SPACE SHARING, TERRITORIALITY, AND SITUATIONAL ENVIRONMENTS
IN SHANGHAI’S HIGH-RISE GATED DEVELOPMENTS

BY

FANG XU

DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Architecture
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2013

Urbana, Illinois

Doctoral Committee:

Associate Professor Lynne Dearborn, Chair
Associate Professor John Stallmeyer
Professor Kathryn Anthony
Visiting Assistant Professor Elizabeth Sweet, Temple University
ABSTRACT

The exponential growth of gated developments in many major Chinese cities has spawned a profound and far-reaching transformation of China’s urban spaces. Incorporating real physical barriers, defensive technologies, and security personnel, these residential compounds often contain various interior and exterior shared spaces that mediate the private homes and the public urban space. In Shanghai, with the fast spread of high-rise gated residential developments, shared spaces secured behind walls and gates are intensely proliferating. This dissertation examines the everyday use and environmental meanings of shared space found in the high-rise gated developments in Shanghai, focusing on a set of territoriality-related environmental meanings such as spatial control, spatial rights, imagination of home, and senses of responsibility and care-taking. Particular attention is paid to how people derive territorial senses and attitudes and how physical space contributes to these particular environmental understandings about shared spaces.

Inspired by the situativity theory of environmental cognition, this dissertation ventures qualitative case studies centered on sixty one residents from three representative high-rise gated developments located in the central city of Shanghai. It unveils an exotic landscape of territorial and quasi-territorial understandings concerning shared spaces, demonstrating that subjective territorially-charged meanings are framed through multi-modal, systematic socio-psychological processes that involve various interconnected factors. These processes essentially reflect alternate patterns of holistic person-environment situations (PES) where different groups of residents as “situated persons” are spatially and socially bonded with different contingent sets of environmental elements, or “situational environments”, through varied modes of everyday person-environment interactions (PEI) taking place within these secured neighborhoods. This study uncovers and illustrates the differing roles of physical space with reference to different person-environment situations (PES). The research settings, methods, data, and findings are presented in nine chapters.
The beginning chapter of this dissertation sets the stage of investigation and identifies the research subject. It illustrates the basic spatial characteristics of shared spaces in Shanghai’s high-rise gated developments. It also highlights their distinctive characteristics in historical, social, and political dimensions. This chapter concludes by discussing the possible research perspectives regarding shared spaces and proposing the employment of environmental cognition and territoriality as the theoretical lenses of this study.

Chapter Two continues to introduce theoretical and methodological considerations. It justifies the adoption of grounded theory and case studies as methodological strategies. In this chapter, an overarching conceptual framework is established by synthesizing existing knowledge on territoriality and environmental cognition. In the light of this framework, I identify three fundamental research questions: (1) What are the perceived territorial and quasi-territorial meanings about shared spaces? (2) How do individual residents derive and generate these environmental meanings? (3) What is the role of the physical space in the generation of territorial and quasi-territorial meanings?

Chapter Three describes the data collection scheme and introduces its deployment in the field research from January to July of 2010. It explains the conceptual “cases” and “settings” to bundle different sets of empirical indicators. It reveals the inherent associations between predefined concepts, perspectives of data measurement, types of empirical data, and specific data gathering techniques. It also introduces the sampling of research sites and the recruitment of research participants. This chapter concludes with an overview of the raw data collected within and beyond the research sites and their categorization in “cases” and “settings”.

Chapter Four presents my data analysis scheme and preliminary data analysis outcomes. It first maps out general data utilization strategies to solve the different research questions that entail descriptive and explanatory accounts. The strategy of “case-oriented analysis” is introduced and justified. It then illuminates the qualitative data analysis processes of this study in detail, introducing preliminary data treatment, coding procedures, and the beginning list of codes. The second half of this chapter presents the early steps of analysis where the data were grouped in cases and settings and basic graphic and verbal codes were generated.
Chapter Five and Chapter Six respond to the first research question by displaying and summarizing the relevant data analysis findings. In general, the research participants reported complex patterns of territorial and quasi-territorial meanings with regard to shared spaces. Chapter Five describes patterns of territorial meanings in terms of “perceived spatial control” of shared spaces and “perceived spatial rights” about shared spaces. Residents reported that they experienced partial and unbalanced territorial control over the shared spaces in their neighborhoods. As to the understandings of non-residents’ spatial rights to shared spaces, residents accepted some spatial behaviors by certain groups of non-residents while rejecting other attempts to gain access to and utilize shared spaces. Chapter Six presents two major quasi-territorial meanings, “imagined home ranges” and “care-taking attitudes”. Through “geo-psychological mapping” that synthesizes verbal and spatial data, I display the analysis outcomes by organizing these socio-psychological meanings with reference to a spatial framework. It shows that some residents did attach “home-like” meanings to the shared spaces beyond their privately owned housing units. In varied patterns, residents also maintained attitudes of caring and responsibility toward certain interior and exterior shared spaces.

As the keystone of this dissertation, Chapter Seven addresses the second research question and proposes a multi-modal emergent theory explaining residents’ territorial and quasi-territorial understandings of shared spaces. In this chapter, I practice case-oriented analysis to identify three case families manifesting different patterns of links between territoriality-related meanings and their contributing factors. These case families not only suggested different “trails” or “models” whereby territorial and quasi-territorial meanings were generated, but they also manifested categorically distinct person-environment situations (PES). These different person-environment situations feature distinct modes of social and spatial person-environment interactions (PEI), different social and spatial composition of the situational environment, and diverse personal conditions of the situated person. The formation of territorially-charged environmental meanings is essentially a multi-modal process regulated by these person-environment situations (PES). Spatial and social person-environment interactions (PEI) play a central role in articulating multiple spatial, social, and personal factors that account for residents’ territorial and quasi-territorial interpretations about shared spaces.
Yet, the effect of person-environment transactions was not absolute and it always came with necessary qualifications.

