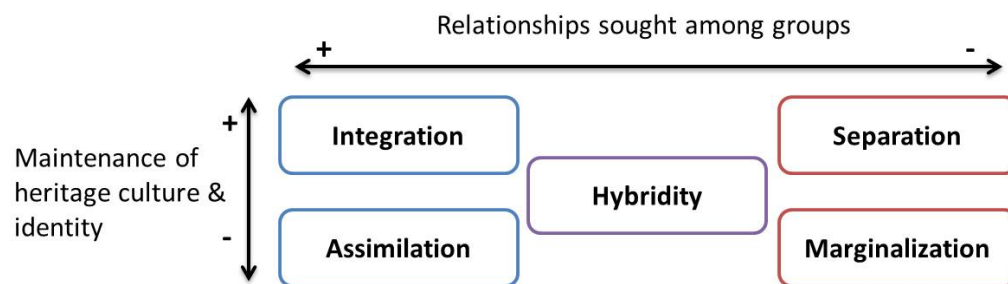


Figure 3.2. Acculturation strategies of ethno-cultural group

Assimilation refers to a mode when the individual moves toward the host culture and wants to maintain relationships with other groups while devaluing his or her own cultural heritage; Separation occurs when an individual chooses to retain his or her original culture while avoiding interaction with other groups; Integration refers to a mode when migrants have interest in maintaining their own cultural identity and in having interactions with other groups; Marginalization happens when an individual has little interest in or is unable to maintain

cultural ties with either culture; and ,lastly, Hybridity is a mode when migrants combine these four different modes of relating to the host culture (Martin et al., 2006).

Despite of these variances, however, it is inevitable to certain degree for an individual to experience cultural dislocation as well as cultural adjustment. This means that every individual who relocated to a new sociocultural environment needs to negotiate his/her pre-existing traits and practices (i.e., developed and internalized from the home culture) with those of the new setting. Even those who strongly adhere to their home culture will need to find proper ways of maintaining his/her pre-existing lifestyles, such as finding places to get ethnic food ingredients, locating proper furniture pieces and costumes, and ways of remaining within their ethnic communities.

Challenges specific to elderly Korean immigrants. Elderly Korean immigrants may experience more difficulties when they encounter the differences of the new cultural setting due to their ages and the higher discordance levels between the two cultures. As mentioned earlier, older adults are more likely to adhere to the cultural values, norms, and behavioral patterns of their home culture. For them, their accepted ways of doing things are less demanding and their capacities to cope with changes wane with age (Schwartz, 2006). In addition, most elderly immigrants lack information about the new society, thus making them less prepared for the critical changes that may occur during their intercultural experiences (Lee, 2007; Mui, 2001).

People who immigrated to the U.S in their later lives are more likely to receive support from their adult children (i.e., at least during their early years of immigration), which could add generational conflicts to the overall adjustment process (see Han et al., 2008; Lee, 2007; Pang,

1991). In her study of the immigration experience among elderly Korean immigrants, Lee (2007) reported that this group perceived the changes in the traditional family values of respect for elders and supports for the aged as stressors. The respondents believed that traditional family values were extinguished, and thought their adult children had changed as they became accustomed to American ways of life (Lee, 2007). The elderly Korean immigrants in her study identified their concerns about being a burden to their children, as they received most of their basic supports from their adult children and perceived their role in the family to be diminished.

The high discordance level between the cultures of Korea and the U.S. may also cause elderly Korean immigrants to experience more difficulties. Individual cultural values have critical impacts on the overall adjustment process as they relate to one's interpretation of the fact, situation, person, and norms (Gorgorió & Planas, 2005; Shim & Schwartz, 2007). Cultural distance can be interpreted as the basis of cultural conflict, which refers to affective aspects of a particular situation that could involve antagonists in some sense (Moscovici, 1976). From this perspective, when people from traditional Eastern societies (i.e., the elderly Korean) encounter highly Western societies (i.e., the United States of America), they are likely to suffer more than those immigrants who came from other, similar Western societies. Korea is thought to be one of the most Confucian-oriented countries, and therefore the social interactions, family structure, personal philosophies, behavioral patterns, and cultural values are prominently different from those of the American society (Kim et al., 2001; Shim & Schwartz, 2007). According to Hofstede's study of measuring cultural differences across 53 countries based upon one's cultural construal, America scored the highest level of individualism whereas Korea belonged to one of the lowest groups, ranking 43rd (Hofstede, 1998).

In addition, the cultural adjustment process could be more problematic when immigrants attempt to retain some or all of their traditional values or try to accommodate a new identity with new cultural standards (Lynch, 1992; Shim & Schwartz, 2007). Shim and Schwartz (2007) examined the relationship between the degree of acculturation and adjustment difficulties among Korean immigrants living in a Western society, and reported that Korean immigrants who strongly hold on to traditional Asian values experienced more difficulties during the adjustment process.

Although recent studies regarding Korean immigrants indicate their changing states of and attitudes toward intercultural experiences (see Kim & Hurh, 1985; Lim & Giles, 2007; Park, 2007; Seo & Mazumdar, 2011; Yeh, 2003; Yoo & Sung, 1997), the likelihood of elderly Korean immigrants depending on ethnic resources and retaining their cultural attributes still remains high (Lee, 2007; Jang et al., 2007; Kim & Lauderdale, 2002). For example, Korean immigrants are known to form ethnic communities where they can build social relationships with other Koreans and maintain their cultural customs and values (Hurh & Kim, 2011; Min, 2000; Terrazas, 2009). Terrazas (2009) examined the demographical characteristics of Korean immigrants and reported that in 2007, 52 percent of this population resides in California, New York, New Jersey, and Virginia. Some or all of the cultural and traditional values are retained within these ethnic neighborhoods by speaking Korean in the family, maintaining cultural customs and activities, and mainly interacting with other Korean immigrants.

Contrary to this finding, recent studies identify their high level of immersion to dominant culture, and the increasing tendency of elderly Korean immigrants to live independently from their adult children (Kim & Hurh, 1985; Pang, 1991; Seo, 2010; Yoo & Sung,

1997; Yoon, 1991). However, these studies still show that participants have high inclination toward ethnic resources including language, food, health care, religion, and public services (Han et al., 2008; Hwang, 2008; Jang et al., 2008; Kim & Lauderdale, 2002; Min, 2000). Moreover, independent living for Korean-American elderly is highly associated with the proximity of ethnic communities (Kim & Lauderdale, 2002), and their levels of loneliness decreased with greater social network size and higher ethnic attachment (Kim, 1999).

Culture and the Built Environment: Residential Environment

The built environment also reflects the complexity of culture in its broadest sense, as it is created upon the sociocultural context of a society in response to the culturally defined needs of its group members (Altman & Chemers, 1980; Jeon & Kwon, 2008; Kim, 1999; Rapoport, 1969; Yoon et al., 1992). Rapoport (1969) regards house form as the accumulated result of choices driven and affected by the culturally defined needs of a specific group. In a similar vein, Altman and Chemers (1980) examine places from a cultural perspective that integrates environment, culture, and people as a whole. For them, the relations among psychological processes, behavioral processes, and places are integrated and also interdependent upon one another. Therefore, they regard the house form and its constituting elements as the consequences of sociocultural factors, including environmental forces (i.e., climate, temperature and terrain), technological factors (i.e., resources, technological skills),

and cultural factors (i.e., worldviews, psychological processes, privacy, social structure, family structure, etc.).

The built environment is also congruent with the lifestyles of the group members within a given society (Kim et al., 1992; Low & Chambers, 1989; Rapoport, 1969; Yoon et al., 1992). As a choice process of allocating resources upon culturally defined needs, lifestyle reflects and incorporates values of a given society, and leads directly to the activity systems of the group members (Rapoport, 2008). For Rapoport, therefore, the housing is made congruent with the lifestyles of its users through various choices, expressing their preferences and values, and supporting their cultural behaviors to provide better supports.

The house form, as a social product reflecting the sociocultural context of a given society, reflects the changing factors of a given period and adapts to its changing needs. The changes in house form are an organic phenomenon generated by the interaction among various factors including natural environmental factors, politico-economic trends, technology, and sociocultural factors of the times (Yoon et al., 1992). For example, the inflow of Western culture—including housing norms, modern technology, and lifestyles with chair-sitting activities—into modern Korean society have dramatically changed both the lifestyles and the residential features of Korean houses since the late 1950s (Jorn et al., 2011; Yoo, 2005; Zchang, 1994). In accordance with the rapid population growth in cities and changes in governmental housing policy, the numbers of people living in apartment housing rose sharply to occupy a large portion of overall housing market in Korea (Kim, 2009; Kim & Choi, 2007; Lee & Lee, 2005; Zchang, 1994). In addition to the numerical rise in apartment housing, its residential features also developed congruently with the changing lifestyles of many Koreans. People started to

adapt to chair-sitting activities with the introduction of Western furniture and modern equipment such as beds, dining table with chairs, toilets, and gas stoves (Lee, 2002; Park & Jeon, 2002; Su & Jeon, 2009; Yoo & Cho, 2002). Despite this new lifestyle, however, many Koreans consistently maintain floor-sitting activities, which partially led to incorporating *ondol* feature, the unique floor-heating system of Korean houses, into apartment housing (see Fig. 3.5). This unique feature supported both lifestyles consisting of chair-sitting and floor-sitting activities (see Fig. 3.3). In brief, the development process and residential features of Korean houses differ from those of the U.S. in terms of its floor plans, spatial configurations, finishing materials, and people's uses of residential spaces (see Choi, 2003; Kim & Kim, 2007; Lee & Lee, 2005; Park & Kim, 2002).

Although traditional houses and their features seem to disappear in contemporary Korean society due to modern technology and the changing lifestyles of its people, some concepts and features are preserved in contemporary houses equipped with modern conveniences (Jeon & Kwon, 2008; Kamachi, 1999; Shin, 2008; Yoon et al., 1992). Hasegawa (1965) indicates the importance of tradition, as seen in its ongoing persistence and influences in contemporary culture rather than retaining to its original form and preserving the original cultural properties (Bognar, 1989). In a similar but provocative sense, Paul Oliver (1989) focuses on the transmission of traditions on built environments and writes: "It can be argued that there is no such thing as a traditional building, and no larger field of traditional architecture. There are only buildings that embody traditions." (p.74). Bourdieu (1989) also emphasizes the continuous reproduction and transmission of tradition, and regards dwelling as "the

materialization of bond between people and the means by which they choose to transmit ‘handed-down’ knowledge and social practices” (11).

The *ondol-maru* of contemporary Korean houses would be a good example for the aforementioned qualities in terms of how the traditional properties are preserved and maintained through a modernized form equipped with modern technology (see Fig. 3.5). *Ondol-maru* is the synthesized floor type of traditional *ondol* heating system and *maru* floor: *ondol* is the Korean underfloor heating system that leads hot air through an air passage underneath the stone floor, and *maru* refers to a space with wooden plank floor or the wooden plank floor itself. In traditional houses, *ondol* and *maru* were installed in different residential spaces, each serving its functions to support the dwellers (see Fig. 3.4). Incorporated with a central hydronic heating system; however, *ondol-maru* started to replace the residential floors of contemporary Korean houses, as it serves both functions of *ondol* and *maru* for supporting the floor-sitting activities while adjusting the body temperature of many Koreans (Lee, 2002; Jeon & Kwon, 2008; Joo, n.d.; Jun, 2010; Jun et al., 2008). Further details of *ondol* and *maru* floors are reviewed in the following meta-analysis regarding their developmental processes and close relations to the dwelling lifestyle of many Korean people.

Meta-analysis of the Residential Environments in Korea

Korean houses were analyzed in diachronic perspective to identify their distinguishing but fundamental features in terms of supporting the daily lifestyles of Korean dwellers. The

meta-analysis mainly focus on Korean houses during modernization period (i.e., after the Korean War), but also included traditional houses, as they serve as the foundation of contemporary Korean houses in many aspects (Son, Kim, & Park, 2010; Yoo & Cho, 2002).

Methods

The materials used for meta-analysis include research articles, reports, books, professional websites, and thesis and dissertations published in Korea. Nine keywords were used solely and in combination for searching materials across different housing types while focusing on their changes and developments. The keywords used in searching research materials originally started with houses (주거), changes (변화), and daily lifestyle (일상) for broader list of articles. From these articles, alternate key concepts and words were noted and listed to specify the search in finding appropriate research materials for the present study. The final keywords used were Korean house(s) (한국 주거, 주택), modern(-ization) (현대화; 근대화), apartment(s) (아파트), single house (단독주택), daily lifestyles (일상생활), daily activities (일상), history (역사), changes (변화), and trends (양상; 특색; 특징).

The search engines used were Naver Scholar, Architectural institute of Korea, National Assembly Library, AURIC (Architecture & urban research information center), and RISS (Research Information Sharing Service). From the final search outcome, research materials relevant to indicating the characteristics of Korean dwelling environment were selected. In total, 150 materials—six newspaper articles, 10 books, 90 journal articles, four reports, and 40 master's theses and doctoral dissertations—were screened and selected for meta-analysis. (See Appendix A for the full list of research materials included in the meta-analysis.)

From these materials, the factors identified to influence the residential environments of Korea were categorized into five groups: sociocultural context, economical factors, technological development, governmental policy, and everyday lifestyles. The lifestyles of general Koreans were also included, since it had impacts on dwellers' specific housing demands, which naturally led to changing the residential features and overall settings. (See Appendix B for more details, i.e., how these factors are closely interrelated to one another in forming Korean dwelling environments).

Historical Background: Modernization Movements of Korean Houses

The residential environments of Korea have developed and changed throughout time as they have constantly responded to the changing needs and demands of a certain time period (Kim et al., 2010; Kim et al., 2002; Yoo & Cho, 2002; Yoon et al., 1992). The modernization movement of Korean houses started at the late period of Joseon Dynasty (1392-1910), but went through radical changes at practical levels during the Japanese Colonial era (1910-1945) and after the Korean War (1950). Both periods regarded housing as the place that holds everyday activities of the general people, and considered housing improvement as major necessity for realizing modernization (Son, Kim, & Park, 2010; Yoo, 2005). In addition to improving dwelling features, massive production of housing was the main focus due to the extreme housing shortage caused by the urbanization movement and the urban concentration of population during both time periods (Yoo & Cho, 2002).

During the Japanese Colonial era, the first modernization movement mainly arose with Korean intellectuals who had been exposed to foreign cultures and modern technology (Son,

Kim, & Park, 2010). They evaluated traditional Korean houses through practical lenses and criticized their unhygienic conditions (i.e., minimum openings of female bedrooms, conditions of kitchen and outhouse, etc.), inefficiencies (i.e., circulation plan, heating system, housing materials, etc.), spatial division by genders based on Confucianism, and the spatial layout regarding overall house size and locations of rooms (Son, Kim, & Park, 2010; Yoon et al., 1992). Based on these criticisms, the noticeable characteristics of prizewinning design plans of housing competitions included the following features. They were designed more for the family by removing the servants' area, had improved heating system (i.e., *ondol*) and modern equipment for kitchen and toilet, integrated residential spaces by uses rather than gender, placed more importance on the female bedroom and turned it into master bedroom, converted *maru* to function as living room, and introduced vestibule into housing (Park & Jeon, 2002; Son, Kim, & Park, 2010; Su & Jeon, 2009).

Based on these suggestions, new types of housing such as *munwha-jutaek* (literally translated as “civilized housing”) and *dosi(hyung)-hanoak* (literally translated as “urban traditional housing,” which refers to modified traditional housing) started to appear (Koo & Park, 2009; Park & Jeon, 2002; Son, Kim, & Park, 2010; Yoo & Cho, 2002). While the former was mostly designed for foreigners residing in Korea and provided on a small scale, the latter was built and supplied for the general public on a wider scale. However, despite the popularity and rapid increase of urban traditional housing, housing improvement at this stage was rather one-sided, sporadic, and unsystematic. It targeted specific social classes (i.e., landowners who newly migrated from rural communities to urban settings) and failed to expand to the whole nation but was highly concentrated in *Gyeongseong* area (i.e., old Seoul) (Park & Jeon, 2002; Yoo &

Cho, 2002). In addition, most of the housing plans proposed by modern architects through housing competitions were rarely built in reality (Suh, 2004).

The second phase of the modernization movement started off after the Korean War, but it was actively pushed forward in the 1960s with the economic development plans established and arranged by the Korean government (Jun et al., 2008; Kim, 2012; Shim, Kang, & Cho, 2000; Yoon & Suh, 1992). Immediately after the Korean War, massive housing provision for returning refugees was the most critical agenda (Jun et al., 2008; Kim, 2012). This was partially fulfilled through funding, technology, and building materials received through foreign agencies (Jun et al., 2008; Kim, 2012). Various types of public housing and collective housing were built on these foreign aids and technologies, but their supply capacities failed to meet the housing shortage of that time.

However, attempts were made to improve residential environments and people's lifestyle by applying Western concepts to some public housing such as *kookmin-jutaek* (i.e., national housing). For listing some noticeable changes, traditional *daecheong-maru*² was converted into living room, and the bathroom was brought inside the house (Jun et al., 2008). During this time, Korea society was in a chaotic state of affairs, and the government had no other means but to depend upon foreign support for building and supplying houses in a short period of time. Therefore, housing improvement was rather intermittent, unsystematic, and incomprehensive in general (see Bae & Jun, 2010; Park & Jeon, 2002; Son, Kim, & Park, 2010; Suh, 2009; Yoo & Cho, 2002).

² *Daecheong-maru* is the largest *maru* type, which originally refers to the wooden floor space connecting rooms in traditional Korean houses (See Fig. 3.4).

Housing improvement and modernization accelerated as the government set and announced the first five-year economic development plan in 1962. Housing improvement became part of national development plan, and housing policies as well as legislation were actively established to promote massive production (Kim, 2012). The systems were found to build massive housing complexes with the establishment of regulations, reorganization of the housing bureau, and the development of new technology (i.e., prefabricated construction methods) (Jun et al., 2008; Shim, Kang, & Cho, 2000). With the *Mapo* apartment complex completed in 1964, the age of apartments began in Korea (see Fig. 3.9.3). Private enterprises started to construct massive housing complex in apartment districts set by the Korean government and received tax privileges (Jun et al., 2008; Kim & Choi, 2007; Kim & Park, 1992; Shim, Kang, & Cho, 2000). With this background, the number of apartment rapidly increased and occupied a large portion of overall housing market in Korea starting from the 1970s (Kim, 2009; Kim & Choi, 2007; Lee & Choi, 2004; Park & Kim, 2002; Sohn & Lhee, 1995; Zchang, 1994).

Apartment housing became one of the typical housing types in present-day Korea, with a distribution rate of over 400-500 thousand housing units per year since the 1990s (Jun et al., 2008; Lee & Lee, 2005). The housing shortage has always been a major issue due to rapid population growth and intense population concentration in and around metropolitan areas (Zchang, 1994). In Korea, apartment housing was the optimum housing type that enabled a massive supply of housing more effectively on limited land (Park & Kim, 2002; Zchang, 1994).

The early apartment housing introduced Western concepts (i.e., norms, design concepts, and housing standards) of dwelling and applied design features accordingly to support the new, emerging lifestyle that consisted of chair-sitting activities (Jun et al., 2008). It also improved the

dwelling environment as it incorporated modern equipment and utility systems into its floor plans. It provided an advanced floor-heating system, indoor bathrooms, stand-up kitchens, and so forth. This newly built house type suited the changing needs and wants of nuclear family (i.e., this new household type emerged with rapid industrialization and economic developments) and attracted many middle-class households (Jun et al., 2008; Zchang, 1994).

During the 1980s and 1990s, apartment complexes became more densified with high-rise buildings as the government deregulated Housing Act, which expedited housing reconstruction and redevelopment (Kim & Choi, 2007). This led to standardized floor plans across apartment complexes as the design priorities were set to expand the area of exclusive use space to increase marketability (Kim, 1992; Kim & Choi, 2007; Park & Kim, 2002). However, people's various demands on housing quality gradually increased from the late 1980s as the center of the housing market started to transfer from suppliers to consumers (Jun et al., 2008; Lee & Lee, 2005). The socioeconomic factors of the 1990s also had impacts on housing market with the deregulation of house sale prices and the legal obligation to provide small-sized apartments (Lee & Lee, 2005).

This led private enterprises to differentiate their housing products to match the changing needs of potential consumers. Small-quantity batch production was applied to housing production, and various attempts were made to target different consumers (Jun et al., 2008). Some of the attempts included customized floor plans and flexible-unit design, gentrifying interior designs with brand marketing, differentiating exterior designs (i.e., site plans, common open space, skylines, and so forth), and creating a car-free complex with underground parking (Jun et al., 2008).

Characteristics of the Residential Environment in Korea

The distinguishing but fundamental characteristics of Korean houses identified through this meta-analysis are floor-sitting culture, multi-use of residential spaces, and features influenced by and transmitted from traditional thoughts. These qualities are selected since they have continuously appeared in Korean houses through modified forms at various degrees to support the everyday life of the dwellers (see Jeon & Kwon, 2008; Jun et al., 2008, 2009; Kang, 2002; Park, 2003). As indicated through the modernization process of Korean houses, these characteristics have also developed through their reciprocal interrelations to one another rather than existing independently. For example, the floor-sitting culture was naturally constructed on a floor-heating system (i.e., *ondol*) and practiced on a daily basis upon Confucian teachings since the Joseon Dynasty (Park, 2003). With regard to this specific context of Korean society and people's lifestyles (i.e., the continuity of floor-sitting activities), the development of modern *ondol* system in contemporary Korean houses were promoted and expanded gradually to include all residential floors (Jeong & Yoon, 2002; Jun et al., 2009). This also enabled the dwellers to use residential spaces for the situational contexts of everyday life and for special occasions (Jun et al., 2009). The following sectors will elaborate the developmental process and specific features of these aforementioned characteristics regarding their interrelationships to the daily lifestyle of the general Koreans.

Floor-sitting culture. The floor-sitting culture is the most distinguishing and fundamental feature that has influenced Koreans and their residential environments since the Joseon Dynasty. It is a way of life in which people perform various activities while directly sitting on a floor for everyday life and special occasions. These sedentary postures for doing everyday

domestic activities have been closely related to the residential environment extensively, including its floor-heating system, floor types, spatial organization, and furniture design with its layouts (see Cho, 2000; Jang & Jin, 2001; Jeon & Kwon, 2008; Jeong & Yoon, 2002; Jun et al., 2009; Kang et al., 1999; Kim & Lee, 2003; Ha & Choi, 2003; J. Lee, 2003; Lee & Lee, 2005; Su & Jeon, 2009; Ye, 2007; Yoon et al., 1992).

The floor types and floor-heating system of Korean houses also promoted the establishment of floor-sitting activities to a greater or lesser degree with its supportive features for controlling body temperatures in each season (Jeon & Kwon, 2008; Joo, n.d.; Lee, 2002; Zhang, 1994). For example, *ondol* was suitable during cold winters for its floor-heating feature while *maru* was good for cooling off body heat in hot summer (Jeon & Kwon, 2008). As indicated in these examples, culture and everyday practices have accustomed many Koreans to maintain their sedentary postures for performing ordinary tasks in everyday life and have become an essential part of Korean culture itself (Fig. 3.3).



Fig. 3.3.1 Genre painting of farmers in early Joseon dynasty



Fig. 3.3.2 Women doing housework at *daecheong-maru*
Excerpted from:
<http://blog.joinsmsn.com>



Fig. 3.3.3 Floor-sitting behaviors (2000s)



Fig. 3.3.4 Chair-sitting behaviors
Excerpted from:
<http://blog.naver.com/ampman11>

Figure 3.1. Various floor-sitting postures for performing daily activities

The shoeless lifestyle is another feature that has contributed to the floor-sitting culture as well as the residential environment of general Koreans throughout time. In traditional

Korean houses, people took off their shoes and placed them on *doetdol* (i.e., terrace stone) before stepping up onto the *daecheong-maru*. The indoor vestibule first appeared in housing improvement plans presented by modern architects during the Japanese Colonial era, but actually emerged in private housing in the 1960s (Lee, 2003; Kang et al., 1999; Zchang, 1994). It served as a transitional space dividing indoor from outside world, and people took on/off their shoes when they left/entered a house.

The settlement of indoor vestibules differs between apartment housing and single-detached housing in terms of their uses and developments. While indoor vestibules successfully settled in apartment housing from its early development years, they merely served as an entering space in single-detached housing where the *daecheong-maru* was still open to courtyard (Lee, 2003). For this housing type, the supply of a basement generated changes in its sectional plans by elevating the ground level of a house, and led to cutting the physical connection between *maru* and courtyard (Lee, 2003). As a result, vestibules also settled in single-detached houses as the main entry space for entering a house. In contemporary Korean houses, vestibules are built one step lower than the main living spaces and finished with various materials including concrete, tiles, and artificial stones, which are differentiated from the wooden *maru* floor (normally installed in main living spaces).

The residential floors of Korean houses were differentiated throughout time in terms of their finishing materials, heating systems, and level differences (i.e., from the base level of a house) (see Jeon & Kwon, 2008; Jeong & Yoon, 2002; Jun et al., 2009; Park, 2003; Yoon et al., 1992). *Ondol* and *maru* floors are the most typical and essential floor types of Korean houses (Jeon & Kwon, 2008). In traditional Korean houses, these floors were built in different spaces to

serve the dwellers' activities while supporting their bodily temperature (Fig.3.4). Rooms located next to kitchen furnaces were equipped with *ondol* and primarily used for domestic family activities and occasional guest receiving. These *ondol* rooms had smoke passages underneath for heating, were covered with granite stone and soil, and were finished with layers of rice papers (Joo, n.d.; Lee, 2002). On the other hand, *maru* indicates a wooden plank floor or a residential space with wooden plank floor. It was installed in a semi-public space open to courtyard, which served multiple activities rather than being exclusively preserved for a single purpose (Jeon & Kwon, 2008). A *maru* floor was lifted from ground level to provide air passages, which enabled the dwellers to cool off their body temperature during hot summers (Fig. 3.4.2).



Fig. 3.4.1 *Ondol* room
Excerpted from Kang et al. (2004)

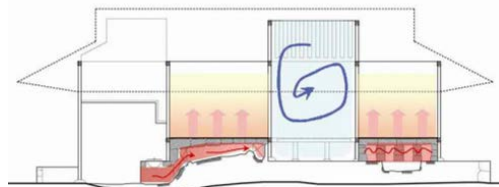


Fig. 3.4.2 Vertical section of
ondol & *maru*
Excerpted from Jeon & Kwon (2008)



Fig. 3.4.3 *Daecheong-maru*
Excerpted from Hong et al. (1999)

Figure 3.2. *Ondol* room and *daecheong-maru* of traditional Korean houses

During the early years of modernization, *ondol* and *maru* floors were passed on to newly built houses as they continued to support the residential activities of many Koreans on a daily basis. These floor types were applied to different residential spaces in regard to the activities held in each space. *Ondol* was applied to bedrooms with its floor-heating feature—similar to the traditional heating mechanism but using briquettes instead of firewood (Ye, 2007). The bedroom functioned as the main living space for the family and held various activities including

sleeping, dining (using a portable table), nurturing, family gathering, and even entertaining guests (Jun et al., 2008; Kim, 1997; Lee, 2002; Zchang, 1994). Therefore, floor heating was an essential feature to support these aforementioned activities during cold winters. On the other hand, beginning in the early 1970s, the traditional *daecheong-maru* was converted into a living room in modern houses and mostly used as passage space connecting other residential spaces due to its lack of a proper heating system in winter (Su & Jeon, 2009; Ye, 2007).

Floor-heating systems also influenced the floor finishing materials, level differences, and uses of residential spaces of Korean houses. For example, the bedroom floor was finished with laminated paper in early modern houses but replaced with linoleum floors starting in the 1970s (Jeon & Kwon, 2008; Jun et al., 2009; Park, 2003). The kitchen floor was built lower than other residential spaces with its furnace being used for floor heating; —it was connected to the air passages underneath bedroom floors (Lee, 2003; Ye, 2007). The living room floor was finished with vinyl flooring and linoleum up to the 1980s and had a radiator installed to provide heating for a short period of time (Park, 2003; Su & Jeon, 2009; Yoon et al., 2009).

Starting from the mid-1960s, the traditional furnace heating system of Korean houses was replaced with a briquette-burning boiler, which brought extensive changes to residential features and the overall settings: Air passages underneath residential floors were removed and replaced with hot water pipes; the kitchen floor was elevated and became equal to other residential spaces; and modern facilities and utilities were widely provided (Jeon & Kwon, 2008; Koo & Park, 2009; Lee, 2003; Ye, 2007). With the development of the hydronic radiant floor-heating system in the 1970s, floor differentiation in Korean houses has tended to diminish in recent years (Fig. 3.5). The *ondol-maru* floor, the synthesized floor type of *ondol* heating system

with *maru* finishing, started to replace residential floors—starting from the living room and expanding to all residential spaces—except the bathroom and vestibule (Jeon & Kwon, 2008; Jeong & Yoon, 2002; Jun, et al., 2009; Park, 2003).

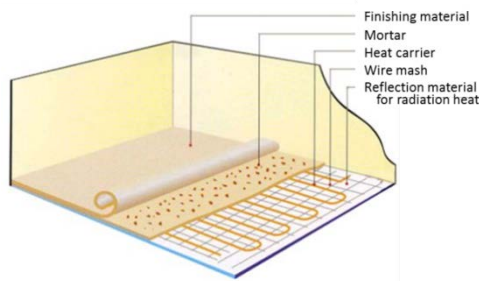


Fig. 3.5.1. Hydronic heating system

Excerpted from:

<http://blog.daum.net/blog/photoList.do?blogid=08ACr&categoryid=377965>



Fig. 3.5.2 Isometric view of apartment house

Excerpted from:

<http://jknews1.joinsland.com/bunyang/sale/>

Figure 3.3. Floor-heating system and floorings of apartment housing built in the 2000s

The advancement of floor-heating systems had profound effects on Korean houses including their floor plans, spatial organization, and spatial uses. Using hot water boilers for floor heating not only eliminated the level differences across residential spaces, but also freed the kitchen location from being adjacent to the bedrooms (Lee, 2003; Ye, 2007). It also expanded floor heating to all residential spaces beyond bedrooms, which led to relocating dining activity from master bedroom to kitchen area. This brought the emergence of dining room in Korean houses built around the mid-1960s (Ye, 2007). In addition, the provision of floor heating in the living room promoted its function as a family room and enabled its users to hold more family activities there (Su & Jeon, 2009). As these residential spaces held more dwelling activities, the master bedroom was reorganized as a private room for a couple rather than for the whole family (Lee, 2003; Su & Jeon, 2009; Yoon et al., 1992).

Reflecting these changes in spatial uses, new floor plans were suggested by designers and house builders from the late 1970s (Jeon & Kwon, 2008; Koo & Park, 2009; Lee, 2003; Ye, 2007). These floor plans grouped kitchen, dining room, and living room into a large open space and placed them in the center, which was surrounded by private rooms and other residential spaces. In these L-DK and LDK floor plans, the living room became the main living space and the center of family life as it succeeded and served the functions of traditional *daecheong-maru*, inner courtyard, and partially *anbang* (i.e. master bedroom for the mistress) (Jang & Jin, 2001; Jeon & Kwon, 2008). These floor plans were widely spread and became a uniform trend with massive supply of apartment housing since the 1980s (Kang et al., 1999; Kim & Park, 1992; Lee & Lee, 2005).

Lastly, the floor-sitting culture and floor-heating system have influenced the types, designs, and layout of furniture to a greater or lesser degree. As essential part of a dwelling, furniture reflects and supports the lifestyles of its users as it encompasses their values, customs, and behavioral patterns of everyday life (Cho, 2000; Kang, 2002; Kim, 2006; Kim & Lee, 2003; Ha & Choi, 2003; Park, 2003; Terakado, 1973). Furniture in traditional Korean houses was arranged to accommodate floor-sitting behaviors with relatively low dimensions considering the eye levels and bodily movements of the floor-sitters. Furniture was arranged along walls to preserve the room center empty, and this enabled the dwellers to hold multiple types of activities within a room depending on situational contexts (Fig. 3.6.1). Regarding functionality, most furniture had short legs on the bottom to avoid distortion caused by floor heat or humidity, and remained moveable to accommodate flexible uses of rooms (Cho, 2000; Ha & Hong, 2006; Kang, 2002; Kim & Lee, 2003).

During housing modernization, the inflow of Western furniture promoted rapid changes in the behavioral patterns and daily lifestyles of many Koreans as well as their residential environments (Cho, 2000; Kang, 2002; Su & Jeon, 2009; Yoon et al., 1992). Moreover, apartment housing was supplied with partially furnished spaces—mostly modern equipment and storage furniture in kitchen, living room and vestibule—encouraging its dwellers to adapt to chair-sitting lifestyles more readily (Lee, 2003; Su & Jeon, 2009; Zchang, 1994). Specific furniture also accelerated the dwellers use of residential spaces more exclusively rather than holding various types of activities (Su & Jeon, 2009; Yoon et al., 1992). For example, placing a bed in the master bedroom advanced the relocation of family activities to other residential areas (i.e., kitchen and living room) and made the space exclusive for married couple instead of the whole family. The supply and use of a dining table set and sofa also helped dining activities and family activities to settle in kitchen and living room successfully (Fig. 3.6.2).



Fig. 3.6.1 Furniture layout of *Sarangchae*,
(traditional house)
Excerpted from:
<http://blog.naver.com/qkdchfma>



Fig. 3.6.2 Living room furniture
(1970s)
Excerpted from Choi & Kim (2009)



Fig. 3.6.3 *Gyojasang* placed in the
center of living room
Excerpted from:
<http://cafe.naver.com/hanshinapt/255>

Figure 3.4. Furniture of traditional and modern Korean houses

Although furniture in contemporary Korean houses was rapidly replaced with modern furniture supporting the chair-sitting lifestyle, those for floor-sitting activities were still used by many households (Cho, 2000; Kang, 2002). For example, a *soban* (a small portable table used

for serving snacks or simple dining, similar to the tray function) and *gyojasang* (a large dining table used for ancestral rites, serving large groups of people, and sometimes used as a coffee table) are still owned and used by many contemporary Koreans for various occasions upon the dweller's needs (Fig. 3.6.3) (Kim, 1996).

Multi-use of residential spaces. The residential spaces of Korea houses hold different types of activities depending on the situational contexts of dwellers' needs rather than being used for exclusive purposes. This spatial use appeared more prominently in traditional houses, and customarily remained in moderns ones with the supports of the floor-heating system and furniture pieces for floor-sitting behaviors (Jeon & Kwon, 2008; Jun et al., 2009; Yoon et al., 1992).

In traditional houses for upper class families, the division of residential spaces complied more with gender separation and hierarchical social status than the daily lifestyles of its dwellers (Fig. 3.7). Most family life and dwelling activities were separated accordingly upon gender and hierarchical orders, and took place in the *anbang*, *sarangbang*, and *daecheong-maru*. The *anbang* was the master bedroom for the mistress in the female quarters and the main living space for females and younger children where dining, sleeping, nurturing, and house chores occurred; the *sarangbang* was the center of the male quarters where guest reception (i.e., male guests only), studying, and occasional dining as well as sleeping took place; and the *daecheong-maru* was used for various family activities (dining, resting, household chores, family gathering, etc.) mostly during the summer, and for special occasions such as ancestral rites, weddings, and recreational banquets (Jeon & Kwon, 2008; Kang et al., 2004; Kim et al., 2002). The multi-use of spaces appeared more intensely at lower class houses which had

lesser division of residential spaces—all family members shared one or two rooms for living and most dwelling activities occurred in either the *ondol* room or the *maru* room (sometimes performed in courtyard) (Hong et al., 1999; Kwon, 2001).

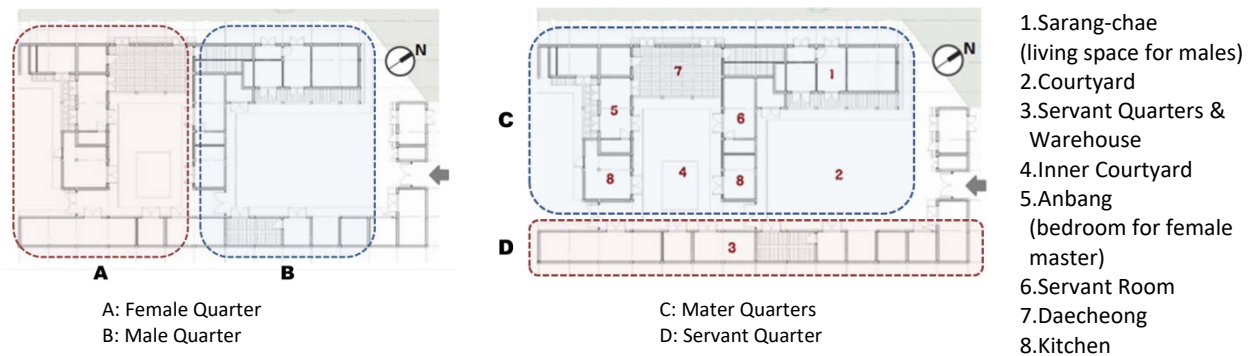


Fig. 3.7.1 Space segregation based upon sexes
Fig. 3.7.2 Space segregation based upon social classes
Figure 3.5. Spatial division in traditional Korean house (*hanoak*)

The multi-use of residential spaces has remained in the residential lifestyle of many Koreans and has appeared in contemporary Korean houses to different degrees. As indicated earlier, traditional Korean houses were criticized for their inefficient use of space and unhygienic conditions (Jun et al., 2008; Son, 2008; Son et al., 2010). In response to these matters, the housing proposals and models presented by educated architects attempted to separate dwelling activities based upon their functions rather than following gender divisions: the *sarangbang* disappeared as the *anbang* was converted into a master bedroom to serve the needs of a couple; the child's room emerged to separate childrearing activities from *anbang*; and the living room appeared as a new family room replacing traditional *daechyeong-maru* (Jun et al., 2008; Kim, 2001; Son et al., 2010; Yoo & Cho, 2002).

These suggestions and spatial organization were applied to newly built houses, but the majority of people still maintained the multi-uses of residential spaces (Kim, 2001; Lee et al.,

1999). Up to the mid-1980s, the majority of middle class households still used the *anbang* for various purposes including basic needs (dining, sleeping, private activities, etc.), social needs (guest reception), family needs (nurturing, family gatherings, etc.), and special occasions (ancestral rites) (Kim, 2001; Lee et al., 1999).

This multi-use of residential spaces started to diminish in the late 1980s as the nuclear family became the common household type and modern furniture supporting chair-sitting activities was widely accepted by many households (Kim, 2001). The development of housing technology, as indicated earlier, also advanced these exclusive uses as hydronic heating systems expanded to all residential floors (except vestibule, service areas, and bathroom) and enabled residential spaces to be used throughout all seasons (Choi, 1998; Kim, 1997; Yoon et al., 1992). For example, with a floor-heating system and furniture pieces supporting both floor-sitting as well as chair-sitting activities, the living room not only functioned as a family room holding family activities but also served as a parlor receiving guests (Choi, 1998; Kim, 1997; Park, 2003).

Complying with the lifestyle of general Koreans, new residential spaces appeared in the floor plans of many houses in Korea. While the living room mostly succeeded the social and semi-public activities of traditional courtyards and *daecheong-maru*, new service areas and auxiliary spaces emerged to hold the housekeeping activities of those spaces (Lee, 2006; Park, 2008). These newly emerged spaces included an all-purpose room (다용도실), rear- and front balconies, and auxiliary kitchen (Fig. 3.8). The all-purpose room is a unique space that emerged during the 1960s to accommodate the needs of having supplementary space for housekeeping activities (Choi & Yoon, 2006; Kang et al., 2007; Lee, 2006; Lim, 2005; Yoon, 1990). It is generally

located at the rear side of a house, being adjacent to kitchen area to serve various housekeeping activities upon circumstantial needs, but was mostly used for storing foods, preparing food ingredients, and doing laundry (Choi, 2003; Kim, 2001; Park, 2003).

The housekeeping activities moved to rear balcony during the 1980s and 1990s as the direct-access-apartment prevailed and subsequently got separated into an auxiliary kitchen starting in the late 1990s (Baek & Park, 2000; Kim & Choi, 2001; Lee, 2006; Shin, 2002).

Although these service areas were designed and used to support the housekeeping activities of the dwellers, their actual uses slightly differed (Jang & Jihn, 2001): The all-purpose room was closely connected to kitchen area in terms of its location and supported housekeeping activities widely (Fig. 3.8.1); the rear balcony was similar to the all-purpose room but mostly used as a storage space or a laundry space (Fig. 3.8.2); and the front balcony was used for drying laundry and raising indoor plants (Park, 1984; Yoon, 2005; Yun, 1990).



Fig. 3.8.1 All-purpose room
Excerpted from:
<http://blog.daum.net/sugpolee/1765>



Fig. 3.8.2 Rear balcony as all-purpose room
Excerpted from:
[http://blog.daum.net/ blog/ BlogTypeView.do?blogid=02VUp&article no=12987192](http://blog.daum.net/blog/ BlogTypeView.do?blogid=02VUp&article no=12987192)



Fig. 3.8.3 Converting rear balcony into auxiliary kitchen space
Excerpted from:
<http://blog.naver.com/dd5665042/220416785332>

Figure 3.6. Service areas and auxiliary kitchen of modern houses in Korea

In addition, the development and transitional process of these service areas has been influenced by the elevation of women's social status and increased social activities (Choi, 2003; Jang & Jihn, 2001; Yoon, 2004). They are designed and planned to reduce household labors and to pursue conveniences by providing various storage spaces and modern equipment (i.e., household appliances and electronics such as washing machine) (Jang & Jihn, 2001). Their appearance and the transitional process of these service areas and auxiliary spaces reflect how modern features accommodated the particular needs of many Korean people into the dwelling environment (Kang et al., 1999).

Influences from traditional thoughts. The influences of traditional thoughts on people's lifestyles and residential environments in modern society are still observed despite their attenuated levels and scopes of impacts. Traditional thoughts including Fengshui³, Confucianism, Buddhism, and folk beliefs formed and led traditional Korean society at large (see Joo, 1978; Joo, 2003; Kang et al., 2004; Kim et al., 2002; Kwon, 2001; Oh, 1994; Park & Jeon, 2002; Shine & Joo, 1985;). These thoughts and their doctrines had major impacts on the everyday life of many Koreans and their residential environments at large. The cultural practices—including daily living customs, rites and rituals, and behavioral manners—were all developed upon these teachings and doctrines, which composed the everyday lifestyle of the general Koreans in traditional society.

The teachings and doctrines of traditional thoughts have influenced the formal rituals and customs of everyday life in Korean societies throughout times (Ha & Ryu, 2008; Kang, 2004).

³ *Fengshui* was originally invented in China, but was brought into Korea by *Doseun* (도선: 道詵) during the eighth century and was reformed according to the geographical features of Korea and the lifestyle of its people.

In traditional society, the four ceremonial occasions (관혼상제: 冠婚喪祭) of coming of age, wedding, funeral, and ancestral rites were grounded on Confucian teachings while incorporating some thoughts from *Fengshui* and folk beliefs. Among these ceremonies, funeral and ancestral rites were important family occasions as they were closely related to the fundamental teachings of Confucianism of respecting one's parents and ancestors. In this sense, holding a thriving ceremony for one's parents and ancestors were considered as important filial piety, which also promises a prosperous future for the descendants (Kang, 2004).

Fengshui was used for selecting an auspicious day to hold certain ceremonies and to find a propitious site for a grave, while folk beliefs influenced the details of these special occasions. Folk beliefs also influenced the behavioral manners yielding taboo behaviors and superstitions, mostly for those who belong to lower classes including farmers and commoners (Joo, 2004). For example, *gut* (굿: Korean folk exorcism), *doorae* (두레: farmer's cooperative group), and behavioral rules such as not to step on a threshold when entering a room or to have *bureom* (i.e., 부럼: biting a nut to ward off boils) on the 15th day of lunar calendar are all based upon folk beliefs.

These formal rituals and customs are still maintained and observed by contemporary Koreans through moderate rules and simplified processes. The doctrines and teachings from traditional thoughts formed and influenced the guiding principles of daily living to different degrees, such as regulating appropriate behavioral manners. These include the general etiquette and the proper conduct toward one's parents and seniors, abiding by Confucian teachings.

With regard to residential environment, in traditional societies, *Fengshui* and Confucianism had major impacts on housing features and overall setting including site selection, spatial layout and organization, decorations, furniture design, and so forth (Ha & Choi, 2003; Joo, 2001; J. Kim, 2006; K. Kim, 2004; Kwon, 2001; Park, 2008). The core idea and fundamental purpose of *Fengshui* are to be in accordance with natural energy (기: 氣) and maintain the harmony of the dwellers with natural energy flow (Lee & Kang, 2002; Park, 2008). It influenced the site selections for houses, villages, tombs, and even the capitals in traditional society, tracing back to the Three Kingdoms Period around the second century (Han, 2009). It also determined the locations of the main gate, *anbang*, and kitchen of a house, which resulted in deciding the proper spots for kitchen furnaces and *ondol* rooms (Joo, n.d.).

The ideals and doctrines of Confucianism as the state religion were also entrenched in the lives of upper-class Koreans and had impacts on housing features in terms of dividing residential spaces upon sex, age, and social status (Hong et al., 1999) (see Fig. 3.7). The extended family household, also influenced by Confucianism, led to the enlargement of overall house size, with greater importance placed on the rooms for the elderly, the male head, and the eldest son. Gender distinction separated residential spaces for each gender placing female space inward, and class distinctions drew a clear line between spaces for masters and servants within a house (Joo, 2003). These aforementioned housing arrangements did not succeed in modern Korean houses in their original forms, but some of their basic notions have influenced certain aspects of modern houses at various degrees throughout times (e.g., Baek & Park, 2000; Choi, 2003; Jun, 2010; Jun et al., 2008; Kim, 1997; Lee & Choi, 2004; Lee, 1988; Zchang, 1994).

People's beliefs and preferences over certain housing and/or window directions in modern Korea, for example, clearly originated from *Fengshui*. However, these beliefs and preferences have transformed during modernization periods and complied more with housing improvement (i.e., enhancing the dwelling environment by receiving more natural sunlight) rather than their original beliefs (i.e., being in harmony with natural energy flow). In the Joseon Dynasty, *Fengshui* regarded southern or southeastern directional prospects (좌향: 坐向) to be auspicious for the family based upon its notion of *baesan-imsu* (배산임수: 背山臨水), considering the geographical features and climate conditions of Korea (Park, 2008). *Baesan-imsu* is the fundamental principal for selecting a house site, which places a lower-altitude location with a large mountain to the back (normally the north according to Korea's geographical conditions), a small mountain to the front, and a stream flowing laterally across its southern border as an ideal site (Fig. 3.9.1; Fig. 3.9.2).

In traditional society, the *anbang* located in the most inward section of a house with relatively small openings was determined by *Fengshui* and Confucian teachings (Lee, 2004). This made the space inadequate for the main living space with its poor hygienic conditions—it received little natural sunlight and had poor ventilation (Park & Jeon, 2002). During the early years of modernization, the *anbang* was revaluated as the center for various housing activities and got criticized for its unhygienic conditions (Park & Jeon, 2002; Son, 2008). In response, southern or southeastern directional prospects were advocated to improve living conditions by receiving more natural sunlight and by promoting natural ventilation, (Shine & Joo, 1985; Son et al., 2010). This tendency of preferring southern directions was later applied to Hangang Apartments in the late 1960s, which became the precedents for future apartment plans up to

the late 1980s (Zhang, 1994). In this regard, the majority of apartment buildings built on the south side of the Han River during this period were facing southern directions to receive more sunlight and to promote natural ventilation (Fig. 3.9.3).

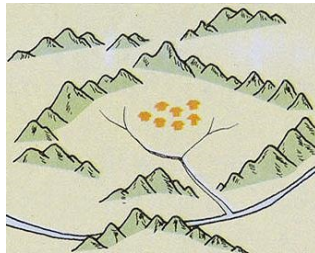


Fig. 3.9.1 Diagram of *Baesan-imsu*



Fig. 3.9.2 The layout of *Yangdong* village in North *Kyongsang* Province
Excerpted from Hong et al (1999)



Fig. 3.9.3 Apartment buildings facing southern directions
Image from Naver Aerial-view Map (2009)

Figure 3.7. Influences of traditional thoughts on houses built in Korea

People's preferences for the southern direction also had impacts on spatial layout—living room centered floor plans have prevailed in many houses built in Korea since the 1970s (Jang & Jihn, 2001; Su & Jeon, 2009). Therefore, the living room and master bedroom were placed up front to face southern direction and other residential spaces surrounded living room on three sides. Unit floor plans of apartment housing also sought to increase front bays to have more residential spaces facing southern directions (Jang & Jihn, 2001; Kim, 2009; Lee & Choi, 2004; Park & Kim, 2002; Sohn & Lhee, 1995).

The common concept appearing across *Fengshui*, Confucianism, and Buddhism regarding residential environment is “naturalness (자연성)”; which represents their aiming at being in harmony with nature (Joo, 1978; Kwon, 2001). This concept of naturalness appeared in traditional Korean houses at large from site selection to final decorations (Hong, 1999; Joo, 1997; Kwon, 2011). For example, the most ideal condition for placing and building *hanoak* (i.e., traditional Korean house) was to be in perfect harmony with nature, which blurred the

boundaries between man-made and natural environments (Kwon, 2011). In addition, the physical features of *hanoak* show their endeavors to bring in nature inside the living space through various means. *hanoak* was mainly placed on original site without excessive land leveling and sought to accommodate to geographical features; residential spaces were flexible to support openness with walls and doors that can be lifted and hung horizontally on ceilings (Fig. 3.10.1); and doors and windows were finished with traditional Korean paper (한지), which partially filtered natural light, wind, and sounds to enter the room (Fig. 3.10.2) (Hanoak Research Association, 2010; Hong, 1999; Kwon, 2011). Naturalness also appears in building materials and their actual applications in *hanoak*. For example, bent lumbers were used in their natural forms as crossbeam and threshold (Fig. 3.10.3), and pillars were carved to fit into natural shapes of cornerstones (Joo, 1997; Kwon, 2011). This aiming for naturalness also influenced furniture design in terms of restraining ornaments and pursuing simplicity (K. Kim, 2004; J. Kim, 2006; Kwon, 2011).



Fig. 3.10.1 Doors lifted up to ceiling
Hanoak Research Association (2010)



Fig. 3.10.2 Doors passing
through natural lights
Kwon (2011)



Fig. 3.10.3 Bent lumber used as
crossbeam
Hanoak Research Association (2010)

Figure 3.8. Naturalness appearing in the features of traditional Korean houses

In contemporary Korean society, however, the levels and scopes of influences from traditional thoughts have attenuated over time as technology develops and people's lifestyles

and their attitudes over tradition change. The teachings and doctrines of these rituals, customs, and behavioral rules are not perfectly preserved or maintained by contemporary Koreans in their original forms and formalities. Their influences may seem minimal, but they are still embedded in the life of many Koreans and their residential environment through adjusted forms and guidelines in accordance with the changing lifestyles of many Koreans (see Cho, 2000; Hong, 2011; Jang & Jihn, 2001; Kang, 2002; Kang et al., 2007; Kim, 2009; Lee & Choi, 2004; Park & Kim, 2002; Sohn & Lhee, 1995; Su & Jeon, 2009). For example, ancestral rites are still maintained by many Korean households in a simplified form, and Korean holidays and customs are mostly preserved with modern formalities. *Fengshui* is reinterpreted through scientific approaches and applied to residential setting at a minor level along with the increasing interests on traditional Korean houses (Ha & Ryu, 2008; Jung, 2009; Lee & Kang, 2002; Park, 2008). These include, but are not limited to, people's preferences for southern and southeastern directions, eco-friendly materials for interior spaces, incorporating traditional features and designs to modern styles, building interior gardens, and so forth.

Chapter 4

Research Design

The present study is an explorative study that employs mixed methods for examining the residential experiences of elderly Korean immigrants residing in public housing. The study consists of several phases and builds on the findings from preceding phase(s) for gaining a comprehensive understanding and in-depth knowledge of their daily lifestyle as well as their residential experiences. In this section, the major concepts (cultural practices and housing adjustment behaviors) and the overall conceptual framework of the present study are introduced. Some concepts are developed and modified from their originals considering the characteristics of research participants and their living conditions. The overall research process is presented with a detailed description of each phase including its purpose and applied methods. Lastly, strategies for analyzing mixed data—quantitative, qualitative, and photographic—are presented in connection with the research questions of the present study.

Concepts and Conceptual Framework

Two main concepts of the present study are *cultural practices* (including cultural traits, particularities and daily activity patterns) and *housing adjustment behaviors*. The general concepts and nature of cultural practices and their influences on individuals have been

examined in the literature review through socialization process, embodiment, and cultural adjustment process. The present study particularly focuses on individual behavioral patterns of everyday dwelling activities (referred as “daily activities” henceforth) and their interrelations with the residential experiences of individuals. From this perspective, various instrument tools in the field for assessing the physical activities and functioning of older adults are reviewed to select appropriate daily activities that better reflect the everyday life and residential experiences of elderly Korean immigrants.

The term ***Housing adjustment behaviors*** in this study refers to individual responses to residential features for fulfilling individual daily needs as well as preferences. The study adopts and develops from Morris and Winter’s housing adjustment and adaptation model (1978) to identify the housing adjustment behaviors of elderly Korean immigrants residing in affordable housing complexes. However, considering the particular characteristics of research participants and their living conditions (including financial resources, residential settings, etc.), some adjustments have been made to its original concepts and framework.

Concept I: Cultural Practices and Daily Activities.

As indicated earlier in literature review, the present study regards daily activities as ***embodied practices*** that are developed and internalized through repetitive performances over time at both conscious and unconscious levels (see Bourdieu, 1968; Cresswell, 2009; Csordos, 1990; Giddens, 1991; Lightfoot et al., 1998; Lizardo, 2009; Pred, 1981; Seamon, 1996, 2007). Elderly Korean immigrants are more likely to adhere to their cultural particularities and practices developed in their culture of origin rather than assimilating to those of American

culture. In this sense, the present study seeks to understand how individual cultural orientation (including individual traits, particularities, and cultural practices) have impacts on daily lifestyle and residential experiences from a practical standpoint. It particularly focuses more on the behavioral aspects of daily activities—participants’ bodily movements, behavioral modes (i.e., chair-sitting or floor-sitting behaviors), and activity patterns—and uses them to explore their residential experiences. To be more precise, the study seeks to understand how these bodily movements influence participants’ actual uses and modification of residential features to fulfill their needs as well as preferences on a daily basis.

Daily activities in present study. The present study selected its own list of daily activities for exploring the everyday lifestyle and residential experiences of elderly Korean immigrants. It reviewed the assessment tools frequently used in the field for measuring the physical activities and qualities of older adults. These tools include Everyday Competence Questionnaire (ECQ), Usability In My Home (UIMH) and Meaning of Home questionnaires from ENABLE-AGE project, and lists of activities from Barthel Index, Katz ADL, IADL, and so forth. After reviewing the list of activities used in these tools, the study screened and selected those that can effectively represent and reflect the everyday dwelling lifestyles of elderly Korean immigrants.

Compared to other human qualities, bodily movements and physical activities are relatively simple and straightforward to observe and measure when evaluating one’s physical functioning and its influences on other features. In this sense, activity patterns and their influences on age groups are studied across various disciplines including sociology, psychology, physiology, nursing, kinesiology, gerontology, and so forth (Chipperfield, 2008). For example,

the general decline in physical functioning and health influence the activity patterns of older adults, which can have implications for their health, independency, overall well-being (or quality of life), and even mortality rate (see Baltes & Lang, 1997; Chipperfield, 2008; Chipperfield, Newall, Chuchmach, Swift, & Haynes, 2008; Fox, Stathi, Mckenna, & Davis, 2007; Law, Barnett, Yau, & Gray, 2012; Lawton, 1991; Moschny, Platen, Klaaßen-Mielke, Trampisch, & Hinrichs, 2011). However, most assessment tools in the field for older adults focus on evaluating either their competence levels of performing physical activities or their bodily functioning for engaging in physical activities (endurance, mobility, balance, range of motion, dexterity, muscle strength, and so forth) (see de Vreede & Tak, 2007; Sims et al., 2006).

Kalisch and his colleagues (2011) discuss the changing demographic features of modern society and propose the needs to appropriately assesses the everyday competence level of modern day older adults. They introduce the Everyday Competence Questionnaire (ECQ), which includes 17 items covering housekeeping, leisure activities, sports, daily routines, manual skills, subjective well-being, and general linguistic usage. In addition to assessing the objective accessibility of dwelling environment, the ENABLE-AGE project (Enabling Autonomy, Participation, and Well-being in Old Age) measures subjective usability with UIMH and Meaning of Home questionnaires (Iwarsson et al., 2006). The short version of UIMH measures the degrees of physical environment supporting the performance of daily activities over activity aspects, personal and social aspects, and physical environmental aspects (Fänge & Iwarsson, 2005). The Meaning of Home questionnaire (Oswald, Mollenkopf, & Wahl, 1999) assesses place attachment perceived by older adults over four domains—physical bonding, behavioral bonding, cognitive/environmental bonding, and social bonding (Oswald et al., 2001).

These tools focus more on assessing the quantity of motions, motor ability, competence levels, independence in daily life, and fall risk of older adults. For example, the activity of daily living scale (i.e. ADL scale) assesses the dependence level of everyday activities across five personal activities (P-ADL: Feeding, transfer, toileting, dressing, bathing) and four instrumental items (I-ADL: Cooking, transportation, shopping, cleaning) (Kylén, Ekström, Haak, Elmståhl, & Iwarsson, 2014; Fänge & Iwarsson, 2005). Although this instrument is reliable and valid for assessing the functional ability of older adults, it does not provide the contextual aspects of one's daily lifestyle in a broader sense. In other words, these assessment tools do not regard the meanings, perceptions, and personal experiences (i.e., developed and accumulated throughout one's life) of everyday activities that took place in the residential environments (Meesters, 2009).

From this perspective, other studies and instrument tools reviewed for the present study use document research or bottom-up approaches for exploring the dwelling activities and residential experiences of their participant groups. Kim and his colleagues (2001) group the dwelling activities of traditional Korean houses into daily life and non-daily life, and explore their influences on residential environment in terms of spatial programming. Based on Lefebvre's notion of everydayness, the study sought to understand how dwelling activities were spatially constructed depending on their significances. From this stance, the dwelling activities of daily life were activities necessity to life (i.e., related to basic physiological needs such as eating and sleeping) and housekeeping activities (i.e., sewing, laundry, cooking, cleaning, threshing, wood chopping etc.). Dwelling activities of non-daily life consisted of activities related to leisure, ceremonies and rituals, social life, studying, and resting.

Meesters (2009) categorizes dwelling activities into three groups—family-life activities, household chores, and leisure pursuits—in her work of identifying the meaning of activities in the dwelling and residential environment. She performed structural analysis on dwelling activities identified by 659 respondents residing in city center, suburban, and rural area of Netherlands using the life course approach. Through her research, she sought to identify activities performed in one's dwelling and residential environment, and to find existing activity patterns as well as influencing variables. Among her groups of dwelling activity, household chores include cooking, cleaning, maintenance of dwelling, gardening, and running daily errands.

From the activities listed and used by aforementioned studies, the present research screened and selected daily activities on two standards, (1) the activity needs to relate to the basic needs of everyday life, and (2) the activity is meant to take place at residential space within the dwelling. Selected activities were then tested on and discussed with elderly Korean immigrants who participated in the focus group meetings⁴ held for present study. Through these processes, the daily activities list of this study consists of five basic activities of daily living and one social activity. These activities are sleeping, eating (cooking and dining), self-hygiene (washing self), doing laundry, cleaning house, and socializing with others (friends and family).

⁴ Focus group meetings were held with two elderly Korean neighborhood groups. Further details of these meetings are provided in a later section of this chapter.

Concept II: Housing Adjustment Behaviors.

Housing adjustment behaviors of the present study refer to the changes of individual traits (perceptions and/or behaviors) or residential features as one interacts with residential features and the overall setting after relocation. It is adopted and developed from Morris and Winter's housing adjustment and adaptation model (1978), which originally examined the complex decision-making process of American families in response to their housing conditions.

Morris and Winter (1978) regard human beings and housing as the product of the social system of a society and subject them to a systemic functional perspective. According to this approach, people evaluate their housing environments based on the cultural norms and family's orientations embedded in the social structure. Thus, housing problems are defined by the normative structure of the society and require collective social action for solution. In other words, when the environmental element or condition deviates from its standards and norms of the society, it becomes a deficit that may produce stress and dissatisfaction for the dwellers (Fig. 4.1). In response people seek to maintain equilibrium (or preferred pattern) through self-regulating mechanisms as active rational human beings.

For Morris and Winter, families are the self-regulating, rational system. The four types of responses deriving from familial responses to housing deficits are as follows: (1) residential mobility for changing residence, (2) residential alterations and additions as in modifying environmental features within one's residence, (3) normative family adaptation which involves changes in norms and expectations related to housing conditions, and (4) structural family adaptation which is the alteration of family structure or organization (see Table 4.1).

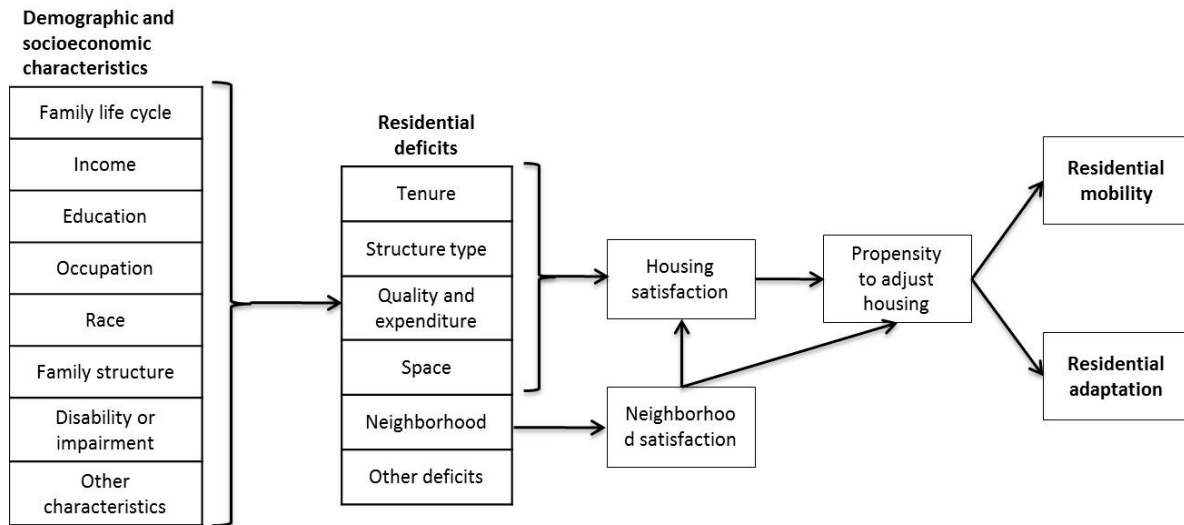


Figure 4.1. Causal model of family housing adjustment behavior
 Excerpted from Morris & Winter (1978), p.146

Morris and Winter's framework provides an extensive understanding of the decision-making process of housing adjustment behaviors and variables influencing familial decisions within the sociological context of society. However, they overemphasize the logical and social relational aspects of human beings and heavily relied on the functional aspects and the objective standards in evaluating the physical environment. For them, housing behaviors are triggered by "a potential threat to status or a loss of respect from significant others" resulting in a family to endeavor not to "fall below the level necessary in their society" (1978:4). In other words, when the physical and functional aspects of housing features fail to meet the cultural standards of society, they are perceived as housing deficits, which may decrease the satisfaction level of a family. This naturally provokes a family, a self-regulating rational system, to resolve the conflict by making the most logical decision considering familial constraints and resources.

The present study takes the overall framework of the original housing adjustment and adaptation model, but has made some adjustments regarding the specific characteristics of research participants and their living conditions. The study postulates that elderly Korean immigrants respond to housing deficits as they perceive them through performing dwelling activities on a daily basis. Therefore, their evaluations of environmental misfits are more allied with subjective standards and experiences rather than following the housing norms and standards of the society (e.g., minimum square feet for individual unit and each residential space, architectural dimensions of built-in furniture and residential features, and so forth). In addition, their subjective perceptions are more likely to be informed by the cultural norms, values, and customary behaviors developed upon their culture of origin. The details and rationales of modifying the original model are presented in the following sections.

Shift of focus: From functions to experiences. The first adjustment made is the shift of focus from the objective standards of the society to subjective experiences deriving from individual residential uses on evaluating residential settings. Morris and Winter argued that a family evaluates their housing based on the cultural norms of its society and upon the family norms of housing condition for family functioning. However, the cultural norms listed by them mostly referred to objective measures' numeric values such as space norms (i.e., rooms and house sizes, persons-per-room ratio, number of bedrooms, etc.), norms for tenure and structure type (i.e., family formation, ownership type, and dwelling type), and neighborhood norms (i.e., market value, rental price, structural quality and maintenance state, income-and-housing expenditure ratio, and physical and social environment of neighborhood).

Unlike the social norms and standards indicated by Morris and Winter, the present study evaluates the residential environment of elderly Korean elderly immigrants upon individual experiences—more precisely, upon individual uses of housing features when performing dwelling activities. In addition, considering the cultural discrepancy between individuals (i.e., cultural practices complying with Korean cultural context) and the dwelling environment (i.e., built upon American cultural context), the present study seeks to identify the types of discrepancy and explore individual responses to these discrepancies.

Adding behavioral adaptation. Secondly, this study included behavioral adaptation as the fifth mode of housing adjustment behaviors. Considering the enduring and accustoming aspects of bodily movements and behavioral patterns, elderly Korean immigrants are likely to maintain their habitual bodily movements when they perform daily activities. As mentioned earlier, many aspects of everyday activities are habitual and performed without the person being consciously aware of their bodily movements (Seamon, 1996; 2007). In addition, older adults are more likely to adhere to their cultural particularities and practices developed in their culture of origin (Schwartz, 2006). However, the present study regards these qualities to be opened to changes when the residential setting deviates from individual norms and familiarities. From this stance, behavioral adaptation is included as the fifth mode for identifying any changes that took place in participants' bodily movements and behavioral patterns of performing daily activities.

Adjusting concepts. Considering the characteristics of research participants and their living conditions, some concepts of the original model presented by Morris and Winter are modified from their original definitions. One example is the concept of “residential alterations

and addition.” Unlike Morris and Winter’s research subjects and their residential settings (i.e., American family and their familial housing), research participants of present study (i.e., elderly Korean immigrants residing in affordable housing complex) are restricted from making any types of major environmental alterations or additions to the original conditions of their residential settings. Thus, residential alterations in this study encompass minor levels of residential modification made by research participants. These include minor alteration and addition such as changing interior features (e.g., installing ceiling fan, lights, shower heads, and other features), uses of cultural props and furniture, furniture layout, and so forth. The modes of housing adjustment behaviors and the definitions of both original as well as adjusted ones are presented in the following table.

Table 4.1.
Modified concepts of Morris & Winter's housing adjustment and adaptation model (1978)

Modes of Response	Original Definition	Adjusted Definition
(1) Residential Mobility	Changing residence within a given local area: mobility occurs within a single labor market and within a single housing market.	Changes in residence within a given local area.
(2) Residential Alteration & Addition (Residential modification)	Alteration refers to changes or improvements made within or on the structure. Addition is the actual enlargement of the structure such as adding a wing, a room, or other spaces.	Residential alteration includes minor levels of residential modification without altering or changing the original structure. It includes furniture layout, use of cultural props and furniture pieces, and mending existing features with assistive apparatus. Addition is not applicable to current research setting.
(3) Normative Adaptation	Alteration of family norms for housing, either reducing expectations or raising standards for more dissatisfaction. The change of norms includes creating new set of rules to guide family behaviors.	Changes in individual norms and values related to residential features and settings. Changes in individual thoughts and expectations of what a home ‘ought to be’.

(Cont'd)

(4) Structural Adaptation	Structural adaptation refers to either altering composition of family structure or altering the power and dominance relations among family members.	Changes in living arrangements which occurred by relocating to current residences.
(5) Behavioral Adaptation	N/A	Changes in bodily movements and behavioral patterns for performing daily activities within one's residential setting.

Conceptual Framework

The present study consists of several phases, as it built upon the findings from previous phase(s) to gain understandings and practical knowledge of the daily lifestyle and residential experiences of elderly Korean immigrants. As the main focus differed for each phase, and different methods were applied to gain appropriate research materials and data accordingly (Fig. 4.2). These research phases and applied methods are presented in this section regarding their roles in the overall research flow. Detailed descriptions are presented in later sections of this chapter.

In the first phase, a meta-analysis of Korean houses from traditional to contemporary society was conducted to identify the distinguishing characteristics of Korean dwellings with close regards to the everyday domestic lifestyles of the dwellers. The results of meta-analysis were presented in literature review in details. Through the findings of preliminary study (Jorn, 2009) and meta-analysis, as the next step, the cultural particularities and practices shared by general Koreans were identified. Particular attention was placed on identifying people's norms

and values toward the residential environment, as well as behavioral patterns relevant to performing daily activities.

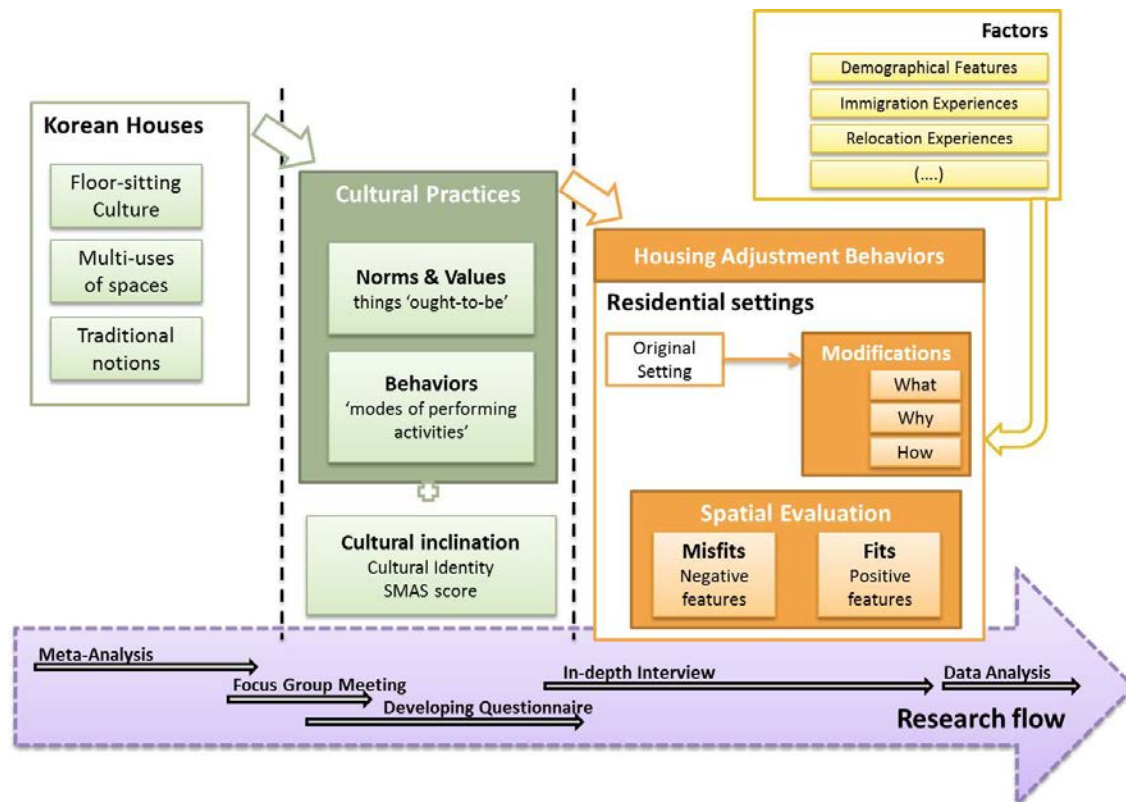


Figure 4.2. Research phases and plans: Focus, concepts, & methods

The topics, items, and characteristics identified from this phase were then discussed in two focus group meetings with elderly Korean neighborhood representatives from affordable housing complexes. In addition, other possible factors that may influence the residential experiences of Korean elderly immigrants, identified from past studies, were discussed and verified. These factors include demographical features, intercultural experiences, individual attitudes toward host culture (i.e., American culture and Americans in general), past residence type, relocation experiences, and individual cultural identity (i.e., both subjective and objective).

The findings of these discussions were used to develop questionnaire items and open-ended questions for in-depth interviews.

After developing questionnaire items and open-ended questions for in-depth interviews, research participants were recruited from affordable housing complexes with more than 20 Korean elderly households. In-depth interviews were conducted at each participant's dwelling to have closer observation of their behaviors and residential settings. Residential spaces were evaluated based on participants' subjective experiences, mainly regarding their performances of daily activities, but their needs and preferences were also considered. Housing adjustment behaviors were explored by inquiring about any changes participants perceived in their thoughts, behaviors, and residential settings with regard to performing daily activities. Individual rationales for making such changes and the particular means used to support these changes were also inquired about. In addition to these inquiries, photos of participants' dwelling were taken after each interview for further analysis.

Collected data were analyzed through mixed methods of quantitative, qualitative, and photographic analyses. Participants' daily life patterns, residential needs as well as uses, and housing adjustment behaviors were identified through these analyses. Particular attention was paid to identify the cultural aspects of these aforementioned features and their interrelations with one another. Lastly, the research findings were analyzed to propose design patterns that can support participants' daily lifestyle and residential experiences in positive ways.

Research Methods

As an explorative study and mixed methods research, present study combines both quantitative and qualitative approaches for its data collection and analyses. Mixed methods research is defined as “an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks” (Cresswell, 2014, p.4). While a quantitative approach provides general information from collected data and explanations of research variables and outcomes, a qualitative approach is useful for gaining in-depth understanding and description of individual experiences as well as ascribed meanings (Groat & Wang, 2002; Johnson, n.d.). The strongest advantage of employing mixed methods lies in its triangulation of data sources collected through various angles. This method can complement the limitations of each method, and provide insights into different levels of analyses by combining different strategies (Cresswell, 2003). Therefore, the present study combines both quantitative and qualitative methods to gather more comprehensive understandings of the daily life patterns and residential experiences of elderly Korean immigrants than either approach alone.

The mixed methods applied in present study appeared at multiple points in time as the study progress. They are applied in sequence and in combination regarding the aim of each phase and the nature of data. To begin with, the research questions and data collecting instruments of the present study, as part of a qualitative research, were modified and refined through progressing research phases. Regarding data collection, the open-ended questions of

in-depth interviews and participants' narratives on various topics reflect the qualitative aspects of the present study. In addition, interpretive analysis was conducted on the photographic data sets of participants' dwelling. The quantitative methods, on the other hand, were applied to in-depth interviews in a questionnaire format inquiring participants' demographic information, relocation experiences, immigration experiences, cultural adjustment levels, and satisfaction levels with residential features as well as overall settings. These features were either assessed in numeric values (i.e., seven-Likert Scale) or through multiple-choice questions.

The following section provides detailed descriptions of the research phases including recruitment of research participants, focus group meetings, in-depth interviews, data collection criteria and techniques, and data analyses used in the current study.

Research Participants and Residential Settings

After obtaining approval from the Institutional Review Board of the University of Wisconsin Milwaukee, the researcher recruited elderly Korean immigrants to participate in the present study. In-depth interviews were conducted from June to October 2012 in the Chicago metropolitan area. Participants were required to be aged 65 years or older, live in public housing, and be willing to take the interview at their own dwelling unit. They were also required to have sufficient cognitive ability to understand and complete the interview. All participants signed an informed consent form prior to the interview.

Recruitment of research participants. Despite the changing demographic features and ethnic compositions of Chicago Koreatown in recent years, it is still identified as one of the

biggest ethnic district where Korean businesses, ethnic resources⁵, and Korean immigrants converged (Jorn, 2014; Kim, 1995; Paral & Norkewicz, 2003; Yoon, 1991). Therefore, research participants were recruited using quota sampling from inner city and suburban regions of the Chicago metropolitan area.

To begin with, the social service agency that provides comprehensive services and supports to Korean elderly immigrants and their families was contacted first to gain a general idea of the present state of Korean elderly immigrants. This provided access to elderly Korean immigrants because of the agency's credibility, which helped them share their honest thoughts on research topics more readily. This regional social service agency has been holding meetings with elderly Korean neighborhood representatives on a regular basis at two regional offices, located in an inner city and a suburban area. A focus group meeting for the present study was held after each meeting at both offices. From these focus group meetings, elderly Korean neighborhood representatives who wanted to participate further in current study were recruited first.

Another approach for further recruitment was performed simultaneously by creating a list of affordable housing complexes with more than 20 elderly Korean households. Apartment managers, social service workers, and/or Korean neighborhood representatives from these complexes were contacted for further recruitment—one per every five households was recruited from each housing complexes. In total, 140 elderly Korean households from 17 affordable housing complexes participated in present study.

⁵ Ethnic resources refer to "resources and forms of aid available from members of one's own ethnic group or derived from the ethnic group's heritage"(Yoon, 1991, p.317).

Residential settings. *Apartment complex.* The residential settings of the present study consisted of studios and one-bedroom units from 15 affordable housing complexes located in and around the Chicago Metropolitan area (Fig. 4.3). Among these apartment complexes, six were located in Chicago uptown, four in a urban fringe area (i.e., northwestern outskirts of Chicago downtown), and five in suburban area (i.e., northwestern Chicago Metropolitan area). These apartment complexes were located within or adjacent to Koreatown and Korean commercial zones (see Fig .4.3 below).

Chicago's Koreatown and heavily concentrated Korean business area were accessible by walking and/or by public transportation for residents residing in apartments in the inner city and urban fringe. Korean commercial zones with strip malls, shopping centers, and hypermarkets were accessible by vehicles including personal automobiles, transportation services, and public transportation for residents from all apartment complexes.

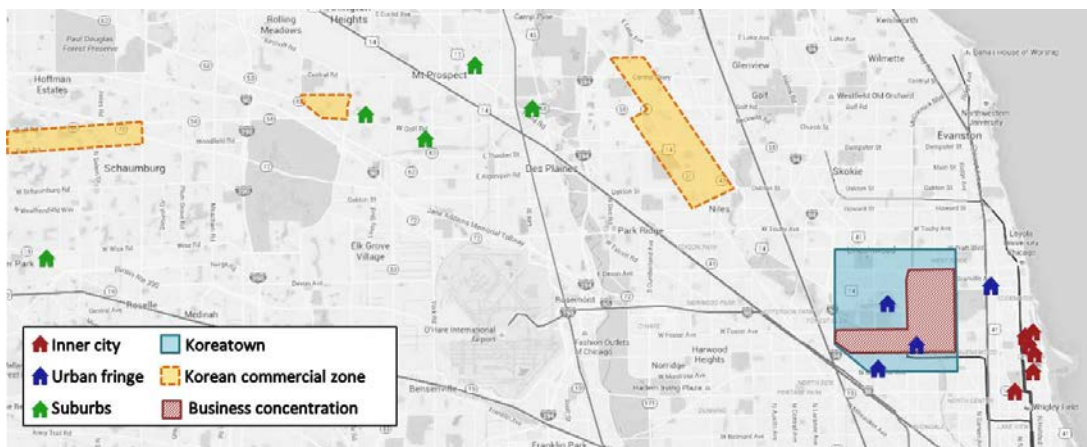


Figure 4.1. Location and surrounding area of participants' apartment complexes

All housing complexes were affordable housing for low-income family and/or the elderly population, and all individual units were subsidized by governmental housing voucher programs.

Housing complexes located in the inner city area were mostly high-rise buildings, while those in the suburbs tended to form a campus with several low-rise buildings. As public housing complexes targeting low-income family households, at least five of these complexes provided two- and three-bedroom units as well (see Table 4.2). However, the residential settings of participants consisted of studios ($n=14$, 10.1%) and one-bedroom units ($n=124$, 89.9%) only.

These apartment complexes also provided various services and amenities to different degrees. For most settings, these services and amenities included laundry facilities, on-site managers as well as social workers (or service coordinators), community rooms, and libraries. For some apartment, fitness room, coffee and dining rooms (i.e., purchased by users at low-priced cost), game rooms, transportation services, visiting health services, and beauty services were available. All settings provided recreational programs and various social activities planned by on-site social workers or by outside groups (i.e., medical institutions, welfare institutions, social organizations, ethnic groups, religious groups, etc.) on a regular basis.

Table 4.1.
General information about apartment complexes

Apt.	Unit types	No. of floors	Total units	No. of Korean households	Participating units	Community type
A	1-BR	6	75	40	8	Suburb
B	Studio/1-BR	5	72	54	3	Suburb
C	(Not verified)	13	174	32	5	Urban fringe
D	(Not verified)	NA	400	60	13	Inner city
E	Studio/1-BR	5	59	59	11	Urban fringe
F	Studio/1-BR/ 2-BR	13	152	(38)	4	Inner city
G	(Not verified)	20	235	82	12	Inner city
H	1-BR	5	74	74	14	Urban fringe
I	1-BR/ 2-BR/ 3-BR	14	118	-	3	Inner city
J	(Not verified)	22	-	60	10	Inner city
K	Studio/1-BR/ 2-BR	6	214	72	13	Suburb
L	(Not verified)	3	240	85	14	Urban fringe
M	1-BR/ 2-BR/ 3-BR	4	190	34	2	Suburb
N	1-BR	6	97	20	5	Suburb
O	1-BR/ 2-BR	13	201	100≤	21	Inner city

All apartment complexes accommodated more than 20 Korean households, ranging from 20 to more than 100 households. The table below presents the regions of these apartment complexes, possible unit types, numbers of total units and Korean households, and the numbers of participating Korean households in the study.

Individual dwelling unit. Participants' dwelling units had similar settings in terms of their sizes and spatial organizations. All dwelling units were either studio or one-bedroom units and consisted of entry space, kitchen, bathroom, living room, bedroom, and storage spaces. About 70% (n=95) of these units had full bathroom while the others had half bathroom with a shower booth. Only one apartment complex in the suburban area provided additional storage space within the building outside one's unit.

The floor finishing materials and heating system varied across apartment buildings. Forty-seven units (34.1%) had linoleum floor finishing, with 30 units (21.7%) providing floor heating. Other individual units had carpet floors except for bathroom and kitchen, and provided central ducted warm-air heating. For cooling system, five apartment complexes provided central cooling while the others had an air conditioner installed in each unit. One apartment provided an individual unit with attached balcony, and only four participants lived in such unit type.

Methods and Strategies Applied for Data Collection

Focus group meeting. Focus group meetings were held with Korean neighborhood representatives who held regular meetings at the regional offices of the social service agency contacted for this study. The main purpose of focus group meetings was to gain some insights

and general knowledge of the daily life patterns, residential settings, and residential experiences of elderly Korean immigrants residing in public housing. Findings from these meetings served as the basis for developing and refining interview protocols of the present study.

Each meeting was held at the regional social service offices (i.e., one located in inner-city and the other in the suburb) after their regular meetings with the staff from social service agency. Each focus group meeting lasted about 40 minutes, and Korean snacks and drinks were provided to encourage lively discussion. There were 16 participants for the inner city and 12 participants for the suburban region, and both meetings were conducted in Korean only. The meetings were conducted by a moderator and led by sets of prepared questions. However, many topics and questions emerged as the meeting progressed with lively discussion. Content analysis was performed with the transcripts of both meetings. The topics and items were classified into 13 categories, which included aging, physical environment, cultural identity, daily lifestyles, neighbors and community, and housing adjustment behaviors (see Appendix H for more details). The findings were used to develop and refine questionnaire items and open-ended questions for in-depth interview.

In-depth interview. In-depth interviews with open-ended questions were performed with research participants for actual data collection. These interviews were conducted by two researchers who were knowledgeable in environment-design research and trained with proper skills for collecting data. Both researchers were native Korean speakers with fluent English skills, and able to conduct the interviews in either language upon interviewee's language preference. However, all interviews were conducted in Korean, as all interviewees preferred it.

The interviews took place at each participant's dwelling unit for the following reasons: (1) to create comfortable atmosphere for participants that promotes candid conversation for sharing personal thoughts on their daily lifestyles and residential features; (2) to observe participants' natural behaviors and their interactions with residential features; and (3) to observe any changes and specific features of the residential settings for supporting the daily needs of research participants. All interviews lasted about 90 to 120 minutes. Interviews were audio recorded with participants' permission.

After each interview, interviewers asked participants for a house tour and took photos of residential features as well as spaces. These visual documents enabled the researcher to further analyze the housing adjustment behaviors, especially the residential modification, at a later point of time. This also provided visual records of the dwelling including decorative features, specific furniture pieces, furniture layout, and so forth. Follow-up questions about residential features regarding one's uses, changes, and modifications were inquired during the house tour.

Data Collection: Categories and Techniques

The data sets include the demographic information of research participants, cultural orientation, relocation experiences, residential evaluation, sense of home, and housing adjustment behaviors. Although it was not included in the question sets of in-depth interviews, narratives of individual life stories regarding their intercultural experiences, relocation process, family relations, meaningful objects, and memorable dwelling came up often during the interviews. These narratives were also included in data analysis to identify meaningful themes

relevant to the residential experiences of research participants. The data categories are as follows:

Demographic information. Demographic information was collected to provide a general overview and to identify any distinctive trends of research participants. This information was also used for grouping research participants to identify any significant differences among these groups regarding their residential experiences. Demographic information included individual birth year (i.e., age), country of birth, gender, education level, and household income level. In addition, basic information on residential conditions—such as dwelling location (i.e., inner-city or suburban) and dwelling type (i.e., studio or one-bedroom)—was categorized as demographic information.

Cultural orientation. Participants' cultural orientation was assessed through individual immigration experiences, cultural adjustment level, and cultural identity. These features were inquired about in order to explore their influences on participants' residential experiences. This study hypothesized that elderly Korean immigrants who came voluntarily and stayed longer in the U.S. are more likely to show higher immersion levels to American culture, which positively influences their adjustments to new lifestyles and dwelling environments. In other words, they are hypothesized to change their behavioral patterns more readily and to show higher satisfaction levels with residential settings in general. From this perspective, participants' residence years in the U.S., motive for immigration, and cultural identity (i.e., both objective and subjective identifications) were inquired and assessed.

For cultural adjustment levels, the present study only assessed participants' immersion levels to host culture (i.e., American culture) using a modified version of Stephenson

Multigroup Acculturation Scale (SMAS) (Stephenson, 2000). It presumed that all research participants would show a high adherence level to Korean cultural contexts, since the vast majority were recruited through Korean neighborhood representatives and Korean social workers. This presumption was confirmed many times throughout the in-depth interviews. Some of these examples include participants' language uses in everyday life (i.e., Korean only), preferences in everyday meals (i.e., Korean dishes), and social circles as well as levels of intimacy. Therefore, individual immersion level to American culture was solely measured on a 4-point Likert scale across five domains consisting of language, interaction, media, food, and feeling of home (Table 4.2). In addition to objective measurement, individual subjective identification of his/her cultural identity was inquired.

Table 4.2.
*Adjusted questionnaire of Stephenson Multigroup Acculturation Scale (SMAS):
 Assessing immersion level to American culture*
 (Developed from M. Stephenson, "Development and validation of the
 Stephenson Multigroup Acculturation Scale (SMAS)", *Psychological Assessment*, 12(1), 77-88.)

Domain	Questions
Language	I understand English, but I am not fluent in English.
(Social) Interaction	I feel totally comfortable with American People.
	I have many American acquaintances.
	I feel accepted by Americans.
	I attend social functions with American people.
Media	I am informed about current affairs in the United States.
	I regularly read American newspaper.
	I am familiar with important people in American history
Food	I know how to prepare American foods.
	I like to eat American foods.
Feel at home	I feel at home in the United States

Relocation experiences. Participants' relocation experiences were inquired about as the study presumes positive relocation experiences to yield more satisfaction in residential

evaluation. In other words, participants who actively participated in the relocation process may report higher levels of residential satisfaction, which may also impact their housing adjustment behavior in a larger context. Individual experiences of reflecting on the relocation process were inquired about. These experiences included one's last living arrangement type (i.e., living with adult children, living with spouse, etc.), motivations for relocation, and decision-making process (i.e., decision maker and voluntariness of the movement).