Chapter Eight continues to explore the relevance of the physical space to territorial and quasi-territorial meanings of shared spaces. It first clarifies the concept of “physical space” and explains its conceptual relationship with “situational environment”. Then it discusses the role of physical space in terms of their embeddedness in various person-environment situations. In general, the relevance of physical space for territorial meanings was quite weak. The significance of physical space was detectable for those engaged in moderate behavioral associations with their housing developments’ recreational facilities. But for the residents who were either rarely engaged or constantly utilized neighborhood amenities, different spatial settings did not predict any substantial variation in quasi-territorial understandings.

The final chapter summarizes the major research findings. Qualitative data analysis suggests that a multitude of factors and conditions may influence residents’ territorial and quasi-territorial understandings of shared spaces. Recognizing ecological person-environment situations (PES) through a situativity perspective is effective to render a holistic picture to understand how territoriality-related environmental meanings are spun out of such an intricate network of contributing factors. In this chapter, I also identify the major strengths and limitations of this study and propose future research directions such as using “reciprocal person-environment scenarios (R-PES)” as the subject matter when studying humans’ environmental understandings.

In the epilogue of this dissertation, I call upon an anti-fragmental worldview and a non-compartmentalized thinking in research and design. Environmental researchers need to upgrade the guiding meta-theoretical and philosophical frameworks of their research to embrace person-environment relationality. Design practitioners, architects in particular, need to recognize the potential of interactive person-environment systems, comprehend the significance of human agency and intentionality in creating meaningful places, and appreciate the value of regular users’ spatial nominal systems and spatial categorization strategies to design thinking.
DEDICATION

To my family,

especially for my son Benjamin Zaiyuan Xu and my wife Kaiyuan Zhu...

For our days in Urbana-Champaign
ACKNOWLEDGEMENTS

The research for this dissertation spans across several places in two countries. I owe a great deal of gratitude to many people whose generous support made this academic journey such a rewarding one for me.

At UIUC, I would like to express my foremost appreciation to my dissertation advisor, Professor Lynne M. Dearborn, who has always been a source of moral support and intellectual inspiration. From the very beginning of my doctoral program, Lynne has been actively involved in my intellectual development and nurtures my mind with her insights. She always understands my enthusiasm about architectural research and encourages me to pursue my academic interest. She demonstrates me the most laudable merits and values of graduate education and inspires me to reinforce these values in my future career. She also has created many previous opportunities for me to develop as a beginning scholar. As a great mentor and a sincere friend, Lynne has devoted numerous hours of her precious time to this dissertation. I am also thankful to my doctoral committee members, Professor Kathryn Anthony, John Stallmeyer, and Elizabeth Sweet for their continued guidance and encouragement over years. I have been inspired by Kathryn’s passion to research and her sensitivity to relate research projects with real world concerns in design field. I have been motivated to emulate the highest standards of academic rigor and clarity in writing that John repeatedly demonstrates. As my long-term mentor the field of qualitative research, Betsy has continually been my most reliable source of strength and faith when I had doubts about convincing others with my qualitative analysis. I also owe thanks to Christopher Wilcock and Molly Helgesen from graduate office as well for their assistance on numerous occasions. The financial assistance from the School of Architecture and the Graduate College of UIUC is also gratefully acknowledged. I am also particularly thankful for the friendship and camaraderie of Andrew Weiss, Abby Miller, Sang Lee, and Altaf Engineer, who have been support in many of my difficult times.

Over in Shanghai, several of my local liaisons at my research sites played vital roles to support this study. Yifeng Yuan from Ruihong New Town II, Yeping Lu from Dahua Qingshuiwan, and Yuming Guo from Shanghai Luchen made tremendous contributions to the recruitment of
research participants and collection of background information about the housing developments I investigated. At Tongji University, Professor Junyan Zhou, Binren Xiang and Yiru Huang gave me access to many important social and academic resources. In addition, I also want to express my gratitude to countless respondents in Shanghai who provided various inputs and assistances that have enriched this study.

My most sincere gratitude goes to Kaiyuan Zhu my wife, who is now the mother of Ben our beloved son. My life would have been very different and I would not have accomplished this study without her accompanying and supporting for the past four years. To help me pursue my dream in the academic world, she retreated from her career in the field of English education in China and chose to live with me on the other side of the world. From helping plan my field research schedule, to transcribing interview recordings, to proofreading my drafts, to taking care of house work, and to emotionally inspiring me, she has overtaken numerous tasks to my aid. She has always played an essential role in this multi-year research project and I am so blessed to have her by my side. As my soul mate, Kaiyuan shared my greatest joy on the date when this dissertation was finally produced.
# TABLE OF CONTENTS

## CHAPTER 1.  INTRODUCTION

1.1 Shared Spaces in Shanghai’s High-Rise Gated Developments .............................................. 1
1.2 The Rise of High-Rise Gated Developments in Shanghai, China ........................................ 4
1.3 The Evolving Residential Space-Sharing Patterns ............................................................... 11
1.4 The Contemporary Social Political Contexts of Shared Spaces ......................................... 13
1.5 Research Interest and Theoretical Lenses .......................................................................... 24
1.6 The Problem Statement ....................................................................................................... 27
1.7 Research Relevance ............................................................................................................ 27