In addition, the present study sought to identify critical features that one considered in selecting his/her new residence. Seventeen items were listed and inquired to identify their importance levels when participants searched for and selected their current residence. These items included job, friends, relatives, leisure activities, public transportation, good schools, public services, neighborhood environment, house itself, financial resources, room layout, kitchen, size, exterior, surrounding nature, quality of construction, and only one available.

Residential evaluation: Satisfaction levels and rationales. The residential environments were evaluated through individual subjective experiences regarding their everyday uses and personal preferences. To begin with, participants were asked to evaluate residential spaces using a seven-level Likert scale. These residential spaces included entry-space, kitchen, living room, bedroom, bathroom, and storage spaces. Participants were also asked to provide their rationales of making such evaluation (i.e., graded score for each residential space) and to identify positive, negative, and desiring features of each space. These detailed descriptions of participants' evaluations enabled the researcher to gain more insights and knowledge of their actual uses of residential features as well as spaces.

Lastly, participants were asked to list three things they like the most of their overall dwelling environment. They were also asked to list three things they would like to change the most without considering any constraints or limitations (such as physical and financial limitations). These last two questions were asked to identify critical features of the dwelling environment on residential evaluation other than performing daily activities. They were also useful for comparing participants' trends (i.e., priorities and standards) in evaluating dwelling environment at different scale (i.e., evaluating each residential space, dwelling unit, and the apartment complex).

Sense of home and residential attachments. Participants' psychological evaluations of their dwelling were partially assessed through their sense of home. It was measured on a five-point Likert scale, and participants were asked to provide their rationales. In addition, necessary dwelling features for providing sense of home and individual endeavors for creating such feelings were inquired. These questions were asked to identify important features that may support individual development of residential attachments. Participants' desires of aging in place and likeliness to recommend his/her dwelling to friends were inquired as they partially reflected individual attachment to residential environment. Lastly, participants were asked to list three objects that they have special meanings for or attachments to inside their dwelling.

Housing adjustment behaviors. Housing adjustment behaviors were explored and identified through in-depth interviews, observations, and photographs of individual dwellings. Regarding participants' everyday uses of dwelling features, any changes that occurred in individual thoughts and behavioral patterns for performing certain daily activities were inquired about. In addition, participants were asked to provide their rationales for having such changes.

In order to identify residential modification, participants were asked to report any changes they made to dwelling features along with their rationales of making such changes. In addition, interviewers made close observation of the residential features during and after each interview and photographed them. Interviewers also asked follow-up questions about housing adjustment behaviors upon noticing environmental changes, unusual props, furniture pieces, and so forth. This was helpful for recalling participants' memories of past adjustment behaviors that they were not conscious of because they had grown accustomed to them.

Participants' uses of residential settings were inquired about not only upon their daily uses but also upon special occasions such as holding ancestral rites, celebrating holidays, and making Korean foods (i.e., *kimchi*, soybean paste, and red pepper paste). This may provide additional information of how research participants accommodate their special needs within limited dwelling environment and resources.

Data Analysis

Collected data were analyzed using mixed methods of quantitative, qualitative, and photographic analyses to identify the distinctive features and patterns of the residential uses and evaluation, and the housing adjustment behaviors of elderly Korean immigrants. Each analysis had a different purpose to achieve from data analysis. Quantitative analysis focused on identifying any trends and distinctive characteristics of research participants and their residential experiences in general. In contrast, qualitative analysis sought to gain more insights and in-depth understanding of participants' daily lifestyles and residential experiences by examining the details of individual experiences. Photographic analysis was mainly performed to

support identifying the housing adjustment behaviors (especially residential modification) of research participants.

Each analysis had different sample size, as some questions in the in-depth interview were added and refined during the early stage of data collection. A few participants refused to allow recording of the interviews, and this also influenced on the different sample sizes. For most of the quantitative analysis, 138 responses were used for statistical analysis except for analyzing the daily activity patterns ($n=109$). For qualitative analysis, on the other hand, 130 interview transcripts and photographs from 138 units were used for data analysis.

Quantitative analysis. The main purpose of quantitative analysis was to identify any characteristics, trends, and patterns in the collected data sets. As an explorative study, the analysis explored data sets and relations between variables to identify any influencing factors on participants' satisfaction levels of residential environment. Therefore, various statistical analysis—including descriptive statistics, group comparisons, correlation tests, and non-parametric tests—were conducted.

Data cleaning was performed on the raw data collected through in-depth interviews prior to conducting any statistical analysis. Missing data were filled in and errors were corrected by revisiting the audio-recorded interviews. For some short-answer questions, data were re-coded into numeric values that were suitable for statistical analysis. These questions include participants' year of birth, country of birth, year of immigration, residence years in current dwelling, decision-maker in relocation, and so forth. Missing values (i.e., not verified through audio-recorded interviews) were defined and treated as user-defined missing data in running SPSS. In addition, various groupings were performed with data sets and coded as new variables

to identify distinguishing characteristics and differences upon these groupings. These groupings were based upon participants' demographic features (gender, age, and numbers of household members) and their residential conditions (location, apartment complex, and floor type as well as heating system of individual unit).

Different types of statistical analysis were performed regarding the tendencies of collected data sets. To begin with, descriptive statistics were performed to get general knowledge of a collected data set. For comparing group means, independent-samples t-tests (for comparing two groups) and one-way ANOVA tests (for comparing more than two groups) were performed when the dependent variable generally showed normal distribution. On the other hand, rank-based nonparametric tests were performed with skewed data: Mann-Whitney U tests for comparing two groups and Kruskal-Wallis tests for comparing more than two groups were applied. Further correlation tests were performed for those variables indicating significant statistical values. Bivariate correlation tests for normally distributed data and Spearman's rank-order correlation tests for skewed data were conducted. These tests identified any relationship between variables, and the strength and directions of their associations.

Qualitative analysis. The main goal of qualitative analysis was to gain insights and in-depth understanding of the daily lifestyles and residential experiences from the perspective of elderly Korean immigrants. It also sought to identify critical and/or meaningful features that were not included in the study framework but had influence on their residential experiences. Content analysis was conducted on 130 interview transcripts created from audio-recorded interviews. All transcripts were created and analyzed in Korean.

Data coding was performed on interview transcripts prior to content analysis. This was conducted four times with different time intervals to maintain consistency and to improve credibility of the coding. The initial coding categories were created from research questions, questionnaire items, and open-ended questions. During the first coding process, this initial list was tested, notes were taken, and important topics as well as themes were derived. These results were reflected on, refining coding categories. For final data coding, transcripts were coded under 10 themes with regard to participants' daily activity patterns, residential evaluation, housing adjustment behaviors, and other variables possibly influencing and/or reflecting their residential experiences to a greater or lesser degree (Table 4.3).

Table 4.3.
Detailed description of data coding

Coding category	Details
Variables	
Intercultural experiences	Language; American acquaintance; individual stories; Cultural identity; Food preferences; Missing Korea
Ethnic enclave	Korean community (Pros & cons); Korean manager
Relocation experiences	Decision maker; Push factors; Pull factors
Participants' attitudes	(This is) good enough; as tenants; toward life stage; as governmental beneficiaries
Floor-sitting behaviors	Shoeless lifestyle; Floor-sitting vs. chair-sitting behaviors; Floor covering mats; Floor type & floor-heating
Window	(Natural) sunlight; (Natural) ventilation; Window view; Others
Daily activities	
	Sleeping; Cooking/Eating; Self-hygiene; Doing laundry; Cleaning floors; Socializing; Recreational activities
Residential evaluation	
Fit/Misfits	Positive features (Satisfactory); Negative features (Unsatisfactory)
Rationales	No inconveniences; No complaint; Function; Maintenance; Freedom/Independence; Others
Attachments	Feel at home; Aging in place; Meaningful objects; Requisites for developing residential attachments
Housing adjustment behaviors (Coping responses)	
Changes in	Environment; Behaviors; Notions (i.e., thoughts, perceptions, and attitudes) and values;; Relationship (Family & friends)

These variables included participants' intercultural experiences, ethnic enclave, relocation experiences, specific attitudes, floor-sitting behaviors, and comments on unit window.

Interview transcripts were coded upon these themes and topics allowing multiple coding when participants' comments fall under different categories. In addition, participants' personal stories and experiences of these matters, despite their relevance to current study, provided additional information for gaining comprehensive understandings of their lifestyle, cultural adjustment processes, residential experiences, housing adjustment behaviors, and so forth.

Photographic analysis. Interpretive analysis was also performed on the photographs of individual dwelling units. The main purpose of this was to identify participants' uses of dwelling features and housing adjustment behaviors (i.e., residential modification). As these photographs were taken during house tours after each in-depth interview, some of the noticeable changes and features in the residential settings were directly verified by participants (i.e., participants answered to interviewer's questions such as "did you make this change?" and/or "what is the purpose of this feature?" etc.). However, there were other residential modifications not verified by interviewers, and these changes were identified through analyzing the photographs.

For some residential modifications that commonly appeared across the majority of participants, their types and intensity levels were checked against a checklist. These modifications included floor mats in each residential space, and the types of modifications made to the entryway. In addition, the furniture layout of the living room was drawn from

analyzing photographs to identify patterns that commonly appeared across research participants.

Chapter 5

Research Participants and Cultural Practices

The first part of this chapter provides general information about and characteristics of the research participants. It presents the demographic information and individual features including their immigration and relocation experiences. This information serves as the basis for understanding the daily life patterns and residential experiences of the research participants for the present study. The latter part of the chapter has the research outcomes concerning the first research question, that is, the continuity of the cultural practices of the research participants. Research findings from exploring the daily activity patterns of elderly Korean immigrants and their characteristics, in terms of spatial uses and furniture layout, are presented.

Research Participants

From the 140 elderly Korean immigrants who participated in present study, 138 cases from 15 affordable housing complexes were used for data analysis. In order to identify distinguishing characteristics and trends, statistical differences were explored through various groupings of participants' demographic and individual characteristics. These groupings were

made based on participants' gender, age group⁶, education level, number of household members, location of dwelling (i.e., inner-city, urban fringe, or suburb), and apartment complex. The test results identified that significant differences existed among some variables, but further analysis did not suggest any meaningful findings.

Demographic information. Participants' ages ranged from 61 to 94 with a mean of 77.8 years old ($SD=6.33$); about 77% of them ($n=106$) were between 66 and 85 years old. The majority were female (78.3%, $n=108$), and about 72% ($n=99$) reported that they live alone. All participants reported that they were born in Korea or northern east China where Korean is used as the primary language. As low-income households residing in public housing subsidized by government support, about 88% ($n=122$) had an annual income of less than \$15,000, and 99.3% ($n=137$) had less than \$20,000. Participants' education levels varied from 34.8% ($n=48$) completing elementary school or less to 14.5% ($n=20$) having degrees higher than college level.

Statistical analysis of participant demographics indicated significant group differences by gender only. An independent-samples t-test identified significant group differences between male and female participants regarding their education levels: male participants ($n=30$, $M=2.77$, $SD=.971$) reported slightly higher education levels than female participants ($n=108$, $M=2.34$, $SD=1.32$); $t(138)=1.639$, $p=.029$.

Immigration experiences. The participants' average age at the time of immigration was 53.13 years ($SD=9.962$), ranging from 41 to 65. All participants had lived in Korea for a certain period of time in their life (mostly including childhood, adolescence, and adult years), and almost all participants ($n=132$, 95.7%) came from Korea prior to immigration. Their average

⁶ For age group, participants were divided into seven age groups ranging from 61 to 95 in 5-year intervals.

time in the U.S. was 26.67 years ($SD=8.815$), with a minimum of 4 years to a maximum of 45 years.

Motive for immigration. Regarding participants' motives for immigration, about 58.7% ($n=81$) reported that they came to the U.S. for family reunification, 20.3% ($n=28$) for educational opportunity for their children, and 15.9% ($n=22$) for economic opportunity for the family. Contrary to past studies, many participants came to the U.S. for reasons other than nurturing their grandchildren. For those who came for family reunification, only 20 respondents (24.7%) identified that they came to help their adult children by rearing grandchildren. This may relate to participants' age of immigration, as 55.8% of them ($n=77$) came to the U.S. before reaching the age of having grandchildren in general. However, many participants stated that their motives for immigration were influenced and decided by multiple factors rather than selecting a single motive exclusively.

SMAS and cultural orientation. Almost all participants were highly oriented toward and lived in accordance with Korean cultural contexts rather than those of America. The distribution chart of SMAS (Stephenson Multi-group Acculturation Scale) indicated that many participants did not immerse well into American cultural context across language, media, social interaction, and food in general (Fig. 5.1.1). The participants' identification of cultural identity also corresponded with this inclination toward Korean culture: 83.3% of them ($n=115$) considered oneself as "Korean" ($n=88$, 63.8%) or "Korean-American but more of Korean" ($n=27$, 19.6%). Only six participants (4.3%) considered themselves as "Korean-American with the blend of both Korean and American characteristics."

The SMAS results also reflected participants' knowledge levels, behavioral tendencies, and attitudes toward American culture (Fig. 5.1.2). Participants perceived that they had moderate levels of knowledge across the language, media (current affairs and historical events), and food (know how to cook simple dishes) of American culture. Most participants also showed positive attitudes toward American culture in terms of its people and foods, and reported their minds to be at ease in America. However, a discrepancy was indicated between their perceptions of American culture and their actual behaviors in real life. Despite their open attitudes and high knowledge levels of American cultural contexts, most participants in real life abided by Korean culture across language, media, social interaction, and food consumption.

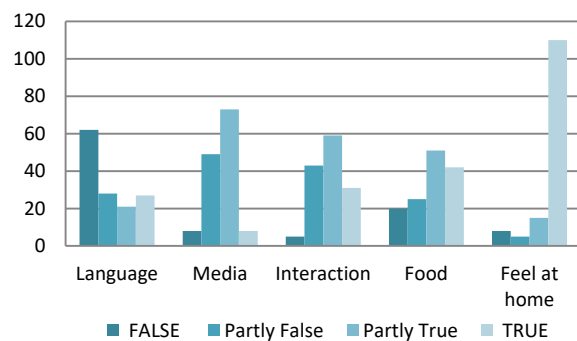


Fig. 5.1.1 Five domains of SMAS score

Figure 5.1. The SMAS score of participants

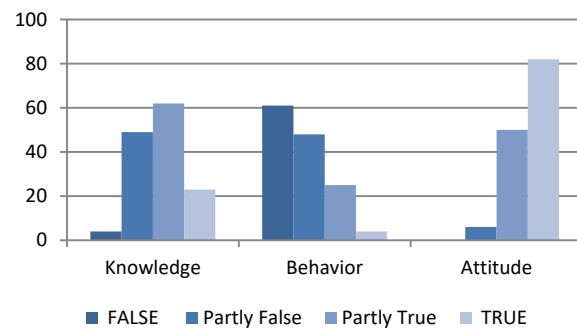


Fig. 5.1.2 Three aspects of SMAS score

Intercultural experiences. With regard to one's intercultural experiences, language was identified by many participants as their main barrier for experiencing and immersing well into American culture across various aspects of everyday life. Participants reported that their lack of communication skills in English (including both speaking and hearing) made them uncomfortable when they interacted with Americans and other ethnic groups, frustrated them when doing simple tasks, fortified their sense of being "different," and secluded them within

Korean cohorts and community. Some participants even reported that they were treated unfairly due to their lack of communication skills.

How can you feel comfortable when you can't communicate? So I only go to Korean meetings and social gatherings. I don't know the nature of Americans. So I only like socializing with people from Korea. I can communicate with them freely. (Female, 83 years of age)

Sometimes, I just want to go back to Korea. When I look at documents, I can't handle it since I can't read. I can't even speak up when I am falsely treated or got into unfair matters. I experienced many unfair moments. (Female, 70 years of age)

This was also supported by statistical analysis as language strongly and significantly correlated with other domains of SMAS (Table 5.1).

Table 5.1.
Bivariate Correlations between SMAS domains

	Language	Media	Interaction	Food	Total	Knowledge	Behavior	Attitude
Language	—							
Media	.286**	—						
Interaction	.296**	.202*	—					
Food	.307**	.174*	.356**	—				
Total	.580**	.544**	.807**	.674**	—			
Knowledge	.689**	.736**	.342**	.589**	.776**	—		
Behavior	.332**	.351**	.820**	.362**	.752**	.399**	—	
Attitude	.240**	.088	.724**	.538**	.726**	.270**	.381**	—

Note: * $p < 0.05$, ** $p < 0.01$ (2-tailed)

The results indicated that participants with better language skills (i.e., self-rated) had more positive attitudes toward American media, were more socially interactive with American people, tended to prefer American food, and felt at home in the United States. In other words,

they were more knowledgeable, had open attitudes, and were behaviorally active in accepting American cultural contexts across media, social interaction, and foods.

On the other hand, qualitative analysis identified that participants' immersion levels into American culture were rather passive and stayed within certain boundaries. For example, participants' social interactions with Americans were limited to neighbors residing within an apartment complex and/or to in-laws who got related by their children's marriage. The interaction also stayed at passive levels such as interchanging simple greetings in hallways, participating in group activities organized by apartment management (i.e., bingo games and other social activities held in community rooms), or meeting in-laws at holiday dinner tables once a year. Less than five participants reported that they stayed in touch with American people outside these groups, but their level of interaction merely stayed at exchanging holiday greeting cards.

Interestingly, despite participants' limited and passive immersion levels into American culture, most participants ($n=125$, 90.6%) agreed or partially agreed that they "feel at home in the U.S." This will be discussed further in later chapters, but to mention briefly, it may relate to participants' attitudes toward government supports and welfare benefits, which many respondents brought up during the interviews. In other words, many participants reported that they "felt at home in the U.S." as expressing their gratitude for receiving government supports and for the welfare system of the United States.

Statistical analysis identified significant group differences in some intercultural experiences by participants' gender and education levels.

For gender differences, independent-samples t-test indicated significant differences in participants' reports on their state of mind living in the U.S. and their subjective cultural identity of self. The results showed that male participants ($n=30$, $M=3.80$, $SD=.664$) tended to "feel at home in the U.S." more than female participants ($n=108$, $M=3.60$, $SD=.842$); $t(138)=1.189$, $p=.034$. In addition, male participants ($n=30$, $M=1.37$, $SD=.809$) tended to adhere more to their Korean identities than female participants ($n=108$, $M=1.81$, $SD=1.249$); $t(138)=-1.819$, $p=.009$. They were more adamant about their cultural identity than female participants, and considered themselves as Korean living in America rather than as Korean-American.

Regarding educational levels, a one-way ANOVA test identified significant group differences in participants' SMAS media score, total score, knowledge level, and behavioral aspects. Participants who had an education level of elementary or less tended to have lower score on these domains compared to those with high school level or with college level education (Table 5.2). In other words, participants with lower education levels had less contact with American media and had immersed themselves less into American culture than participants with higher education levels. They also tended to be less knowledgeable about American cultural contexts and practiced them less in everyday life.

Table 5.2.
One-Way ANOVA results of SMAS score (grouped by education level)

Variable	Group 1 ≤ Elementary		Group 2 High school		Group 3 College		F(4,133)	p	Tukey's HSD
	M	SD	M	SD	M	SD			
Media	1.93	.60	2.37	.60	2.67	.51	6.628	.000	1<2,3
Total	25.38	4.67	27.8	6.54	31.44	5.35	4.322	.003	1<3
Knowledge	2.09	.66	2.54	.70	2.99	.66	6.837	.000	1<2,3
Behavior	1.38	.59	1.66	.81	2.02	.75	2.919	.024	1<3

Relocation experiences to current residence. Many participants identified that they actively participated in the relocation process, but received help from their adult children, social service organizations, and peers due to their lack of language skills and ability to collect information. Most research participants ($n=128$, 92.8%) identified that it was the self ($n=111$) or spouse ($n=17$) who took the lead in the overall relocation process. However, qualitative analysis indicated that many of them had to receive help, due to their lack of English skills, for searching for apartment complexes and for placing applications. Their sources of help and information included family members (adult children and grandchildren), Korean social welfare organizations (social service offices, health care centers, and religious groups serving Korean-Americans), and friends (peers from religious organization, Korean neighbors, and various social groups).

Some participants ($n=18$, 13.8%) reported that they had peer pressure to a certain degree as their friends urged them to push ahead with relocation and encouraged them to move out from their adult children's home. These sources focused on promoting the positive aspects of living in public housing, such as being independent from adult children (i.e., physically, psychologically, and financially), enjoying personal life without taking care of other family members (i.e., adult children and grandchildren), and growing old with cohorts.

I had no idea about senior housing. So I just listened to those who already lived here and made my decision. (Female, 82 years of age)

When I lived with my daughter, my friends from church used to tell me that it was no fun to live with adult children. They recommended me to apply for senior housing strongly. So I asked them how, and they told me to get application forms. So I did that. (Female, 81 years of age)

With regard to relocation motive, participants indicated independence (from adult children), changes in family role, financial reasons, and physical frailty as their push factors for searching alternative housing options. These factors were interrelated to one another rather than acting alone. For example, participants who lived with their adult children before relocation tended to take care of the household and their grandchildren. These participants reported that they noticed changes in their family roles as their children, children-in-law, and grandchildren aged. In response to these changing circumstances, they decided to move out to public housing. However, their resulting emotional responses on relocation varied. The majority reported that they felt they were finally released from their obligation of taking care of the family, while some respondents felt they were not needed by other family members as their role diminished. The latter group also reported that they had a hard time adjusting to their current residence psychologically.

I moved out to achieve independence. It was my decision. Honestly, I found it burdensome living with my adult children since I had to take care of the grandchildren. (Female, 68 years of age)

First, I felt sad so I swore at my children underneath. I thought this was not a place to live, hearing people going to hospitals, dying, and ambulance coming and going. . . . I really thought our children abandoned us here. (Female, 78 years of age)

When participants searched for public housing, most of them did not consider various features of the physical settings. These respondents reported that they rather gathered information from their friends who already lived in public housing or from social welfare organizations serving the elderly Korean population. As they gathered information from these

“trusted sources,” most participants reported that they did not give careful consideration to other features. Therefore, all considerable features listed for searching public housing received negative evaluations, meaning that they were not considered to be important during one’s search (Fig. 5.2).

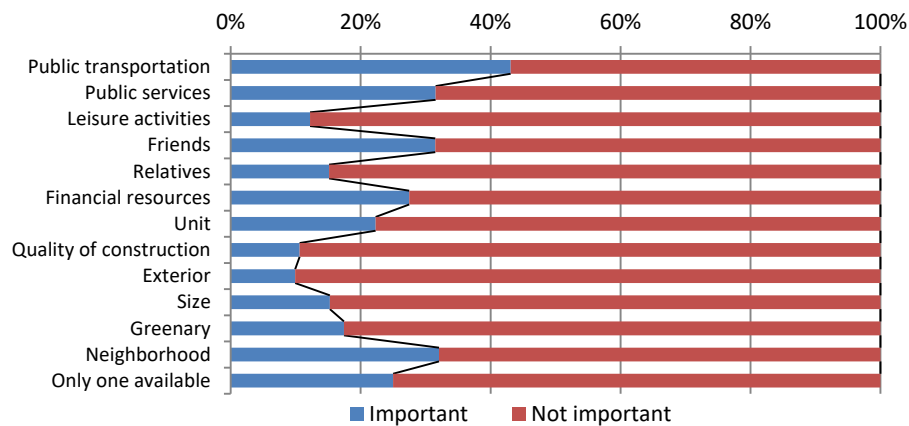


Figure 5.2. Importance levels of features in searching public housing for the elderly

Among these features, however, participants indicated public transportation, proximity to public services and friends, neighborhood, and financial resources to be relatively important. In addition, qualitative analysis identified these features to be interrelated with one another to certain degree. For example, participants evaluated public transportation to be important since it provided easy access to markets, public services, friends, and their adult children’s house or workplace. Living in a neighborhood with other (Korean) friends and ethnic services was considered positively by these participants as well.

The vast majority of participants indicated ethnic resources (including public services, markets, friends, and so forth) to be important, although it was not included in the original survey list. Some respondents ($n=27$, 20.8%) identified their search for affordable senior

housing was located within or adjacent to a Korean community as they preferred using services provided by other Koreans. A few respondents ($n=5$, 3.8%) even identified their relocations between public housing in search of a better Korean community. Respondents also identified language to be important as it enabled them to freely communicate their needs in everyday life and urgent situations. A few participants reported that they did not consider the aforementioned features to be important at the time of application, but evaluated them to be important after one moved into his/her residence.

It is so good here since I can speak Korean only and get things done as I want. In my last apartment, I had hard times asking for repairs and had to use an interpreter for trivial matters. . . . I can communicate when there's something to fix, I can trust my neighbors, and I don't worry when I am absent from home. It is much better than having strangers as neighbors. (Female, 84 years of age)

Continuity of Cultural Practices

Research participants tended to continue their cultural practices of everyday life in terms of maintaining the floor-sitting culture, performing daily activities (i.e., combined lifestyle of floor-sitting and chair-sitting activities), and using residential spaces more flexibly (i.e., multi-use of residential spaces). In addition, participants indicated their past adaptations to the chair-sitting lifestyle before their relocation to their current dwelling. Mostly these adaptations occurred during their early years after immigrating to the U.S., but some participants reported that they started the chair-sitting lifestyle back in Korea. Participants also identified that their

aging body and declines in physical functioning had influenced their lifestyles in certain direction of preferring (or changing to) to the chair-sitting lifestyle.

Daily Activities: Types and Aspects of Changes.

The daily activities of research participants were performed through both chair-sitting and floor-sitting behaviors. This was supported by participants' continuance of the shoeless lifestyle and modified residential floors to different degrees. Participants also used similar types of furniture, props, and cultural items suitable for supporting their floor-sitting behaviors. These included *soban*, *gyojasang*, low stools, electric mats, bamboo mats, floor-sitting cushions, and so forth.

Sleeping. All participants had a bed, including regular bed, hospital bed, and stone bed. The majority reported that they slept in bed for taking a nap ($n=90$, 84.1%) and for nighttime sleeping ($n=100$, 93.5%). Many participants ($n=74$, 67.9%) reported that they started bed-sleeping right after immigration, which indicated their past adaptations to bed-sleeping long before relocating to their current residence. This reflected their longtime use of a bed, since their average time in the U.S. was 26.67 years ($SD=8.815$).

Findings from the qualitative analysis also indicated participants' longtime use of a bed and their past adaptations to it. In addition, some participants ($n=10$, 9.2%) reported that they perceived sleeping behaviors to be different between the U.S. and Korea. These respondents considered floor-sleeping to be suitable in Korean houses while bed-sleeping to be the right way in an American dwelling. They identified these differences in perception as resulting from the differences in lifestyles (i.e., floor-sitting versus chair-sitting), floor types (i.e., *ondol*-room

versus carpeted floor), and heating systems (i.e., floor-heating versus warm-air heating).

Respondents also indicated their aging body influenced their sleeping behaviors and choices, mostly toward selecting bed-sleeping over floor-sleeping.

I started bed-sleeping ever since I came to America. Of course, I slept on floor in Korea. Bed is better since you are already halfway up when you wake up in the morning. It is much harder to get up directly from the floor. (Female, 73 years of age)

It has been about 26 years [since I began sleeping in a bed]. At first, I missed *ondol*-room since I grew accustomed to its features. Now I prefer the cushiony supports of bed. But still, I think floor-sleeping (on *ondol*) is better than bed-sleeping considering its firm back support. (Female, 82 years of age)

Eating. Dietary habits. The majority of participants identified their preferences and maintenance of Korean dietary habits for everyday meal. However, many of them said that they enjoyed having American dishes every now and then, and had some knowledge of preparing these dishes. According to the SMAS score, 101 participants (73.2%) reported that they enjoyed eating American foods to a certain degree, but only 52 respondents (37.7%) said they knew how to make American dishes. However, these dishes mostly referred to simple dishes (e.g., spaghetti, salads, and sandwiches) rather than a traditional American home-style meal. In addition to personal tastes, some participants reported that they changed their diet to American for its easy preparation (e.g., bread and salad) but limited it to one meal per day. Some participants identified that they followed the dietary habits and meals of their adult children, and gradually grew accustomed to American dishes.

I mostly have Korean foods, but I also eat American dishes. I went to lots of restaurants in and around Chicago, but there's nothing delicious like Korean food.
(Female, 81 years of age)

I have toast for breakfast. My diet changed ever since I immigrated and lived with my son. I just took what my daughter-in-law prepared. Now my stomach feels uncomfortable if I eat rice for breakfast. (Female, 78 years of age)

Cooking. Many participants reported that they had to change their cooking habits as they wished to maintain Korean dietary habits while residing with other ethnic groups. Although the majority ($n=98$, 89.9%) did not have any conflicts with their neighbors and management regarding food odor, about 40% of respondents ($n=43$) reported that they put additional effort into minimizing distinctive food smells. These additional efforts will be discussed further in Chapter 7 under Behavioral Adaptation but to mention briefly, participants used various props and items to reduce food odor, changed their cooking methods, and gave up consuming certain foods.

In addition to everyday meals, changes occurred with participants' past ways of making *kimchi* and traditional Korean pastes. These changes mostly related to their aging bodies and the restrictions as tenants residing in public housing with other ethnic groups. Only 35 respondents (32.1%) answered that they maintained their making of traditional Korean pastes (i.e., soybean paste and chili paste)⁷ at either their or their adult children's home. Other respondents reported that they had never made traditional pastes in their life or had relinquished this behavior due to their aging body (i.e., required too much work to make by

⁷ Making these traditional pastes through traditional ways requires a lot of time, labor, and effort. It is an onerous process with strong odor caused by fermentation.

oneself). Their reduced consumption of traditional pastes was also indicated as reasons for quitting this activity.

Lastly, participants' handling and storing of food ingredients at residential spaces other than the kitchen area were observed frequently. These residential spaces included living room, bedroom, bathroom, and balconies. For example, some respondents dried tea leaves, fishes, vegetables, and *nurungji* (scorched rice) at various spots including sofa, bed, table tops, window sills, and living room floor (Fig. 5.3.1). A few participants also reported that they cleaned and washed ingredients in the shower booth in squatting or sitting positions when they had to make food on a large scale.



Fig. 5.3.1 Drying ingredients on living room floor

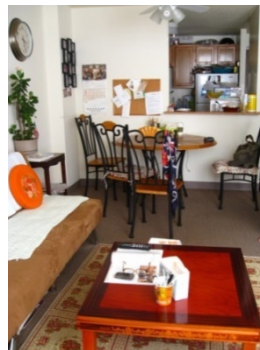


Fig. 5.3.2 Dining table and *gyojasang*



Fig. 5.3.3 Preparing ingredients while sitting on living room floor

Figure 5.1. Floor-sitting activities and uses of residential spaces

Dining. Similar to bed-sleeping, the majority of participants indicated their past adaptations to the modern furniture and chair-sitting lifestyle for dining activity. When dining individually or in a small group, 84 respondents (77.1%) answered that they used a modern dining table, while 20 respondents (18.3%) reported that they sat on the floor (or sofa) and used a *soban* (or tray). For group dining activity, on the other hand, only seven respondents (6.4%) used a dining table set, while more than half of the respondents ($n=60$, 55%) used

cultural props (i.e., *soban* and *gyojasang*) to hold the event while sitting on the floor (Fig. 5.3.2). Some participants ($n=26$, 23.9%) reported that they gave up hosting group dining activities at their dwelling. Instead, they held group meeting at community rooms, restaurants, adult children's homes, and other public spaces.

Self-hygiene. Data analysis suggested that many participants maintained their past behavioral patterns of washing themselves in a squatting/sitting position. However, some discrepancies were detected between respondents' reported answers (i.e., reported through questionnaire) and their actual bathroom settings (i.e., identified through photographic analysis). Only 27 participants (24.8%) reported their uses of basins, but photo documents identified that 77 participants (70.6%) had basins, buckets, and *bagajis* (large plastic bowls) in their shower booth or tub. The presence of these items reflected the likeliness of them washing themselves in a squatting/sitting position, as they collected water in these containers (Fig. 5.4). For example, one lady reported that she washed herself in a standing position using a shower but had basins and *bagajis* present in her bathroom. When the interviewer verified the uses of those props, she changed her response (i.e., "How do you know so well? To be honest, I wash myself in a squatting position using those props"). The presence of these items also reflects participants' hand washing of laundry in a squatting/sitting position. However, in either case, the settings implied participants' maintenance of past behavioral customs for washing themselves and for hand washing laundry.

I use rubber basin for washing face, and also collect water in it to take a bath. It feels much better and more comfortable to sit and pour water using *bagaji* than taking a shower. (Female, 81 years of age)



Fig. 5.4.1 Basin(s) and *bagaji*(s) presented in shower booth

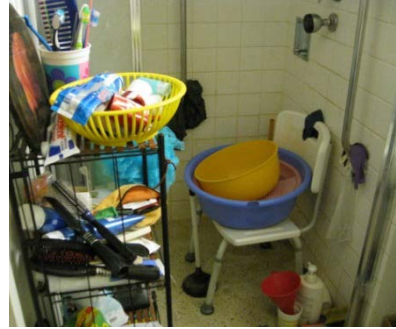


Fig. 5.4.2 Various sizes of basins

Figure 5.2. Bathroom setting: Presence of props for washing self and doing laundry

Laundry. Most participants ($n=80$, 73.4%) reported that they used both hand washing and machine washing for doing laundry work. These respondents reported that they hand washed underwear, small garments (handkerchief, socks, shirts, dishrags, and rags), and garments requiring special care (e.g., silk, hemp clothes, etc.), but machine washed all other clothing and bedding. However, extreme cases were also reported. A few respondents ($n=8$, 7.4%) hand washed everything including bedding and comforters, while another other group ($n=15$, 13.8%) washed everything from underwear to dirty rags with a washing machine. However, many participants indicated their difficulties in hand washing due to their aging body and the difficulty of the work.

I only do hand wash. I kneel outside tub facing inward, and rub clothes on washboard. But I don't know how much longer I can keep this up. (Female, 82 years of age)

I only do machine wash. I don't have enough strength to hand wash laundry. Not anymore after my heart surgery. (Female, 79 years of age)

Among the participants who did hand washing, 38 respondents (47.5%) did it because they thought accumulating dirty laundry was not sanitary, and 32 respondents (40%) were just

continuing their past habitual behaviors. Other identified reasons included special care of garments (e.g., silk, wool, hemp cloth, etc.), hygiene issues (the need to rub and boil underwear, and it is unsanitary to share a washing machine), and economic reasons (to save laundry money). The following depicts several ways of hand washing laundry identified by participants:

- Put big laundry in tub filled with soapy water, washed it by stepping on it
- Kneeled outside the tub facing inward, rubbed clothes on washboard or tub bottom
- Hand washing laundry while washing self. Soaked laundry in soapy water for a while and rubbed them with hands. Rinsed them before getting out of tub/shower booth.
- Soaked laundry in soapy water and rubbed them in sink (standing position)

Therefore, many participants placed props and items used for hand washing (i.e., washboard, basin, and *bagaji*) near or inside tub/shower booth within reachable range (Fig. 5.5.1). Hand-washed clothing was hung dried using hangers on shower-curtain rods, doorframes, and window frames. Many participants ($n=41$, 29.7%) even installed additional rods and clothesline in the bathroom, and in the bedroom for few cases ($n=2$, 1.4%) in order to dry washed laundry (Fig. 5.5.2).

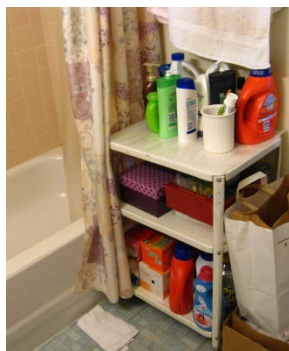


Fig. 5.5.1 Bathroom settings for hand-washing

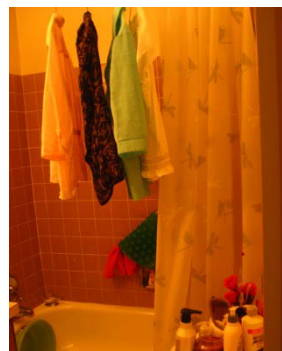


Fig. 5.5.2 Drying clothing w/ hangers, rods, & clothesline



Figure 5.3. Bathroom setting: Presence of props for self-hygiene and laundry

Cleaning residential floors. Many participants were very conscious and cautious of preventing outside dirt from coming inside their units with regard to their shoeless lifestyle and floor-sitting behaviors. About 88% of participants ($n=96$) responded that they cleaned (wiped or mopped) residential floors (linoleum and tile floors) and mats (plastic, electric, and bamboo mats) on a daily basis. Among these respondents, about 68% ($n=66$) identified that they wiped residential floors in a squatting/sitting position, while 21.9% ($n=21$) reported that they mopped the floors in a standing position. Interestingly, despite participants' reports on their difficulties in bodily movements caused by aging bodies, many participants tried to maintain their floor-cleaning activity in a squatting or sitting position.

Mopping doesn't get the job done. You need to scrub it hard. Previous residents must have worn shoes. There's so much dirt! It has been better after 1-2 years of scrubbing, but I'm still not satisfied. (Female, 70 years of age)

Participants' aging bodies and decline in bodily movements also caused behavioral adaptations to occur regarding their cleaning activities. For example, some participants changed from squatting to sitting on their bottoms ($n=34$, 31.2%) or to standing while using a mop ($n=9$, 8.3%). In addition, a few participants ($n=11$, 10.1%) reported that they used home care aides for doing housekeeping activities including floor cleaning.

I use mop for cleaning floors. I bought one for my housekeeping helper. I used to be one of them, so I know the job. I started using mop right after immigration. (Female, 79 years of age)

Socializing with others. Most participants identified that they limited group dining activities at their dwelling, and reported that they preferred gathering in small group with intimates only. However, when participants hosted social gatherings in a large group, they

tended to use a *gyojasang* ($n=60$, 55%) much more than a dining table ($n=7$, 6.4%). These respondents reported that they placed a *gyojasang* in the living room and had meals and snacks as they sat around it and sat directly on the floor.

Some participants ($n=33$, 30.3%) reported that they quit hosting group dining activities due to dwelling conditions, difficulties in preparing meals, and changes in their relations with friends and family members. These respondents reported that they had negative feelings (discomfort, burden, shame, embarrassment, etc.) about inviting friends and family members over due to the small and tight dwelling spaces. Cooking was also indicated as hard work considering the physical environment (i.e., small kitchen) and participants' physical capacities (arthritis, bad eyesight, etc.). Instead, these respondents reported that they held large social group meetings outside their dwelling, including community rooms, adult children's house(s), restaurants, and other public places.

No group dining activity happens here. Kitchen is small, and I can't cook well with my eyesight. At first, we did home cell group meetings. We sat around *gyojasang* and I served food, but it has been 10 years since we had our last meeting at individual dwelling. (Female, 82 years of age)

As participants moved into their current dwelling, changes occurred in their social relations with (past) friends and family members. This will be discussed in more detail under Housing Adjustment Behaviors (i.e., changes in perceptions). However, to mention briefly, these changes had influences on participants' social circles, frequencies of getting together, and gathering places. For example, participants tended to form new social groups with other Korean residents residing within their building. Participants considered these new social groups to be closer than their family members, and relied upon each other in many aspects of everyday life.

For gathering places, participants tended to get together in public spaces within the apartment complex, including lobby, community room, library, outside bench, and so forth.

We are sharing some snacks later in the library. We gather often at the library downstairs for fun. . . . We check upon each other very often. If someone is out of sight, we visit her to check if she is doing okay. (Female, 86 years of age)

Participants also shared behavioral rules implicitly regarding their social activities.

Respondents had different gathering places depending upon gender and had implicit rules about visiting each other's dwellings. For example, male participants gathered in the lobby, library, and benches placed outside the building, while female participants tended to go out for tours (restaurants, city-tours, malls, grocery stores, and so forth) or visited each other's homes. Female participants also reported that they preferred gathering at the home of someone who lives alone than visiting a couple. A few participants reported that it was impolite and awkward for the husband.

Daily Activities and Uses of Residential Space(s)

Participants' daily activities took place at various residential spaces beyond their designated areas in accordance with individual preferences, needs, and situational contexts of everyday life (see Table 5.3). As mentioned earlier, this was partially enabled and supported by participants' shoeless lifestyles and the particular lifestyles of combining floor-sitting and chair-sitting activities. However, participants' continuance of their cultural practices, in terms of performing daily activities, indicated two different aspects. Some activities were readily replaced with new behavioral patterns (mostly chair-sitting behaviors) while the others were

persistently maintained through customary behaviors (mostly floor-sitting behaviors) despite the difficulties in performance (aging body and decline in bodily movements).

Most participants changed and adapted to the chair-sitting lifestyle for sleeping, cooking, dining (i.e., dining alone or in a small group), and doing laundry. Therefore, modern furniture and equipment such as bed, kitchen appliances, dining table set, washing machine, and dryer were used frequently to support these activities. Qualitative analysis identified conveniences and comforts as participants' main reasons for changing their behavioral patterns for these activities. For example, sleeping in bed required less effort for individuals to get up as they were halfway up already, compared to getting up directly from the floor. They also considered bed-sleeping to require less work in maintenance such as making one's bed in the morning. In addition, as indicated earlier, participants' physical health conditions (arthritis, dizziness, gaining weight, pacemaker, and so forth) and declines in bodily movements caused by an aging body had major influences on these behavioral changes as well.

On the other hand, many participants tended to maintain their past behavioral patterns of floor-sitting for washing themselves, cleaning residential floors, and group dining activities. Cultural props and items such as *soban* and *gyojasang* were mostly used to support these floor-sitting behaviors in combination with various floor mats and sitting cushions. These respondents mostly indicated familiarity and cultural habits as their reasons for maintaining their customary behaviors and cultural practices for doing these activities. They reported that they grew accustomed to performing activities in these specific ways and considered them to be the proper ways of doing things. For example, some respondents reported that it was much more efficient and cleaner to wash themselves and/or to clean floors in a squatting/sitting

position, and they put much effort into maintain their past behavioral patterns. Therefore, most aggressive forms of housing adjustment behaviors occurred to support these activities and their accommodating behaviors.

The following table shows the primary and secondary location of where these daily activities take place, along with its behavioral modes (i.e., chair-sitting or floor-sitting behaviors) and frequently used props as well as items for supporting the activities.

Table 5.1.
Daily activities and spatial uses

	Primary location (Props & items)	Mode	Secondary location (Props & items)	Mode
Sleeping				
Day-time	Bed (BR)	C	Sofa (LR), Floor (LR)	C, F
Night-time	Bed (BR)	C	Floor (LR)	F
Eating				
Preparation	Sink, floor (K)	C, F	Floor (LR, B)	F
Cooking	Kitchen	C		
Dining (alone)	Dining table	C	<i>Soban, Gyojasang</i> (LR)	F
Self-hygiene¹	<i>Basin, Bagaji</i>	F	(Detachable) shower	C, F
Laundry	Laundry room	C	Bath sink, tub, booth	C, F
Cleaning (floor)	Using <i>gullae</i> (Squatting)	F	Using mop (Standing)	C
Socializing				
Dining (group)	Gyojasang (LR)	F	Dining table	C
Social gathering	Sofa, floor (LR)	C, F	Dining table	C

1 : This is based upon the information identified through photographic analysis.

BR: Bedroom

K: Kitchen

LR: Living room

B: Bathroom

C: Chair-sitting behaviors

F: Floor-sitting behaviors

Chapter 6

Residential Evaluation

The present chapter first explores the residential evaluation of research participants through their satisfaction levels of dwelling environment at different scales (i.e., from residential space of individual unit to apartment complex as a whole), rationales for assessments, and individual attachment level to dwelling unit. This is followed by examining the factors influencing participants' residential evaluation through quantitative and qualitative analyses. The chapter concludes with identifying the cultural aspects of evaluating residential features as well as overall settings.

Overview of Residential Evaluation

Satisfaction Levels: Residential Spaces, Individual Unit, and Apartment Complex

Research participants tended to report high satisfaction levels across residential spaces, individual unit, and apartment complex in general (Fig. 6.1). Descriptive statistics indicated that more than 100 participants reported their satisfaction (i.e., included participants who reported strongly satisfied, satisfied, or slightly satisfied) with living room ($n=115$, 83.3%), entry space ($n=106$, 76.8%), bedroom ($n=105$, 76.1%), and bathroom ($n=100$, 72.5%). The majority of participants also identified their satisfaction (i.e., included participants who reported strongly

satisfied, satisfied, or slightly satisfied) with individual units ($n=119$, 86.2%) and apartment complex ($n=116$, 84.1%) in general.

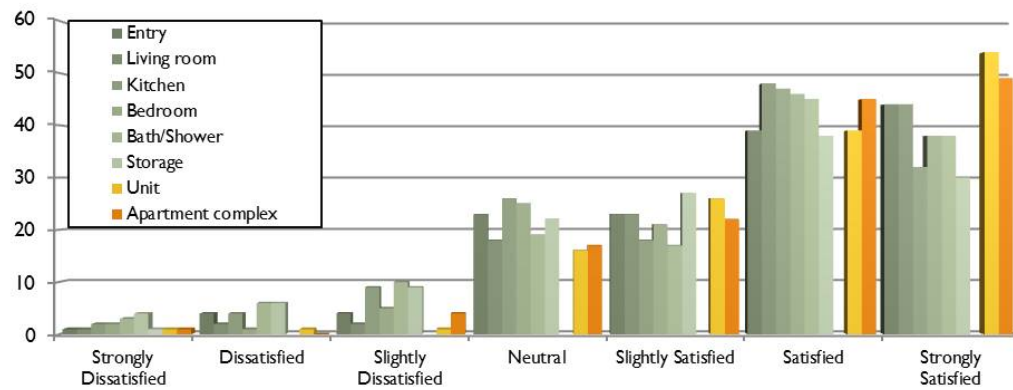


Figure 6.1. Satisfaction levels with residential spaces

Positive and negative features. Participants had tendency to report positive features much more frequently when they evaluated residential spaces in detail. Participants listed satisfactory features about twice more than unsatisfactory ones when they reported their rationales for evaluating each residential space (Fig. 6.2.1). In a similar vein, the numbers of respondents who did not report any negative features (“There is nothing unsatisfactory”) was also about twice higher than the opposite group (“There is nothing satisfactory”) (Fig. 6.2.2).

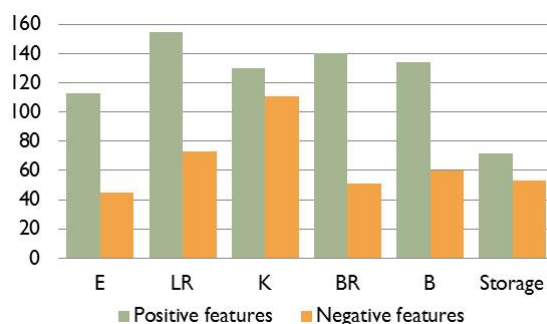


Fig. 6.2.1 Frequencies of identified features¹

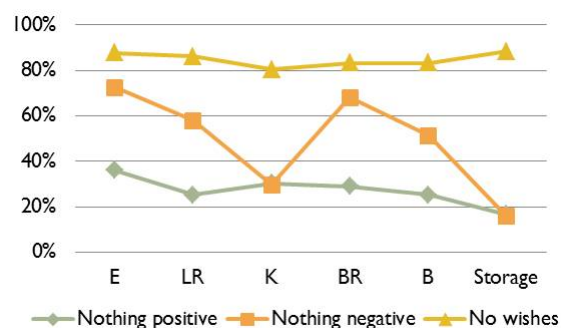


Fig. 6.2.2 Percentages of participants reporting 'none' under each category

Figure 6.2. Descriptive statistics of positive and negative features

¹This was reported in frequency since participants identified multiple features to influence their evaluation of each space.

These positive and negative features of each residential space were grouped into similar features and yielded 13 categories in total (Table 6.1). This was performed to identify the influences of cultural practices—including participants’ perceptions of residential features, performances of daily activities, and residential uses—on residential evaluation. The categories included daily activity, appliances/plumbing, cultural factors, heating/cooling system, maintenance, overall condition, features of physical environment, security, sense of home, ventilation, and window view. Features that were only indicated by a few participants without relevance to one another were grouped into “ETC” category. In addition, participants’ comments of not specifying any features for their rationales (“there is nothing satisfying/unsatisfying”) were grouped into a single category.

Table 6.1

Detailed description of categories: Positive and negative features when evaluating residential spaces

Category	Reported issues and features
Activity-related	Convenience; Easy operation; Grew accustomed; Less work required
Appliances/Plumbing	Function; Capacity; Safety; Sewage system; Water pressure
Cultural factors	Transitional function; Heated floor; Window direction (Sunlight)
ETC (others)	Neighbors; Unit location; Quietness/Noise
Heating/Cooling	Temperature; Control
Maintenance	Cleanliness; Maintenance-free (by apartment); Promptness for services
Overall condition	Everything is satisfactory
Physical environment	Size; Spatial layout; Finishing material; Privacy; Accessibility
(Built-in features)	Capacity; Variety; Conditions; Existence; Composition; Dimensions
Security	Lock system; Security system; Surveillance
Sense of home	Autonomy; Comfort; Personalization; Limitation as tenants
Ventilation	Natural ventilation
Window view	Scenery
None	Nothing satisfactory/ Nothing unsatisfactory

As the present study focused on identifying the role of culture on participants’ residential experiences, those features that specifically related to the cultural practices of

elderly Korean immigrants were grouped as “cultural factors.” For example, the “physical environment” category included participants’ comments on physical characteristics, built-in features, and features related to certain place attributes such as privacy and accessibility. However, the transitional function of entry space, heated floor, and window direction regarding natural sunlight were categorized as “cultural factors,” as they related to participants’ cultural practices. On the other hand, security, heating/cooling, sense of home, ventilation, and window view were all separated as single categories, as participants’ comments on these features did not relate to or had minimal relevance to the physical environment.

Positive evaluation. When participants made a positive evaluation of a certain residential space, the residential features identified the most were related to the physical environment, overall condition, and performances of daily activities. For physical environment ($n=234$, 32.2% out of 762 identification), size ($n=120$, 51.3%) and spatial layout ($n=40$, 17.1%) were indicated the most. In other words, many participants evaluated a certain space to be satisfactory because it was spacious, provided open feelings, and connected directly to other residential spaces. Other identified features related to accessibility (i.e., large doors, no threshold, etc.), built-in features (i.e., having appropriate features installed such bathtub⁸, kitchen counter, and storage spaces), window condition, and so forth.

Respondents ($n=172$, 23.7%) also reported a positive evaluation when they perceived the overall status and conditions of each space to be “good enough” in general. Comments under this category included “everything is good enough (for one person to live)”, “it provides

⁸ This was categorized under built-in features because participants only mentioned its existence rather than its function. For example, these respondents reported that they were satisfied with bathroom because it had a bathtub.

everything I need”, and “it is better than other senior apartments”. Similarly, participants who reported “there is nothing unsatisfactory” were more than 60% across all residential spaces except for the kitchen ($n=41$, 29.7%). These outcomes indicated participants’ tendencies toward positive evaluation to some extent. However, it also reflected their low expectations and indifferent attitudes toward housing features.

The third category indicated the most ($n=126$, 17.4%) related to participants’ performances of daily activities. These respondents positively evaluated a space when it supported their daily activities without causing any issues and/or inconveniences. However, qualitative analysis also identified participants’ low standards and low expectations of environmental supports regarding this evaluation. In other words, these respondents evaluated a certain space to be satisfactory when it served its primary function and there was “nothing inconvenient” for doing basic activities. For example, if entry door functioned well for entering one’s unit and a bedroom had no problem for placing a bed for sleeping, participants evaluated these spaces to be satisfactory (i.e., “good enough”). Some respondents reported that their long residency in the unit made them to grow accustomed to not feeling any inconveniences for doing things.

(Kitchen) There’s nothing inconvenient. Stove works fine, water comes out fine, hot water works fine, so all is good. I have a fridge, and fan works fine. They are run by electricity, not gas, so they are safe to use. (Female, 84 years of age)

Negative evaluation. On the other hand, participants’ negative evaluations often resulted from the physical environment ($n=288$, 73.3% out of 393), particularly referring to the small and compact sizes of a space. This prominently appeared with the kitchen ($n=86$, 77.5%

out of 111 comments) and storage spaces ($n=51$, 96.2% out of 53 comments), as most participants identified the physical sizes of these two areas to be unsatisfactory and problematic. Respondents complained that kitchen was too small for doing cooking-related activities, particularly Korean food, such as preparing ingredients, cooking (ethnic) dishes, and placing necessary electric appliances (i.e., rice cooker, small oven, kettle, and so forth). These respondents also identified insufficient storage spaces as a problematic feature because they lacked space for storing various household goods, daily necessities, clothing, and other personal belongings. In extreme cases, some participants identified that they had to minimize household items and personal belongings by discarding unnecessary objects.

Residential Attachment: Feel at Home

Participants' attachments to individual dwellings were assessed through their acceptance levels of "feel at home." Data analysis identified that the vast majority ($n=98$, 89.9%) agreed that they "feel at home" in their dwelling. This included 34 participants (59.3%) who "strongly agreed" and 64 participants (31.5%) who "agreed" to the statement. However, it also indicated that many participants considered less of the physical environment for developing/having such feelings. Instead they indicated habitation, comfort, autonomy, and mindset as their main reasons for "feel at home."

Among these rationales, habitation was indicated the most ($n=30$, 27.5%). It referred to participants' perception of dwelling unit as his/her home, and included statements such as "this is where I live (and lay my body down)" and/or "this is where I will die". Some respondents indicated their long residence years naturally influenced them to feel at home. Habitation also

related to respondents' mindset ($n=12$, 11%) to a certain degree as habitation reflected individual acceptance of taking the dwelling unit as one's home. Mindset in this study refers to participants' attitudes and determinations toward their living conditions. However, some participants ($n=10$, 9.2%) stated in resigned tones that there was no alternative option left for them but to live in their current dwelling.

I feel this is my home. When I first moved in here, I felt lonely and depressed since my husband passed away and I downsized my belongings. But after three years of living, I felt this was my home. (Female, 75 years of age)

(Feel at home) Yes. Now I consider this is my home. Now I accept that I will live here till I die. I let things hang and just take this dwelling as my home. That makes my mind at ease. (Male, 78 years of age)

Participants also indicated comfort ($n=22$, 20.1%) and autonomy ($n=21$, 19.3%) as their rationales for "feel at home." These respondents reported that they felt comfortable and felt free to do as they wanted without reading others' faces (including family members as adult children, children-in-law, and grandchildren) in their dwelling. Comfort referred to participants' relaxed minds, while autonomy related to their freedom of doing things as they wanted in their dwelling. Participants' comments under autonomy included "this is my own space" and "I am free to do whatever I want with no one interfering". In addition, "conveniences" was pointed out by 15 participants (13.8%) to make them feel at home. These respondents reported that they did not have any difficulties in performing daily activities and expressed their satisfaction with maintenance-free features (i.e., maintenance work performed by other people at no cost).

Other identified rationales related to Korean community, financial supports, and ownership. For example, these respondents reported that they felt at home since they had good (Korean) neighbors and/or received financial supports from the government.

Individual past efforts to make them feel at home. Despite participants' attachment levels to one's dwelling, the majority of respondents ($n=93$, 85.3%) did not provide details of their past efforts ($n=86$) or reported that they had done nothing particular ($n=7$) to make them feel at home. Qualitative analysis suggested that this may relate to their indifferent attitudes of developing residential attachment considering their residence in public housing. For example, some participants identified that they did not develop any attachment since they acknowledged they were living in a rented unit.

The responses identified by 16 participants included acceptance and constant care ($n=7$), religious activity ($n=3$), and personalization ($n=3$). In other words, these respondents reported that they accepted their dwelling as their home, used residential features with caution and affection, and constantly took care of their dwelling for maintenance. They also indicated that participating in religious activity helped them to better accept their living conditions and overcome negative feelings. A few respondents identified that decorating the place with personal belongings and modifying residential features to support personal needs helped them to develop some levels of attachment.

Necessary features to feel at home. When participants were asked to list necessary features to make them feel at home, about 45% ($n=57$) referred to individual mindset (Fig. 6.3). This indicated that these participants consciously reminded themselves that "this is my home" and intentionally sought to have affection toward its residential features. In addition, constant

care was indicated along with individual mindset often times by these respondents. For example, they made comments such as “try to have affection and provide constant care to develop attachment”, and “be thankful and care with your whole heart”.

It’s the mindset. Trying to adapt to one’s dwelling. . . . You need to self-hypnotize, like thinking I was lucky to get a space in this public housing. That will make your mind at ease. (Female, 78 years of age)

I feel this is my home, so I try to take good care of things. As long as I live here, it is my home. And I think I will live here till I die, unless something unexpected happens. You know, like my children moving to other states . . . (Female, 69 years of age)

On the other hand, the physical features of individual dwelling were indicated by only 11 participants (8.7%) as necessary features to feel at home. These physical features included physical size, supportiveness in daily activities, and necessary equipment in residential spaces. Other identified features related to individual state of mind (i.e., feeling comfortable at one’s dwelling) ($n=18$, 14.3%), freedom to do as one wants ($n=12$, 9.5%), conveniences in performing daily activities ($n=10$, 7.9%), and having good neighbors ($n=4$, 3.2%).

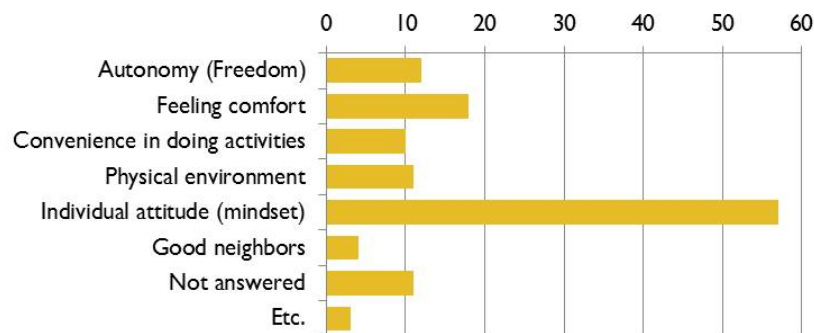


Figure 6.3. Necessary features to create homey feeling

Factors Influencing Residential Evaluations

Factors influencing the residential evaluations of elderly Korean immigrants were explored and identified through both quantitative and qualitative analyses. Quantitative analysis identified significant group differences with certain variables, but these findings only indicated fragmentary evidence (e.g., female participants had higher satisfaction levels than males regarding living room) rather than providing general explanation. Qualitative analysis, on the other hand, identified participants' attitudes and positions to influence their residential evaluation to certain extent. These are participants' attitudes toward aging and housing, and their positions as tenants residing in public housing and as beneficiaries of government supports.

Quantitative Analysis: Variables

Participants' satisfaction levels were highly skewed toward positive scores as the vast majority of participants reported high satisfaction levels across residential environments (see Fig. 6.1). Accordingly, the skewness and Kurtosis values of participants' satisfaction levels indicated a non-normal distribution with negative skewness values (Table 6.2). Therefore, rank-based nonparametric tests including Mann-Whitney U test, Kruskal-Wallis test, and Spearman's rank-order correlation was performed (see Research design for more details).

Table 6.1
Skewness and Kurtosis values of satisfaction levels

	Satisfaction level of							
	E	LR	K	BR	B	Storage	Unit	Apt.
Mean	5.58	5.75	5.34	5.56	5.38	5.29	5.88	5.83
Skewness	-.893	-1.112	-.802	-.949	-.954	-.866	-1.110	-1.036
Std. Error of skewness	.206	.206	.206	.207	.209	.216	.206	.206
Kurtosis	.331	1.357	.042	.771	.157	.160	1.458	1.002
Std. Error of Kurtosis	.410	.410	.410	.411	.414	.428	.410	.410

Demographic features. The demographic features were categorized into three groups of individual, socio-economic, and geographical features. Individual features included participants' gender, age group, and number of household members; socioeconomic features were participants' income level and education level; and geographical features referred to the location of the apartment complex, either inner city, urban fringe, or suburban area. The statistical analysis only indicated group differences with individual features regarding their satisfaction levels across residential environments.

Gender. Participants' gender had influences on individual satisfaction levels over residential environments to some extent. A Mann-Whitney test indicated group differences in participants' satisfaction levels with living room, individual unit, and apartment complex when they were grouped by gender. The satisfaction levels of female participants were higher than those of male participants across living room, individual unit, and apartment complex (Table 6.3). Spearman's rank-order correlation test also indicated that female participants reported higher satisfaction levels than male participants over living room ($r_s(136)=.216, p=.011$), individual unit ($r_s(136)=.226, p=.008$), and apartment complex ($r_s(136)=.175, p=.040$).

Ranks and test statistics when grouped by participant's gender

Age group. A Kruskal-Wallis H test revealed significant differences in participants' satisfaction level with individual unit across age groups ($\chi^2(6) = 13.225, p = .040$). However, inspection of the group means suggests that these differences were unreliable considering the numbers of participants in each of the youngest ($n=4$) and the oldest ($n=2$) groups.

Immigration experience and cultural orientation. Data analysis indicated significant group differences in participants' residential satisfaction levels depending on their residence years in the U.S., certain SMAS domains (i.e., media, social interaction, and attitudes), and

subjective cultural identity. However, further analysis identified meaningful outcomes only with participants' attitudes toward American culture.

Cultural orientation. Spearman's correlation test identified significant relationships between some SMAS domains and participants' satisfaction levels (Table 6.4). However, regarding the SMAS domains of media and interaction, the results indicated contradictory outcomes. For example, with regard to participants' satisfaction levels with individual unit and apartment complex, the statistical outcome indicated that participants who had more social interactions with Americans tended to report higher satisfaction levels. The outcome also revealed that participants who had less knowledge of American history and current affairs, and less encounter with American media (i.e., newspapers) reported higher satisfaction levels on these residential spaces. There was no significant relation identified between participants' SMAS total scores and residential satisfaction levels.

Table 6.3
Correlations between SMAS scores and satisfaction levels

	Satisfaction level with			
	Living room	Kitchen	Individual unit	Apartment complex
SMAS_Media	-.168*	-.243**	-.167*	-.231**
SMAS_Interaction			.185*	.178*

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

With regard to participants' attitudes toward American culture, Spearman's correlation test revealed strong and positive relationships with their satisfaction levels of individual unit ($r_s(136) = .301, p = .000$) and apartment complex ($r_s(136) = .221, p = .009$). In other words,

participants who had positive attitudes toward accepting American cultural contexts generally reported higher satisfaction levels with their dwelling unit and apartment complex.

Other variables. There were no significant group differences identified with other variables regarding the satisfaction levels of research participants. These other variables included participants' relocation experiences and certain characteristics of residential features. For relocation experiences, decision-maker and residence years in current dwelling were used for statistical analysis. For residential features, unit type (i.e., studio versus one-bedroom), heating system (i.e., floor heating versus conventional air heating), and floor finishing materials (i.e., carpet versus linoleum flooring) were used.

Qualitative Analysis: Attitudes of Participants

Qualitative analysis indicated that certain attitudes of research participants influenced their residential evaluations to different degrees. These attitudes related to individual perceptions of housing regarding one's life stage, and individual positions as beneficiaries of government supports and as tenant of public housing. With regard to these conditions and positions, participants showed low levels of expectation toward residential environments. They also had tendencies to hold back their candid evaluations and wishes for residential features. In this context, many participants frequently evaluated residential environments to be "good enough" as they associated them with their life stage, and living situations.

Attitudes toward aging and housing. Research participants frequently associated their age as well as life stage when they evaluated residential features and overall settings in general. Many participants ($n=75$, 57.7%) reported that there were certain values and attitudes

appropriate at their age/life stage and sought to live accordingly. For example, these respondents sought to minimize their earthly desires and tried to be satisfied with what they had or were given. Data analysis also indicated that participants' physical features and movements caused by aging had influences on their residential evaluations to certain degrees.

Life stage perspective. Many participants reported that they were at the end of their lives and made references to this across various topics during their interviews. These respondents generally viewed that they were at the “final stage before reaching death” and sought to arrange their life as well as surroundings accordingly. For example, they consciously tried to minimize personal desires and sought to clean up their surroundings, including household goods and personal belongings.

For me, it's time to get ready for afterlife. . . . I don't have personal desires for physical settings anymore. I am putting down this mundane life, and living my life day by day with what I have. (Female, 84 years of age)

These mindsets and attitudes were considered to be appropriate at some participants' age, and appeared broadly on their evaluations of dwelling environment. For example, these respondents showed low expectations for dwelling features, indicated little desire to improve them, and accepted the current state of their dwelling with high tolerance levels.

I lost personal attachment to dwelling long time ago. It doesn't matter whose house it is. . . . When you get older, your perceptions of house change greatly. Besides, as my children live in their own house(s), I became greedless regarding my own residential conditions. (Female, 70 years of age)

Some participants reported discarding household goods and personal belongings with respect to their life stage. These respondents tried to minimize household goods, and

considered cleaning up as their last obligation to their adult children. This tendency was also in line with their suppression of developing personal attachments to objects and residential setting at conscious levels.

To be honest, everything is meaningful. They contain my history, but nothing in particular to name one. I need to clean everything up before I die, but just can't get started. (Female, 80 years of age)

"We are close to death. Our children will come and discard our belongings after we die. They won't take what we left behind. So we believe it's unnecessary to purchase fancy new furniture living here. (Female, 73 years of age)

Aging body and residential features. Many participants mentioned that their aging body influenced their evaluation of the dwelling environment. As indicated in the previous chapter, the decline in bodily movements and physical health conditions caused by aging interfered with their daily activity patterns in various aspects. These physical constraints and changes had impacts on participants' uses of residential features, and this naturally influenced their priorities of evaluation to a certain degree. For example, these respondents indicated function, easy maintenance (i.e., requiring less work), usability (i.e., easy to use), and durability (i.e., with less breakdowns) to be important than individual preferences and/or aesthetic values.

I like linoleum floor better. Wooden floor will require too much work for maintenance. Kneeling down and wiping the floor is hard work with my (physical) conditions, bad knees, and so on. (Female, 70 years of age)

Attitudes as tenants of public housing. Participants tended to have low expectations of residential features as they acknowledged they were tenants renting out a unit in public housing. Some participants reported their limitations and restrictions and indicated certain

attitudes (including mindsets and behaviors) to be appropriate as tenants of public housing.

These particular living conditions may have influenced research participants to report a positive evaluation much more while holding back negative opinions on residential environment.

Low expectations toward dwelling. Participants generally showed low expectations toward dwelling features as they acknowledged they were residing in public housing at affordable rate. Many participants ($n=63$, 48.5%) identified that they were just temporarily renting out a unit in public housing and gave a positive evaluation if residential features merely served their basic functions. These respondents often times made comments such as “this is good enough for public housing” and/or “what more can you expect for public housing”.

You have wishes when you own a house, but none when you live in public housing. (Male, 77 years of age)

There is nothing inconvenient moving around or using housing features. Room temperature and water supply, hot and cold water, work just fine. That’s all I need. (Female, 81 years of age)

On the other hand, some participants identified that their values about housing features changed as they moved into public housing. These respondents reported that their priorities and standards for evaluating their dwelling changed to easy maintenance and cheap utility bills. These changes in perceptions will be discussed further in the following chapter, which presents the research outcomes of housing adjustment behaviors.

Positions as tenants. Participants’ tendencies to report positive evaluations may also relate to their submissive attitudes as tenants residing in public housing. In other words, their lack of “ownership’ and “sense of home” had influenced their attitudes toward residential features and overall setting. For example, they considered that criticizing their residential

environment was inappropriate and useless considering their living conditions. Instead, they tended to accept what was given to them and showed less desire for changing the dwelling environment to support their needs as well as preferences. They also showed tendencies toward having high tolerance levels to the misfits and malfunctions of residential features.

When you move into public housing, you harden your mind to put up with everything. You need to adjust yourself to your surroundings. If one wants to modify things, he/she should live in a private home. (Female, 71 years of age)

I never complained about anything. If it is bearable, I just put up with it. (Female, 72 years of age)

Some respondents ($n=26$, 20%) reported that they were not satisfied with their living conditions, residential settings, and their restrictions as well as regulations as tenants. On the other hand, quite a few respondents ($n=10$, 7.7%) reported that they felt sorry about having to ask management to repair malfunctioning features and put up with them as long as they could. Concerns and anxieties were also detected from many of their comments regarding their relationships with apartment management. Even more, a few respondents ($n=2$, 1.5%) indicated indifferent attitudes toward malfunctioning features and did not even ask management for repair.

It is a restricted life here. If I open the entrance door for ventilation, custodians and managers go nuts. They constantly remind me to keep my stove clean, make it shiny, and so forth. (Female, 73 years of age)

. . . When my neighbors gossip about those things (i.e., custodians taking personal belongings of tenants), I told them not to report it (to manager). They will get evicted suspecting that they have dementia. (Female, 74 years of age)

However, most respondents tended to hold back negative reports and complaints, and expressed their concerns about getting evicted by management. A few respondents ($n=3$, 2.3%) were even concerned if their comments would be reported to or shared with apartment management, and identified their fear of being sent to nursing homes.

Attitudes toward government supports. Research participants frequently identified their gratitude for government supports in terms of finance and other services including healthcare, transportation, and various welfares. Many respondents ($n=56$, 43.1%) commented on government supports, and expressed their gratitude for the government, the president, and the United States of America for accepting them and providing various means of living as well as services. This appeared more prominently with participants who immigrated to the U.S. in old age and had no history of paying taxes.

I am deeply grateful. The government supports older adults to live and eat. I always feel guilty receiving all these helps. (Female, 69 years of age)

People who paid tax may have something on their minds, but those who didn't... I use the hospital, live here, and get monthly payment, so I am just grateful. (Female, 71 years of age)

These attitudes also had impacts on participants' satisfaction levels and residential evaluation to certain degree. For example, some respondents ($n=19$, 14.6%) considered that they were not in a position to report any negative evaluation of their living conditions. These respondents also stated that it was not right for them to have any say anything when the government paid for the majority of their daily living. Based upon this mindset, some respondents asked to give perfect scores without hearing the evaluative questions to begin

with. Two participants even asked to send a message to the U.S. government at the end of their interviews that they were very thankful for everything.

I am very much satisfied. I think everything is good enough. We came to this country as immigrants and they support us to live this much, so I should think all is well. I can live without repairing features. (Female, 78 years of age)

I pay almost nothing to live here. That's why I am so thankful to America. I have nothing to complain about even if my dwelling environment gets worse. (Female, 69 years of age)

On the other hand, some participants ($n=42$, 32.3) reported offsetting their dissatisfaction with government supports with the recognition of what they were receiving. For example, some participants ($n=36$, 27.7%) reported that they accepted their living circumstances more readily due to the various supports (i.e., finance, transportation, healthcare, and so forth) they received from the government. In addition, a few participants ($n=6$, 4.6%) commented on the secondary advantages they achieved through receiving government supports. These secondary advantages included achieving independency from adult children (both physically and financially), residing with other Korean elderly neighbors, and receiving psychological support from Korean cohorts. In this sense, these respondents reported that they were able to offset their dissatisfaction more willingly.

We should be thankful. So we are satisfied with everything. We used to live in private apartment, but the rent was too high. When I first moved in to this public housing, I felt cramped a bit. But now I am very much grateful for all the supports I receive from the United States. (Male, 72 years of age)

Cultural Aspects of Residential Evaluation

Evaluation of the Physical Environment

Data analysis indicated that research participants considered fewer of their cultural particularities as well as practices when they evaluated the physical environment of their dwelling. In other words, research participants indicated the non-cultural aspects of their physical environment much more when they assessed their dwelling. This appeared more prominently when participants evaluated the overall residential setting as a whole (i.e., what are the three things you like/dislike the most of your dwelling?) than evaluating each residential space in details (i.e., why are you satisfied/dissatisfied with your entry space?). About 81% ($n=264$) of positive features and 87.1% ($n=121$) of negative features related to the non-cultural aspects of the physical environment. For example, participants referred to the size and spatial layout of residential spaces, the functioning status of appliances and plumbing, and the maintenance status of common areas as well as individual dwelling (i.e., promptness for services).

On the other hand, the cultural factors of the physical environment were only identified 37 times (5.1%) regarding residential floor type and window direction of dwelling unit. These respondents reported their preferences of certain floor types in reminiscence of *ondol* (finishing materials and heating system), and preferences for window directions for specific purposes (raising indoor plants, receiving natural sunlight, and promoting natural ventilation). For window direction, despite its less frequent indication, more than 70% of participants ($n=79$, 72.5%) reported that they still considered window direction to be important. These

respondents mostly identified their preferences for eastern and southern directions. For extreme cases, participants rejected available units up to two times during the admission process if the window direction did not meet their preferences.

I am satisfied since the floor is fairly hot like ondol-room. I don't even use a bed but sleep on the floor. It is really good during winter. In summer, I like the coolness provided by concrete flooring. (Male, 81 years of age)

Window direction is important. I held that belief from youth when I was in Korea. I only bought south-facing house. There's no specific reason for this, but I just follow it. (Female, 84 years of age)

In addition to these direct indications of cultural factors, data analysis suggested that participants' cultural practices had more indirect influence on their residential evaluation with respect to their daily activities. For example, the transitional function of entry space was indicated to be important in terms of storing shoes and screening outside world from the inside. Participants' comments on the physical size and storage capacity also related to their cultural particularities to some extent. Some participants specifically identified that the kitchen was too small for making ethnic foods (i.e., *kimchi*, soybean paste, and red pepper paste). These respondents also complained about not having the proper space for storing cooking utensils required to make Korean dishes.

Koreans need space to store big mixing-bowls and containers but there's no space at all. It is very inconvenient. At least, we need big mixing-bowl to make kimchi and to prepare ingredients, but we can't even think about buying what we need due to this tight space. (Female, 78 years of age)

Evaluation of the Social Environment

Participants referred to the cultural context much more when they evaluated the social context of their residential environment. These respondents considered it important to have neighbors and services providers of the same ethnic group sharing cultural backgrounds. For example, respondents listed “Korean neighbors” ($n=30$, 73.2%) and “friends living nearby” ($n=11$, 26.8%) as one of the most positive features in their current residence. In addition, some respondents expressed their satisfaction with neighborhood groups and representatives that consisted of Korean neighbors only. They reported that this ethnic group delivered useful information, represented their needs and rights, and helped each other in everyday life as well as in urgent situations.

My friends help me out when I’m sick, and Korean representative always provides useful information for us. And we have each other to talk with. I like all of these very much. (Female, 72 years of age)

The non-cultural features also reflected their relevance to participants’ cultural practices to some extent. About 32% participants ($n=44$) indicated location as one of the most positive features regarding its proximity to shops, amenities, and public services (i.e., social services and public transportation). Since most participants reported their primary visits and uses of Korean grocery stores and Korean social services, this also implied and reflected their preferences for residing within (or near) a Korean community.

Transportation is good. Since I can’t drive anymore, I need to consider it. Hospital is close, public transportation is near, and also grocery markets. Most of all, Korean social service center is near, so I picked this apartment. (Female, 74 years of age)

Daily Activities and Residential Evaluation

The daily activities of research participants also had influences on residential evaluation in terms of assessing the supportive levels of physical environment in bodily movements and activity patterns. Data analysis indicated that their influences were not significant but appeared widely across all residential spaces regarding various daily activities. It also suggested that their influences were not just caused by participants' cultural practices but related more to their aging body and decline in bodily movements.

With regard to evaluating residential spaces relating to their performance of daily activities, however, many participants indicated low expectations and standards for physical features and overall setting. As indicated through qualitative analysis, this tendency may be influenced by their attitudes toward aging and housing, and positions as tenants of public housing and as beneficiaries of government support. In this sense, the research participants tended to evaluate a space to be satisfactory if the space served its basic function at minimum level—e.g., sleeping in the bedroom and cooking in the kitchen. In addition, some respondents had indifferent attitudes toward residential evaluations and reported they were satisfied if the space was “good/okay enough” for basic activities in general. For a few cases, respondents asked to give positive scores to all interview questions inquiring their residential evaluation without providing a detailed explanation of their assessment.

(Kitchen) It's pointless to pinpoint what is satisfactory and what is not. I'll just say there is nothing inconvenient for doing everyday cooking. Water works fine, refrigerator functions well, and stove is okay. There's nothing inconvenient.
(Female, 86 years of age)

Inconveniences in performing daily activities. When participants were particularly asked to list any inconveniences they experienced in performing daily activities, about 73% ($n=80$) reported “none.” This may also relate to their indifferent attitudes, as most of these respondents ($n=67$, 83.8%) did not provide any rationales that partially reflected their disinterest. Other respondents identified that they did not perceive any inconveniences since there were not many maintenance/housekeeping activities required ($n=6$, 7.5%), they used home care aides for doing hard work ($n=4$, 5%), and they had grown accustomed to residential features during their residence years ($n=3$, 3.4%)

On the other hand, respondents who reported inconveniences ($n=30$, 27.5%) indicated floor cleaning ($n=13$, %), all activities in general ($n=12$, %), and getting up from the floor as the most problematic activities. For those who reported troubles/issues with all activities indicated their aging body rather than the physical environment was the cause of the inconveniences. These respondents identified arthritis, knee pains, and other body issues caused by aging (e.g., pot belly, weakness in leg, etc.) as the cause of the difficulties. However, despite these difficulties and inconveniences, about 61% ($n=66$) of participants reported that they changed from squatting to sitting on their bottom to maintain their past behavioral patterns in floor-cleaning activities (i.e., wiping floor using a cloth rag).

I sit on my bottom and wipe around. . . . Besides, my arthritis prevents me from doing the work. But still (it needs to be done). (Female, 85 years of age)

Kitchen floor is wiped clean using *gullae* (i.e., cloth rag). I used mop but it didn't do the job. So I am compelled to wipe it with a rag, and it is just overly hard. It needs to be done that way no matter what, at least once a week. (Female, 76 years of age)

Chapter 7

Housing Adjustment Behaviors

This chapter presents the housing adjustment behaviors of elderly Korean immigrants in regard to performing daily activities and interacting with residential features. All types of housing adjustment behaviors were observed and identified with research participants. The present chapter presents these adjustment behaviors in relation to the participants' cultural practices of everyday life. The findings of this chapter were mostly identified through interpretive analysis of interview transcripts and photographs of individual dwellings.

Residential Mobility and Structural Adaptation

Residential mobility and structural adaptation of family members basically occurred when participants relocated from a past residence to their current dwelling in public housing. Many participants reported that they moved into senior affordable housing to achieve independence from their adult children. These respondents also indicated changes in their family role and /or their aging body as push factors in their search for alternative housing options. Their relocation to public housing naturally caused a structural adaptation of the family to take place for both households (research participants' and their adult children's).

Residential mobility. Participants identified that they relocated from their adult children's, their own houses or condominiums, or other affordable senior housing to the

current dwelling. Most participants identified that they did not want to be a burden to their adult children by co-living and by receiving living expenses on a regular basis. In this context, many of them indicated government supports as their goals and/or means for achieving financial and physical independence from their adult children.

I lived with my children for about a year. But there were no benefits (you can get from the government) when you lived with adult children, and I wanted to make friends with other Koreans. I felt I was behind bars taking care of grandchildren when I lived with my children. So I came here. (Male, 81 years of age)

Residential mobility also took place after they relocated to public housing. For some cases, participants reported that they moved between public housing in search of a better residential environment to meet their needs as well as preferences. These respondents searched for better physical settings of individual unit, enhanced natural environment of the neighborhood, and richer social context of their neighbors. For example, they moved between public housing to live in a dwelling with bigger spaces and improved features, and to reside within a Korean community with other Korean neighbors. Some respondents reported that they changed their residence to get closer to their adult children for easy visits.

Structural adaptation. Participants reported that they perceived changes in their family roles and experienced a shift of power in family organization before relocating to their current dwelling. As they decided to move into public housing, structural adaptation occurred in both households.

As briefly mentioned in Chapter 5, some participants ($n=18$, 13.9%) reported that they were in charge of nurturing their grandchildren and housekeeping work when they lived with their adult children. However, as their grandchildren grew up and required less care from them,

these respondents perceived their family roles to diminish. Interestingly, more of these participants ($n=10$) reported that they felt they were finally relieved from their parental obligation while only a few felt they were no longer needed by other family members ($n=4$). The former group tended to show more active and positive attitudes regarding their new life in senior affordable housing.

My son recommended this (senior) apartment to me. I told him I'd like to take care of the grandchildren (and live with them), and he said they didn't need my care. I felt I was being kicked out . . . (Female, 83 years old)

. . . Now that my adult children are in charge of everything, my life here is just pleasant in every way. (Female, 61 years of age)

Some participants ($n=24$, 18.5%) reported that they felt discomfort and awkwardness residing with their adult children and children-in-law. These respondents reported that they did not have any issues or conflicts with their adult children, but just did not feel right living with them. They also identified that they did not want to be a burden to their adult children, and wanted a space of their own while letting their adult children and families to live their own life. In this context, they sought alternative housing options and decided to relocate.

It is very inconvenient to live with adult children. It's not like I had bad relationships with them, but son-in-law is like a stranger. I was always cautious with my conducts and manners (when I lived with them). (Female, 69 years of age)

Structural adaptation was also observed with some couples after their relocation to senior affordable housing. This was mostly carried out for couples who commuted to help their adult children further with housekeeping work and nurturing grandchildren. For example,

either one of the couple stayed over at their adult children's during weekdays and came back home during the weekend.

During weekdays, I live here by myself while my wife stays at our son's to take care of our grandchildren. She brings side dishes, so I only need to cook rice for my own meals. (Male, 83 years of age)

In several cases, health-related issues were also brought up as one of the causes for couples to live separately. A few respondents reported that their spouse was in and out the hospital or admitted to a nursing home after they moved into public housing.

Normative Adaptation

Normative adaptation appeared in participants' perceptions about public housing, residential features and setting, cultural identity, and social relationships. In many cases, participants indicated that these changes were influenced by the government supports and benefits they received. Their long residence years in the U.S. as well as their current dwelling were also identified to have impacts on adjusting their values, standards, and perceptions. Lastly, participants often times referred to their aging body and perception of life stage regarding normative adaptation.

Perceptions on public housing. Many participants identified that their negative perceptions and feelings about public housing had changed positively during their habitation over the years. These respondents indicated the realization of independence from their adult children over physical, psychological, and financial matters to be satisfactory. They also reported these advantages to help them develop residential attachment more readily. On the

other hand, some participants indicated resigned attitudes and reported dissatisfaction with their living conditions. These respondents maintained their initial negative perceptions on public housing rather than converting from positive ones.

Changing to positive attitudes: Feel at home. The vast majority of participants ($n=98$, 89.9%) reported that they felt at home in their dwelling at the time of the in-depth interviews. However, many of them ($n=39$, 39.8%) indicated that there were changes in their perceptions and feelings toward senior affordable housing during their residence years. Among these respondents, nine reported directly that they changed from negative to positive perceptions. The other 30 respondents implied there were changes in their perceptions through their comments such as “now I feel at home here”, “unlike the old days, I feel much at ease here than my adult children’s” and so forth.

I used to think it would be the end of one’s life when someone moved into senior apartment. But I realized I was wrong as I saw older people living here independently. (Male, 82 years of age)

During the early days, I felt so scared so I ran off to my daughter’s often. I got frighten by tree shadows reflected on my window at night, so I ran off to hers without having breakfast. But now I feel at home here. (Female, 74 years of age)

These respondents indicated autonomy, independence, and financial supports as their rationales for changing their perceptions and feelings. In other words, they enjoyed having the freedom to do as they wanted, being independent from adult children, and receiving various benefits and services from the government at low cost. These advantages helped them to develop residential attachment more readily as well. For example, with regard to autonomy, many respondents considered their dwelling as “a place of my own” and reported that they felt

at ease for doing things as they wanted to. They also felt they finally got a chance to live a life of their own without having to read the faces of other family members. In this sense, some participants reported that they felt at home in their dwelling.

I like it here. Here I have no one to interfere with my life. I can be in my underwear if I want to. (Female, 81 years of age)

My mind is very much at ease here. I used to think public housing would be uninhabitable. . . . But it just feels like my home now. (Female, 70 years of age)

Maintaining negative attitudes: Resignation. Negative perceptions and attitudes were indicated by participants who maintained their initial thoughts on senior affordable housing. In other words, these respondents ($n=16$, 12.3%) did not change the negative thoughts they had during their habitation years. Most of these negative views reflected their resignation to their living conditions. These respondents tended to accept what was given to them without any judgment, thinking they were unqualified to complain about their situations. For example, many of them implied that they were not in the position to making negative comments as a tenant of public housing, a member of an ethnic minority, or a recipient of government supports.

Honestly, we are often times disdained here. We are just not saying it out loud. We don't have anywhere else to go but compelled to live here. (Female, 70 years of age)

Although I'm not satisfied, I can't speak up since I'm afraid something might go wrong. Everything is below expectation, but I can't say that. (Female, 71 years of age)

As indicated in the above comments, some participants reported that they had no alternative but to live in their current dwelling regardless of their preferences. These respondents indicated finance, healthcare benefits, and family relations as their reasons for residing in their current dwelling. They also linked their dissatisfaction with the residential environment to their age (life stage perspective), aging body (the decline in physical health and bodily movements), and language barriers. For example, as aforementioned in the previous chapter, participants' life stage perspective influenced them to have indifferent attitudes toward residential features and developing residential attachments to different degrees.

I am not interested (in residential features) at all. There's no point buying things (to create homey feeling). They will become garbage anyway. I am just getting myself ready to move on. (Female, 72 years of age)

I only live here to receive benefits from governments. There is nothing satisfying here. I can't communicate in English, can't read important documents mailed to me and so forth. Here, I have nothing to live for. (Male, 81 years of age)

Resignation was also detected in some participants' tones when they commented on "aging-in-place." As participants grew older in public housing, they gained secondhand experiences of their friends and neighbors moving into nursing homes, getting hospitalized, and/or passing away. These significant changes in close neighbors had various impacts on participants, causing them to think about their living conditions and future life plans. In addition, almost all participants reported that they would not rely on (or go back to) their adult children when they got sick in the future. In this context, some respondents ($n=19$, 14.6%) expressed resignation in their tones as they shared their future residence plans of aging-in-place.

I want to stay here till I die. If my children don't help me when I get sick, I'll have to go to nursing home. I won't go to my children's. . . . I don't want to go nursing home, but what other choices do I have? I already have some friends there, and when I visit them they just look so miserable. I don't want to talk about this anymore. (Female, 82 years of age)

Priorities and standards of residential evaluation. Some participants reported that they changed their priorities and standards for evaluating residential features due to their aging body, life stage perspectives, acknowledgment of the differences between the two countries (Korea and America), and long residence years in their current dwelling.

As indicated in previous chapters, participants' aging body and life stage perspectives had impacts on their residential evaluation. Many participants considered their individual wishes for residential features as excessive greed inappropriate for their age or life stage), and they reported that they had lost interest in improving their dwelling to meet their needs and preferences. These feelings were often times amplified by their lack of ownership. Their priorities also changed, as many of them indicated function and easy maintenance to be more important than personal preferences and aesthetic standards. For them, simplicity and convenience for doing things were most important when evaluating a dwelling. However, it was unclear whether these changes in attitudes occurred before their relocation to public housing or gradually took place as they aged in their current dwelling.

A few participants ($n=7$, 5.4%) indicated changes in their standards for residential evaluation as they recognized the differences in cultural, geographical, and architectural features between Korea and America. These respondents pointed out the differences in geographical features and commented on the different housing construction between two

countries. From this perspective, they identified that they changed their importance levels on window direction from “very important” to “not important” since they lived in America.

I used to look for southern direction houses when I lived in Korea. But here, a house is set on an open site (so it doesn’t matter). In Korea, southern direction is preferable for natural sunlight and heating issues. But here, it feels bright regardless to natural sunlight. (Female, 78 years of age)

The different heating systems between two countries also influenced participants to consider that certain behavioral modes to be appropriate in each country. For example, a few participants reported that they changed from floor-sleeping to bed-sleeping due to the different heating systems in Korea (i.e., floor-heating system) and America (i.e., convection heating system). With acknowledging these differences, their preferences for doing daily activities and standards on residential floors were impacted to some extent.