## CHAPTER 2.  METHODOLOGY, CONCEPTUAL FRAMEWORK, AND RESEARCH QUESTIONS ...

2.1 The Methodological Orientations ....................................................................................... 29
2.2 The Guiding Conceptual Framework ................................................................................. 33
2.3 Research Questions ............................................................................................................ 51
2.4 Additional Research Design Implications ........................................................................... 53

## CHAPTER 3.  DATA COLLECTION SCHEME AND FIELD RESEARCH

3.1 Research Design of Data Collection .................................................................................. 55
3.2 Data Collection in the Field ............................................................................................... 65

## CHAPTER 4.  DATA ANALYSIS SCHEME AND PRELIMINARY ANALYSIS

4.1 Data Analysis Scheme ....................................................................................................... 75
4.2 Early Steps in Data Analysis ............................................................................................. 82
4.3 Research Quality ............................................................................................................... 121

## CHAPTER 5.  DESCRIBING TERRITORIAL ATTITUDES

5.1 Perceived Control of Shared Spaces .................................................................................. 124
5.2 Perceived Spatial Rights .................................................................................................... 140
5.3 Conclusion ......................................................................................................................... 152

## CHAPTER 6.  ILLUSTRATING QUASI-TERRITORIAL MEANINGS

6.1 Imagined Home Range ...................................................................................................... 154
6.2 Care-Taking Attitudes ....................................................................................................... 178
6.3 Conclusion ......................................................................................................................... 194

## CHAPTER 7.  EXPLAINING TERRITORIALITY-RELATED UNDERSTANDINGS

7.1 Case Configuration Comparison Studies ............................................................................ 197
7.2 Case Families and Person-Environment Situations ......................................................... 207
7.3 Emergent Explanatory Theory ......................................................................................... 263
7.4 Conclusion ......................................................................................................................... 271

## CHAPTER 8.  SIGNIFICANCE OF PHYSICAL SPACE

................................................................. 273
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>Locating Physical Space in the Landscape of Situativity Theory</td>
<td>274</td>
</tr>
<tr>
<td>8.2</td>
<td>Physical Spaces as Contextualized in Situational Environments</td>
<td>277</td>
</tr>
<tr>
<td>8.3</td>
<td>Conclusion</td>
<td>305</td>
</tr>
<tr>
<td>9.1</td>
<td>Summary of Major Findings</td>
<td>309</td>
</tr>
<tr>
<td>9.2</td>
<td>Socio-Psychological Meanings, Environmental Cognition and Situativity Theory</td>
<td>319</td>
</tr>
<tr>
<td>9.3</td>
<td>Territorial Functioning, Centrality, and Defensible Space Theory</td>
<td>321</td>
</tr>
<tr>
<td>9.4</td>
<td>Housing in China and Gated Residential Developments in Shanghai</td>
<td>324</td>
</tr>
<tr>
<td>9.5</td>
<td>Limitations of This Research</td>
<td>325</td>
</tr>
<tr>
<td>9.6</td>
<td>Future Research Directions</td>
<td>328</td>
</tr>
<tr>
<td>EPILOGUE</td>
<td></td>
<td>334</td>
</tr>
<tr>
<td></td>
<td>Hidden Beliefs: Covering-Laws, Subject-Object Distinction, and “the Thing-in-It-Self”</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>Holism and Relationality: Towards a Process-Relational Understanding of the World</td>
<td>338</td>
</tr>
<tr>
<td></td>
<td>Users, the Most Creative Part in Architectural Phenomena</td>
<td>339</td>
</tr>
<tr>
<td></td>
<td>Alternate Nominal Systems and Contingent Categorization of Space</td>
<td>342</td>
</tr>
<tr>
<td></td>
<td>Towards a New Architecture through a More Democratic Design Process</td>
<td>344</td>
</tr>
<tr>
<td>REFERENCES</td>
<td></td>
<td>346</td>
</tr>
<tr>
<td>GLOSSARY</td>
<td></td>
<td>358</td>
</tr>
<tr>
<td>APPENDIX A: CANDIDATE SITES AND RESEARCH PARTICIPANTS</td>
<td>361</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Information of Candidate Research Sites</td>
<td>361</td>
</tr>
<tr>
<td></td>
<td>Research Participants</td>
<td>362</td>
</tr>
<tr>
<td>APPENDIX B: RESEARCH PUBLICITY AND PARTICIPANT RECRUITMENT MATERIALS</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>APPENDIX C: INTERVIEW PROTOCOLS</td>
<td>368</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In-depth Interview Script for High-Rise Gated Community Residents</td>
<td>368</td>
</tr>
<tr>
<td></td>
<td>Interview Script for Key Informants (Architects)</td>
<td>372</td>
</tr>
<tr>
<td></td>
<td>Interview Script for Key Informants (Real Estate Developers)</td>
<td>373</td>
</tr>
<tr>
<td></td>
<td>Interview Script for Key Informants (Real Estate Managers)</td>
<td>374</td>
</tr>
<tr>
<td></td>
<td>Interview Script for Key Informants (Governmental Persons)</td>
<td>375</td>
</tr>
<tr>
<td></td>
<td>Interview Script for Key Informants (Scholars in Sociology and Urban Affair)</td>
<td>376</td>
</tr>
<tr>
<td>APPENDIX D: SAMPLES OF 500 FIELD PICTURES AND MULTI-HOUR VIDEO FOOTAGES</td>
<td>378</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field Pictures</td>
<td>378</td>
</tr>
<tr>
<td></td>
<td>Video Footages</td>
<td>380</td>
</tr>
<tr>
<td>APPENDIX E: ALL CASE MAPS</td>
<td>388</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 1.1: The disciplinary discourses potentially relevant to my initial research interest ......................... 26

Table 3.1: Distribution of resident participants of different genders and age groups across research sites ........................................................................................................... 69

Table 3.2: Distribution of resident participants of different durations of stay across research sites ........ 69

Table 4.1: Quality standards and quality-establishing tactics ........................................................................ 122

Table 5.1: Number of cases indicating who exerts greater control over shared spaces in a managerial sense across research sites ........................................................................................................... 132

Table 5.2: Number of cases indicating behavioral level active control across research sites .............. 132

Table 5.3: Number of cases indicating who exerts greater control over shared spaces in a managerial sense across major age groups ........................................................................................................... 132

Table 5.4: Number of cases reporting managerial level passive control attitudes across research sites 137

Table 5.5: Number of cases reporting managerial level passive control attitudes across major age groups ........................................................................................................... 137

Table 5.6: Diverse spatial control perceptions when different actors and spaces are considered ........ 140

Table 5.7: The distribution of coded accessibility attitudes across the different conceptions of shared spaces and non-resident visitors ........................................................................................................... 146

Table 5.8: Number of cases reporting different accessibility attitudes across gender groups .............. 146

Table 5.9: Number of cases reporting different accessibility attitudes across age groups ..................... 147

Table 5.10: Number of cases reporting different accessibility attitudes across research sites ............ 147

Table 5.11: Number of cases reporting different visitors’ behavioral rules across major age groups .... 149

Table 5.12: Number of cases reporting different visitors’ behavioral rules across research sites ........... 149

Table 5.13: Number of cases giving different interpretation of behavioral restrictions across gender groups ........................................................................................................... 150

Table 5.14: The number of cases reporting different assumed behavioral rules across the groups giving different conceptions of shared spaces and non-resident visitors ........................................................................................................... 151

Table 6.1: Number of cases matching different “Onion-and-Beads” diagram patterns across different verbal interpretation themes of imagined home range ........................................................................................................... 175

Table 6.2: Number of cases in different diagram patterns across major age groups ..................... 176
Table 6.3: Number of cases associated with different subtypes of diagram Pattern C across research sites ................................................................. 177

Table 6.4: Number of cases of different diagram patterns across groups of different territorial access control ....................................................................................................................................................... 178

Table 6.5: Number of cases matching different “Onion-and-Beads” diagram patterns across different care-taking meanings ................................................................................................................................ 191

Table 6.6: Number of cases in different diagram patterns across major age groups ........................................... 193

Table 6.7: Number of cases in different diagram patterns across research sites .............................................. 193

Table 6.8: Number of cases of different diagram patterns across groups of different passive control senses ........................................................................................................................................................ 194

Table 7.1: Comparison of spatial behaviors across case families (without considering the incidences of these behaviors) ........................................................................................................................................... 223

Table 7.2: Comparison of the utilization frequency of neighborhood recreational shared spaces across case families .............................................................................................................................................. 225

Table 7.3: Comparison of spatial behaviors across case families (without considering the incidences of these behaviors) ........................................................................................................................................... 243

Table 7.4: Comparison of the utilization frequency of neighborhood recreational shared spaces across case families .............................................................................................................................................. 243

Table 7.5: Cross-family comparison in terms of the explanatory accounts of territorial and quasi-territorial understandings ......................................................................................................................... 266

Table 7.6: Typological person-environment situations corresponding to different case families ............ 267

Table 7.7: The strengths and limitations of predicting residents’ territorial and quasi-territorial senses through their person-environment interactions with their neighborhood environments ...................................................... 271

Table 8.1: The different roles of space in three types of situational environments ........................................... 307

Table A. 1: Resident research participants (61 in total) ............................................................................ 362

Table A. 2: Informant Research Participants (16 in total) ......................................................................... 364
LIST OF FIGURES