I prefer sleeping on *ondol* floor in Korea, but here I prefer sleeping in bed. I think this is resulted from the different heating system between two countries. In Korea, the floor is heated well. But here, the air is heat up to provide warmth all together. (Male, 77 years of age)

In addition, as indicated briefly in the previous chapter, participants reported that their long residence years in their current dwelling ($M=9.78$, $SD=6.22$) made them to grow accustomed to the initial inconveniences and negative evaluations. These respondents reported that they did not feel much inconvenience or dissatisfaction as they continuously used residential features for a prolonged period of time.

Kitchen is too small. At first, I used to walk in circles trying to figure out where to put down a pot. Now that I’ve lived here for 15 years, it feels okay as I became habituated. (Female, 79 years of age)

Perceptions on cultural identity. Participants reported changes in their perceptions and feelings toward two countries, and their nationalities as well as cultural identity. Many participants ($n=38$, 29.2%) reported that they missed Korea, as it is the homeland where they grew up, built human relationships, and had many personal memories. However, only three of these respondents identified that they wanted to go back to Korea to live. The other 35 respondents reported that they just wanted to make a short visit. On the other hand, 50 participants clearly stated that they wanted neither to visit nor to live in Korea. For a few extreme cases ($n=6$), respondents even reported that they felt alienated and got scared during their recent visits to Korea.

I can't live in Korea anymore since I feel restless there. I got scared interacting with other Koreans. I felt uneasy for nothing when I was in Korea. (Female, 74 years of age)

These respondents mostly indicated their loss of past social relationships influenced these distant feelings about their home country: Most of their friends and family members (parents, siblings, and other relatives in most cases) had either passed away or lost contact with them. This made participants lose their interest in or reason for visiting Korea, since they did not have anyone to meet and/or share their memories with. In addition, a few participants pointed out that the rapid changes and development of cities would make them feel alienated during their stay in Korea. They reported that they did not know well of the geographic features and easily got lost when they navigated their hometown. These changes made participants to lose (or feel less) affection and sense of belonging to Korea.

I don't miss Korea at all. I have no one left there. People I used to know died or moved to different regions. My hometown also changed so much. I grew up

there, but now I felt lost and bored. And as my close friend passed away, I lost all interests of making a visit. (Female, 84 years of age)

The long and exhausting travel was another reason why participants did not want to make the trip. A few participants ($n=7$, 5.4%) linked this to their physical age and responded that they could not even conceive of the idea of visiting Korea due to the exhausting flight hours and accompanying physical fatigue.

I used to visit Korea once a year. . . . I got exhausted during my last visit several years ago. It can't be helped to get easily tired at this age, so I don't feel like making another visit anymore. (Female, 80 years of age)

Participants' cultural adjustments to the United States also had impacts on their perceptions of cultural identity. According to descriptive statistics, 17 participants (12.3%) reported that they considered themselves either as Korean-American with more of American attributes ($n=9$) or as American ($n=8$). In similar context, some participants ($n=9$, 6.9%) reported that their changes in thoughts and behaviors made them felt awkward when they had interactions with other Koreans during their past visits. Data analysis revealed that these respondents naturally experienced changes in their perceptions due to their long residence years in the States. However, it also suggested that they tended to change their cultural identity at conscious level as they received benefits from the U.S. government.

I don't miss Korea since I lived here for more than 30 years. I used to miss her a little. But now I feel America is my home and my country. America is paying for all my living expenses and provided this house. Isn't that right? So I will have to accept America as my home now. (Female, 77 years of age)

However, quite a few participants showed mixed attitudes regarding their cultural identity and reflected they were in the midst of cultural adjustment processes.

Although I lived here for a prolonged period of time, I am Korean. Whatsoever, I like Korea and Korean foods much more. . . .Now I lost my affection on Korea. Now that I've lived more than 30 years in the States, I think America is much better. I can't navigate on my own when I visited Korea. (Living in) Korea is not that good. I will live here till I die. (Female, 82 years of age)

Social relationships: Family and friends. The vast majority of participants reported that they experienced changes in their perceptions toward and activity patterns of social relationships with family members and friends. These respondents tended to rely more upon their Korean neighbors and friends rather than family members, from trivial matters of everyday life to more serious matters. The associated changes are discussed further under behavioral adaptation at latter part of this chapter. In this section, only the changes in perceptions regarding these social groups are presented.

As participants relocated to America and senior affordable housing, their values and perceptions of family relationships experienced changes to different degrees. Many participants sought to control and limit their come-and-go between households (i.e., with adult children) as they considered it unhealthy to maintain close relationships with their adult children, especially with married ones. They also identified that it was against the current trends to make frequent visits to and to stay close with their adult children.

For what purpose (should I visit my children)? In these days, sons and daughters don't like their parents making frequent visits. So, making no visit is good for both. (Female, 81 years of age)

I visit my children less frequently. People say that is better. . . . People who lived in the U.S. longer told me so. Because they are busy living their own life. If I visit them frequently, it will be a burden to them. (Female, 75 years of age)

These respondents also reported that they stayed alone in the house when they visited their adult children during weekdays, as other family members were busy with their own life. Therefore, participants put a different meaning on “living together with adult children” and tried to restrict family gatherings to specific days such as holidays and birthdays. A few respondents even pointed out the cultural differences they experienced with their adult children as they perceived them more close to “American” than “Korean.”

My daughter came here in very young age, so she is like American. I mean not her lifestyle but her mind is like American. . . . We had completely different culture, so had hard time understanding each other. (Female, 70 years of age)

In addition to these changes, participants’ lack of transportation forced them to reduce frequent visits to family members living at a distance. A few respondents reported that they had to give up driving a private car due to their decline in physical health and tight budgets. With public transportation as their only means of transportation, these respondents had to reduce their visits to other family members.

It's hard to make frequent visits as I aged. I used to visit my daughter twice a month, but not in these days. I visited her only once this year. It is just getting harder to move around with my aging body. (Female, 81 years of age)

These physical restraints naturally influenced research participants to turn to their Korean cohorts residing in proximities. Most participants reported that they relied on their Korean cohorts much more than their adult children for the physical, psychological, and

emotional supports of everyday life. These respondents identified that they formed new, family-like relationships with Korean neighbors residing within the building. They looked after each other on a daily basis and on special occasions. For example, participants regularly visited and called their neighbors to check their status, and took care of each other when someone got sick. Some respondents even reported that they formed a group to receive regular physical exams together for physical and psychological support. Most participants identified that they had a strong sense of community and kinship with their Korean neighbors through these frequent and constant interactions.

Here we get to know more people. These close neighbors are better than our children. People constantly call each other and care for each other. . . . We share anything and everything, and we know each other much more than our children do. (Male, 81 years of age)

My children are busy living their lives, whether they live close or far away. We now consider friends are better (than children). Friends who already had experiences guide you with details. I used to have a friend like that in this apartment, but she passed away. But she introduced me to other Korean neighbors so I am doing fine. (Female, 78 years of age)

Behavioral Adaptation

Changes in participants' behaviors and activity patterns were categorized into three groups: relinquishing behaviors, compromising behaviors, and emerging behaviors. Participants reported that they experienced changes in their behaviors as they tried to compromise between their needs and the restrictions of everyday life. These restrictions mostly referred to

their aging body and physical health, and their positions as tenants residing in public housing with other ethnic groups. As detailed descriptions of participants' daily activity patterns were discussed in Chapter 5, the current section focuses on presenting the types, intensity levels, and rationales for behavioral changes.

Relinquishing behaviors. Participants reported that they had to relinquish certain behaviors and activity patterns due to their aging body and decline in bodily movement. Most of these relinquishments occurred naturally as participants lost their physical abilities to perform certain behaviors. For example, some participants identified that they ceased floor-sitting behaviors and associated activities due to arthritis, bad knees, and poor health.

It's hard to get up straight from the floor. My husband has been ill for 15 years, and he did not have the strength to get up from the floor. He is too old for that. So we started to sleep in bed. (Female, 82 years of age)

In addition to floor-sitting behaviors, other relinquished behaviors and activities caused by aging bodies included cleaning activity, doing laundry, washing self, cooking of ethnic foods, and using certain electric appliances. Participants reported that their physical conditions (i.e., back pain, bad knees, arthritis, and so forth) made them to quit wiping residential floors in squatting position ($n=54$, 49.5%) and hand washing laundry ($n=15$, 13.8%). The deterioration in physical health and poor bodily movements also restricted participants from doing physical exercise, taking a bath, and making traditional Korean pastes. Participants identified that they had quit (or planned to quit) these activities as they considered them to go beyond their physical abilities and fitness. For example, some participants considered tub bathing to be dangerous since elderly people easily lost energy and did not have the strength to pull

themselves up from the tub. A few expressed their fear of taking a bath, as they heard of acquaintances' fatal accidents that had taken place during tub bathing. In addition, two participants reported that their wearing of a pacemaker restricted them from using electric appliances such as electric mats and pads.

Participants also reported that they had to relinquish certain activities since they were living in public housing. Representative activities were group social activities and consumption of certain ethnic foods. Many participants identified that they quit hosting social meetings in large groups considering their age and residential conditions. They felt these meetings required too much work for preparation and hosting, and considered their dwelling to be inappropriate for its small and compact size to entertain their guests properly. In this sense, many participants stopped hosting group meetings at their residence, including ancestral rites, familial ceremonies, religious gatherings (i.e., regional services), and friendly get-togethers.

We used to gather and had cooked meals together, but not anymore. Now we don't do it since it requires too much work. (Female, 81 years of age)

This place is too small to entertain and host many people. I only invite one or two people to share snacks or meals. I try to limit my visitors up to six people. (Female, 76 years of age)

Participants' restrictions and limitations as tenants residing in public housing with other ethnic groups influenced their food consumption behaviors to some extent. For example, some participants ($n=17$, 15.6%) reported that they quit consuming certain Korean foods that produced distinctive smell during cooking. These respondents reported that they sought in advance to avoid possible conflicts with other ethnic groups and apartment management. A few participants ($n=3$, 2.3%) even identified that their Korean neighbors were more sensitive to

this matter and that they took notice of each other to prevent possible conflicts with other groups. In this context, a few respondents quit cooking traditional Korean foods such as *doenjang-jjigae* (i.e., soybean paste stew) and *kimchi-jjigae* (i.e., *Kimchi* stew), and smelly foods (i.e., grilled fish) that might raise the antipathy of other ethnic neighbors.

I used to make traditional paste, but got criticized by other Korean neighbors. They blamed me for making smelly food. But I never had conflict with American neighbors. (Female, 79 years of age)

Lastly, participants identified that their social boundaries had changed regarding their means of transportation. As mentioned in previous section, a few participants reported that they got rid of private vehicles due to their physical constraints in driving and the high maintenance cost. Other rationales for this matter included individual worries of getting vandalized in public parking and losing physical ability to drive around. This had prohibited participants from visiting their family members and friends living in a distance to some extent.

There's no proper means to visit a friend living in a distance. . . . Old folks like us don't know how to visit friends living in the suburban area using public transportation. (Female, 92 years of age)

Compromise behaviors. Participants' compromise of behaviors and activities mostly took place with their cooking, dietary habits, socializing, self-hygiene activities, and cleaning of residential floors.

With regard to cooking, participants' restrictions as tenants and aging body were indicated the most for developing compromise behaviors. Many participants reported that they put in additional effort to reduce and/or disguise food odor ($n=33$, 76.7%); changed cooking methods ($n=24$, 55.8%) including when, where, and how they cooked dishes; and gave up

certain food consumption ($n=17$, 15.6%). For example, some participants reported that they cooked at late night when other neighbors went to sleep, or cooked near an open window while running electric fans to force ventilation.

When I make *kimchi-jjigae* once in a while, I block door draft with a doormat, open windows, and cook at night. I rarely fry fish. My daughter-in-law makes these dishes and brings them from home. (Female, 78 years of age)

These respondents also put in extra effort to minimize smoke and odor caused by cooking ethnic dishes. Some participants reported that they used electric frying pan and grills, and did not reheat these cooked dishes to prevent food odor. Participants also lighted scented candles, roasted coffee, and burned dried orange peels to mask food odors. Some participants ($n=10$, 7.7%) reported that they changed their ways and ingredients for making traditional soybean paste to minimize distinctive odor produced during the fermentation process.

You can't even roast sesame in that kitchen. So I roast it using an electric frying pan as I sat on living room floor and run an electric fan to force ventilation.
(Female, 77 years of age)

With regard to aging body, some participants reported that they changed their cooking behaviors of everyday life and special occasions. For everyday meals, a few participants reported that they cooked less at home as they aged. Instead they bought cooked (side) dishes, dined out, used food delivery services, or asked housekeeping helpers to make meals in advance. For special occasions, a few participants reported that they replaced self-made traditional pastes with ready-made products from Korean grocery markets.

I don't cook much. I don't feel like cooking anymore. I buy Korean side dishes, and my daughter also brings me some. I eat at senior community center three times a week. When I don't cook, taste doesn't matter. (Female, 87 years of age)

Influenced by their declines in physical health and bodily movements, participants changed their behavioral patterns of washing self and of cleaning residential floors. Some participants reported that they changed their past behaviors of washing themselves (i.e., from standing to sitting) as they felt dizzy or lacked the strength for standing during shower. A few participants ($n=2$, 1.8%) even identified that they rarely used the shower/bath at home but regularly took a shower/sauna at a fitness center.

I used to take hot bath at least twice a week. I need to lie down because I am getting weak. But I can't get up easily after taking a bath. . . . So I am planning to do shower only from now on. (Female, 87 years of age)

In similar contexts, many participants reported changes in their cleaning of residential floors. These participants sought to lessen the workload by simplifying the job. Some respondents identified changes in their frequency of cleaning from every day to once or twice a week, and cleaning tools from cloth rag to disinfection wipes or mops.

I use disinfection papers to wipe floors. I sit on the floor and wipe around. Now we also use Swiffer and my husband uses it for mopping the floor. Lately, I quit wiping in sitting position. (Female, 66 years of age)

Regarding social activities and group dining behaviors, many participants reported changes in frequency, occasions, meeting places, and social boundaries. For example, some respondents replaced family gatherings with their regular meetings at church after attending

services. Additionally, a few participants reported that frequent phone calls replaced physical visits of family members.

My children (used to) visit me once in a year or two, on the anniversary of the death of their father. (But) it has been about 7 years since their last visit. They call me more than 12 times a day though. (Female, 70 years of age)

For gathering places, these respondents identified that they gathered at places other than their dwelling, especially when they gathered in a large group. These gathering places included community rooms, local restaurants, their children's home, senior community centers, and community colleges with senior programs.

The community library is where Korean grannies get together. At least 4~5 people show up on a regular basis, and the group goes up to 7~8 people. We gather there after breakfast, lunch, and whenever we want. (Female, 86 years of age)

For participants' social boundaries, participants reported that they became estranged from old friends living in private homes or at their adult children's, but became closer with Korean neighbors residing within the community. Among the 107 participants (77.5%) who reported the existence of frequently interacting friends, about 80 % of them ($n=86$) only interacted with Korean neighbors residing within the complex.

Emerging behaviors. New behavioral patterns emerged with participants' housekeeping behaviors, maintenance of residential features, and hobby-related activities (i.e., daily routines, exercise, and social activities). Many participants identified that they had trouble doing household chores on their own due to their aging body and health conditions. Among these respondents, some ($n=11$, 10.1%) reported that they started to use home care program and

had home care aides over on a regular basis. They received help from these home care aides for everyday household tasks (cooking, cleaning, shopping, and so forth) and for special occasions (cleaning and organizing closets, doing a spring cleaning, and running errands).

My home care aid does all the cleaning for me. She makes a visit twice a week. I don't do any cleaning or laundry on my own. (Female, 74 years of age)

As participants tried to minimize their possible troubles and conflicts with the apartment manager and other service crews, some participants were keen to maintain their dwelling free from troubles. These respondents reported that they were very cautious about using residential features in order to prevent breakdowns that would require additional works and repairs. For example, they used drain protectors (strainer and hair catcher) in sinks, cleaned the drainpipe, and used a toilet plunger on a regular basis to prevent clogging. These respondents also identified that they took care of minor problems personally instead of notifying the manager and/or janitors. They used various types of insect-killer products (powder, baits, gels, and sprays) to control ants/cockroaches, and re-applied caulking around toilet and bathtub to prevent water damages.

I had to flush the toilet 3-4 times to flush everything down. I used it that way for about a year since I felt uneasy asking for repairs. I asked John (i.e. janitor) to fix it and now it works fine. (Female, 69 years of age)

I buy and apply insect-killer three times a year by myself. There's no insect or pest at all in my residence. I apply cockroach-killer at every corner. I should be cautious to keep them out of my home. (Female, 86 years of age)

Some participants reported that they developed new hobbies and turned certain activities into a daily routine to expand their social networks and to enhance individual health

conditions. These newly emerging activities included attending various classes held in the community college and social service facilities, reading the Bible and singing hymns, participating in group volunteer work, writing calligraphy or phrases of the Bible, and so forth. Participants reported that these activities helped them to engage in physical activity, to prevent depression, and to better adjust to their new residential settings as well as living situations. In addition, a few respondents stated that they do these activities in order to promote brain activity for preventing dementia.

Writing calligraphy became one of my daily routines as I lived in this apartment. I write it in the morning as I get up. If not, I have to write it before going to bed. I need to memorize at least one four-character-idiom to prevent Alzheimer.
(Female, 68 years of age)

The typical day of participants attending social service facilities identified by one female respondent was as follows. These facilities provided services exclusively to elderly Korean immigrants through receiving governmental funding. As indicated in her statement, these elderly attendees participated in various group activities and expanded their social networks.

I go to senior center early in the morning and plays billiards till breakfast is served. After having rice porridge for breakfast, I attend worship service, do morning exercise, and play games (i.e., singing competition, a game of yut, table tennis, puzzles, and art and crafts) until 11 A.M. with other Korean friends. Lunch is served around 11:40. After lunch, I go upstairs again to participate in group physical activities such as ring-toss and golf. I come back home around 2 P.M., and they also provide a free ride back home. (Female, 73 years of age)

As indicated in previous quote, participants expanded their social networks as they attended various social groups and participated in different activities. These social groups

included community colleges, various social service groups for the Korean elderly (i.e., Korean American Senior Associates, Korean American Community Services, Super Senior Center, Hanul Family Alliance, etc.), volunteer group meetings, and regular group activities (i.e., line dancing, bingo games, etc.) held by apartment in community room.

I didn't have any friends before I came to this apartment. . . . And we do line dancing together. We gather around 7-8 p.m. downstairs at the community room. There are 13~14 Korean neighbors attending this activity, and I frequently socialize with them. (Female, 66 years of age)

Residential Alteration

The residential alteration appeared most prominently on residential floors to support the shoeless lifestyle and floor-sitting behaviors of research participants on a daily basis. Therefore, these residential modifications are presented in a single section while the others were categorized into three groups: separating spaces, expanding spaces, and personalizing spaces. All residential modification was made out of tight budget plan and reflected participants' limitations of altering dwelling features. However, it is evident that participants sought to fulfill their needs, preferences, and aesthetic demands of everyday living through these minor alterations, whether they were consciously aware of them or not.

Shoeless lifestyle and floor-sitting behaviors. In respect to participants' shoeless lifestyle and floor-sitting behaviors, residential alteration appeared first in entry space. Many participants sought to promote its transitional function by separating the inside from the outside world. As mentioned earlier, participants placed various floor mats to keep outside dirt

from coming inside their dwelling and put in extra effort to keep those mats clean on a regular basis. They used various types of floor mats (plastic mats, bath rugs, door mats, and rag rugs), and used them to wipe off dirt as they took off their outdoor shoes. These mats were managed with additional care as participants cleaned them several times a day using *gullae* or washed them regularly. Shoe racks and extra cabinets were placed near the entryway for outdoor shoes (see Fig. 7.1.2). Only 18 participants (13%) did not have any floor mats or shoe racks placed in their entry space.

Floor mats were also placed on main living space (i.e., living room and bedroom) to support the floor-sitting behaviors of participants and their visitors on any occasion. This was more prominently shown in apartment housing with carpet finishing, as many participants perceived pre-installed carpet to be unsanitary and disliked its touch on their feet. For this reason, participants covered their living room and bedroom floors with various floor mats including area rugs, blankets, electric mats, bamboo mats, additional carpets, jade mats, and so forth (see Fig. 7.1 and Fig. 7.2). Among these mats, electric mats and bamboo mats were often times used in different seasons to support the body temperature of its users. Few respondents even reported that they sought to reproduce Korean *ondol* and *maru* floors with their use of electric mats and bamboo mats.

I place this bamboo mat in summer and a quilted pad in winter on living room floor. Bamboo mat provides coolness during summer, and it's easy to clean using *gullae*. (Female, 80 years of age)

As indicated in the previous quote, participants listed hygiene and maintenance as part of their rationales for using extra floor mats. These respondents considered pre-installed carpet

to be unsanitary since they did not know its maintenance history (i.e., who the previous dwellers were and how they maintained it). For these reasons, participants covered residential floors with additional floor mats that could be cleaned easily on a regular basis. On the contrary, a few participants reported that they used extra mats to protect the residential floor (i.e., pre-installed carpet floor). These respondents placed small mats where they sat or put down their feet the most in order to prevent carpet floor from wearing down.

Participants also used these floor mats for demarcating boundaries and for sending environmental cues to other visitors. For example, many participants placed these mats in their main living area where most activities took place. They also conveyed the message to their visitors that this was where most (floor-sitting) activities occurred, and made them naturally gather around to sit on these mats (i.e., other than sofa or chairs) in certain contexts.

I placed this bamboo mat since I don't like the texture of original carpet floor. I replace it with a blanket during winter. Koreans don't wear outdoor shoes inside the house, but Americans never take off their shoes. . . . I washed my feet last night, but they are all dirty now. So I wear indoor slippers outside this bamboo mat, but take them off when I step on this mat. (Female, 77 years of age)

Participants showed different levels of modifying residential floors in terms of where and how they made certain changes to what extent. First, regarding the residential spaces where participants placed floor mats, the majority placed floor mat(s) in the entry space ($n=93$, 67.4%) and living room ($n=109$, 79.0%), while only about 30% ($n=41$, 29.7%) placed them in the bedroom. The covering area using floor mat(s) also varied: A few respondents covered almost all the carpeted area in their living room; most participants covered their main living space (i.e., center of living room); some participants limited their uses of floor mat(s) on specific areas only

(i.e., areas where one sits or steps on the most); and a few did not use any floor mats at all (Fig. 7.1.1). For extreme cases, one participant removed the carpet in her living room and revealed linoleum flooring underneath while another participant covered all carpeted floors with linoleum flooring when she moved in.



Fig. 7.1.1 Partial area w/ area rug



Fig. 7.1.2 Main living area w/ area rug



Fig. 7.1.3 All area w/bamboo mats

Figure 7.1. Differences in covering area(s) and floor mat(s): Living room

All participants maintained their dwelling ready for floor-sitting behaviors on any occasions regardless to their own lifestyle. Almost all participants maintained a combined lifestyle of both chair-sitting and floor-sitting behaviors. However, a few participants who exclusively performed chair-sitting behaviors only reported that they had their dwelling ready to support the shoeless lifestyle and floor-sitting behaviors in certain situations. On the other hand, one participant reported that she exclusively performed floor-sitting behaviors and did not have any modern furniture supporting chair-sitting behaviors at all (Fig. 7.2.1).

Some participants reported that they set a designated area for performing certain floor-sitting activities as a ritual. These respondents also indicated their uses of cultural items such as *bangsuk* (i.e., sitting cushion), *soban*, and *gyojasang* to support their floor-sitting behaviors. For example, some participants used *gyojasang* as a coffee table and set it out in the center of their

living room, while others used *soban* as a personal desk (Fig. 7.2.2). One participant stated that she made a sitting cushion with high-back rest herself to support her floor-sitting activities at her desk (i.e., *soban*) (Fig. 7.2.3).



Fig. 7.2.1 Exclusively maintaining floor-sitting



Fig. 7.2.2 *Soban* & chair for floor-sitting



Fig. 7.2.3 Desk & self-made cushion supporting floor-sitting

Figure 7.2. Designated area(s) for floor-sitting activities: Props and cultural items

However, these respondents indicated different levels of floor-sitting behaviors to be performed on these designated areas. For example, most of them reported that they did a wide variety of daily activities such as taking care of personal businesses, writing in a (religious) journal, doing hobby-related activities (i.e., knitting, quilting, reading, etc.), and so forth at these designated areas. Contrary to this, a few respondents stated that they only used the space for performing specific daily rituals such as praying, reading the Bible, and writing calligraphy.

Separating spaces. Participants' separation of residential spaces first appeared in the entry space. As briefly mentioned in previous section, most participants sought to promote its transitional function through various means (see Fig. 7.3). They used various types and sizes of floor mats, shoe racks, and storage cabinets to wipe off dirt and store outdoor shoes. In addition, some participants hung a full-length mirror to straighten their outfit before leaving

the house. All these modifications were made to support participants' behaviors of putting on/taking off outdoor shoes, keeping out dirt by wiping it off, and adjusting themselves properly before leaving the house. In addition, few participants commented on privacy issues, as they thought the entry space was too open to other neighbors without any screening effect. However, there was no modification indicated with regard to enhancing privacy.



Fig. 7.3.1 Door mat

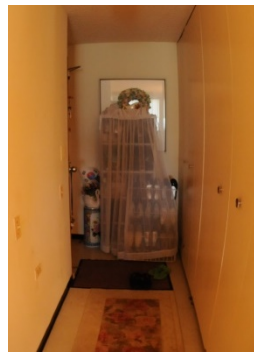


Fig. 7.3.2 Laced-covered shoe rack



Fig. 7.3.3 Shoe racks



Fig. 7.3.4 Full-length mirror

Figure 7.3. Different types and levels of residential alteration: Entry space

Participants also separated residential spaces to resolve conflicts between couples by supporting the different needs and preferences of each individual. Some couples reported that they had trouble using residential spaces due to their differences in personalities, lifestyles, and preferences. In order to avoid/resolve conflicts, these respondents either divided up residential spaces for each individual or set up schedules for using certain areas of the dwelling. For example, some respondents reported that they used the living room as a second bedroom to accommodate each individual with a separate space of his/her own.

We have different personalities and got into arguments often. So our daughter came over and separated spaces like this. I mainly use the living room while my husband uses the bedroom. (Female, 78 years of age)

A few couples ($n=3$, 1.5%) reported that they separated living spaces only for sleeping since they had abnormal sleeping patterns/behaviors that might disturb their spouse during night. These problematic behaviors included frequent visits to bathroom, sleep-talking, and physical movements during sleep such as swinging arms or wandering around.

I underwent a prostate operation and have to go to the bathroom 5-6 times a night. My wife got up every time I went, and couldn't get a good night's sleep. So I sleep on the couch in the living room. (Male, 77 years of age)

A few participants ($n=5$, 3.8%) identified that their emotional states and memories had influenced their individual use of certain residential spaces. For example, one female participant reported that she rarely used her bedroom as it held memories of her late husband. These respondents only entered bedroom when it was necessary (i.e., changing outfits, bringing stuff out, etc.), and slept in another bed placed in living room.

I sleep on the stone-bed placed in living room. I used to sleep in bedroom, but it hasn't been long since my husband passed away. We shared the bed in that bedroom. So I don't like sleeping in there anymore. (Female, 72 years of age)

The spatial layout and residential features of participants' dwellings also promoted spatial separation in some cases. For example, research participants residing in efficiency apartments tended to demarcate residential spaces more clearly using furniture, floor mats, and curtains. They particularly separated the bedroom area from the living area as they divided up the space using furniture including a sofa, console table, cabinets, and self-made curtains (Fig. 7.4.1).



Fig. 7.4.1 Separating sleeping area w/ sofa & self-made curtain



Fig. 7.4.2 Curtain separating bedroom for storage

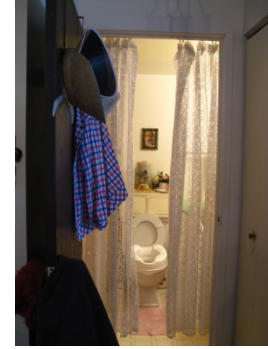


Fig. 7.4.3 Laced-curtain hanged on bathroom door

Figure 7.4. Separation of residential space(s)

Some participants sought to maximize their use of their dwelling, as they tried to compensate for its small and confined spaces. They divided up a room (bedroom or bathroom) using curtains to use the other half as storage space (Fig. 7.4.2). Curtains were also used to enhance visual privacy and to satisfy the participant's personal aesthetic sense. For example, some respondents hung a lace curtain on the entry of a bathroom, bedroom, and pantry to satisfy their personal preferences and aesthetic needs (Fig. 7.4.3). These respondents mentioned that they felt embarrassed with these spaces widely open to other visitors.

Expanding spaces. Space expansion was mostly conducted to increase storage space with regard to participants' activity patterns of dietary habits, raising indoor plants, and self-washing routines.

With regard to dietary habits, participants commented that making Korean food required many cooking utensils but they did not have sufficient space to store them. A few of them even stated that certain food ingredients (i.e., soybean paste, chili paste, fermented foods, pickled foods, and so forth) for cooking Korean dishes needed to be stored in specific ways. In this sense, many participants sought to expand storage spaces. Some participants kept a second

refrigerator varying in sizes and purposes; some used additional cabinets and shelves that were either self-made or ready-made; and some placed large wooden board on top of kitchen counter as well as dividing wall for simple expansion (Fig. 7.5). A few participants with an attached veranda used this space to raise plants, dry food ingredients, and store fermented foods in crocks (Fig.7.5.4).



Fig. 7.5.1 Pantry & second refrigerator



Fig. 7.5.2 Self-made steel cabinet



Fig. 7.5.3 Ready-made shelves in LR



Fig. 7.5.4 Veranda

Figure 7.5. Expanding storage spaces in respect to dietary habits

Participants also sought to expand spaces near windowsills to place more indoor plants and to let them receive more natural sunlight. Interestingly, some participants indicated raising indoor plants as a particular phenomenon shared exclusively by Korean residents. Participants' attitudes toward indoor plants were noticeable in terms of the numbers of plants and individual endeavors for obtaining and caring for these plants. About 88% ($n=121$) had indoor plants, with the average numbers of plants being 10.4 per unit ($SD=6.48$, ranging from 0 to 29). While most participants simply placed various types of furniture and stands near their living room windows, a few used wooden boards and supports to actually expand their windowsills (Fig. 7.6.2). Some participants even reported that they even had conflicts with apartment management as they were violating the Fire Services Act (i.e., blocking evacuation route with indoor plants). In

addition to placing indoor plants, some participants dried food ingredients and/or fermented traditional Korean pastes under natural sunlight on windowsills.



Fig. 7.6.1 Various types of plant stands



Fig. 7.6.2 Expanding windowsill w/ self-made worktable (boards & supports)

Figure 7.6. Expanding spaces near living room window

Participants' endeavors to expand spaces prominently appeared with storage spaces. Insufficient storage space was identified as one of the most negative features ($n=50$, 94.3% out of 51 comments), and many participants tried to create more storage spaces for personal belongings and household goods. For example, participants used additional storage furniture and organizers (i.e., cabinets, shelves, racks, hangers, boxes/bins, and hanging closet/pocket) to store shoes, garments, beddings, and other personal belongings. These furniture pieces and organizers were mostly placed near built-in closets (i.e., located in entry way and bedroom) or at the corner of one's living room or bedroom (Fig. 7.7.1).



Fig. 7.7.1 Storage in bedroom



Fig. 7.7.2 Additional storage spaces created in bathroom

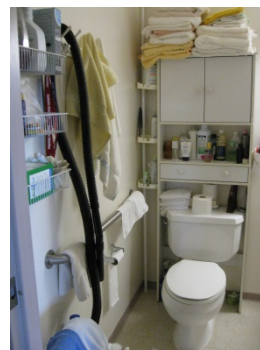


Figure 7.7. Expanding storage spaces

With regard to storing household necessities, many participants used the bathroom as a “multi-purpose room.” The bathroom also served as a secondary kitchen (i.e., for washing and preparing food ingredients), storage, and laundry room upon participants’ needs and situational contexts of everyday life. Cleaning products and toiletry articles were mostly stored and aligned in cabinets, bins, and shelves that were placed in the bathroom. In addition to using ready-made storage furniture, some participants installed self-made wall shelves to store household goods in their bathrooms (Fig. 7.7.2).

Bathroom were also modified to support different bodily postures (i.e., standing, squatting, and sitting positions) of participants regarding self-hygiene activities. Data analysis suggested that many participants maintained their past behavioral patterns of washing themselves in a squatting position. In addition, some participants reported that they changed from standing to sitting on a chair for taking a shower. Both groups of respondents either had detachable showerheads⁹ or a long plastic bag wrapped around the wall faucet to collect water underneath a large basin/bucket (Fig. 7.8.1). They used a *bagaji* (large bowl) to scoop out water into a small basin or to pour water onto themselves for washing. These props and items were stored inside or near the tub/shower booth at a reachable range (Fig. 7.8). Some participants installed an additional rod (or strings) on top of their tub/shower booth to hang various sizes of basins and laundry (Fig. 7.8.2).

⁹ About 34% of participants (n=126) had detachable showerheads in their tub/shower: Most of these participants identified that they installed it by themselves with some help received from their children.



Fig. 7.8.1 Plastic bag wrapped around wall faucet



Fig. 7.8.2 Presences and storing of basin(s) & bagaji(s)



Figure 7.8. Expanding storage spaces: Bathroom

Personalizing spaces: Display of self. Participants' endeavors to weave in their personal life into their dwelling environment were frequently observed. Many participants used family photos, self-made artifacts, personal collections, and religious artifacts to display self and to create a homey feeling throughout their residence. However, only six participants (4.6%) identified that they tried to personalize their dwelling somehow with these decorative features. Even more, none of the participants identified these objects to be relevant for making them feel at home in their dwelling.

The most prevalent object participants used for decoration was personal pictures of family members and friends. Some participants directly commented that they sought to cherish/remember memorable moments and people in their life, and reminisced about their life through these pictures. In this sense, participants displayed pictures of family members and close friends, sharing memorable moments of their life together. These pictures were mostly framed and displayed on shelves, countertops, wall(s), and in display cupboards (Fig. 7.9). However, some participants leaned them against the wall as they reported they were not allowed to drive a nail into the wall. Instead, a few participants made a big collage as they

pinned or taped pictures on along the wall (Fig. 7.9.3). A few participants displayed scenic view(s) and public figures that they held special meaning for them. For example, interestingly, a few participants displayed pictures of the President of the United States and his family in order to express their gratitude to the U.S. government.



Fig. 7.9.1 On shelves



Fig. 7.9.2 Collaged in frame(s)
& leaned against the wall



Fig. 7.9.3 Collaged and taped on walls

Figure 7.9. Personalization: Display of personal photos

Participants also used various types of artifacts to decorate their dwelling. These artifacts included self-made arts and crafts, religious artifacts, cultural items and decorations, personal collections, and artworks received from friends and family members. For example, some participants displayed their handicrafts of paper arts, woodwork, embroidery work, and artificial floral arrangements (Fig. 7.10.1). Trophies earned from sports tournaments, medals achieved through religious activities, badges from military troops, and personal collections¹⁰ were also placed for decoration (Fig. 7.10.2). A few participants even made a display shelf for these trophies and personal collections. Most of these decorations were displayed in the living room, but a few participants also decorated their bedroom, bathroom, and entry way for

¹⁰ Personal collections included stamps, international currency, sample perfume bottles, rocks, tea sets, pottery dolls, and so forth.

special purposes and for aesthetic reasons. For example, one female participant made display shelf in the bathroom for her perfume collection as she used them for decoration and for freshening air (Fig. 7.10.3).



Fig. 7.10.1 Self-made origami works



Fig. 7.10.2 Trophies & badges

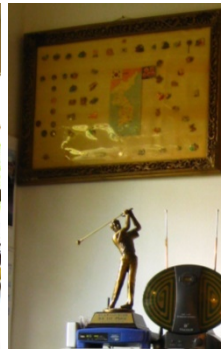


Fig. 7.10.3 Perfume collections in bathroom

Figure 7.10. Display of self: Artifacts & collections

Some decorations reflected participants' past life, personal values, and group identity more than the others. For example, some participants kept their past tools of living (i.e., sewing machine, professional tool box, and so forth) and expressed some attachments as they reminisced their past through these objects (Fig. 7.11.1). Some participants decorated the dwelling with various types of religious artifacts (i.e., statuettes, paintings, calligraphy, and carvings) that represented the beliefs, teachings, doctrines, and events of a certain religion (Fig. 7.9.1, and Fig. 7.11.2). Some of them identified that they scraped pages from religious periodicals and taped them on residential doors/walls to strengthen their mental as well as religious attitudes on a daily basis (Fig. 7.11.3). In addition, some participants created a small, concentrated space where they can perform religious activity, such as praying and reading the Bible (Fig. 7.11.4).



Fig. 7.11.1 Sewing machine

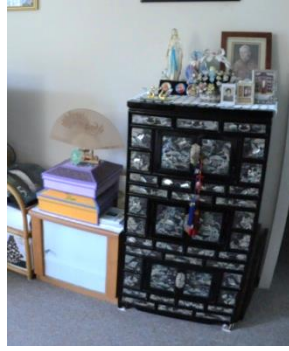


Fig. 7.11.2 Religious artifacts



Fig. 7.11.3 Scrapped verse(s) from the Bible

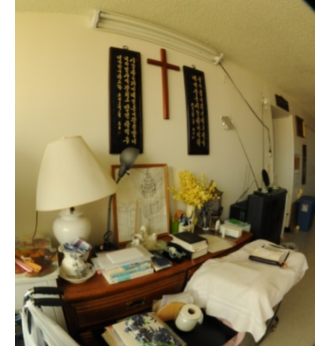


Fig. 7.11.4 Designated space for religious activity

Figure 7.11. Display of self: Objects, religious artifacts, & cultural items

Some participants also expressed their cultural identities through decorations. A few participants ($n=2$, 1.4%) hung the Korean flag on the wall to remember their origin, while some displayed the Stars and Stripes together to express their gratitude to the U.S. government (Fig. 7.12.1). Other cultural items used for decoration were furniture design (i.e., traditional Korean furniture), ornaments, paintings (i.e., ink-and-wash painting), various collections sets (i.e., tea sets, ceramic dolls, porcelain sets, etc.), and the traditional Korean folding screen (Fig. 7.12). However, some participants identified that it was not their original intention to use these cultural items as decorative features. Instead, they stated that they were just using what they happened to possess and had been using from the past. On the other hand, a few participants expressed strong attachments to these household goods, cultural items, and personal collections. These respondents also identified that they put in extra efforts to gain those pieces and that they had personal meanings as well as memories attached to them.



Fig. 7.12.1 The national flag(s)



Fig. 7.12.2 Collections of tea sets & ceramic dolls



Fig. 7.12.3 Family photos, collage, art work, & American flag,

Figure 7.12. Display of self: Cultural items

Many participants had designated areas where they spent most of their time and performed various activities of everyday life (Fig. 7.13). Most of these participants simply used one side of their dining table or coffee table, either in a chair-sitting or floor-sitting position. But some participants specifically used *soban* and *gyojasang* (i.e., replacing the coffee table) to better support their floor-sitting behaviors and to meet their preferences.



Fig. 7.13.1 Converting dining table



Fig. 7.13.2 *Soban* & floor-sitting cushion



Fig. 7.13.3 Personalization

Figure 7.13. Designated area: Various types of supporting furniture

The types of activities performed in these designated areas were extensive, including food preparation, dining, household chores, managing mail and documents, hobbies, religious activities, and so forth. Many participants demarcated these spaces more clearly with

additional mats, floor-sitting cushion(s), placemats, and frequently used objects of everyday life. Some respondents personalized these spaces more than the others with meaningful objects and decorative items (see Fig. 7.13).

Some participants created designated areas to hold exclusive activities related to religion or an individual hobby. A few respondents even created a personal shrine of their religion for religious purposes, either in their bedroom or living room (Fig. 7.9.1, Fig. 7.14.1).



Fig. 7.14.1 Personal religious shrine

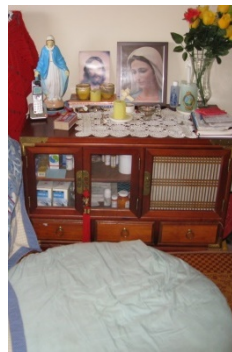


Fig. 7.14.2 Designated areas for hobby



Figure 7.14. Designated area: Religious activities & personal hobbies

At these designated areas, participants read the Bible and religious books, copied verses on note by hand, said their prayers, sang hymns, and watched/listened broadcasting sermon on a daily basis. With regard to personal hobbies, participants reported that they read Korean books, magazines, and newspapers, surfed the internet and read online newspapers to know the state of affairs in Korea, wrote calligraphy and drew oriental paintings (i.e., ink-and-wash painting), and crafted paper arts, artificial flower works, and matched puzzles. Most of these respondents identified that performing these activities helped them to strengthen their minds, religious beliefs, and mental memories in order to prevent dementia.

Chapter 8

Conclusion

The intent of the present dissertation was to gain in-depth understanding of the residential experiences of elderly Korean immigrants residing in public housing. It sought to gain deeper insights into and practical knowledge of how this population group actually uses its dwellings in real life to fulfill their everyday needs as well as preferences. As the study basically developed on the findings from a preliminary study (Jorn, 2009), it acknowledged the cultural orientation of elderly Korean immigrants toward their heritage culture from research development. Therefore, the present study was built to identify the role of culture in the residential experiences of elderly Korean immigrants in terms of doing everyday domestic activities, interacting with residential features, and evaluating their dwelling environment. It also acknowledged the reciprocal relations between people (i.e., the dwellers) and their residential environment (i.e., individual dwelling unit). From this perspective, the present study also identified how the cultural practices of elderly Korean immigrants and their residential settings changed over time through their housing adjustment behaviors.

The research questions that structured and led present dissertation are as follow (also see pp. 8-9):

RQ 1. Continuity of cultural practices:

How do elderly Korean immigrants maintain their culture through everyday activities?

RQ 2. Influences on residential evaluation:

To what extent do the daily activities influence their residential evaluation?

RQ 3. Individual coping responses (Housing adjustment behaviors):

How do elderly Korean immigrants adapt to residential misfits to satisfy their needs?

The theoretical framework was built upon Canter's theories of place and Weisman's model of place experiences. It also incorporated Rapoport's dismantlement of culture for identifying the cultural aspects of participants' lifestyles and residential experiences of everyday life. This was explored regarding the cultural practices of elderly Korean immigrants and their housing adjustment behaviors. Participants' cultural practices with respect to their residential experiences were first identified through meta-analysis of Korean houses. These were floor-sitting culture, multi-use of residential spaces, and influences from traditional notions including Confucianism, *Fengshui*, Buddhism, and folk beliefs. Housing adjustment behaviors were developed from Morris and Winter's housing adjustment and adaptation model. It was modified to be used in the present study considering the characteristics of research participants and their special circumstances of their dwelling environment. The modified model focused on individual experiences, included behavioral adaptation into adjustment type, and adjusted some concepts accordingly.

As an explorative study, the present dissertation employed mixed methods for data collection and analysis. It used quantitative, qualitative, and photographic analysis to explore the residential experiences and to identify important factors influencing these experiences from various perspectives.

Residential Experiences of Elderly Korean Immigrants

Research findings suggested that a new trend emerged among elderly Korean immigrants in terms of searching for and relocating to public housing. In the past, elderly Korean immigrants tended to congregate in public housing located in inner-city areas adjacent to Koreatown. The comments from older participants indicated that this tendency was to have better access to cultural resources including ethnic stores, public services, social organizations, Korean neighbors, and so forth. However, in recent years, elderly Korean immigrants were likely to select public housing located in suburban areas. These participants tended to be younger, perceived that they were knowledgeable about the American cultural context (across language, history, media, and food), and were likely to have private means of transportation. Some respondents mentioned that they selected (or were planning to move into) senior affordable housing in suburban regions to be closer to their adult children.