Figure 1.1: Security measures in a typical high-rise gated development in Shanghai.......................... 2
Figure 1.2: Different shared spaces in a market standard high rise gated development in Shanghai........ 3
Figure 1.3: Different definitions of “Shanghai” ........................................................................................................ 5
Figure 1.4: Spread of high-rise gated developments in the “core urban area of Shanghai” .................... 6
Figure 1.5: The evolving high-rise residential buildings in Shanghai ................................................................. 7
Figure 1.6: The geographical spread of Shanghai’s high-rise developments ..................................................... 8
Figure 1.7: The varying boundary configurations in Shanghai’ high-rise gated developments ................. 10
Figure 1.8: The incipience and growth of gating in Shanghai ............................................................................. 11
Figure 1.9: The evolution of space sharing patterns in Shanghai’s historical housing forms ..................... 12
Figure 1.10: The shared spaces in high-rise gated developments in Shanghai .............................................. 12
Figure 1.11: The timeline of housing privatization and introduction of property management in China (national level) and in Shanghai (local level) ................................................................. 14
Figure 1.12: The ambiguous and intriguing definition of land ownership in China .................................... 15
Figure 1.13: The adapting roles of the three major neighborhood-level social organizations in Shanghai, China ........................................................................................................................................ 24
Figure 2.1: Key components of grounded theory methodology (Glaser & Strauss, 1967) and their introduction in this study (the items in shaded text boxes were incorporated in this study) ........ 32
Figure 2.2: Two competing paradigms of environmental cognition: Information-Processing Theory and Situativity Theory ................................................................................................................ 37
Figure 2.3: The conceptualization of environmental cognition in this research ........................................... 39
Figure 2.4: Classic and evolved research framework of human territoriality research ......................... 43
Figure 2.5: The classic and evolved research framework of political-geographical territoriality .............. 47
Figure 2.6: The concepts of territorial meanings and quasi-territorial meanings ..................................... 49
Figure 2.7: Synthesized conceptual framework for this research ................................................................. 51
Figure 3.1: The path of conceptual development of this research (the shades text boxes indicating the content addressed in Chapter 3) ................................................................................... 55
Figure 3.2: Predefined concepts and constructs that were measured in this research ........................................... 58
Figure 3.3: Predefined concepts to be measured, data types, and data-gathering methods ................................. 60
Figure 3.4: Different spatial configurations (left) and boundary conditions (right) found in Shanghai’s high-rise gated communities .............................................................................................................. 64
Figure 3.5: Candidate research sites (solid gray shapes) and final research sites (solid black shapes) .................. 66
Figure 3.6: Three final research sites .......................................................................................................................... 66
Figure 3.7: Basic background information of the three research sites ...................................................................... 67
Figure 3.8: Data of different types and sources that were collected in this research ............................................... 73
Figure 3.9: Sorting and clustering of raw data into cases and settings ....................................................................... 74
Figure 4.1: The path of conceptual development of this research (the shaded text boxes indicating the content addressed in Chapter 4) ........................................................................................................................................ 75
Figure 4.2: Master plan of data analysis and general theory building procedure .......................................................... 77
Figure 4.3: Beginning list of codes introduced in my coding procedure .................................................................. 78
Figure 4.4: Comparison of case-oriented strategy and variable-oriented strategy in qualitative data analysis ...................................................................................................................................................................................... 81
Figure 4.5: Three-stage procedure of a case-oriented analysis that generates explanatory propositions .................. 82
Figure 4.6: A “codebook” of major thematic pattern codes yielded in data analysis and their operational definitions ........................................................................................................................................................................ 84
Figure 4.7: The urban context of “Ruihong New Town II” (Site A) .......................................................................... 88
Figure 4.8: Overall spatial configuration of Ruihong New Town II (Site A) .............................................................. 89
Figure 4.9: The shared spaces and boundary conditions of Ruihong New Town II (Site A) ............................. 90
Figure 4.10: Interior and exterior shared spaces in Ruihong Newtown II (Site A) ...................................................... 92
Figure 4.11: Typical residential building floor layout in Ruihong New Town II (Site A) .............................................. 92
Figure 4.12: Entrances and perimeter walls in Ruihong New Town II (Site A) .......................................................... 94
Figure 4.13: The urban context of “Dahua Qingshuiwan” (Site B) ......................................................................... 96
Figure 4.14: Spatial layout of Dahua Qingshuiwan (Site B) ...................................................................................... 98
Figure 4.15: A plaza space surrounded by water in Dahua Qingshuiwan (Site B) ..................................................... 100
Figure 4.16: Interior and exterior shared spaces in Dahua Qingshuiwan (Site B) ........................................ 100
Figure 4.17: Typical residential building floor layout in Dahua Qingshuiwan (Site B) .............................. 101
Figure 4.18: Entrances and perimeter walls in Dahua Qingshuiwan (Site B) ............................................. 103
Figure 4.19: The urban context of Shanghai Luchen (Site C) ................................................................. 105
Figure 4.20: The shared spaces and boundary conditions of Shanghai Luchen (Site C) ................. 106
Figure 4.21: Platforms accommodating parking garages (underground) and courtyard spaces (Site C). 107
Figure 4.22: Interior and exterior shared spaces in Shanghai Luchen (Site C) ..................................... 108
Figure 4.23: Typical residential building floor layout in Shanghai Luchen (Site C) ........................... 109
Figure 4.24: Entrances and perimeter walls in Shanghai Luchen (Site C) ................................................. 110
Figure 4.25: Major thematic pattern codes and relational codes in cases ............................................ 114
Figure 5.1: Coded data regarding the perception of territorial control of shared spaces.................. 138
Figure 5.2: Coded data regarding the perceived spatial rights of shared spaces ................................. 150
Figure 5.3: Signage at the entrances to Dahua Qingshuiwan (Site B) and Shanghai Luchen (Site C) .... 151
Figure 6.1: The continuum of the quasi-territorial meanings regarding home range perception .......... 157
Figure 6.2: Preliminary categorization of sketch maps: the onion type (left); the line-of-beads type (mid); and the composite type (right) ................................................................................................. 162
Figure 6.3: The basic design of an “Onion-and-Beads” diagram and visual coding criteria ............... 165
Figure 6.4: Converting verbal and graphical data into an “Onion-and-Beads” diagram (Step 1) .......... 166
Figure 6.5: Converting verbal and graphical data into an “Onion-and-Bead” diagram (Step 2) .......... 167
Figure 6.6: “Onion-and-Beads” diagram Pattern A on home range perception ................................. 169
Figure 6.7: “Onion-and-Beads” diagram Pattern B on home range perception .................................. 171
Figure 6.8: “Onion-and-Beads” diagram Pattern C1 on home range perception ................................. 172
Figure 6.9: “Onion-and-Beads” diagram Pattern C2 on home range perception ................................. 173
Figure 6.10: “Onion-and-Beads” diagram Pattern C3 on home range perception .............................. 173
Figure 6.11: “Onion-and-Beads” diagram Pattern D on home range perception ............................... 174
Figure 6.12: The continuum of the quasi-territorial meanings regarding care-taking attitudes ........ 180
Figure 7.16: Behaviors in landscaped areas reported by the case of B-16 through voluntary photography (from the perspective of a father) ............................................................................................................ 224

Figure 7.17: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of territorial meanings (Case Family B)............................................................................................................ 228

Figure 7.18: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of quasi-territorial meanings (Case Family B) ................................................................................. 233

Figure 7.19: Categorization of the schematic “Onion-and-Beads” diagrams showing the senses of imagined home range reflected by the cases in case Family B1 and B2 ............................................................................. 235

Figure 7.20: Categorization of the schematic “Onion-and-Beads” diagrams showing care-taking attitudes reflected by the cases in case Family B1 and B2 ....................................................................................... 237

Figure 7.21: Overlaid image of the compact case maps in case Family C ................................................ 240

Figure 7.22: The case configuration shared by the constituent cases in case Family C ........................... 241

Figure 7.23: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of territorial meanings (Case Family C) ................................................................................. 247

Figure 7.24: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of quasi-territorial meanings (Case Family C) ................................................................................. 251

Figure 7.25: Categorization of the schematic “Onion-and-Beads” diagrams showing the senses of imagined home range reflected by the cases in case Family C1 and C2 ............................................................................. 253

Figure 7.26: Categorization of the schematic “Onion-and-Beads” diagrams showing care-taking attitudes reflected by the cases in case Family C1 and C2 ....................................................................................... 255

Figure 7.27: Overlaid image of the compact case maps of outlying cases ............................................ 258

Figure 7.28: The case configuration shared by the outlying cases ........................................................... 258

Figure 7.29: Schematic “Onion-and-Beads” diagrams showing the senses of imagined home range reflected by the outlying cases ................................................................................................................. 262

Figure 7.30: Schematic “Onion-and-Beads” diagrams showing care-taking attitudes reflected by the outlying cases ................................................................................................................................. 263

Figure 7.31: Alternative explanatory models based on different case families ...................................... 265

Figure 7.32: The incidence of using recreational shared spaces for those grouped in the three case families ........................................................................................................................................... 268

Figure 8.1: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with Case Family A .................................................................... 279
Figure 8.2: Physical space contextualized in “Type 1” situational environments and the explanatory model ........................................................................................................................................................ 280

Figure 8.3: Analysis of sketch maps by the cases of A-13 (left) and C-02 (right) showing the difference in spatial memories probably resulting from the variation in physical settings between two developments .................................................................................................................................................................. 281

Figure 8.4: “Onion-and-Beads” diagrams of imagined home ranges reflected that sub-neighborhood areas were only considered relevant by the ones from Site B and C ................................................................. 283

Figure 8.5: Subareas predefined by developers at the three research sites ........................................ 283

Figure 8.6: “Onion-and-Beads” diagrams of care-taking attitudes reflected that generally more items of within-development shared spaces were reported by the ones from Site B and C ................................................. 284

Figure 8.7: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with case Family B ................................................................. 286

Figure 8.8: Physical space contextualized in “Type 2” situational environments and the explanatory model ........................................................................................................................................................ 287

Figure 8.9: Analysis of sketch maps by the cases of B-09(left) and C-17 (right) showing the difference in spatial memories probably resulting from the variation in physical settings between two developments .................................................................................................................................................................. 289

Figure 8.10: The residents from Site A included the development gates as important markers of their perceived home ranges more often than those from Site B and Site C ................................................................. 292

Figure 8.11: The central event lawn was often identified as the most important object of care-taking attitudes ........................................................................................................................................................ 293

Figure 8.12: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with case Family C ................................................................. 295

Figure 8.13: Physical space contextualized in “Type 3” situational environments and the explanatory model ........................................................................................................................................................ 296

Figure 8.14: Graphic representations of shared spaces as important neighborhood locations in sketch maps by the cases of A-14 (left) and C-06 (right) that demonstrate that different spatial organizational patterns were accurately recognized and represented by the residents experiencing “Type 3” situational environments ........................................................................................................................................................ 297

Figure 8.15: The multi-purpose lounge in the clubhouse of Shanghai Luchen (Site C) ............................ 299

Figure 8.16: Patio furniture set between buildings in Shanghai Luchen (Site C) ...................................... 300
Figure 8.17: Cases from all the three research sites that reported home range perception irrelevant to within-development shared spaces .................................................................................................................................................. 302

Figure 8.18: The central event lawn was identified as one of the important objects of care-taking attitudes.......................................................................................................................................................................................... 304

Figure 9.1: Distribution of active spatial control meanings in the three case families .......................... 313

Figure 9.2: Distribution of active spatial control meanings reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences .......................................................... 314

Figure 9.3: Distribution of passive spatial control meanings in the three case families .......................... 315

Figure 9.4: Distribution of passive spatial control meanings reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences .................................................................................................................................................................. 315

Figure 9.5: Distribution of spatial rights meanings (access control attitudes) in the three case families 316

Figure 9.6: Distribution of spatial rights meanings (access control attitudes) reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences .......................................................................................................................................................................................... 316

Figure 9.7: Distribution of imagined home ranges in the three case families ................................. 317

Figure 9.8: Distribution of care-taking attitudes in the three case families ............................................. 318

Figure EP.1: Hierarchical “territorial zones” for user groups of differing sizes ................................. 335