The Cultural Aspects of Residential Experiences

Research findings and exemplary cases identified the cultural aspects of participants' everyday lifestyle, residential uses, and housing adjustment behaviors to different extents. The cultural influences may not seem dominant, but they did exist at the fundamental level of everyday life across many aspects. Participants maintained their cultural practices in performing everyday domestic activities to various degrees and used dwelling features as well as spaces accordingly. However, the cultural influences on evaluating residential features and overall setting were identified to be less significant as participants tended to focus more on the

universal standards (i.e., size, storage capacity, functions of residential features, maintenance-free, and so forth). With regard to housing adjustment behaviors, changes were observed in participants' cultural practices (i.e., notions, values, and behaviors) and with dwelling features to support activity patterns constructed upon the participants' cultural practices. Lastly, participants' cultural orientation toward Korean culture was prominently observed with respect to their social relationships and sources of cultural resources. They heavily relied upon other Korean cohorts and gathered useful information as well as resources mostly from the Korean community.

Cultural practices and daily activities. Participants' daily activity patterns and uses of their dwelling were influenced by the cultural practices developed and internalized in Korean cultural context—i.e., floor-sitting culture, multi-use of residential spaces, and influences from traditional thought. Participants tended to maintain their cultural practices unless they felt the need to change them. These changes were provoked by immigration, differences in lifestyle between the two cultures (Korean and American), restrictions on the dwelling environment, and their aging body. For example, some participants reported that they acknowledged chair-sitting behaviors to be proper in American culture and accepted them as their new lifestyle. The differences in dwelling environment in terms of floor-finishing materials and heating systems also prevented them from maintaining their cultural practices to some extent. In addition, many participants indicated their aging body was changing their behavioral modes in performing certain activities, from floor-sitting to chair-sitting behaviors.

The daily activity patterns indicated two different aspects regarding changes. While some activities were more readily replaced with chair-sitting behaviors, the others were

consistently performed through floor-sitting behaviors. The former group includes sleeping, dining individually or in small groups, cooking, and doing laundry. As aforementioned, participants indicated differences between the two cultures regarding the norms and dwelling features, as well as their aging body, as their rationales for changing behavioral patterns for these activities. Partially related to their aging body, participants also identified convenience and comfort as their main reasons for changing past behaviors.

On the other hand, the latter group consists of participants' dietary habits, washing self, cleaning residential floors, and participating in social activities. Participants mostly indicated familiarity as their reasons for maintaining existing behavioral patterns. For example, despite participants' declines in bodily movements and poor physical health, many participants maintained their floor-cleaning activities in a squatting/sitting position using *gullae*. These respondents also reported that their existing behavioral patterns were the "right (or proper) way" of doing things.

Residential uses. Almost all participants maintained their past lifestyle, which consisted of floor-sitting and chair-sitting behaviors. Combined with the shoeless lifestyle, all research participants maintained their residential floors to support floor-sitting behaviors on any occasion. Even those who exclusively did chair-sitting behaviors reported that they kept the space ready for occasional floor-sitting behaviors. These occasions include doing household chores (i.e., handling food ingredients, cleaning floors, handwashing, etc.), taking a rest (i.e., stretching out one's legs, doing hobbies, exercising, etc.), holding a group meeting (i.e., family gathering, socializing with neighbors, home cell group meeting, ancestral rites, etc.), and so forth. In this sense, some participants indicated floor-sitting behaviors as an essential cultural

element deeply embedded in the lives of many Koreans. A few of them made the connection between floor-sitting behaviors and *ondol* floor in terms of its floor heating and support of body temperature.

Participants' multi-use of residential spaces was also enabled by participants' shoeless lifestyle, floor-sitting behaviors, and uses of supportive props and cultural items. However, there was insufficient evidence to argue that this multiple use of residential spaces was emerging mainly from the cultural particularities of these research participants. It may also relate to the limited conditions of participants' residential environments regarding size and supportive features. In other words, the compact size and absence of proper residential spaces for holding certain activities may have caused participants to perform these activities in various spaces other than their designated areas. Yet it was also evident that most participants utilized their cultural practices (i.e., floor-sitting behaviors) and cultural items for resolving these problems.

Residential evaluation: Physical and social environments. Research participants tended to consider fewer of their cultural particularities when they evaluated the physical features and setting of their dwelling. Their standards and priorities of evaluation were grounded more on the sizes, functions, simplicities, and efficiencies of residential features. In other words, participants tended to report a positive evaluation when the physical features and overall setting provide sufficient spaces, functioned well without causing any issues, were easy and simple to maneuver, and required less work for maintenance. On the other hand, only a few comments about residential floors and window directions were made in relation to the cultural particularities of the research participants.

Research participants considered the cultural context more importantly and frequently when they evaluated the social environment of their dwelling. Language was indicated as the most problematic feature, as it hindered communicating their needs, searching for proper resources, and resolving the conflicts and issues of everyday life. In this sense, the vast majority reported that they were satisfied to live with other Korean neighbors and revealed their heavy reliance upon each other. They also indicated their satisfaction with having Korean service providers (i.e., service coordinator, social worker, and/or custodians) and ethnic stores in proximity. Easy access to ethnic store(s) was also important as they mainly maintained Korean dietary habits and needed ingredients for cooking Korean dishes.

Residing within Korean community was very important to many research participants in terms of sharing useful information as well as resources, and of receiving psychological support on a daily basis. Participants reported that they formed a formal Korean neighborhood organization and supported each other through systematic ways. They held regular meetings for promoting fellowship and for sharing news as well as notices, celebrated holidays and birthdays on a regular basis, and helped Korean neighbors in need (i.e., being sick, hospitalized, or moving into nursing home). This neighborhood organization had close relationships with Korean social agencies and received various supports from them as well. For example, participants received useful information regarding benefits and services designed for low-income elderly (i.e., government-subsidized housing programs, home care programs, benefit assistance programs, etc.), regional news and notices (i.e., how to get flu shots, how to control bed bugs, etc.), and legal supports (i.e., naturalization, senior property tax exemption, Supplemental Security Income and Social Security Administration benefits, etc.).

Housing Adjustment Behaviors

All types of housing adjustment behaviors were observed with the research participants. Participants tended to change their cultural practices (i.e., including notions, perceptions, standards, and behaviors) as they acknowledged the differences between two cultures across norms, lifestyles, building construction, and so forth. Their aging body and declines in bodily movements were also indicated as their main rationale for changing cultural practices. On the other hand, changes in the dwelling environment tended to take place when participants sought to maintain their cultural practices built upon their past experiences. These residential alterations were prominently related to modifying residential floors, promoting transitional function of entry space, and expanding storage spaces.

For most cases, except for modifying residential floors, residential alteration was rather sporadic and temporal, reflecting participants' restrictions as tenants residing in public housing. Their limitations in affording resources also influenced them to put in minimum effort and money in altering residential features to support their needs. In addition, many participants indicated their aging body and declines in physical health as their push factors for pursuing various housing adjustment behaviors. Many participants reported that they had to either quit or change their ways of doing certain daily activities due to their loss in physical abilities. For example, as aforementioned, these respondents tended to change their priorities of evaluation to favor maintenance-free and simple as well as convenient for doing various domestic activities. Therefore, they changed their notions and altered residential features accordingly to meet those standards. In this sense, participants tended to alter residential features to prevent possible problems caused by frequent use (i.e., residential alteration) but did not care much

about its aesthetic aspects (e.g., gluing paper on wall holes, wrapping wall faucets with plastic bag, stacking boxes and trash bags to store and put away belongings, etc.) .

Complexity of housing adjustment behaviors. The housing adjustment behaviors of research participants occurred at multiple points in time in relation to their immigration experiences, their role in the family, relocation experiences, and so forth. The adjustment appeared as an ongoing process that constantly had re-formed and changed throughout the individual's lifespan. The present study focused on identifying and examining the housing adjustment behaviors that took place after participants relocated to their current dwelling. However, except for residential alteration, it was hard to pinpoint when certain adjustments started to take place and what motivated participants to make those changes. In other words, with regard to participants' normative adaptation (e.g., window direction, heating system, etc.), it was hard to identify whether such changes took place when participants immigrated to the U.S., when they co-lived with adult children in single-detached housing, or when they relocated to their current dwelling. Even if the time was clearly stated by some participants, whether those changes progressed or diminished was hard to identify.

Data analysis suggested that most housing adjustment behaviors of participants tended to occur simultaneously rather than sequentially. In other words, many participants indicated changes in their notions (i.e., thoughts, perceptions, standards, and attitudes), behaviors, and dwelling environment in combination to satisfy their daily needs as well as preferences. This was more prominently shown when participants sought to maintain their cultural practices and/or past lifestyle. For example, with regard to dietary habits, participants changed their cooking methods and altered residential features to maintain their consumption of ethnic

dishes. Another example is related to expanding storage spaces. Participants reported changes in their perceptions and attitudes toward materials as they made connections to their life-stage perspectives and positions (i.e., as tenants and beneficiaries of government supports). They also discarded personal belongings and housing goods, and expanded storage spaces through cabinets, shelves, ready-made closets, and so forth. It was hard to determine which adjustment behaviors precede the other(s), but they were observed and reported together at the time of conducting the in-depth interviews.

Making of Home

The vast majority of research participants reported that they “feel at home” in their dwelling despite the fact that a few participants had resignation in their tone. These respondents mostly indicated habitation, comfort, autonomy, and mindsets as their reasons for having residential attachment (see “Residential Attachment” in Chapter 6). In other words, they felt at home because their dwelling was where they had lived their life, felt at ease, and had freedom to do as they wanted to. However, many participants indicated that all these aforementioned qualities started from accepting the dwelling as their home to begin with. Henceforth, they consciously sought to have affectionate attitudes toward their new life, neighbors, residential environment, and so forth.

As indicated directly by some participants, constant interaction with and care of their dwelling environment were also important. Through this process, participants dropped their defensive attitudes towards residential attachment (i.e. attitudes such as “this is just a place I stay briefly before reaching nursing home/ death”) and started to engage in life more actively

at their new home. They felt safe, felt free to do whatever and however they wanted to, felt relieved, and felt at home.

Housing adjustment behaviors also had close interrelation with participants' development of residential attachment to some extent. Based upon research findings, the researcher infers that these two factors—housing adjustment behaviors and development of residential attachment—advance together throughout participants' residence years in the dwelling. As indicated earlier, housing adjustment behaviors were more of an ongoing process that took place throughout participants' lifespan and residence in the dwelling. Research participants also reported that they gradually grew attached to their dwelling over their habitation years. In this sense, participants' residential alteration and constant care of the dwelling seemed to advance their dwelling attachments (or vice versa).

For example, participants placed floor mats and shoe racks on entry way, spread out bamboo mats/electric mats on their main living space, filled out the empty space with personal belongings, and decorated the space with family photos, art works, flowers, and so forth. They also changed their perceptions of the dwelling and behavioral patterns of daily activity, which helped them to better adjust to their new living conditions and the dwelling environment. They lowered their standards for dwelling features and settings, changed their priorities for evaluating residential spaces, started to use props and instruments to lessen their housekeeping work load, and changed behavioral modes for performing certain activities. Throughout these processes, participants were gradually developing attachment to their dwelling without noticing it.

Participants' making of home and features influencing the process are presented in the following diagram (Fig. 8.1). The elderly Korean immigrants who participated in the present study indicated constant interactions with their dwelling in terms of evaluating residential features and setting, performing various domestic activities, and personalizing (i.e., including both residential alteration and decoration) their dwelling to satisfy their needs and preferences. Individual particularities—cultural practices in this study—influenced participants' interaction through many aspects of everyday life. Changes occurred with their notions and behaviors regarding their dwelling environment and residential experiences.

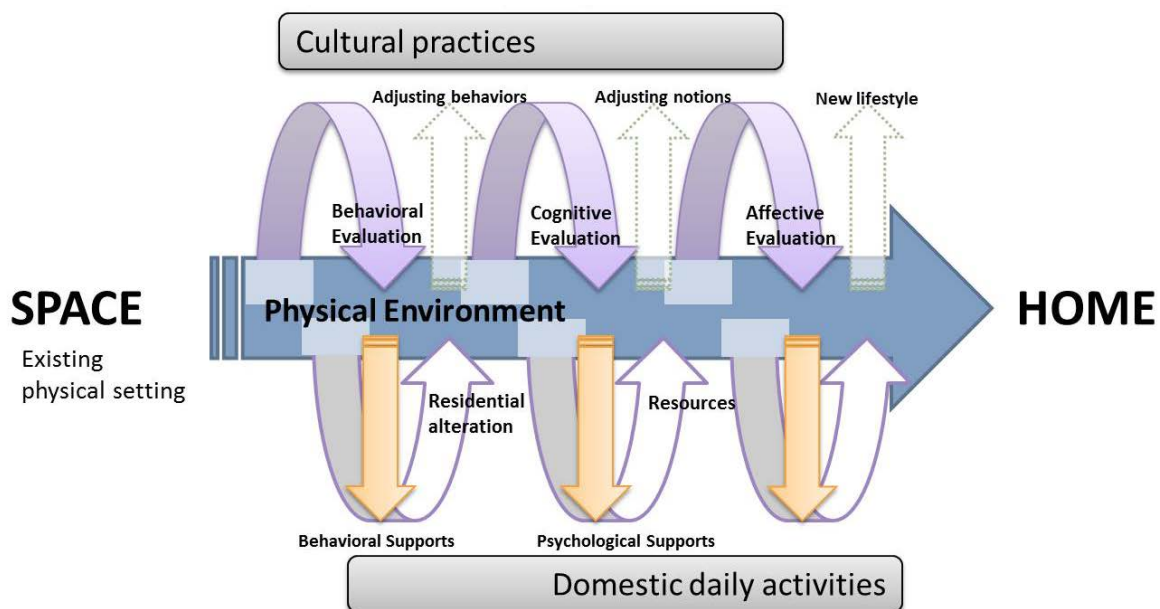


Figure 8.1. The process of making a home

They also changed the dwelling environment to compensate for environmental misfits in order to better support their daily activities. However, as mentioned earlier, housing adjustment behaviors tended to occur simultaneously rather than sequentially. Therefore, their

presenting order in the diagram does not reflect their sequence order or importance levels. Instead, their influencing levels varied by individuals. For example, some participants sought to support their past behavioral patterns through residential alteration while some placed more importance on gaining psychological supports.

Concluding Statement

Significance and Implication of the Study.

The fundamental goal of this study was to identify the cultural factors and elements that can serve as therapeutic resources to elderly Korean immigrants regarding their residential experiences. From this stance, the study examined the transactions between elderly Korean immigrants and their dwelling considering their different underlying sociocultural backgrounds. It sought to gain in-depth understanding of what really happens inside one's dwelling with regard to the cultural particularities of elderly Korean immigrants. It explored how individual cultural particularities influenced participants' choices and decisions in responding to residential misfits at the level of everyday life. Through this process, the study also provided useful information about the daily life patterns of elderly Korean immigrants residing in public housing with respect to identifying their physical, psychological, and cultural needs.

The present study was meaningful and significant in several ways. To begin with, it explored the role of culture in the residential experiences of elderly Korean immigrants residing in public housing. It approached and examined the concept of culture at operational level and

identified its influences on participants' daily life patterns as well as residential uses. The study also examined and clarified how individuals actually utilized their cultural particularities and resources for developing coping responses to satisfy their needs of everyday life. All these findings explored and identified how culture and its constituting elements can serve as therapeutic resources to elderly ethnic groups.

Secondly, studying the restricted living conditions of these elderly Korean immigrants was useful for identifying their imminent needs in experiencing dwelling environment. Research participants had limitations and restrictions in many aspects of their everyday life as tenants residing in public housing. For example, they had regulations to abide by, and they tried to avoid any possible conflicts with the apartment manager and other ethnic groups, thinking it might jeopardize their living situation. Despite these circumstances, however, these elderly Korean immigrants showed various efforts in modifying their dwelling features to satisfy their needs and preferences. In addition, considering their limited budgets and restrictions on how much they could alter the space, their housing adjustment behaviors focused on maximizing the effect of satisfying their needs with minimal investment. Therefore, these housing adjustment behaviors may reflect the imminent and fundamental needs of elderly Korean immigrants to have positive residential experiences.

And last, but not the least, participants' particular positions as beneficiaries of government supports enabled them to identify how they offset their needs and dissatisfaction with their living conditions to some extent. This was not originally intended in the research design as a variable, but many participants referred to it during their in-depth interviews. Research findings also suggested that this specific condition of research participants were likely

to influence their perceptions of and evaluations of dwelling environment. However, it provided useful information on how and why elderly Korean immigrants were compensating for their dissatisfaction with their dwelling environment. It also hinted at the priorities of their needs and identified the necessities for enhancing their quality of life as well as the chances of aging-in-place. As indicated by one social worker serving this population group, keeping the elderly residing in public housing independently—i.e., rather than sending them to assisted living, hospitals, or hospice—required much less in government expense.

From these perspectives, the findings of present study provided more insights for understanding the daily life patterns and residential uses of elderly Korean immigrants. Some of their behavioral patterns and uses of dwelling might seem peculiar to those (e.g., housing authority and administrators) who do not have any background knowledge of their cultural practices and customs. As directly indicated by some participants, these elderly Korean immigrants were already experiencing or paying keen attention to avoid conflicts with their neighbors and apartment manager in doing everyday activities (e.g., cooking, cleaning, taking care of indoor plants, and so forth). However, with a little knowledge and understanding of why this population group behaves in certain ways, it will be easier for both parties to find a solution or a middle ground. This is also applicable to understanding peculiar behavioral patterns of other ethnic groups residing within an apartment complex. Upon the awareness and understanding of certain housing behaviors, it will be possible to provide culturally rich and friendly environment.

The housing adjustment behaviors, particularly the residential alteration, provide directions and implications for architects, designers, and builders for designing culturally

sensitive housing. Culturally sensitive housing does not refer to a house that was designed for a particular ethnic group to support its specific ways of life. On the contrary, it focuses on promoting flexibility to accommodate the diverse values and ways of life of the dwellers (Hadjiyanni, 2009). For example, many of the negative features identified by these research participants can be solved by increasing flexibility, promoting a sense of control, and expanding storage capacity. In addition, the present research identified the discrepancy between the architects' original intentions and the dwellers' actual uses of dwelling features to some extent (e.g. use of bathroom setting). Through these findings, architects and designers can draw on the residential needs of the dwellers and apply applicable solutions to their future designs and projects.

Strength and Limitation of the Study

The strength of this study lies in its use of mixed methods for approaching and examining the research subject. This enabled the researcher to explore the matter from various aspects and provided richer contexts of the everyday lifestyles and residential experiences of elderly Korean immigrants. The present study used quantitative, qualitative, and photographic approaches for data collection and analysis. All approaches were set with different goals and designed accordingly. However, they were also in complimentary relations to one another as they supplemented what the other methods might have missed.

The quantitative approach provided general information about the demographic features, intercultural experiences, and relocation processes of elderly Korean immigrants. It also identified particular trends of this population group regarding their daily life patterns,

cultural orientations, and residential evaluation. The qualitative approach focused on exploring their daily life patterns and identifying their rationales for evaluating their dwelling environment. It also collected individual life stories and experiences of adjusting to the new sociocultural environment (i.e., immigration to the U.S.) and the dwelling (i.e., relocation to public housing). This enabled the researcher to identify significant features and specific characteristics of the participants' residential experiences that were not included in the original research framework. Lastly, the photographic analysis was used to identify the housing adjustment behaviors of these elderly Korean immigrants, particularly their residential alteration. The photographic documents were useful for verifying information that was unclear or omitted during the in-depth interviews. It also enabled the researcher to add variables extracted from the dwelling environment (i.e., floor types, number of floor mats, furniture layout, and so forth) at later point of time during data analysis.

However, employing mixed methods was also the limitation of the present research. One issue is the depth of this study. As the study sought to gain broader understanding of the daily life patterns and residential experiences of elderly Korean immigrants, too many questions were included during the in-depth interviews. Therefore, research participants often times showed fatigue and distraction during their interviews. In the worst cases, participants lost interest in providing answers to the questions and tried to wrap up the interview rapidly. In addition, some participants provided too much information that was not relevant to the current research while sharing their life stories during interview. In this sense, the credibility of the collected data might be compromised to some extent.

Another significant limitation was the preset focus of researcher in exploring the residential experiences of elderly Korean immigrants. The researcher had a specific research focus and framework set up (i.e., cultural aspects of residential experiences) before encountering the phenomena of how elderly Korean immigrants live their everyday domestic life and use dwelling environment accordingly. This might have prevented the researcher from taking the phenomena as they were and guided her to focus on finding what she was searching for. As indicated by Seamon regarding the phenomenological method, the researcher “must assume that she does not know the phenomenon but wishes to” (2000:164). However, this preset focus also enabled the researcher to identify specific characteristics of the dwelling environment and residential experiences that might have been missed without any focus in approaching the phenomena. In addition, the photographic analysis of visual documents helped the researcher from skewing to a particular direction in data analysis.

Future Directions

For future studies, the framework of this study should be expanded to include other population groups to compare and to identify more effectively how the cultural particularities influence residential experiences. In addition, it is necessary to develop better measurement tools for assessing the residential satisfaction levels and the cultural adjustment levels of the dwellers.

First, future research should be expanded to include other elderly ethnic groups residing in public housing to see the cultural particularities in their daily life patterns, residential uses, and housing adjustment behaviors. This will provide more grounds for developing culturally

sensitive housing for elderly populations across ethnic groups. For example, the residential features commonly identified as misfits across ethnic groups will indicate the shortcomings in housing design in terms of supporting dwellers' activities at the level of everyday life. As indicated in the findings of this research, some of these features can be improved with minimal effort to better support the dwellers' needs (e.g., increasing storage spaces with additional dividers, shelves, and so forth). Expanding the study to include other ethnic groups will also be effective in identifying the cultural context of dwelling activities and residential uses (i.e., the cultural particularities), and their responses to residential misfits (i.e., their uses of cultural resources and actual application).

The study can also be expanded to include elderly Korean immigrants residing in private housing such as apartments, condominiums, and single-detached housing. This will help to identify whether the particularities of residential uses and housing adjustment behaviors of the research participants are emerging from cultural differences or other causes. These causes include lack of financial ability for getting required resources, possible differences in cultural adjustment levels (i.e., showing higher immersion levels into American society), limitations and restrictions as tenants residing in public housing, and so forth. Examining the differences in dwelling life patterns and housing adjustment behaviors between the two groups (i.e., elderly Korean immigrants residing in public housing and those residing in private housing) will provide much richer contexts for understanding the role of culture as it affects people and their built environment.

It is also necessary to develop a sensitive scale that can objectively assess the characteristics of research participants and their residential evaluation. Throughout data

collection and analysis, the present study experienced the shortcomings of proper measurement tools for assessing the residential satisfaction levels and the cultural adjustment levels of elderly Korean immigrants. In other words, research participants indicated clear differences in their satisfaction levels and immersion levels into the American cultural context during the in-depth interviews. However, these differences were not reflected in their answers to the survey questions. For example, participants who can freely communicate in English and those who just used a few words to express their needs both reported that they were not fluent in English. In addition, some participants reported contradictory evaluations between numerical values (i.e., reporting six on the Likert scale, which was “satisfied”) and rationales (i.e., reporting many negative features and dissatisfactions).

REFERENCES

- Akresh, I.R. (2010). Immigrants' religious participation in the United States. *Ethnic and Racial Studies*, 34(4), 643-661.
- Altman, I. & Chemers, M.M. (1980). Cultural aspects of environmental-behavior relationships. In H.C. Triandis & R.W. Brislin (Eds.), *Handbook of cross-cultural psychology* (pp.335-394). Allyn & Bacon.
- Aroian, K.J., Norris, A.E., Tran, T.V., & Schappler-Morris, N. (1998). Development and psychometric evaluation of the demands of immigration scale. *Journal of Nursing Measurement*, 6(2), 175-194.
- Baek, H. & Park, K. (2000). The formation and transition of the utility room in Korean apartment housing (한국 공동주택에서 다용도실의 성립과 전개). *Journal of Architectural Institute of Korea*, 16(3), 11-20.
- Baltes, M., & Lang, F. (n.d.). Everyday functioning and successful aging: The impact of resources. *Psychology and Aging*, 12(3), 433-443.
- Banks, J.A., & McGee, C. A. (1989). *Multicultural education: Issues and Perspectives*. Needham Heights, MA: Allyn & Bacon.
- Baron, R.M. & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bennett, J.M. (2004). Turning frogs into interculturalists: A student-centered developmental approach to teaching intercultural competence. In R.A. Goodman, M.E. Phillips, & N. Boyacigiller (Eds.), *Crossing cultures: Insights from master teachers* (pp. 312-342). London: Routledge.
- Berger, P.L. & Luckmann, T. (1966). *The social construction of reality: a treatise in the sociology of knowledge*. New York: Anchor Books.
- Berry, J.W. (1980). Acculturation as varieties of adaptation. In A.M. Padilla (Ed.), *Acculturation: Theory, Models, and Some New Findings* (pp.9-25). Boulder: Westview Press.

- Berry, J.W. (1994). Acculturation and psychological adaptation: an overview. In A.Bouvy F.J.R. Van Devijer, P. Boski & P. Schmitz (Eds.), *Journeys into Cross-cultural Psychology* (pp.129-141). Amsterdam: Swets & Zeitlinger.
- Berry, J.W. (2002). Conceptual approaches to acculturation. In G.Marin, P.Balls-Organista, & K.Chung (Eds.), *Acculturation* (pp.17-37). Washington, DC: APA Books.
- Bognar, B. (1989). The place of no-thingness: the Japanese house and the Oriental world views of the Japanese. In J. Bourdieu & N. Alsayyad (Eds.), *Dwellings, settlements and tradition* (pp. 183-212). Lanham: University Press of America.
- Bourdieu, J. (1989). Reading tradition. In J. Bourdieu & N. Alsayyad (Eds.), *Dwellings, settlements and tradition* (pp. 35-52). Lanham: University Press of America.
- Bourdieu, P. (1980). *The logic of practice*. Standford, California: Standford University Press.
- Bourdieu, P. (1984). *Distinction: a social critique of the judgement of taste*. Cambridge, Massachusetts: Harvard University Press.
- Brody, E.M. (1977). Environmental factors in dependency. In A.N. Exton-Smith & J.G. Evans (Eds.), *Care of the elderly: Meeting the challenge of dependency* (pp.81-95). London: Academic Press.
- Brubaker, R. (1993). Social theory as habitus. In C. Calhoun, E. Lipuma & M. Postone (Eds.), *Bourdieu: critical perspective*. University of Chicago Press (pp. 212-234).
- Campbell, C.M. (2012). *Methods of physical activity assessment in older adults* (Graduate theses and dissertation). Retrieved from Digital repository at Iowa State University (12809)
- Celenk, O. & Van de Vijver, F. (2011). Assessment of acculturation: issues and overview of measures. *Online Readings in Psychology and Culture*, Unit 8. Retrieved from <http://scholarworks.gvsu.edu/orpc/vol8/iss1/10>
- Chen, K., Hung, H., Lin, H., Haung, H., & Yang, Y. (2011). Development of the model of health for older adults. *Journal of Advanced Nursing*, 67(9), 2015-2025. doi:10.1111/j.1365-2648.2011.05643.x
- Chipperfield, J. (2008). Everyday physical activity as a predictor of late-life mortality. *The Gerontologist*, 48(3), 349-357.

- Chipperfield, J., Newall, N., Chuchmach, L., Swift, A., & Haynes, T. (2008). Differential determinants of men's and women's everyday physical activity in later life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 63B(4), S211-S218.
- Cho, E. (2000). *Furniture design for sedentary life in the residential space of apartment* (아파트 주거공간의 좌식생활을 위한 가구디자인). (Master's thesis).
- Cho, J. & Park, S. (1994). A study on the housing consciousness and satisfaction by the transformation of the apartment-housing unit plan (공동주택 단위평면의 변천에 따른 주의식과 만족도). *Journal of Architectural Institute of Korea*, 14(2), 129-134.
- Choi, J. (1996). Changes in residential lifestyles in the contemporary Korean society in the context of the changes in the 3LDK apartment unit plans in the metropolitan Seoul area (한국 현대 사회의 주생활 양식의 변화: 수도권 3LDK 아파트 주호 평면 계획의 변천을 중심으로). *Journal of Architectural Institute of Korea*, 12(9), 3-13.
- Choi, J. (1998). A study on the plan change of a public room in an apartment (아파트 공실공간의 평면변화에 관한 연구). *Korean Institute of Interior Design Journal*, 16(9), 36-41.
- Choi, L. & Kim, H. (2009). A study on the Korean apartment living room storage furniture change and characteristics (한국의 아파트 거실 수납가구의 변화와 특성에 관한 연구). *Journal of Architectural Institute of Korea*, 25(11), 149-160.
- Choi, Y. (2003). A study on the socio-spatial status of women in residential layouts (주택평면에 나타난 여성의 사회공간적 지위에 관한 연구). *Journal of Architectural Institute of Korea*, 19(1), 81-88.
- Chow, H.P.H. (2010). Growing old in Canada: physical and psychological well-being among elderly Chinese immigrants. *Ethnicity & Health*, 15(1), 61-72.
- Cregan, K. (2006). *The sociology of the body*. London: Sage.
- Creswell, J. (2003). A framework for design. In *Research design: Qualitative, quantitative, and mixed method approaches* (2nd ed.). Thousand Oaks, California: Sage Publications.
- Csikszentmihalyi, M. & Rochberng-Halton, E. (1981). *The meaning of things: Domestic symbols and the self*. New York: Cambridge University Press
- Csordas, T.J. (1990). Embodiment as a paradigm for anthropology. *Ethos*, 18(1), 5-47.

- Damen, L. (1987). *Culture Learning: The Fifth Dimension on the Language Classroom*. Reading, MA: Addison-Wesley.
- Dasgupta, S.D. (1998). Gender roles and cultural continuity in the Asian Indian immigrant communities in the U.S.. *Sex Roles*, 38(1), 953-974.
- Day, K. & Cohen, U. (2000). Incorporating cultural heritage in the design of dementia care environments. Paper presented to the Archstone Foundation.
- Duncan, J. (1981). From container of women to status symbol: The impact of social structure in the meaning of the house. In J. Duncan (Ed.) *Housing and identity: Cross cultural perspectives*. London: Croom Helm.
- Fänge, A., & Iwarsson, S. (2005). Changes in ADL Dependence and Aspects of Usability Following Housing Adaptation--A Longitudinal Perspective. *American Journal of Occupational Therapy*, 59(3), 296-304.
- Fox, K., Stathi, A., Mckenna, J., & Davis, M. (2007). Physical activity and mental well-being in older people participating in the Better Ageing Project. *European Journal of Applied Physiology*, 100, 591-602. doi:10.1007/s00421-007-0392-0
- Giddens, A. (1991). Structuration theory: past, present and future. In C. Bryant & D. Jary (Eds.), *Giddens' theory of structuration: a critical appreciation* (pp. 201-221). London: Routledge.
- Gorgorió, N. & Planas, N. (2005). Cultural distance and identities-in-construction within the multicultural mathematics classroom. *ZDM*, 37(2), 64-71.
- Groat, L., & Wang, D. (2002). *Architectural research methods*. New York, NY: John Wiley & Sons.
- Guttmann, D. (1988). A perspective on Euro-American elderly. In C.L. Hayes, R.A. Kalish & D. Guttmann (Eds.), *European-American elderly: A guide for practice* (pp.3-15). New York: Springer Publishing.
- Ha, J. & Choi, K. (2003). A comparative study on Korean and Chinese traditional furniture based on the style of user pattern: in the center of typing of living. Retrieved from http://www.idemployee.id.tue.nl/g.w.m.rauterberg/conferences/cd_donotopen/adc/final_paper/506.pdf

- Ha, M. & Lyu, H. (2008). A Study on Environmental issues of Feng-Shui applicable to Contemporary Residential Space (환경학 관점에서 본 양택풍수의 현대 주거 공간 적용에 관한 연구). *Korean Society of Basic Design and Art*, 9(2), 925-935. Retrieved from <http://www.nanet.go.kr> (Order No. KINX2008109665)
- Hall, E.T. (1983). *The dance of life: The other dimension of time*. New York: Anchor Books.
- Hall, E.T. (1989). *Beyond culture*. New York: Anchor Books.
- Han, H.R., Choi, Y.J., Kim, M.T., Lee, J.E., & Kim, K.B. (2008). Experiences and challenges of informal caregiving for Korean immigrants. *Journal of Advanced Nursing*, 63(5), 517–526
- He, W., Sengupta, M., Velkoff, V. A., & DeBarros, K. A. U.S. Census Bureau (2005). 65+ in the united states:2005. Retrieved from <https://www.census.gov/prod/2006pubs/p23-209.pdf>
- Henderson, J.N. (1996). Cultural dynamics of dementia in a Cuban and Puerto Rican population in the United States. In G.Yeo & D. Gallagher-Thompson (Eds.), *Ethnicity and the dementias* (pp.153-166). Washington, DC: Taylor & Francis.
- Hewes, G.W. (1957). The anthropology of posture. *Scientific American*, 196(2), 122-132.
- Hofstede, G. (1984). National cultures and corporate cultures. In L.A. Samovar & R.E. Porter (Eds.), *Communication between cultures*. Belmont. CA: Wadsworth.
- Hofstede, G. (1998). I, we, and they. In J.N. Martin, T.K. Nakayama, & L.A. Flores (Eds.), *Readings in cultural contexts* (pp.345-356). Mountain View, CA: Mayfield Publishing co.
- Hong, H, et al. (1999). *Hanoak: Traditional Korean Homes*. New Jersey: Hollym International Corp.
- Hurh,W.M. & Kim, K.C. (1990). Adaptation stages and mental health of Korean male immigrants in the United States. *International Migration Review*, 24(3), 456-479.
- Hurh,W.M. & Kim, K.C. (2011). Adhesive sociocultural adaptation of Korean immigrants in the U.S.: An alternative strategy of minority adaptation. *International Migration Review*, 18(2), 188-216.
- Huynh, Q., Howell, R.T., & Benet-Martinez, V. (2009). Reliability of bidimensional acculturation scores: a meta-analysis. *Journal of Cross-Cultural Psychology*, 40(2), 256-274.

- Hwang, E. (2006). This is my home: the story of older Korean immigrants. *Seniors' Housing Updates*, 15(2), 1-8.
- Hwang, E. (2008). Exploring aging-in-place among Chinese and Korean seniors in British Columbia, Canada. *Ageing International*, 32(3), 205-218.
- Iwarsson, S., Wahl, H., Nygren, C., Oswald, F., Sixsmith, A., Sixsmith, J., Széman, Z., Tomsone, S. (2007). Importance of the Home Environment for Healthy Aging: Conceptual and Methodological Background of the European ENABLE-AGE Project. *The Gerontologist*, 47(1), 78-84.
- Jang, Y. (2008). Willingness to use a nursing home: a study of Korean American elders. *Journal of Applied Gerontology*, 27(1), 110-117.
- Jang, Y., Kim, G., & Chiriboga, D. (2005). Acculturation and manifestation of depressive symptoms among Korean-American older adults. *Aging & Mental Health*, 9(6), 500-507.
- Jang, Y., Kim, G., Chiriboga, D., & King-Kallimanis, B. (2007). A bidimensional model of acculturation for Korean American older adults. *Journal of Aging Studies*, 21: 267-275.
- Jeon, B.H., & Kwon, Y.C. (2008). A diachronic study of the archetypal spatial elements in Korean house plan. *Journal of Architectural Institute of Korea*, 24(7), 181-192.
- Jeong, S. & Yoon, I. (2002). A study on the alteration of the collective housing – in modern times, Korea – focused on the settled process of apartment housing (한국 공동주택 변천에 관한 고찰 – 근대식 아파트의 정착과정을 중심으로). *Journal of Architectural History*, 11(2), 37-56.
- Johnson, B. (n.d.). Chapter 14: Mixed research: Mixed method and mixed model research. Available at:
http://www.southalabama.edu/coe/bset/johnson/oh_master/Ch14/Tab14-01.pdf.
 Accessed December 11, 2015.
- Johnson, J.C. & Smith, N.H. (2002). Health and social issues associated with racial, ethnic, and cultural disparities. *Generations*, 26.
- Joo, K. (2004). 우리문화의 수수께끼 1, 2. Seoul: Hanibook.
- Joo, N.C. (1965). 한국주택의 변천과 발달에 관한 연구. Retrieved from <http://www.aik.or.kr/>

- Joo, N.C. (1978). The spatial characteristics of Choson Dynasty houses (조선시대 주택건축의 공간특성론). *Journal of Architectural Institute of Korea*, 22(80), 17-23.
- Joo, N.C. (2003). Korean housing architecture (한국 주택 건축). Iljisa.
- Joo, N.C. (n.d.). 온돌의 역사. Retrieved from <http://www.aik.or.kr/>
- Jorn, M. (2011). A Qualitative Approach to the Cultural Adjustment and Home Environment of Korean Elderly Immigrants. In *EDRA 42 Chicago: Make no little plans : Proceedings of the 42nd annual conference of the Environmental Design Research Association, Chicago, Illinois, May 25-28, 2011*. McLean, VA: Environmental Design Research Association.
- Jorn, M. (2014). Housing adjustment behaviors of Korean elderly immigrants living in affordable housing (Affordable housing에 거주하는 한인 노인 이민자의 주거적응행태). *Journal of the Korean Housing Association*, 25 (3), 1-11.
- Jorn, M., Shih, C., & Rhee, J.H. (2011). Comparing the characteristics of apartment floor plans and their evolving processes in Korea and Taiwan. In *EDRA 42 Chicago: Make no little plans : Proceedings of the 42nd annual conference of the Environmental Design Research Association, Chicago, Illinois, May 25-28, 2011*. McLean, VA: Environmental Design Research Association.
- Jorn, M. & Shin, J. (2013). Cultural attributes and recreating home: Residential experiences of Korean elderly immigrants in affordable housing. In *EDRA 44 Providence: Healthy healing places: Proceedings of the 44th annual conference of the Environmental Design Research Association, Providence, Rhode Island, May 29-June 1, 2013*. McLean, VA: Environmental Design Research Association.
- Jun, N. (2010). The spatial history of Korean houses (한국 주거의 공간사). Paju: Dolbegae.
- Jun, N., Sohn, S., Yang, S., & Hong, H. (2008). The social history of Korean houses (한국 주거의 사회사). Paju: Dolbegae.
- Jun, N., Yang, S. & Hong, H. (2009). The micro-history of Korean houses (한국 주거의 미시사). Paju: Dolbegae.

- Jung, M. (2009). A residence cultural approach of Hanok modernization (한옥현대화의 주거문화적 접근). *Architecture*, 61-62.
- Kalisch, T. (2011). Questionnaire-based evaluation of everyday competence in older adults. *Clinical Interventions in Aging*, 6, 37-46. doi:10.2147/CIA.S15433
- Kamachi, N. (1999). Culture and Customs of Japan. Westport, Connecticut: Greenwood Press.
- Kang, S. (2002). *A study on contemporary residential interior design that reflect Korean behavior* (한국적 행태 특성을 고려한 현대주거의 실내디자인에 관한 연구). (Master's thesis).
- Kang, S. (2006). Measurement of acculturation, scale, formats, and language competence: their implications for adjustment. *Journal of Cross-Cultural Psychology*, 37(6), 669-693.
- Kang, S., Kim, D., Min, C., Park, Y., Oh, H., Cheon, J., Choi, J., & Hong, H. (2004). Culture in traditional Korean homes (한옥의 공간문화). Paju: Iljisa.
- Keddy, K. (2006). *Embodied professionalism: the relationship between the physical nature of nursing work and spaces*. (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3222382)
- Kim, B.S., Atkinson, D.R. & Umemoto, D. (2001). Asian cultural values and the counseling process: current knowledge and directions for future research. *The Counseling Psychologist*, 29, 570-603.
- Kim, D. & Choi, J. (2007). A study on the characteristics of residents' behavior setting and the spatial interaction in the living space (거실공간에서의 거주자 행동장면 특성과 공간대응에 관한 연구). *Journal of Architectural Institute of Korea*, 23(5), 41-48.
- Kim, G. (2001). *A study on the space composition factors of Anbang in apartment housing* (아파트 안방의 공간구성요소에 관한 연구). (Master's thesis).
- Kim, J. & Choi, K. (n.d.). Comparative study on Korean and Japanese traditional furniture design: based on the residential behavior related to floor sitting. Retrieved from http://www.idemployee.id.tue.nl/g.w.m.rauterberg/conferences/cd_donotopen/adcfinal_paper/408.pdf
- Kim, J. & Lauderdale, D.S. (2002). The role of community context in immigrant elderly living arrangements: Korean American elderly. *Research on Aging*, 24(6), 630-653.

- Kim, J., Kim, W., Lee, G. & Lee, Y. (2002). A study on the spatial characteristic of Korean traditional houses in respect to everyday and non-everyday living activities: focused on the upper class housings in the Andong region (일상과 비일상적 주생활에 따른 전통주거건축의 공간적 특성에 관한 연구: 안동지방 상류주택을 중심으로). *Journal of Architectural Institute of Korea*, 18(12), 111-118.
- Kim, K. (1997). A study on the change of unit floor plan of apartment house in Korea (아파트 단위 평면 변화과정에 관한 연구: 안방 및 거실 중심으로). *Korean Institute of Interior Design Journal*, 12, 50-56.
- Kim, K., Yoo, J. & Kim, M. (2010). A study on interchange in social different position of traditional dwelling culture: focused on the coexistence-area of <Dduel-Jip> and <Yokhan-Jib> (전통주거의 계층간 주문화 교류에 따른 평면 변화에 관한 연구: 반가 <돌집>과 민가 <여칸집>의 공존지역을 중심으로). *Journal of Architectural Institute of Korea*, 26(6), 121-130.
- Kim, K.C. & Hurh, W.M. (1985). Ethnic resources utilization of Korean immigrant entrepreneurs in the Chicago minority area. *International Migration Review*, 19(1), 82-111.
- Kim, M. & Kim, Y. (2007). A study on the formal relationship of typical floor and dwelling units of mixed-use high rise residential buildings (국내 초고층 주상복합아파트의 기준층평면과 단위세대간의 평면형태 상관관계에 관한 연구). *Journal of Architectural Institute of Korea*, 27(1), 29-32.
- Kim, M. (2009). A study on the change of plan following balcony extension in apartments (공동주택의 발코니 확장에 따른 평면변화에 대한 연구: 판교 중대형 평형 아파트를 중심으로). *Journal of Architectural Institute of Korea*, 25(7), 149-156.
- Kim, O. (1999). Predictors of loneliness in elderly Korean immigrant women living in the United States of America. *Journal of Advanced Nursing*, 29(5), 1082-1088.
- Kim, S. & Park, Y. (1992). Inflexible pattern of apartment unit plan: a focused on the public sector apartment (집합주택 단위평면 유형의 고정화 현상에 관한 연구). *Journal of Architectural Institute of Korea*, 8(6), 77-85.

- Kim, U. & Choi, S. (1994). Individualism, collectivism, and child development: a Korean perspective. In P.M. Greenfield & R.R. Cocking (Eds.), *Cross-cultural Roots of Minority Child Development* (pp.227-258). Hillsdale, NJ: Erlbaum.
- Kim, Y.Y. & Ruben, B.D. (1988). Intercultural transformation: A systems theory. In Y.Y. Kim, & W.B. Gudykunst (Eds.), *Theories in Intercultural Communication* (pp.299-321). CA: Sage Publications.
- Kim-Goh, M. (2006). Correlates of depression among the Soviet Jewish immigrant elderly. *Journal of Human Behavior in the Social Environment*, 13(2), 35-47,
- Kluckhohn, C. & Kelly, W.H. (1945). The concept of culture. In R. Linton (Ed.). *The Science of Man in the World Culture*. New York. (pp. 78-105).
- Koo, S. & Park, Y. (2009). A study on changes of spatial configuration in Seoul urban Hanok by adopting LDK type of internal structure (서울의 도시한옥 LDK화에 의한 공간구성변천에 관한 연구). *Journal of Architectural Institute of Korea*, 25(10), 161-168.
- Kritz, M.M., Gurak, D.T., & Chen, L. (2000). Elderly immigrants: their composition and living arrangements. *Journal of Sociology & Social Welfare*, 27(1), 85-114.
- Kroeber, A.L., & Kluckhohn, C. (1952). Culture: A critical review of concepts and definitions. Harvard University Peabody Museum of American Archeology and Ethnology Papers 47.
- Kwak, K. & Berry, J.W. (2001). Generational differences in acculturation among Asian families in Canada: A comparison of Vietnamese, Korean, and East-Indian groups. *International Journal of Psychology*, 36(3), 152-162.
- Kylén, M., Ekström, H., Haak, M., Elmståhl, S., & Iwarsson, S. (2014.). Home and Health in the Third Age — Methodological Background and Descriptive Findings. *International Journal of Environmental Research and Public Health*, 11, 7060-7080.
doi:10.3390/ijerph110707060
- Lai, D.W.L. (2004). Impact of culture on depressive symptoms of elderly Chinese immigrants. *Canadian Journal of Psychiatry*, 49(12), 820-827.
- Lai, D.W.L. (2005). Cultural factors and preferred living arrangements of aging Chinese Canadians. *Journal of Housing for the Elderly*, 19(2), 71-86.