Figure EP.2: The spatial configuration of “shared street” .......................................................... 335

Figure EP.3: "Wallfa" by Jordi Canudas .......................................................................................... 341

Figure EP.4: "High five escalator" by Improv Everywhere .......................................................... 342

Figure EP.5: Pages from the concept book of Seattle Public Library by OMA/REX .............................. 344

Figure A.1: All 12 candidate research sites ...................................................................................... 361

Figure A.2: Satellite images of the 12 research sites ........................................................................ 362

Figure B.1: Publicity flier design (3 pages) ...................................................................................... 365

Figure B.2: Publicity poster design (5 posters) .................................................................................. 365

Figure B.3: Recruitment booklet design (11 pages) ......................................................................... 366

Figure B.4: Images of fliers, booklets, and posters .......................................................................... 367
Figure D.1: Compilation of pictures taken at Site A (Ruihong New Town II) ............................................ 378
Figure D.2: Compilation of pictures taken at Site B (Dahua Qingshuiwan) ................................................. 378
Figure D.3: Compilation of pictures taken at Site C (Shanghai Luchen) ...................................................... 379
Figure D.4: Entering a secure entrance at Site A (Ruihong New Town II) .................................................. 380
Figure D.5: Tailgating at a pedestrian entrance at Site A (Ruihong New Town II) ....................................... 381
Figure D.6: Views from a condo unit balcony at Site A (Ruihong New Town II) .......................................... 382
Figure D.7: Views from a plaza at Site B (Dahua Qingshuiwan) ................................................................. 383
Figure D.8: Views from a within-development street at Site B (Dahua Qingshuiwan) ............................... 384
Figure D.9: Views by a courtyard at Site C (Shanghai Luchen) ................................................................. 385
Figure D.10: Resident activities in a plaza at Site C (Shanghai Luchen) ..................................................... 386
Figure D.11: Approaching and entering Site C (Shanghai Luchen) ............................................................ 387
Figure E.1: Case maps (A-01 to A-12) ........................................................................................................ 388
Figure E.2: Case maps (A-13 to B-03) ........................................................................................................ 389
Figure E.3: Case maps (B-04 to B-16) ........................................................................................................ 390
Figure E.4: Case maps (B-17 to C-08) ........................................................................................................ 391
Figure E.5: Case maps (C-09 to C-20) ........................................................................................................ 392
CHAPTER 1. INTRODUCTION

1.1 Shared Spaces in Shanghai’s High-Rise Gated Developments

As one of the most rapidly densifying cities in the world, Shanghai has seen exponential growth of residential high-rise buildings in the past few decades (Chiu, 2008). Since the 1990s, there has been a sweeping proliferation of high-rise gated residential developments in Shanghai. These are master-planned, private-developed housing estates that package high-rise residential towers, landscaped open spaces, community amenities and facilities into walled enclaves. With their furious spread, high-rise gated developments virtually mark the present and near future of the residential space in Shanghai. Every year, they claim a larger share of the local housing stock and house more people from varieties of social groups.

A typical high-rise gated development in Shanghai encloses a series of secured spaces that restrict public access by employing an array of security strategies (e.g. gates, walls, surveillance technologies, security personnel), which are usually deployed in sophisticated combinations (see Figure 1.1 below). The growth of these secured high-rise enclaves accentuates the pervasive gating phenomenon characterizing urban housing in Shanghai and many other Chinese cities, where housing compounds circumscribed by walls or fences have been omnipresent since the 1980s and open neighborhoods become more and more scarce.
Figure 1.1: Security measures in a typical high-rise gated development in Shanghai

The incorporation of walls and fences in high-density housing developments inevitably spawns a new type of space, the *shared spaces within housing enclaves* that mediate the exclusive private spaces secured within individual dwelling units and the anonymous public urban space outside of the developments’ fortified boundaries. As Figure 1.2 below exemplifies, a typical market standard high-rise gated development in Shanghai (e.g. a high-rise housing estate developed in less than 10 years) accommodates various *interior shared spaces*, which may comprise the interiors of development recreational buildings (e.g. a clubhouse) and the communal lobbies and hallways of residential buildings, as well as different *exterior shared spaces* such as landscaped open spaces, streets and walkways, and outdoor amenities.
Interpreted from a visitor’s perspective, these shared spaces appear to be excluded from public penetration or exploitation and reserved for the development’s homebuyers.

However, the shared spaces found in Shanghai’s high-rise gated developments are actually far more intriguing than they first appear. The intuitively-assumed “exclusiveness” in spatial use might be questionable as the number of persons sharing these spaces is staggering (up to 10,000 individuals in some cases). As the actual user groups represent great diversity, these shared spaces do not translate into clear-cut social boundaries corresponding to their unambiguous spatial boundaries. Also, the property ownership of shared spaces is complicated.
given the particular legal and institutional settings in China. The social power relations framing space sharing in Shanghai’s gated developments are very different from those associated with gated communities elsewhere in the world. In brief, these shared spaces could manifest a particularly intricate and elusive social psychological environment that cannot be comfortably measured by the public-private continuum that is often employed in urban analysis and housing studies.