- Law, L., Barnett, F., Yau, M., & Gray, M. (2011). Measures of everyday competence in older adults with cognitive impairment: A systematic review. *Age and Ageing, 41*, 9-16.
doi:10.1093/ageing/afr104
- Lawton, M.P. (1991). Functional status and aging well. *Generations, 15*(1), 31-38.
- Lederach, J.P. (1995). *Preparing for peace: Conflict transformation across cultures*. Syracuse, NY: Syracuse University Press.
- Lee, B., Han, J. & Yoon, J. (1999). A study on the usage behavior of An-bang in apartment dwellers (아파트 거주자들의 안방 사용행태에 관한 연구). *Journal of the Korean Housing Association, 10*(2), 185-193.
- Lee, G.R., Peek, C.W., & Coward, R.T. (1998). Race differences in filial responsibility expectations among older parents. *Journal of Marriage and Family, 60*(2), 404-412.
- Lee, J. & Choi, W. (2004). A study on the transition of medium and small-sized apartment unit plans in Seoul: focusing on the SH Corporation apartments (서울시 중소형 아파트 단위평면유형의 변천에 관한 연구: 서울시 도시개발공사 아파트 단지를 중심으로). *Journal of Architectural Institute of Korea, 24*(2), 19-22.
- Lee, J. (2006). *The use of space and the needs for various assisted kitchen in apartment dwellings* (아파트 보조부엌의 유형별 공간 이용실태 및 요구). (Master's thesis). Retrieved from <http://nanet.go.kr> (Order No. KDMT1200648556)
- Lee, R.M., Choe, J., Kim, G., & Ngo, V. (2000). Construction of the Asian American Family Conflicts Scale. *Journal of Counseling Psychology, 47*(2), 211-222.
- Lee, S. & Lee, Y. (2005). Characteristics of the interior space composition of apartment in metropolitan area (우리나라 수도권 아파트의 주호공간 특성에 관한 연구). *Journal of Architectural Institute of Korea, 21*(2), 3-10.
- Lee, S. (2006). Theorizing and testing models of community capacity and acculturation. (Doctoral dissertation). Retrieved from http://scholar.lib.vt.edu/theses/available/etd-11152006-212415/unrestricted/Lee_Dissertation.pdf
- Lee, S.I. (2004). *A study on relationship residential pattern and Feng-shui thought in the CHOSUN period: focusing on the cases of the housing of scholars and generals south of*

- the central districts of the Korean peninsula* (조선시대 주거형태와 풍수사상의 상관성 연구: 중부 이남의 사대부 주택의 사례를 중심으로). (Master's thesis). Retrieved from <http://www.nanet.go.kr> (Order No. KDMT1200467301)
- Lee, S.Y. (2010). Providing culturally appropriate environments in nursing homes for frail ethnic minorities in the U.S.: Three case studies of Korean-American nursing homes. (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3488802)
- Lee, Y. & Holm, K. (2012). Stressors related to depression among elderly Korean immigrants. *Issues in Mental Health Nursing*, 33, 52-58.
- Lee, Y. & Kang, B. (2002). A study on planning of residential space based on the contemporary interpretation of Feng-shui theory (현대적 의미의 풍수를 적용한 주거계획에 관한 연구). *Journal of Architectural Institute of Korea*, 22(2), 155-158.
- Lee, Y.H. (1988). A study on the transition of the urban residence in Korea after the End of 19c: focused on the transfiguration of the wooden houses in Pusan (개화기 이후 한국 도시주택의 변천에 관한 연구). *Journal of Architectural Institute of Korea*, 4(5), 59-70.
- Lee, Y.M. (2007). The immigration experience among elderly Korean immigrants. *Journal of Psychiatric and Mental Health Nursing*, 14, 403-410.
- Lewin, F.A. (2001). The meaning of home among elderly immigrants: Directions for future research and theoretical development. *Housing Studies*, 16(3), 353-370.
- Lightfoot, K.G., Martinez, A. & Schiff, A.M. (1998). Daily practice and material culture in pluralistic social settings: an archaeological study of culture change and persistence from Fort Ross, California. *American Antiquity*, 63(2), 199-222.
- Lim, T. & Giles, H. (2007). Differences in American and Korean evaluations of one-year age differences. *Journal of Multilingual and Multicultural Development*, 28(5), 349-364.
- Linton, R. (1945). The cultural background of personality. New York: Appleton-Century Crofts.
- Lizardo, O. (2004). The cognitive origins of Bourdieu's Habitus. *Journal for the Theory of Social Behavior*, 34(4), 375-401.

- Low, S.M. & Chambers, E. (1989). *Housing, culture, and design: a comparative perspective*. Philadelphia: University of Pennsylvania Press.
- Markides, K.S., Salinas, J., & Sheffield, K. (2008). The health of older immigrants. *Generations*, 32(4), 46-52.
- Marleau-Ponty, M. (1995). The spatiality of one's own body and motility. In *Phenomenology of perception* (pp.112-170). London: Routledge.
- Martin, J.N. & Nakayama, T.K. (2006). Understanding Intercultural Transitions. In J.N. Martin & T.K. Nakayama (Eds.), *Intercultural communication in contexts* (pp.306-346). New York: McGraw-Hill.
- Meesters, J. (2009). *The meaning of activities in the dwelling and residential environment a structural approach in people-environment relations*. Amsterdam: IOS Press.
- Min, J.W. (2005). Preference for long-term care arrangement and its correlates for older Korean Americans. *Journal of Aging and Health*, 17(3), 363-395.
- Min, P.G. (2000). Immigrants' religion and ethnicity: a comparison of Korean Christian and Indian Hindu immigrants. *Bulletin of the Royal Institute for Inter-Faith Studies*, 2(1), 121-140.
- Morris, E.W. & Winter, M. (1978). *Housing, family, and society*. New York: John Wiley & Sons.
- Moschny, A., Platen, P., Klaaßen-Mielke, R., Trampisch, U., & Hinrichs, T. (2011). Physical activity patterns in older men and women in Germany: A cross-sectional study. *BMC Public Health*, 11, 559-559.
- Mui, A. (2001). Stress, coping, and depression among elderly Korean immigrants. *Journal of Human Behavior in the Social Environment*, 3, 281-299.
- Mui, A.C. & Shibusawa, T. (2008). *Asian American elders in the Twenty-first century: Key indicators of well-beings*. New York: Columbia University Press.
- Nandan, M. (2007). "Waves" of Asian Indian elderly immigrants: What can practitioners learn? *Journal of Cross Cultural Gerontology*, 22, 389-404.
- Oliver, P. (1989). Handed down architecture: tradition and transmission. In J. Bourdieu & N. Alsayyad (Eds.), *Dwellings, settlements and tradition* (pp. 53-75). Lanham: University Press of America.

- Ortman, J.M., Velkoff, V.A., & Hogan, H. U.S. Census Bureau (2014). An aging nation: The older population in the United States. Retrieved from <https://www.census.gov/prod/2014pubs/p25-1140.pdf>
- Oswald, F., Wahl, H.W., Mollenkopf, H., Schilling, O., Neumann, D. & Schakib-Ekbatan, K. (2001). *ENABLE-AGE Survey Study T1; Preliminary Descriptive Findings*. Deutsches Zentrum fur Altersforschung (DZFA).
- Pang, K.C. (1991). *Korean elderly women in America: everyday life, health, and illness*. New York: AMS Press, INC.
- Paral, R., & Norkewicz, M. (2003). *The Metro Chicago immigration fact book*. Chicago, Ill.: Institute for Metropolitan Affairs, Roosevelt University.
- Park, E. (2003). *A study on changes in the interior finishing materials of apartment housing : focused on interior finishing materials since the 1970s* (아파트 실내 마감재 변화에 관한 연구: 1970년 이후 실내마감재를 중심으로). (Master's thesis). Retrieved from <http://nanet.go.kr> (Order No. KDMT1200372255)
- Park, H.K. (2003). *A study on the culture of life with Gudul: Korean underfloor heating system* (구들의 생활문화에 관한 연구). (Master's thesis).
- Park, I. (2008). *A study on the changes in the compositions of unit plan of apartments: based on each actual area ratio of the apartment plans constructed in Busan area between 1970~2000s* (아파트 단위 평면 구성의 변화에 관한 연구: 1970~2000년대, 부산지역에 건설된 아파트 평면의 각 실 면적 비율을 중심으로). (Master's thesis).
- Park, J. & Kim, S. (2002). A study on the change of apartment unit plan: focusing on the Gangbuk gu apartment complex in Seoul (아파트 단위평면유형의 변천에 관한 연구: 서울특별시 강북구 아파트단지를 중심으로). *Journal of Architectural Institute of Korea*, 22(2), 139-142.
- Park, K. (2007). Constructing transnational identities without leaving home: Korean immigrant women's cognitive border-crossing. *Sociological Forum*, 22(2), 200-218.
- Parsons, T. (1949). *Essays in sociological theory*. Glencoe, IL.
- Pred, A. (1981). Social reproduction and the time-geography of everyday life. *Geografiska Annaler. Series B, Human Geography*, 63(1), 5-22.

- Rapoport, A. (1969). *House, form and culture*. New Jersey: Englewood Cliffs.
- Rapoport, A. (1980). Cross-cultural aspects of environmental design. In I. Altman, A. Rapoport & J. Wohlwill (Eds.), *Environment and culture*. New York: Plenum.
- Rapoport, A. (1983). Development, Culture-Change and Supportive Design, *Habitat International*, 7(5), 249 – 268.
- Rapoport, A. (1989). Foreword. In S.M. Low & E. Chambers (Eds.), *Housing, culture, and design: a comparative perspective* (pp.xi-xxi). Philadelphia: University of Pennsylvania Press.
- Rapoport, A. (2008). Some further thoughts on culture and environment. *International Journal of Architectural Research*, 2(1), 16-39.
- Schwartz, S. H. (2006). Basic human values: Theory, measurement, and applications. *Revue française de sociologie*, Retrieved from <http://segr-did2.fmag.unict.it/Allegati/convegno%207-8-10-05/Schwartzpaper.pdf>
- Seamon, D. (2007). Interconnections, relationships, and environmental wholes: A phenomenological ecology of natural and built worlds. In Daniel Martino (Ed.), *To renew the face of the earth: Phenomenology and ecology*, (pp.53-86). Pittsburgh: Duquesne University Press.
- Seo, Y.K. & Mazumdar, S. (2011). Feeling at home: Korean Americans in senior public housing. *Journal of Aging Studies*, 25(3), 233-242.
- Seo, Y.K. (2010). *The meaning of home to Korean immigrant elderly: growing old in Lilac Villa*. (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3404702)
- Shepard, S. (1998). *Managing cross-cultural transition: A handbook for corporations, employees, and their families*. Bayside, NY: Aletheia.
- Shim, Y.R. & Schwartz, R.C. (2007). The relationship between degree of acculturation and adjustment difficulties among Korean immigrants living in a Western society. *British Journal of Guidance & Counseling*, 35(4), 409-426.
- Shin, H.S., Han, H., & Kim, M.T. (2006). Predictors of psychological well-being amongst Korean immigrants to the United States: A structures interview survey. *International Journal of Nursing Studies*, 44, 415-426.

- Shin, J. (2008). *Keeping warm in a changing place: symbolism, tradition, and modernity in domestic lives on ondol (Korean heated floor) in the 20th century*. (Doctoral dissertation). Available from ProQuest Dissertations & Theses database. (UMI No. 3279103)
- Shin, K.R. & Shin, C. (1999). The lived experience of Korean immigrant women acculturating into the United States. *Health Care for Women International*, 20, 603-617.
- Shine, S.H. & Joo, N.C. (1985). A study on the architectural history of popular housing in Seoul from the last period of Choson Dynasty to 1970-I (조선시대말기 서울의 일반주택 변천에 관한 연구). *Journal of Architectural Institute of Korea*, 1(2), 29-36.
- Shusterman, R. (2007). Book review: how the body shapes the mind. *Theory, Culture, Society*, 24(1), 152-156.
- Silverstein, M. & Jacobson, N. (1985). Restructuring the hidden program: toward an architecture of social change. In W.Presier (Ed.) *Programming the built environment*. New York: Van Nostrand.
- Soh, Y. (2001). *A study on spatial features of the housing unit in high rise mixed-use apartments* (초고층 주상복합 아파트의 단위주호의 공간특성에 관한 연구). (Master's thesis). Retrieved from <http://www.riss.kr>. (KDC No. 596.3 4)
- Sohn, K. & Lhee, J. (1995). A study on the evolution and characteristic of the plan pattern of apartment buildings Taegu area (대구지역 아파트 평면유형의 변천과정과 특성에 관한 연구). *Journal of Architectural Institute of Korea*, 11(8), 121-131.
- Son, Y., Kim, Y. & Park, Y. (2010). An ideological study on the variations of modernized urban dwellings in Japanese Colonial Period (일제강점기 근대주택 평면변천의 사상적 배경에 관한 연구: 한인건축가의 주택개량과 계획안을 중심으로). *Journal of Architectural Institute of Korea*, 26(9), 133-143.
- Soonthornchaiya, R. & Dancy, B.L. (2006). Perceptions of depression among elderly Thai immigrants. *Issues in Mental Health Nursing*, 27, 681-698.
- Spencer-Oatey, H. (2000). *Culturally speaking: managing rapport through talk across cultures*. London, Continuum.

- Stephenson, M. (2000). Development and validation of the Stephenson Multigroup Acculturation Scale (SMAS). *Psychological Assessment*, 12(1), 77-88.
- Su, W. & Jeon, B. (2009). The forming process of living room centered urban housing plan after the liberation in South Korea (해방이후 거실중심형 도시주택 평면의 형성과정). *Journal of Architectural Institute of Korea*, 29(1), 419-422.
- Sue, D. W., & Sue, D. (2003). *Counseling the cultural diverse: theory and practice*. (4th ed.). New York: John Wiley & Sons.
- Terakado, H. (1973). Sitting on the floor versus sitting on a chair. *Journal of Human Ergology*, 2(1), 91-92.
- Terrazas, A. (2009). Korean immigrants in the United States. Retrieved from <http://www.migrationinformation.org/usfocus/display.cfm?ID=716#top>
- U.S. Census Bureau Public Information Office. (2012, December 12). U.S. Census Bureau Projections Show a Slower Growing, Older, More Diverse Nation a Half Century from Now - Population - Newsroom - U.S. Census Bureau. Retrieved November 05, 2016, from <https://www.census.gov/newsroom/releases/archives/population/cb12-243.html>
- Useem, J. & Useem, R. (1963). Men in the middle of the third culture. *Human Organizations*, 22(3): 169-179.
- Van de Vijver, F.J.R. & Phalet, K. (2004). Assessment in multicultural groups: the role of acculturation. *Applied Psychology: An International Review*, 53(2), 215-236.
- Vincent, G. K., & Velkoff, V. A. U.S. Census Bureau (2010). The next four decades, the older population in the United States: 2010 to 2050. Retrieved from http://www.aoa.gov/AoARoot/Aging_Statistics/future_growth/DOCS/p25-1138.pdf
- Weisman, G. (2001). The place of people in architectural design. In A. Pressman (Ed.), *Architectural design portable handbook: A guide to excellent practices* (pp. 158-170). New York: McGraw-Hill.
- Wilde, M.H. (1999). Why embodiment now? *Advances in Nursing Science*, 22(2), 25-38.
- Wilmoth, J.M. (2001). Living arrangements among older immigrants in the United States. *The Gerontologist*, 41(2), 228-238.

- Wood, J.B. & Wan, T.T.H. (1993). Ethnicity and minority issues in family caregiving to rural black elders. In C.M. Barresi & D.E. Stull (Eds.), *Ethnic elderly and long-term care* (pp.39-56). NY: Springer.
- Yee, D. (2002). Recognizing diversity, moving toward cultural competence. *Generations*, 26(3), 5-7.
- Yeh, C.J. (2003). Age, acculturation, cultural adjustment, and mental health symptoms of Chinese, Korean, and Japanese immigrant youths. *Cultural Diversity and Ethnic Minority Psychology*, 9(1), 34-48.
- Yeo, G. & Gallagher-Thompson, D. (Eds.). (1996). *Ethnicity and the dementias*. Washington, DC: Taylor & Francis.
- Yoo, J. & Cho, S. (2002). A study on the transforming characteristics and indigeneity of the urban housing on modernizing period of Korea (근대화 과정에 나타난 도시주택 평면형의 변화특성과 토착화에 관한 연구). *Journal of Architectural Institute of Korea*, 18(7), 59-66.
- Yoo, J. (2005). A study on the transforming characteristics of the housing plan types in modernizing period of Korea (광복전후 우리나라 단독주택의 변화특성 연구: 1920년대~1960년대, 개선주택안, 주택현상공모안, 공영주택을 중심으로). *Journal of Architectural Institute of Korea*, 20(10), 59-66.
- Yoo, S.H. & Sung, K (1997). Elderly Koreans' tendency to live independently from their adult children: Adaptation to cultural differences in America. *Journal of Cross-Cultural Gerontology*, 12, 225-244.
- Yoon, S. (2013, Jul 24). 79 년 청주 사직아파트 시작, 아파트 문화 34 년 (Beginning with '79 Cheongju Sa-Jik apartment, the 34 years of apartment culture). *충북인/ news*. Retrieved from <http://m.cbnews.co.kr/articleView.html?idxno=90913&menu=1>
- Yoon, B., Kim, H.J. & Suh, M.S. (1992). Development of housing conceptual framework through changes in Korean family houses: social lifespaces II (한국 주거형태 변천과정에서 본 주거학의 생태학적 개념 정립). *Journal of Architectural Institute of Korea*, 8(6), 39-51.
- Yoon, E., Lee, D.Y., Koo, Y.R. & Yoo, S. (2009). A qualitative investigation of Korean immigrant's women's lives. *The Counseling Psychologist*, 38(4), 523-553.

- Yoon, I. (1991). The changing significance of ethnic and class resources in immigrant businesses: The case of Korean immigrant businesses in Chicago. *International Migration Review*, 25(2), 303-332.
- Zhang, S. (1994). *A study on the transition of the '60s~70's apartment houses in Korea* (한국 아파트의 변천에 관한 연구). (Doctoral dissertation). Retrieved from <http://www.auric.or.kr>
- Zeisel, J. (2006). *Inquiry by design: Environment/behavior/neuroscience in architecture, interiors, landscape, and planning*. New York, NY: W.W. Norton & Company.

APPENDICES

APPENDIX A:

Studies included in Meta-analysis

Code	Author	Year	Publisher	Korean Title	English Title
001A	Jahn	2007	Korea Foundation	(NA)	Evolution of Hanok: good or evil?
002A	Donga Ilbo	1997	Donga Ilbo	21 세기 한국의 아파트 모습은?	(NA)
003A	Donga Ilbo	1999	Donga Ilbo	커지는 부엌, 작아지는 거실	(NA)
004A			Ohmynews	마포를 뒤흔든 된장냄새	(NA)
005A				방, 거실, 부엌을 남향으로	(NA)
006A			NAVER	한국인의 삶을 바꾼 것들: 부엌	(NA)
007B	Kang	1993	Kimoondang	한국 주거문화의 역사	(NA)
008B	Kang et al.	1999	Sejinbook	한국 공동주택계획의 역사	(NA)
009B	주거학연 구회	2004	Kimoondang	안팎에서 본 주거문화	(NA)
010B	Jeon	2010	Dolbegae	한국 주거의 공간사	(NA)
011B	Jeon et al	2009	Dolbegae	한국 주거의 미시사	(NA)
012B	Jeon et al	2008	Dolbegae	한국 주거의 사회사	(NA)
013B	Joo	2003	Iljisa	한국주택건축	(NA)
014B	Kang et al.	2004	Kyomunsa	한옥의 공간문화	Culture in Traditional Korean Homes
015B	Kwon	2001	Kukjebook	공간디자인 16 론	16 Issues in Space Design
016B	Joo & Choi	1996	민속연구과	온돌의 기원과 변천	(NA)
017J	Han	2009	Architecture	풍수지리, 그 사상의 원류와 흐름	(NA)
018J	Jung	2009	Architecture	한옥현대화의 주거문화적 접근	A residence cultural approach of Hanok modernization
019J	Park	2008	Architecture	풍수지리와 주거 공간	Fengshui theory on dwelling site
020J	Bae & Jun	2010	Architectural Institute of Korea	근대도시주거지의 형성과 변화에 관한 연구	A study on the formation and change of urban residential areas: Focusing on Okin-dong in Seoul
021J	Cheong et al	2007	Architectural Institute of Korea	건축실무자 조사를 통한 초고층 공동주택 주거환경평가지표에 관한 연구	A study on the sustainable residential quality index of super high-rise apartment housing through survey with practicing professionals

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
022J	Cho	1991	Journal of the Korean Housing Association	가구 소유에 따른 주공간의 재구성	Re-setting up on dwelling space based on the conditions of furniture possession: With relevance to analysis of dwelling -behavior territories
023J	Cho & Lee	2003	Architectural Institute of Korea	도시 연립주택의 변천과정에 관한 연구	A study on the transition process of urban row houses
024J	Cho & Park	1994	Architectural Institute of Korea	공동주택 단위평면의 변천에 따른 주의식과 만족도	A study on the housing consciousness and satisfaction by the transformation of the apartment-housing unit plan
025J	Choi	1998	AURIC	아파트 공실공간의 평면변화에 관한 연구	A study on the plan change of a public room in an apartment
026J	Choi	2003	Architectural Institute of Korea	주택평면에 나타난 여성의 사회공간적 지위에 관한 연구	A study on the socio-spatial status of women in residential layouts
027J	Choi	1996	Architectural Institute of Korea	한국 현대 사회의 주생활 양식의 변화: 수도권 3LDK 아파트 주호 평면 계획의 변천을 중심으로	Changes in residential lifestyles in the contemporary Korean society in the context of the changes in the 3LDK apartment unit plans in the Metropolitan Seoul area
028J	Choi & Kim	2009	Architectural Institute of Korea	한국의 아파트 거실 수납가구의 변화와 특성에 관한 연구	A study on the Korean apartment living room storage furniture change and characteristics
029J	Ha & Choi	2003		(NA)	A comparative study on Korean and Chinese traditional furniture based on the style of user pattern
030J	Han et al	2009	Architectural Institute of Korea	전통한옥의 요소를 도입한 아파트 현관부 디자인 연구	The design of the apartment entrance area with the traditional Hanok elements
031J	Jang & Jihn	2001	Architectural Institute of Korea	실태조사를 이용한 아파트 단위평면의 공간구성 방식에 관한 연구: 전주시 분양 면적 24 평과 32 평형의 아파트를 중심으로	A study on the composition of spaces in unit plan of apartment using survey of actual condition
032J	Jeon & Kwon	2008	Architectural Institute of Korea	원형적 공간 요소로 본 한국주택 평면형식의 통시적 고찰	A diachronic study of the archetypal spatail elements in the Korean house plan
033J	Kang & Shim	2009	Architectural Institute of Korea	1960-70년대 서울 상가아파트에 관한 연구	A study on the 'Apartments with lower-floor stores' in Seoul, 1960s-1970s

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
034J	Kang et al.	2005	Journal of the Korean Housing Association	아파트 안방의 가구와 주생활행위에 관한 연구	A study on the furniture and main-living behavior of Anbang in apartment housing
035J	Kim	2009	Architectural Institute of Korea	공동주택의 발코니 확장에 따른 평면변화에 대한 연구	A study on the change of plan following balcony extension in apartments
036J	Kim	1997	Korean Institute of Interior Design	아파트 단위 평면 변화과정에 관한 연구: 안방 및 거실 중심으로	A study on the change of unit floor plan of apartment house in Korea
037J	Kim & Choi	2007	Architectural Institute of Korea	아파트의 단위세대 각 실별 면적배분 변천 연구: 서울시 국민주택규모이하를 중심으로	A study on the change of area division in accordance with each room of the unit plan of apartment: Focused on the public housing size below in Seoul
038J	Kim & Kang	1988	Architectural Institute of Korea	연립주택 배치형식 및 평면의 변천과정에 관한 연구	A study on the transition process of site type and floorplan of row house
039J	Kim & Kim	2007	Architectural Institute of Korea	국내 초고층 주상복합아파트의 기준층평면과 단위세대간의 평면형태 상관관계에 관한 연구	A study on the formal relationship of typical floor and dwelling units of mixed-use high rise residential buildings
040J	Kim & Park	1992	Architectural Institute of Korea	집합주택 단위 평면의 고정화 현상에 관한 연구 (2): 주공아파트를 중심으로	Inflexible patterns of apartment unit plan: A focused on the public sector apartment
041J	Kim & Park	1992	Architectural Institute of Korea	집합주택 단위 평면의 고정화 현상에 관한 연구 (3): 민간, 주공, 시민 아파트의 비교연구	Inflexible patterns of apartment unit plan: The comparative analysis of the Public and Private sector apartment
042J	Kim & Zu	1995	Architectural Institute of Korea	아파트단위평면의 변천과 그 개선방향에 관한 연구: 광주지역의 아파트 단위평면을 중심으로	A study on the change and improvement of unit plan in the apartment houses: Focusing on the unit plan of the apartment houses in Gwang-ju
043J	Kim et al.	2001	AURIC	90년대 공영 아파트의 단위 평면 유형에 관한 연구	A study on the types of unit plans in public apartment housing in 1990s: A case study on prizewinners in the Design competition
044J	Kim et al.	2010	Architectural Institute of Korea	아파트 주동평면형태의 특성 및 개방성에 관한 연구: 2000년 이후 대구지역을 중심으로	A study on the block plan characteristics and the openness of apartment complexes: In Daegu Posterior to 2000

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
045J	Kim et al.	2002	Architectural Institute of Korea	일상과 비일상적 주생활에 따른 전통주거건축의 공간적 특성에 관한 연구: 안동지방 상류주택을 중심으로	A study on the spatial characteristics of Korean traditional houses in respect to everyday and non-everyday living activities: Focused on the upper class housings in the Andong region
046J	Kim et al.	2010	Architectural Institute of Korea	전통주거의 계층간 주문화 교류에 따른 평면 변화에 관한 연구	A study on interchange in social different position of traditional dwelling culture: Focused on the coexistence area of <Dduel-Jip> and <YoKhan-Jip>
047J	Koo & Park	2009	Architectural Institute of Korea	서울의 도시한옥 LDK 화에 의한 공간구성변천에 관한 연구	A study on changes of spatial configuration in Seoul urban Hanok by adopting LDK type of internal structure
048J	Lee	1988	Architectural Institute of Korea	개화기 이후 한국 도시주택의 변천에 관한 연구	A study on the transition of urban residence in Korea after the end of 19C: Focused on the transfiguration of the wooden houses in Pusan
049J	Lee & Choi	2004	Architectural Institute of Korea	서울시 중소형 아파트 단위평면유형의 변천에 관한 연구: 서울시 도시개발공사 아파트 단지를 중심으로	A study on the transition of medium and small-sized apartment unit plans in Seoul: Focusing on the SH corporation apartments
050J	Lee & Kang	2002	Architectural Institute of Korea	현대적 의미의 풍수를 적용한 주거계획에 관한 연구	A study on planning of residential space based on the contemporary interpretation of Feng-shui theory
051J	Lee & Lee	2010	Journal of the Korean Institute of Interior Design	국민주택규모 단위세대 평면분석 연구: 2005 년 이후 주공 사례 면적분석 중심으로	Analytical study for the plan of unit household in National Housing Scale: Oriented on the cases of Korea Housing Corporation since 2005
052J	Lee & Lee	2005	Architectural Institute of Korea	우리나라 수도권 아파트의 주호공간 특성에 관한 연구	Characteristics of the interior space composition of apartment in Metropolitan area
053J	Lee & Park	2009	Architectural Institute of Korea	마당의 의미와 사용에 관한 연구: 부산지역 중소규모 단독주택 거주자의 평가사례	A study on the use and meaning of Madang through the evaluation of the detached house residents in Busan
054J	Lee et al.	1999	Journal of the Korean Housing Association	아파트 거주자들의 안방 사용행태에 관한 연구	A study on the usage behavior of An-bang in apartment dwellers
055J	Oh	1994	Korea society of Design Studies	아파트 내부에 나타난 한국전통 실내공간의 특성 및 구성요소에 관한 연구	A study on the Korean traditional interior space and major elements in contemporary apartment

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
056J	Park	2006	Architectural Institute of Korea	한국근대기 일본인이주어촌의 주거공간구성과 변용에 관한 연구: 거문도, 구룡포, 외나로도의 일식주택을 대상으로	Housing spatial form and transformation of Japanese migrant fishing village in the early 20 century: In the case of Geomun-do, Giryungpoand Oenaro-do
057J	Park & Jeon	2002	Architectural Institute of Korea	1930년대 경성부 도시형 한옥의 사회 경제적 배경과 평면계획의 특성	The socio-economic background and characteristics of plan of urban traditional housing in Seoul of 1930s
058J	Park & Kim	2002	Architectural Institute of Korea	아파트 단위평면유형의 변천에 관한 연구: 서울특별시 강북구 아파트단지를 중심으로	A study on the change of apartment unit plan: Focusing on the Gang-buk gu apartment complex in Seoul
059J	Park & Kim	2003	Journal of the Korean Housing Association	아파트 부엌공간의 부가적 기능에 관한 연구	Additional functions of the kitchen in the apartment
060J	Park & Yoo	2010	Architectural Institute of Korea	신문광고에 나타난 아파트상품의 마케팅 경향 및 특성 분석	An analysis on the tendency and characteristics of apartment on housing marketing in the newspaper advertisements
061J	Park et al.	2003	Architectural Institute of Korea	1990년대 이후 공공 아파트 현상설계에서 나타나는 주동형식에 관한 연구	A study on the apartment building types of the public housing in the architectural design competitions in 1990s
062J	Shim et al	2000	Architectural Institute of Korea	한중일 집합주택 주호평면의 비교연구	A comparative analysis on housing unit plans of Korea, China and Japan
063J	Shine & Joo	1985	Architectural Institute of Korea	조선시대말기 서울의 일반주택 변천에 관한 연구	A study on the architectural history of popular housing in Seoul from the last period of Choson Dynasty to 1970
064J	Sohn & Lhee	1995	Architectural Institute of Korea	대구지역 아파트 평면유형의 변천과정과 특성에 관한 연구	A study on the evolution and characteristics of the plan pattern of apartment buildings Taegu area
065J	Son et al.	2010	Architectural Institute of Korea	일제강점기 근대주택 평면변천의 사상적 배경에 관한 연구:한인건축가의 주택개량과 계획안을 중심으로	An ideological study on the variations of modernized urban dwellings in Japanese Colonial Period
066J	Su & Jeon	2009	Architectural Institute of Korea	해방이후 거실중심형 도시주택 평면의 형성과정	The forming process of living room centered urban housing plan after the liberation in South Korea

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
067J	Suh	2004	Journal of the Korean Housing Association	조선건축회 활동으로 보는 주택근대화	The research on the modernization of house through The Architectural Association of Chosun: Four competitions of house design published in "Chosun and Architecture" during 1922-1944
068J	Yoo	2002	AURIC	광복전후 공영주택의 평면비교와 변화특성에 관한 연구	A study on the comparison and characteristics of public standard housing unit plan before and after the Independence from the Japan Occupation
069J	Yoo	2005	Architectural Institute of Korea	광복전후 우리나라 단독주택의 변화특성 연구	A study on the transforming characteristics of the housing plan types in modernizing period of Korea
070J	Yoo	2006	AURIC	평면유형 변화로 본 공영단독주택의 근대적 변용	A study on the modern transformation on public residential houses through the changes of plan types
071J	Yoo & Cho	2002	Architectural Institute of Korea	근대화 과정에 나타난 도시주택 평면형의 변화특성과 토착화에 관한 연구	A study on the transforming characteristics and indigeneity of the urban housing on modernizing period of Korea
072J	Yoon et al.	1992	Architectural Institute of Korea	한국 주거형태 변천과정에서 본 주거학의 생태학적 개념정립: 제 2 부 사회공간, 안방과 대청	Development of housing conceptual framework through changes in Korean family houses: Social lifespace
073J	Kim	2003	Korean Institute of Interior Design	한국과 중국 주거문화를 통한 전통가구 비교연구	Comparative analysis on traditional furniture reflecting residential culture of Korea and China: Focused on Chosun and Ming Ching Dynasty
074J	Kim	1996	The Korean Housing Association	대도시 아파트 거주자의 가구사용행태에 관한 연구	The pattern of furniture usage of apartment dwellers in Seoul
075J	Kim	1992	Architectural Institute of Korea	집합주택 단위평면유형의 고정화 현상에 관한 연구 (1): 민간아파트를 중심으로	Inflexible pattern of apartment unit plan (1): Focused on private sector apartment building
076J	Kim et al.	1993	Architectural Institute of Korea	우리나라 공동주택 평면의 변화경향에 관한 연구	A study on the changes of apartment housing plan in Korea
077J	Kim et al.	1992	Architectural Institute of Korea	집합주택 단위 평면의 고정화 현상에 관한 연구 (2)	Inflexible pattern of apartment unit plan (2)
078J	Kim	1995	Architectural Institute of Korea	도시공동주거 안방의 이용행태 특성 연구	People's use patterns of primary bed-rooms in urban apartment units

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
079J	Kim	2006	Journal of Korean Society of Design Science	한중일 전통가구의 유형에 따른 특성 비교연구	A comparative study on the characteristics by type of Korean, Chinese, and Japanese traditional furniture
080J	Moon	2011	Journal of the Korea Furniture Society	전통가구의 서랍장 비교: 한국, 일본, 서구 중심으로	Differentiation of chest of drawers in traditional furniture: Focusing on Korea, Japan, and the West
081J	Park et al.	2003	Architectural Institute of Korea	아파트 평면유형 및 가구특성에 따른 공간사용방식에 관한 연구	The study on space usage behavior according to the type of apartment and household characteristics
082J	Bae et al.	2001	The Korean Housing Association	민영아파트 평면계획특성에 관한 연구	A Study on Characteristics of Apartment Housing Unit Plans
083J	Baek & Shim	2002	Architectural Institute of Korea	기능 확장형 발코니 공간의 특성연구	A Study on Characteristics of the Apartment Balcony Functionally Enhanced after the Revision of the Regulation in July 2000
084J	Shin et al.	2001	Architectural Institute of Korea	거주성 측면에서의 초고층 아파트의 건축 계획적 특성에 관한 연구	A Study on the Planning Characteristics of Super-high-rise Apartment in terms of Livability
085J	Shin et al.	2000	Architectural Institute of Korea	아파트 단위세대 평면구성요소의 상관관계 연구	A Study on the Interaction of the factors of Apartment Unit Plan
086J	Shin et al.	2002	Architectural Institute of Korea	최근 초고층 아파트의 단위세대 평면계획특성에 관한 연구	A Study on the Unit Plan Characteristics of the Latest High-Rise-Apartment
087J	An	1997	Journal of Architectural History	1930년대 한국근대주택에 나타난 속복도형 일식주택의 영향	(NA)
088J	Yoon et al.	1990	The Korean Home Economic Association	한국주거형태 변천과정에서 본 주거학의 생태학적 개념정립: 부엌변천	Development of housing conceptual framework through changes in Korean family houses: Kitchen livespace
089J	Lee	1997	Architectural Institute of Korea	근대 도시주거 공간의 변천과정에 관한 연구	A Study on the Transformation Process of Urban Dwelling Space-Focused on the Change by Conversion of Domestic Fuel

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
090J	Lee	2005	Architectural Institute of Korea	탑상형 초고층 주거건축의 단위평면 특성에 관한 연구	A Study on the Characteristics of an Unit Plan for a Tower Type Super-High-Rise-Residence
091J	Lee & Lee	2002	Architectural Institute of Korea	가족제도 관점에서 본 한중일 전통주거공간의 비교연구	A Comparative Analysis of Traditional Living Space Based on Family System in Korea, China and Japan
092J	Lee et al.	2004	Architectural Institute of Korea	중소형 아파트 단위세대의 평면현황 분석	An analysis of recently developed floor plans
093J	Lee et al.	1996	Architectural Institute of Korea	대도시 아파트 거주자의 가구이용실태 및 선호조사	A survey on the use of furniture and preference in the Apartment dwellers
094J	Lim & An	1994	The Korean Housing Association	침대유무에 따른 거주자의 안방공간 의식 및 평가	A Study on the Residents' Consciousness and Evaluation for the An-bang according to the Usage of Bed
095J	Cho	2004	Architectural Institute of Korea	서울지역 고층집합주거 건축계획의 흐름과 특성에 관한 연구	A Study on Variations of Architectural Plan for High-Rise Housing in Relation to the Changes of the times in Seoul
096J	Joo	n.d.		온돌의 역사	(NA)
097J	Joo	1978	Architectural Institute of Korea	조선시대 주택건축의 공간특성론	The spatial characteristics of Choson Dynasty houses
098J	Joo	1965		한국주택의 변천과 발달에 관한 연구 1	(NA)
099J	Joo	1965		한국주택의 변천과 발달에 관한 연구 2	(NA)
100J	Choi & Yoon	2006	Korean Institute of Interior Design	공동주택 다용도실 공간의 변화에 관한 연구: 1995 년부터 2005 년 사이의 입주 완료된 아파트를 중심으로	A study on the change of the utility room in Korean apartment housing: Focusing on the residential apartments built between 1995 and 2005
101J	Choi et al.	2004	Architectural Institute of Korea	국내 아파트 단위주호 평면의 공간분석	A Spatial Analysis of the Apartment Unit Plans from 1966 to 2002 in Seoul
102J	Ha	2006	Journal of the Korean digital architecture/Interior Association	라이프스타일의 비교를 통한 한중 전통가구의 비교	A comparative study on Korean and Chinese traditional furniture based on the life style

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
103J	Yoon & Oh	1999	Architectural Institute of Korea	아파트 발코니 사용실태와 거주자 만족도에 관한 연구	
104J	Cho & Park	2007	Journal of the Korean Housing Association	아파트 평면형태에 따른 발코니 공간의 사용행태에 관한 연구	Residents' using behavior of the balcony space by the unit-plan type of apartment housing
105J	Park & Choi	2003	Architectural Institute of Korea	건축제도 변화에 따른 일반주거지 도시조직에 관한 연구	A study on the urban tissue of residential area according to the change of building code
106J	Park	2007	Architectural Institute of Korea	중노년층의 요구 분석에 의한 노년기 주거 디자인의 기초 연구	A fundamental study on housing for the Elderly through an analysis of senior adults' needs
107R	Lim et al.	2002	Ministry of Construction & Transportation	공사 임대주택 계획기준 및 설계지침 작성연구	A study on the planing guideline and standard of KNHC's rental multi-family housing
108R	토미 마사노 리	2008	Architectural Institute of Korea	동아시아의 거주환경에 관한 비교 연구: 한국, 타이완, 중국, 일본이 주택영단을 사례로	(NA)
109R	Kim	1995	Korea Science & Engineering Foundation	한국 근대기 내륙지방 도시주택의 유형과 변천에 관한 연구	A study on the types and changes of the urban houses in the Korean inland during the period 1910-1945
110R	KNHC	1984	Korea National Housing Corporation	과천 신도시 개발안	(NA)
111T/D	Jeon	1989	Yonsei University	도시주택의 일상적인 주생활행위와 공간사용방식에 관한 연구	
112T/D	Kim	2008	Daejin University	서울시 고층 아파트의 기준층평면과 단위평면의 형태	A study high-rise apartment units in the city of Seoul of typical floor and dwelling unit
113T/D	Lee	1986	Hongik University	주거행위 및 가구사용에 따른 아파트 실내공간구성에 관한 연구	
114T/D	Park	2009	Donga University	아파트 단위 평면 구성의 변화에 관한 연구:아파트 평면의 각 실면적 비율 중심으로	A study on the changes in compositions of unit plan of apartment: Based on each actual area ratio of the apartment plans constructed in Busan area between 1970~2000s

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
115T/D	Park	2003	Konkuk University	아파트 실내 마감재 변화에 관한 연구: 1970 년이후 실내마감재를 중심으로	A study on changes in the interior finishing materials of apartment housing: Focused on interior finishing materials since the 1970s
116T/D	Kim	2002	Hanyang University	한국 도시주거의 변천과정에 나타난 주거사상에 관한 연구	A Study on Variation of the Ideas for Dwelling in the Transition of Korean Urban Dwelling
117T/D	Kim	1988	Seoul National University	아파트 단위평면의 특성과 거주자의 주의식 및 주생활에 관한 연구	A Study on the User's Housing Needs for Dwelling Unit of Apartment
118T/D	Bae	1988	Sungkyunkwan University	한국 아파트의 유형적 변천에 관한 연구	
119T/D	Son	2008	Hanyang University	한국 근대도시주거 평면변천에 나타난 주거사상에 관한 연구	An ideological research on the change of housing plan in modernized urban dwelling of Korea: Focused on analyzing journal articles published in Japanese Colonial Period
120T/D	Erdene	2014	Suwon University	한몽 아파트 발코니의 공간특성에 대한 비교 연구	Korea and Mongolia apartment balcony on the characteristics of the space comparative study
121T/D	Ye	2007	Pusan National University	공동주택 공적공간의 평면 변화에 관한 연구; 부엌과 거실 중심	A study on the transition of public space of Korea collective housing
122T/D	Yoo	1987	Yonsei University	소규모 아파트의 거실 이용에 관한 조사연구	Study of Investigation about use of Living Room in Small and Middle sized Apartment This Study is to investigate the use of living room
123T/D	Yoon	2005	Chung-Ang University	가사노동과정에 대응하는 아파트 가사공간 계획을 위한 현장연구	A filed study on planning housework spaces of apartment responding to housework process
124T/D	Yun	1990	Konkuk University	아파트의 서어비스 공간사용에 관한 연구; 발코니, 다용도실을 중심으로	A study on the usage of service areas in apartment housing: Focused on the balcony and utility room
125T/D	Lee	2004	Hongik University	한국 현대 부엌가구의 변천 연구	Study on changes of Korean modern kitchen furniture
126T/D	Lee	1980	Seoul National University	문화적 배경에 따른 주거공간의 비교연구	(NA)

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
127T/D	Lee	2006	Kookmin University	1990 년 이후 아파트 단위평면 변화양상에 관한 연구	A Study on the Transformation of Apartment Unit Plans After 1990
128T/D	Lee	2004	Hanyang University	도시주거의 LDK 화에 따른 주거공간구성의 변화과정에 관한 연구	A Study on Process of the Change of Spatial Composition in Dwellings by LDK
129T/D	Lee	2003	Hanyang University	난방방식에 따른 도시주거의 공간구성 변화에 관한 연구 - 광복이후 서울시 일반단독주택을 중심으로	A study on the change of spatial composition in Korea urban dwellings by the heating system
130T/D	Lee	2006	Hanyang University	단위세대 평면의 변천 및 이용자 특성에 관한 연구	Changes of unit family plans and residence characteristics
131T/D	Lim	2005	University of Seoul	아파트 단위평면의 변천과정을 통한 주거문화의 변화특성 연구	A study on the change characteristics of residential culture through the transition process of unit planning iof apartment houses
132T/D	Jeong	1984	Keimyung University	단독주택 공간구성 변천에 관한 연구	A Study on the Transition of Unit Plans of Urban Detached Houses
133T/D	Jo	2012	Yonsei University	근현대 한국의 일상문화와 밥상에 관한 연구	A study on Alltagskultur and 'Bab-sang' in modern Korea
134T/D	Chen	2004	Pusan National University	공영주택 공사적 공간의 변화 특성 연구; 대한주택공사의 단독 및 공동주택	A study of the specific character of public-privacy space of Korea national housing corporation (KNHC) housing plan
135T/D	Ham & Shim	1986	Seoul National University	아파트 거주자의 주거공간 이용에 관한 연구	A Study on the Use Patterns of Living Spaces in Apartment Houses
136T/D	Hong	2011	Konkuk University	아파트 발코니 유형에 따른 평면변화에 관한 연구	The study on type of apartment balcony plan change
137T/D	Hong	2003	Yonsei University	아파트 단위세대 평면의 변화 특성	A study on the varying trend for apartment unit plan in Seoul
138T/D	Park	1984	Ewha Women's University	아파트 발코니의 공간사용에 관한 연구	A study on the practical use of space in the balcony of apartment
139T/D	Kim	1999	Yonsei University	동서양 전통적인 주택 양식의 실내공간 특성 비교분석 연구	Comparative Analysis on Interior Spaces of the Selected Historical Residences in the Western and Eastern Countries - focusing on case residences of Korea, China, Japan, Rome, Egypt, and Italy
140T/D	Kim	2002	Chosun University	아파트 안방의 공간구성요소에 관한 연구	A Study on the space composition factors of Anbang in apartment housing
141T/D	Zchang	1994	Seoul National University	한국 아파트의 변천에 관한 연구	A study on the transition of the '60s~'70s apartment houses in Korea

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation W: Webpage

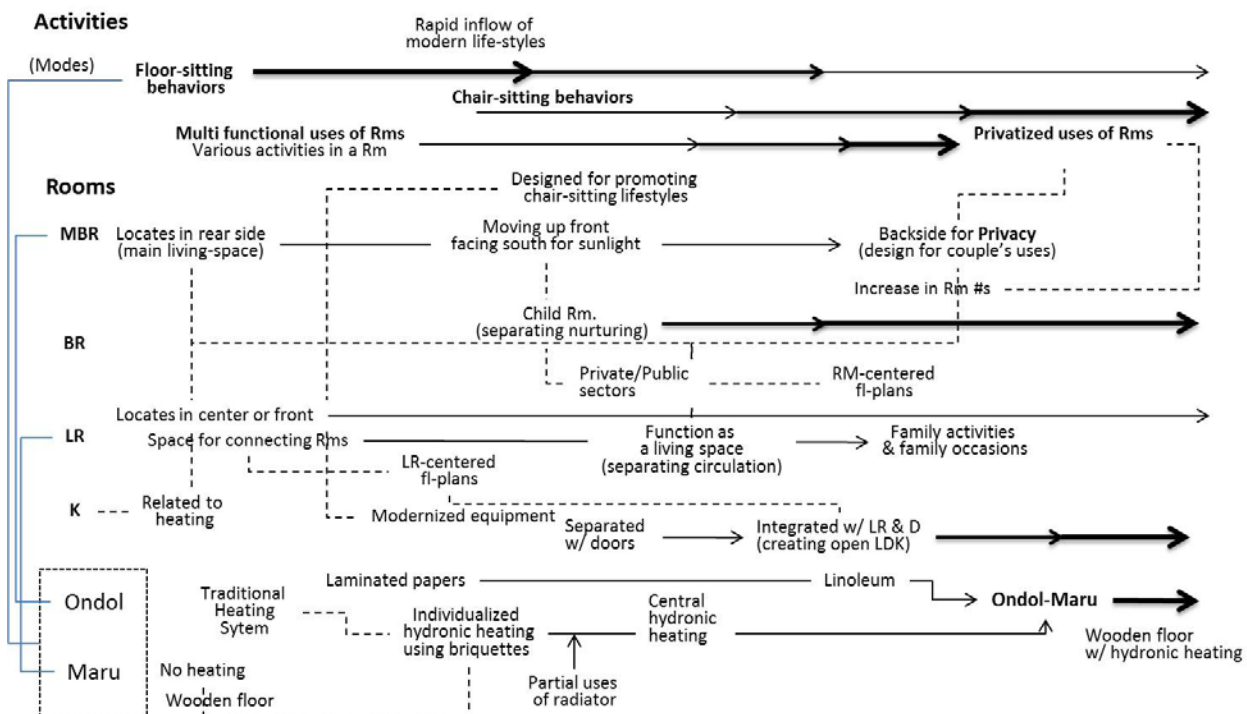
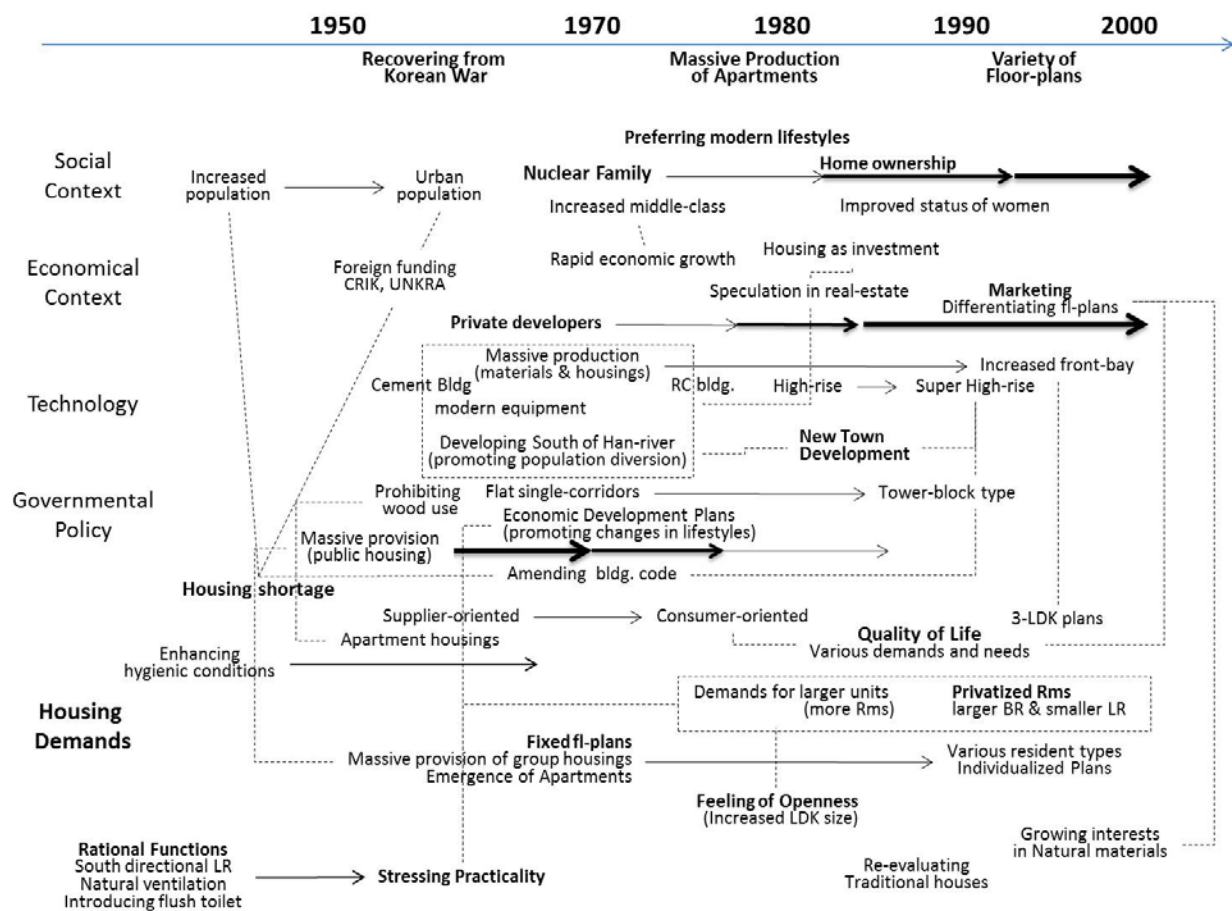
(Cont'd)

(Code)	(Author)	(Yr)	(Publisher)	(Korean Title)	(English Title)
142T/D	Kim	2004	Yonsei University	한중일 주거문화 맥락에서 본 전통가구 디자인 특성 비교연구	Comparative analysis on design characteristics of traditional furniture in housing cultural context of Korea, China, and Japan
143T/D	Kim	1991	Yonsei University	대도시 아파트 거주자의 주생활 양식	Housing life styles of apartment dwellers in the city of Seoul
144T/D	Kim	1999	Yonsei University	아파트 단위평면의 유형별 특성분석에 관한 연구	(NA)
145T/D	Kim	2012	Korea University	한국 주택정책 변화 분석	Analysis of Korean housing policy changes: Analysis of historical institutionalism
146T/D	Yoo	2002	Pusan National University	한국 도시단독주택의 형성과정에 나타난 평면특성: 주양식의 근대화 과정을 중심으로	(NA)
147T/D	Lee	1991	계명대학교	한국도시주거의 안방에 관한 행태적 연구	(NA)
148T/D	Jeon	2004	Hongik University	서울시 수유동 단독주거지의 확장에 따른 주거지 변화특성에 대한 연구	(NA)
149T/D	Cho	1987	Yonsei University	주택 유형에 따른 주공간 사용 행태에 관한 연구	(NA)
150T/D	Kim	1997	Cheju University	주생활 양식이 주택구매행동에 미치는 영향에 관한 연구	Study of the effect of Housing Life style on House Purchasing Behavior : Center on inhabitants of apartments located in Cheju city

A: Article B: Book J: Journal Article R: (National) Report T/D: Thesis & Dissertation

APPENDIX B:

The modernization process of Korean houses



APPENDIX C:

Institutional Review Board Approval Letter



Department of University Safety & Assurances

Melissa Spadanuda
IRB Administrator
Institutional Review Board
Engelmann 270
P. O. Box 413
Milwaukee, WI 53201-0413
(414) 229-3173 phone
(414) 229-6729 fax

<http://www.irb.uwm.edu>
spadanud@uwm.edu

New Study - Notice of IRB Exempt Status

Date: May 23, 2012

To: Gerald Weisman, PhD
Dept: Architecture and Urban Planning

Cc: Myounghee Jorn

IRB#: 12.378

Title: Making home and aging-in-place as an ethnic minority in the U.S.: understanding the housing needs of Korean immigrant seniors in affordable housing

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been granted Exempt Status under **Category 2** as governed by 45 CFR 46.101(b).

Unless specifically where the change is necessary to eliminate apparent immediate hazards to the subjects, any proposed changes to the protocol must be reviewed by the IRB before implementation. It is the principal investigator's responsibility to adhere to the policies and guidelines set forth by the UWM IRB and maintain proper documentation of its records and promptly report to the IRB any adverse events which require reporting.

It is the principal investigator's responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities the principal investigator may seek to employ (e.g., [FERPA](#), [Radiation Safety](#), [UWM Data Security](#), [UW System policy on Prizes, Awards and Gifts](#), state gambling laws, etc.) which are independent of IRB review/approval.

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project

Respectfully,

Melissa C. Spadanuda

Melissa C. Spadanuda
IRB Administrator

APPENDIX D:

Interview Protocol

IRBManager Protocol Form

Instructions: Each Section must be completed unless directed otherwise. Incomplete forms will delay the IRB review process and may be returned to you. Enter your information in the **colored boxes** or place an **“X”** in front of the appropriate response(s). If the question does not apply, write **“N/A.”**

SECTION A: Title

A1. Full Study Title:

Cultural attributes and housing adjustment behaviors: Residential experiences of Korean elderly immigrants residing in affordable housing

SECTION B: Study Duration

B1. What is the expected start date? *Data collection, screening, recruitment, enrollment, or consenting activities may not begin until IRB approval has been granted. Format: 07/05/2011*

06/01/2012

B2. What is the expected end date? *Expected end date should take into account data analysis, queries, and paper write-up. Format: 07/05/2014*

05/01/2018

SECTION C: Summary

C1. Write a brief descriptive summary of this study in Layman Terms (non-technical language):

This study seeks to understand socio-physical factors that contribute to the likelihood of housing satisfaction and aging-in-place for the ethnic elders who reside in affordable housing in Chicago metropolitan area.

To this end, this study examines the following items: (1) spatial relationship between housing, community, and social services and networks of Korean immigrant elders who live in government-subsidized affordable housing in Chicago using Geographic Information System (GIS); (2) effect of those factors on aging-in-place and overall satisfaction using the sample of two hundred Korean immigrant elders; and, (3) culturally-specific housing needs of the sample group through in-depth interviews. (1) will be conducted through expert rating system that does not involve human subjects while (2) and (3) will be done through structured interviews with accompanying questionnaire which will be filled by the interviewer.

C2. Describe the purpose/objective and the significance of the research:

Housing studies from a cultural point-of-view are relatively rare except for small-scale housing studies with qualitative methods that provide a partial view on how housing matters within ethnic communities. The current study will fill this information gap and further provide critical information on how the current affordable housing programs can be more effectively delivered to ethnic minorities as well as mainstream populations in a way that enhances their life experiences of aging-in-place while preserving cultural diversity within the community.

C3. Cite any relevant literature pertaining to the proposed research:

Amor, C.M. (2006) Arab-American Muslims' home interiors in the US: Meaning, uses, and communication. *Journal of Interior Design*, 32(1). 1-16.
Altman, I. & Chemers, M.M. (1980). Cultural aspects of environmental-behavior relationships. In H.C. Triandis & R.W. Brislin (Eds.), *Handbook of cross-cultural psychology* (pp.335-394).
Seo, Y. K., & Mazumdar, M. (2011). Feeling at home: Korean Americans in senior public housing. *Journal of Aging Studies*, 25(3), 233-242.

SECTION D: Subject Population

Section Notes...

- 1) D1. If this study involves analysis of de-identified data only (i.e., no human subject interaction), IRB submission/review may not be necessary. Visit the Pre-Submission section in the [IRB website](#) for more information.

D1. Identify any population(s) that you will be specifically targeting for the study. Check **all that apply: (Place an "X" in the column next to the name of the special population.)**

Not Applicable (e.g., de-identified datasets)		Institutionalized/ Nursing home residents recruited in the nursing home
UWM Students of PI or study staff		Diagnosable Psychological Disorder/Psychiatrically impaired
Non-UWM students to be recruited in their educational setting, i.e. in class or at school		Decisionally/Cognitively Impaired
UWM Staff or Faculty		Economically/Educationally Disadvantaged
Pregnant Women/Neonates		Prisoners
Minors under 18 and ARE NOT wards of the State	X	Non-English Speaking

	Minors under 18 and ARE wards of the State	Terminally ill
X	Other (Please identify): Korean immigrant elders who are aged 65 or older and are residing in affordable housing in Chicago metropolitan area	

D2. Describe the subject group and enter the total number to be enrolled for each group. For example: teachers-50, students-200, parents-25, parent's children-25, student control-30, student experimental-30, medical charts-500, dataset of 1500, etc. Enter the total number of subjects below.

Describe subject group:	Number:
Korean elderly immigrants	100~200
TOTAL # OF SUBJECTS:	100~200
TOTAL # OF SUBJECTS (If UWM is a collaborating site):	

D3. List any major inclusion and exclusion criteria (e.g., age, gender, health status/condition, ethnicity, location, English speaking, etc.) and state the justification for the inclusion and exclusion:

Age and **ethnicity** are the major inclusion criteria for this study. Research participants must be 65 years old or older with Korean ethnic background. The affordable housing projects with more than 10 Korean households will be selected as research site. Among the resident groups, we expect to have both males and females, although we expect more female participants than male participants due to the population characteristics. People who don't meet the conditions of inclusion criteria will be excluded.

SECTION E: Informed Consent
Section Notes... 2) E1. Make sure to attach any recruitment materials for IRB approval. 3) E3. The privacy of the participants must be maintained throughout the consent process.

E1. Describe how the subjects will be recruited. (E.g., through flyers, beginning announcement for X class, referrals, random telephone sampling, etc.). If this study involves secondary analysis of data/charts/specimens only, provide information on the source of the data, whether the data is publicly available and whether the data contains direct or indirect identifiers.

The participants will be identified through a social service agency that serves this population. We will first choose housing projects that have more than 10 Korean household in Chicago metropolitan area. We will then contact through the social service agency the resident representative from each of the affordable housing complexes.

E2. Describe the forms that will be used for each subject group (e.g., short version, combined parent/child consent form, child assent form, verbal script, information sheet): If data from failed eligibility screenings will be used as part of your “research data”, then these individuals are considered research subjects and consent will need to be obtained. Copies of all forms should be attached for approval. If requesting to waive documentation (not collecting subject’s signature) or to waive consent all together, state so and complete the “Waiver to Obtain-Document-Alter Consent” and attach:

Consent form both written in English and Korean will be used.

E3. Describe who will obtain consent and where and when consent will be obtained. When appropriate (for higher risk and complex study activities), a process should be mentioned to assure that participants understand the information. For example, in addition to the signed consent form, describing the study procedures verbally or visually:

The PI and co-PI conducting field interviews will obtain consent form at the beginning of each household interview. The field interviewers are both fluent in Korean and English, and thus the language preferred by interviewees will be used when obtaining consent forms.

SECTION F: Data Collection and Design

Section Notes...

- 4) F1. Reminder, all data collection instruments should be attached for IRB review.
- 5) F1. The IRB welcomes the use of flowcharts and tables in the consent form for complex/ multiple study activities.

F1. In the table below, chronologically describe all study activities where human subjects are involved.

- In **column A**, give the activity a short name. E.g., Obtaining Dataset, Records Review, Recruiting, Consenting, Screening, Interview,

Online Survey, Lab Visit 1, 4 Week Follow-Up, Debriefing, etc.

- In **column B**, describe in greater detail the activities (surveys, audiotaped interviews, tasks, etc.) research participants will be engaged in. Address where, how long, and when each activity takes place.
- In **column C**, describe any possible risks (e.g., physical, psychological, social, economic, legal, etc.) the subject may **reasonably** encounter. Describe the **safeguards** that will be put into place to minimize possible risks (e.g., interviews are in a private location, data is anonymous, assigning pseudonyms, where data is stored, coded data, etc.) and what happens if the participant gets hurt or upset (e.g., referred to Norris Health Center, PI will stop the interview and assess, given referral, etc.).

A. Activity Name:	B. Activity Description:	C. Activity Risks and Safeguards:
Recruiting	The participants will be identified through a social service agency that serves this population. We will contact the resident representative from each of the affordable housing complexes through the social agency.	None
Consenting	Consent form will be obtained before conducting each interview. Consent form written in Korean and English will be used considering the language preference of research participants. Research procedures and consent form will also be explained verbally in the preferred language by interviewers before conducting each interview.	None
House tour	The overall interview will take place in participant's residence. The interviewer will ask individual participant to show his/her housing unit at the beginning of each interview, so that the interviewer can walk through and assess the overall conditions. We expect that this will take about 30 min. During the house tour individual units will be photographed with the permission of each	House tour will take place at the beginning of each household interview. Only the physical features of individual unit will be photographed with the permission of its dwellers. This includes the living spaces, and decorative features in and around the house. All collected data will be assigned with

	participant.	pseudonyms and be stored on a password protected computer that only PI and Co-PI have access to.
Interviews	After the house tour provided by research participants, the participant and the interviewer will sit down together for a structured interview. The structured interview will be guided through a questionnaire with probing questions, which the interviewer will fill as the interview proceeds. We expect that this portion of the interview will take about an hour and half.	Structured interview will take place at each participant's residential unit. All collected data will be assigned with pseudonyms and be stored on a password protected computer that only PI and Co-PI have access to.
		Judging from previous studies conducted by Co-PI on Korean elderly immigrants, the overall interview time allocated for this study seems reasonable. However, if the participants show signs of fatigue, the interview will be stopped at that point.

F2. Explain how the privacy and confidentiality of the participants' data will be maintained after study closure:

We expect that privacy will not be an issue because the assessment and the interview will take place in the private residence. We will maintain confidentiality by not including the participant's name or other identifiers in the questionnaire and interview outcomes. We will use coding system that only the principle investigator and co-investigator can track for analysis purpose only. The data will be securely kept on a hard drive and then destroyed seven years later.

F3. Explain how the data will be analyzed or studied (i.e. quantitatively or qualitatively) and how the data will be reported (i.e. aggregated, anonymously, pseudonyms for participants, etc.):

Collected data will be analyzed both quantitatively and qualitatively with no actual names of research subjects and no features that could reveal the identity of research participants. The analyzed data will be reported in aggregated forms with no identifiers that could reveal research participants.

SECTION G: Benefits and Risk/Benefit Analysis

Section Notes...

- 6) Do not include Incentives/ Compensations in this section.

G1. Describe any benefits to the individual participants. If there are no anticipated benefits to the subject directly, state so. Describe potential benefits to society (i.e., further knowledge to the area of study) or a specific group of individuals (i.e., teachers, foster children). Describe the ratio of risks to benefits.

There are no direct benefits to individual research participants.

Housing studies from a cultural point-of-view are relatively rare except for small-scale housing studies with qualitative methods that provide a partial view on how housing matters within ethnic communities. The current study will fill this information gap and further provide critical information on how the current affordable housing programs can be more effectively delivered to ethnic minorities as well as mainstream populations in a way that enhances their life experiences of aging-in-place while preserving cultural diversity within the community.

G2. Risks to research participants should be justified by the anticipated benefits to the participants or society. Provide your assessment of how the anticipated risks to participants and steps taken to minimize these risks, balance against anticipated benefits to the individual or to society.

The risk that may be experienced by research subjects in this study will not exceed that of an ordinary conversation in daily life. However, if any emotional uprush is spotted during an interview, the mediator (i.e. PI and Co-PI) will change the interview topic. If any of the research participants continue to experience emotional uprush after changing the topic, the interview will be stopped.

SECTION H: Subject Incentives/ Compensations

Section Notes...

- H2 & H3. The IRB recognizes the potential for undue influence and coercion when extra credit is offered. The UWM IRB, as also recommended by OHRP and APA Code of Ethics, agrees when extra credit is offered or required, prospective subjects should be given the choice of an equitable alternative. In instances where the researcher does not know whether extra credit will be accepted and its worth, such information should be conveyed to the subject in the recruitment materials and the consent form. For example, "The awarding of extra credit and its amount is dependent upon your instructor. Please contact your instructor before participating if you have any questions. If extra credit is awarded and you choose to not participate, the instructor will offer an equitable alternative."
- H4. If you intend to submit to the Travel Management Office for reimbursement purposes make sure you understand what each level of payment confidentiality means ([click here for additional information](#)).

H1. Does this study involve incentives or compensation to the subjects? For example cash, class extra credit, gift cards, or items.

☒ Yes

☐ No [SKIP THIS SECTION]

H2. Explain what (a) the item is, (b) the amount or approximate value of the item, and (c) when it will be given. For extra credit, state the number of credit hours and/or points. (e.g., \$5 after completing each survey, subject will receive [item] even if they do not complete the procedure, extra credit will be award at the end of the semester):

- (a) A gift card
- (b) Each gift card will have \$25 value on it
- (c) Participant will receive a gift card upon the completion of his/her interview.

H3. If extra credit is offered as compensation/incentive, an alternative activity (which can be another research study or class assignment) should be offered. The alternative activity (either class assignment or another research study) should be similar in the amount of time involved to complete and worth the same extra credit.

H4. If cash or gift cards, select the appropriate confidentiality level for payments (see section notes):

- ☐ **Level 1** indicates that confidentiality of the subjects is not a serious issue, e.g., providing a social security number or other identifying information for payment would not pose a serious risk to subjects.
 - Choosing a Level 1 requires the researcher to maintain a record of the following: The payee's name, address, and social security number and the amount paid.
 - When Level 1 is selected, a formal notice is not issued by the IRB and the Travel Management Office assumes Level 1.
 - Level 1 payment information will be retained in the extramural account folder at UWM/Research Services and attached to the voucher in Accounts Payable. These are public documents, potentially open to public review.
- ☐ **Level 2** indicates that confidentiality is an issue, but is not paramount to the study, e.g., the participant will be involved in a study researching sensitive, yet not illegal issues.
 - Choosing a Level 2 requires the researcher to maintain a record of the following: A list of names, social security numbers, home addresses and amounts paid.
 - When Level 2 is selected, a formal notice will be issued by the IRB.
 - Level 2 payment information, including the names, are attached to the PIR and become part of the voucher in Accounts Payable. The records retained by Accounts Payable are not considered public record.
- ☒ **Level 3** indicates that confidentiality of the subjects must be guaranteed. In this category, identifying information such as a social security number would put a subject at increased risk.

- Choosing a Level 3 requires the researcher to maintain a record of the following: research subject's name and corresponding coded identification. This will be the only record of payee names, and it will stay in the control of the PI.
- Payments are made to the research subjects by either personal check or cash.
- Gift cards are considered cash.
- If a cash payment is made, the PI must obtain signed receipts.

SECTION I: Deception/ Incomplete Disclosure (INSERT "NA" IF NOT APPLICABLE)

Section Notes...

7) If you cannot adequately state the true purpose of the study to the subject in the informed consent, deception/ incomplete disclosure is involved.

I1. Describe (a) what information will be withheld from the subject (b) why such deception/ incomplete disclosure is necessary, and (c) when the subjects will be debriefed about the deception/ incomplete disclosure.

NA

IMPORTANT – Make sure all sections are complete and attach this document to your IRBManager web submission in the Attachment Page (Y1).

APPENDIX E:

Informed Consent Form



**UNIVERSITY OF WISCONSIN-MADISON
UNIVERSITY OF WISCONSIN-MILWAUKEE
Research Participant Information and Consent Form**

Title of the Study:

Cultural attributes and housing adjustment behaviors: Residential experiences of Korean elderly immigrants residing in affordable housing

Researcher information

Principle investigators:

Jung-hye Shin, PhD, Assistant Professor, Design Studies Department at UW-Madison (phone: 608.262.6502) (email: jshin9@wisc.edu)

Gerald Weisman, PhD, Professor, the School of Architecture and Urban Planning at UW-Milwaukee (Phone: 414-229-3815) (email: gweisman@uwm.edu)

Graduate Researcher (Co-PI):

Myounghee Jorn, PhD candidate, the School of Architecture and Urban Planning at UW-Milwaukee (phone: 414-229-2991) (email: mjorn@uwm.edu)

Study Description

We invite you to participate in our study about Korean American seniors and their housing needs. We invited you because you are a Korean American senior and you live in affordable housing in the Greater Chicago area. The goal of this study is to see whether your current house met your cultural needs. We will also want to know ways in which affordable housing can better meet the needs of ethnic minorities in the U.S.

Study Procedures

If you agree to participate, we will visit your house to assess overall quality of your house and interview you about your daily life in and around your house. The overall process will take about 2 hours. During the interview, we will ask questions about following items.

1. Basic information: The year and place of birth, income level, educational level, year of immigration, how much you are comfortable with American culture.
2. Home environment: Your satisfaction with various features in your house, home modifications you made, and how culturally specific they are.
3. Your social life at home: Your relationship with friends and family, where and how you go to get essential services
4. Your housing needs: Housing features you wish to have to meet your cultural needs

If you give us permission, we will record our interview. It will save time because we do not need to make notes during the interview. If you are not comfortable with recording, please let us know. We will write down your responses on paper. We may also take photographs of your unit, which do not include your images. If you are not comfortable with us taking photographs, please let us know.

Risks

We may be required to break confidentiality if abuse or neglect is witnessed or suspected while in your home. In addition, do not reveal any illegal behaviors or information that might put you at risk. We will not include them in our study. For example, we will not need any information that would indicate you do not qualify for the affordable housing.

Benefits

There is no direct benefit from participating in this study. However, you may enjoy telling us your thoughts and ideas.

Compensation

We will give you a gift card worth of \$25.00 at the end of the interview.

What happens to the information collected?

Your information collected for this study is completely confidential. No individual participant will ever be identified with his/her research information. The voice recording data of the interview will be typed, and the recordings will be erased immediately after this is complete. The transcripts of the recordings will be saved on a password protected computer that only the researchers listed above has access to. All of the information collected for this study will be destroyed when the study is complete. We will present what we find in academic journals or at conferences. The findings will also be presented to Hanul Family Alliance.

What happens if I decide not to be in this study?

Your participation in this study is entirely voluntary. You may choose not to take part in this study. If you decide to take part, but then change your mind later, you can withdraw from the study at any time. You are free not to answer any questions. If you withdraw before the interview ends, we will use the information we collected up to that point. The investigator may stop your participation in this study if she feels necessary to do so. Your decision will not change any present or future relationships with the University of Wisconsin-Milwaukee or the University of Wisconsin-Madison

Who do I contact for questions about this study?

For more information about the study or the study procedures or treatments, or to withdraw from the study, contact the principal investigator, Jung-hye Shin at (608)262-6502 or graduate researcher, Myounghee Jorin at (414) 617-1347.

For questions about your rights or complaints towards the interview as a research participant, contact the Education Research and Social & Behavioral Science IRB Office at University of Wisconsin-Madison at (608) 263-2320 or the Institutional Review Board at University of Wisconsin – Milwaukee at (414) 229-3173.

Research Subject's Consent to Participate in Research:

To voluntarily agree to take part in this study, you must sign on the line below. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read or had read to you this entire consent form, including the risks and benefits, and have had all of your questions answered, and that you are 18 years of age or older.

Printed Name of Participant

Signature of Participant

Date

Research Subject's Consent to Audio/Video/Photo Recording:

It is okay to audiotape me and use my audiotaped data in the research.

Please initial: ____Yes ____No

It is okay to take photographs of my unit and use it in the research.

Please initial: ____Yes ____No

Principal Investigator (or Designee)

I have given this research participant information on the study that is accurate and sufficient for the subject to fully understand the nature, risks and benefits of the study.

Printed Name of Person Obtaining Consent

Study Role

Signature of Person Obtaining Consent

Date

위스콘신 주립대- 메디슨/위스콘신 주립대 - 밀워키

연구 참여자 정보 및 동의서

연구 제목:

미국 이민 노인의 독립 주거환경 (Aging-in-Place): 서민주택에 기거하는 한인 노인 이민자의 주거 요구에 대한 이해

연구자 정보

연구 책임자:

신정혜 박사, 조교수, 디자인 연구 학부, 위스콘신-매디슨 주립대

(전화번호: 608.262.6502) (이메일: jshin9@wisc.edu)

제랄드 와이즈만 박사, 건축 및 도시계획, 위스콘신-밀워키 주립대

(전화번호: : 414-229-3815) (이메일: gweisman@uwm.edu)

대학원생 연구자:

전 명희 박사 과정, 건축 및 도시계획, 위스콘신-밀워키 주립대

(전화번호: : 414-229-2991) (이메일: mjorn@uwm.edu)

연구 내용

재미교포 노인의 주거환경에 대한 연구에 귀하를 초대합니다. 귀하는 재미교포 노인이시며, 시카고 지역의 서민주택에 거주하고 계시기 때문에 초대되었습니다. 저희는 귀하의 현 주거환경이 귀하의 문화적인 요구에 적합한지와 귀하께서 이를 위하여 어떻게 주거환경을 변화시키시는지를 연구하고자 합니다. 또한 서민주택이 미국에서 거주하는 이민자들의 욕구를 어떻게 하면 잘 충족할 수 있는지 알아보려 합니다.

연구 과정

귀하께서 본 연구에 참석하기로 결정하셨다면, 연구자가 귀하의 가정을 방문하여 전반적인 주거환경에 대해 조사를 하게 됩니다. 또한 주거와 관련하여 귀하의 일상생활에 대한 인터뷰를 진행하게 됩니다. 전반적인 과정은 약 2 시간 정도 소요될 것으로 예상됩니다. 인터뷰에서 귀하는 아래의 사항에 대한 질문을 받으시게 됩니다.

1. **기본적인 사항:** 출생년도와 출생지, 소득 수준, 교육 수준, 이민년도, 미국문화에 대해 편안한 정도.
2. **주거 환경:** 다양한 주거환경에 대한 만족도, 주거환경 변경사항, 변경사항의 문화적 특정 정도.
3. **주거지 내의 사회생활:** 친구 및 가족 관계, 필요하신 서비스를 받으시는 장소와 경로.
4. **주거 요구사항:** 거주자가 희망하는 문화적인 요구에 상응하는 주거 요소

귀하께서 동의하신다면 인터뷰 내용은 녹음될 것입니다. 이는 인터뷰 내용을 적는 시간을 줄이기 위함입니다. 귀하께서 인터뷰를 녹음하시는 것에 동의하지 않는다면, 인터뷰 진행자에게 미리 알려주시기 바랍니다. 이 경우에 인터뷰 내용은 진행자가 받아적게 됩니다. 또한 귀하의 모습이 포함되지 않은 집 내부의 사진을 찍을 수도 있습니다. 사진을 찍는 것을 원하지 않으신다면 알려주시기 바랍니다.

위험 요소

인터뷰 동안 귀하 가정내의 학대 또는 방치가 목격 혹은 의심된다면 연구자는 이를 보고해야 할 수도 있습니다. 또한 귀하가 위험에 처해질 수 있는 어떠한 불법적인 행위나 정보도 밝히지 마십시오. 이는 연구에 포함되지 않을 것입니다. 예를 들어 귀하의 서민 주택 거주자격 여부에 관한 정보는 본 연구에 필요하지 않습니다.

이득

본 연구에 참여하심으로서 귀하에게 돌아가는 직접적인 이득은 없습니다. 그러나 귀하의 생각과 아이디어를 나누시는 과정을 즐기실 수는 있습니다.

보상

인터뷰가 끝나면 \$25 에 상당하는 선물권이 제공될 것입니다.

수집된 정보는 어떻게 사용되나요?

본 연구에 수집된 귀하의 정보는 전적으로 기밀로 유지됩니다. 참여자는 개인 정보에 의해 신원이 확인될 수 없습니다. 녹음된 인터뷰 내용은 대본으로 완성된 즉시 삭제될 것입니다. 완성된 대본은 비밀번호로 잠긴 컴퓨터에 보관될 것이며, 위에 나열된 연구자만이 접근할 수 있습니다. 본 연구를 위해 수집된 모든 정보는 연구의 완료와 함께 폐기될 것입니다. 본 연구결과는 학술지나 학회에 발표되게 됩니다. 또한, 본 연구결과는 한울종합복지회에 발표될 것입니다.

연구에 참여하지 않기로 결정하면 어떻게 되나요?

본 연구에 대한 귀하의 참여 여부는 전적으로 자발적입니다. 귀하는 본 연구에 참여하지 않으셔도 됩니다. 귀하께서 참여하시기로 결정하셨다가, 추후에 마음을 바꾸신다면 연구 도중 아무때나 참여를 중단하실 수 있습니다. 또한 특정 질문에 답하지 않으셔도 됩니다. 인터뷰가 끝나기 전에 그만두신다면, 그 시점까지 수집된 정보만이 사용될 것입니다. 또한 연구 진행자의 판단에 따라 귀하의 참여가 중단될 수도 있습니다. 참여 여부에 대한 귀하의 결정은 향후 귀하와 위스콘신-밀워키 주립대 혹은 위스콘신-매디슨 주립대과의 관계에 아무런 영향을 미치지 않을 것입니다.

본 연구에 관련된 질문은 누구에게 해야 하나요?

본 연구와 연구 과정 및 처우, 혹은 연구 철회에 대하여 추가적인 정보는 신정혜 교수 (608) 262-6502 혹은 박사과정 전명희 (414) 617-1347 에게 연락하시면 됩니다.

귀하의 권리에 관한 질문이나 인터뷰에 관한 불만사항은 다음의 기관에 하시면 됩니다: 위스콘신-매디슨 주립대의 교육연구 및 사회행동과학 IRB 사무소 (608) 263-2320

혹은, 위스콘신-밀워키 주립대의 감사위원회 (414) 229-3173

연구 참여에 대한 참가자의 동의사항:

본 연구에 자발적인 참여를 위해서는 반드시 아래에 서명을 하셔야 합니다. 귀하는 아래에 서명을 하심으로 귀하의 법적인 권리를 포기하시는 것은 아닙니다. 귀하의 서명은 귀하가 본 연구 동의서의 모든 내용을 들으셨거나 읽으셨다는 것을 의미합니다. 이는 연구에 동반되는 위험과 이득, 또한 귀하의 연구에 대한 모든 질문사항에 대한 답변을 포함하며, 또한 귀하가 18 세 이상인 것을 증명하는 서명입니다.

연구 참여자의 이름

연구 참여자의 서명

날짜

음성/사진촬영에 대한 연구 참여자의 동의:

음성녹음 및 수집된 녹음내용을 본 연구에 사용하는 것에 동의합니다.

이니셜을 적어주세요: ___네 ___아니오

사진촬영 및 촬영된 사진을 본 연구에 사용하는 것에 동의합니다.

이니셜을 적어주세요: ___네 ___아니오

연구 책임자 (혹은 피지명자)

나는 연구 참여자에게 본 연구의 성격, 위험 및 이득에 대하여 정확하고 충분한 설명을 하였습니다.

동의를 받는 사람의 이름

연구내 역할

동의를 받는 사람의 서명

날짜

APPENDIX F:

Themes and Issues Identified through Focus Group Meetings

Category		Detailed issues					
Demographic & Individual characteristics		Years of living in current apt.s	SES Level	Knowledge level (Senior apt; Related laws; Services; etc.)	Language capacity	Personal residence history before relocation	
Aging		Physical changes and bodily movements	Symbolic meaning (of being an elderly)	Expected behaviors and norms of the society (as an elderly)			
Attitudes (towards)		Aging	Management	Physical env. (Comparing current living to Korean houses, other senior apts, etc.)	Neighbors (other ethnic groups)	Neighbors (Korean)	Resignation
Physical Env	Demands for physical space	Vestibule/Transitional space	Bathroom	(Attached) balcony	Storage (capacity; numbers; organization)	Waiting area in common space	
	Physical features	Natural sunlight/Ventilation	Room size	Floor (finishing materials & temperature)	Lighting	Temperature/ Heating & cooling system	Built in furniture (dimension & capacity)
Problems /Issues	related to physical features	Noise (not bothering them much though)	Bed bugs (Priority)	Transportation			
	related to social features	Language barrier	Conflict with management	Conflict with Neighbors			
Cultural factors	Cultural Identity	Food (preferences; symbolic meaning)	Old-fashioned (gender roles; hierarchical relations; etc.)	Distinctive to Koreans (Community spirits; hot & quick temper, etc.)	Types of celebrating holidays	Subjective cultural identity	
	Cultural Differences	Stereotypes (of Americans & other ethnic groups)	Acknowledging Differences (physical, social, & notional)	Language barrier (Issues in communication)	Preferences to certain physical settings	Customary behaviors	Preferences to certain media

(Cont'd)

(Category)		(Detailed issues)					
Daily life-style	Behavior	Floor-sitting vs. Chair-sitting lifestyle	Shoeless lifestyle	Supporting props & items (Mats; floor-sitting cushion; etc.)	Cleaning floor	Washing self	Cooking & dining
	Others	Food (Type; frequencies; cooking methods; etc.)	Autonomy (feeling free to do as one wants)				
Social network		Social circles (Family; friends; neighbors; etc.)	Relations with Korean social service groups	Relations with other ethnic groups			
Receiving helps from		Family members	Friends & neighbors	Social workers/Social service groups (for Korean elderly)	Apartment manager, staffs, & crews	Government policy	
Housing adjustment behavior		Changes in behavior (bodily movements & activity patterns)	Changes in norms & values	Changes in residential environment	Use of props and items		
Public housing		Management services	Promptness to other problems (utilities)	Regulations to abide as tenants	Regular Inspections	Moderating conflicts between neighbors	

APPENDIX G:

Visual Analog Scale

아주 불만족
(Very Dissatisfied)

중간
(Neutral)

아주 만족
(Very Satisfied)



1

2

3

4

5

6

7

APPENDIX H:

Data Coding Categories from Analyzing Interview Transcripts

1. Intercultural experiences

Language

American acquaintances

Intercultural adjustment/experiences of individuals

Cultural identity

Food preferences

Perceptions/Attitudes on Korea

2. Floor-sitting culture

Shoeless lifestyle

Floor-sitting versus. Chair-sitting behaviors

Floor covering mats

Electric/Bamboo mats

Floor type and floor-heating system

3. Window direction (Rationales for preferences)

Sunlight

View

Ventilation

Others

4. Daily activities

Sleeping

Eating/Cooking

Doing laundry

Washing self

Cleaning residential floors

Group socializing activities

Recreational activities

Raising indoor plants

5. Residential evaluation

- Environmental fit/misfits

 - Fit or positive features

 - Misfit or negative features

 - Desirable features

- No inconveniences or complaints

- Focus on function

- Focus on maintenance

- Others (Autonomy & Independency)

6. Specific attitudes of participants

- Comments of “Good enough”

- Public housing/ Tenants of public housing

- Life-stage perspective/Aging

- Government supports/Systems (benefits and welfare)

7. Attachments

- Residential attachments

 - Feel at home

 - Aging in place

 - Requisite features to make one feel at home

- Objects/Personal belongings

8. Cultural factors (social)

- Korean community

 - Pros of residing within Korean community

 - Cons of residing within Korean community

- On-site Korean manager

9. Relocation factors

Decision maker

Push factors (of moving out from previous dwelling)

Pull factors (of moving into current dwelling)

10. Coping responses (Housing Adjustment Behaviors)

Changes in physical environment

Changes in behavioral patterns and bodily movements

Changes in notions

Changes in social relations

Changes in family relations

Changes in friend relations

CURRICULUM VITAE

Myounghee Jorn

Place of Birth: Seoul, Korea

Education

B.E., Korea University, February, 2004

Major: Architecture

M.E., Korea University, August, 2006

Major: Architecture

Thesis title: (A) Study on the Effects of Environmental Changes by Relocation to Daily Activity of Elderly with Dementia

Ph.D., University of Wisconsin-Milwaukee, May, 2017

Major: Architecture (Environmental Design Research), Minor: Aging (Environment for the elderly)

Dissertation Title: Housing adjustment behaviors of Korean elderly immigrants residing in public housing: The cultural aspects of residential experiences

Awards:

Sustainable Design Award in Aging Charrette, University of Wisconsin-Milwaukee, Fall 2007

Helen Bader Age & Community Scholarship, University of Wisconsin-Milwaukee, Fall 2008 ~ Spring 2009

Chancellor's Graduate Student Awards (CGSA), University of Wisconsin-Milwaukee, Fall 2009, Fall 2010

Teaching experience:

Teaching Assistant,

Arch 522, Environmental systems: Lighting and acoustical design, Fall 2006

Arch 210, Introduction to building technology, Spring 2006

Arch 302, Architecture and human behavior, Fall 2007 ~ Spring, 2009

Participated projects:

Success Story Project, University of Wisconsin-Milwaukee, Fall 2007

Luther Manor Project, University of Wisconsin-Milwaukee, Fall 2008

Publications:

Jorn, M. (2006). *(A) Study on the Effects of Environmental Changes by Relocation to Daily Activity of Elderly with Dementia*. 시설 입소에 의한 생활환경의 변화가 치매노인의 일상생활 수행능력에

- 미치는 영향에 관한 연구 입주거리 및 입주기간에 따른 변화를 중심으로. (Master's thesis, Korea University, 2006). Seoul: Korea University.
- Jorn, M. (2011). A Qualitative Approach to the Cultural Adjustment and Home Environment of Korean Elderly Immigrants. In *EDRA 42 Chicago: Make no little plans: Proceedings of the 42nd annual conference of the Environmental Design Research Association, Chicago, Illinois, May 25-28, 2011*. McLean, VA: Environmental Design Research Association.
- Jorn, M. (2014). Housing adjustment behaviors of Korean elderly immigrants living in affordable housing (Affordable housing에 거주하는 한인 노인 이민자의 주거적응행태). *Journal of the Korean Housing Association*, 25 (3), 1-11.
- Jorn, M., Shih, C., & Rhee, J.H. (2011). Comparing the characteristics of apartment floor plans and their evolving processes in Korea and Taiwan. In *EDRA 42 Chicago: Make no little plans : Proceedings of the 42nd annual conference of the Environmental Design Research Association, Chicago, Illinois, May 25-28, 2011*. McLean, VA: Environmental Design Research Association.
- Jorn, M. & Shin, J. (2013). Cultural attributes and recreating home: Residential experiences of Korean elderly immigrants in affordable housing. In *EDRA 44 Providence: Healthy healing places: Proceedings of the 44th annual conference of the Environmental Design Research Association, Providence, Rhode Island, May 29-June 1, 2013*. McLean, VA: Environmental Design Research Association.