1.2 The Rise of High-Rise Gated Developments in Shanghai, China

The high-rise gated developments discussed in this research share two defining characteristics: first, they are privately developed commodity housing estates that include a dominant percentage of residential structures categorized as high-rise residential buildings. By virtue of the capacity of high-rise residential buildings, these developments typically have a gross Floor Area Ratio (FAR) of 2.5 to 4.5 and a population density of 150 to 400 households per hectare (61 to 162 households per acre). They could come in a wide range of sizes, covering a land area of three hectares (7.4 acre) to over 30 ha. (74.1 acre) and housing up to 3000 households in total. Second, these developments are all master-planned to afford spatial enclosure through gates, walls and fences to limit the access of non-resident “outsiders”, which is supposed to deter potential criminals and also prevent the “free-riders” who are not entitled to the comprehensive community services and goods that are only distributed among the residents. Usually, these high-rise gated developments incorporate primary standard neighborhood-based facilities (e.g. gyms, restaurants, department stores, kindergartens, and even primary and middle schools). Also, there are contracted property management companies that deliver packaged on-site services such as garbage removal, cleaning, landscaping, security, recreation and entertainment. As high-density translates into a spread of cost among large numbers of homeowners, superb quality of community facilities, amenities and on-site services is implemented in these residential developments.

---

1 According to the Residence Design Standards of the Construction Codes of Shanghai (GJ08-20-2001), high-rise residential buildings are the residential structures “equal to or taller than 10 stories”. In the United States, many building codes define a high-rise as a building taller than seven stories and high-rise housing focuses on towers taller than 15 stories (Kliment, Chandler, & Goody Clancy & Associates Inc. Architects., 2005).

2 According to Kliment, et. al., high-rise housing is usually built to densities over 200 dwelling units per acre (2005).
Needless to say, high-rise gated developments are burgeoning in Shanghai. Today, within the so-called “core urban area” of Shanghai (113.97 sq. km. or 44.0 sq. mi.), which is defined by the inner ring road of Shanghai (see Figure 1.3 below), over 400 high-rise gated developments that house more than one million permanent residents (see Figure 1.4 below) are scattered.

Figure 1.3: Different definitions of “Shanghai”

Note: Inner ring road and outer ring road are two major circular highways in Shanghai that are often mentioned by local realtors to differentiate urban and suburban housing markets. Specifically, the area within the inner ring road is viewed as a pure urban housing market. The area between the inner ring road and the outer ring road is a mixture of urban and suburban landscapes. From the outer ring road until the boundary of Shanghai’s administrative area lie suburban and rural elements.
The two aforementioned features of high-rise gated developments naturally evidence two historical trajectories that have significantly shaped Shanghai’s urban environment and stimulated the popularity of high-rise gated developments.

First, elevating residential living standards, continual urban growth, and impersonal land economics have triggered the radical densification of Shanghai’s urban housing. From 1951 to 2001, the stock of housing in Shanghai saw an 8.4 times increase, while the city’s population doubled (Shuji Guo, 2002). With numerous parcels of land being consumed in the recent decades, continual housing development relies heavily upon the vertical option. The number of high-rise residential buildings has been growing rapidly since the 1990s. Every year, around 1000 new residential towers are erected and the total number amounted to some 10,000 in 2010 (J. Sun, 2007). The architectural design of high-rise residential towers also has experienced
remarkable evolution in just a few decades (see Figure 1.5 below). Geographically, high-rise residential developments mushroomed mostly within and around the “core urban area” of Shanghai (see Figure 1.6 below) and they are gradually advancing to the very heart of Shanghai, namely the former foreign concessions where commercial and business facilities concentrate and historical buildings stand.³

<table>
<thead>
<tr>
<th></th>
<th>Socialist Era</th>
<th>Post-socialist Era</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gallery-style Design</td>
<td>Tower-style Design</td>
</tr>
<tr>
<td>1949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1.5: The evolving high-rise residential buildings in Shanghai

Source: Analysis by author based on Google Earth™ image (date: 4.1.2009); Plan design analysis of the high rise housing in Shanghai (J. Sun, 2007)

³ During the colonial years (from the late 19th century to the early 20th century), many western countries acquired land in Shanghai and established settlements. The conceded urban areas are known as the foreign concessions (zujie) and they were the earliest developed part of Shanghai.  

7
Second, the growing concern with public security and the commoditization of community services provision in local housing also promote the rapid spread of gating in residential communities in Shanghai.

Before the 1980s, walled or gated multi-family housing estates were rare in Shanghai. Both vernacular settlements and public housing projects built during the socialist era imposed little restriction on public access. In the 1950s when massive government-led construction was
launched to ease housing shortages in Shanghai, large public housing projects such as Caoyang New Village (1951-1953) were planned to provide an integral residential area overlaid with a network of through streets open to the public (Cui, 1998; Shanghai Construction Council, 1998). Many other public housing developments featured similar open layouts. During the social campaign of the Great Leap Forward (1958-1961), the government even took measures to systematically dismantle dividing walls or fences between neighborhoods as a stance to respect the socialist ideology of egalitarianism that must exterminate segregation in living space. The open planning strategies introduced in Shanghai’s public housing before the 1980s contrasts with the case of Beijing where gating traces back to the self-contained work-unit compounds constructed as early as the 1960s (Lu, 2004).4

However, since the housing reform launched in the earlier 1980s, the public sector has significantly retreated from housing production and distribution. The provision of community services and goods that used to be the responsibility of the municipality or workplaces has been gradually redirected to private housing developers and property management companies, in which case a clearer geographical definition and isolation of such services is often preferred. Walls and fences were then considered an option to separate housing estates developed and managed by different enterprises. After the development of Pudong New Area in 1990, Shanghai experienced a noticeable deterioration in public security,5 as the influx of domestic immigrants from the countryside and the fast development of market economy contributed to a more heterogeneous local society. Theft and burglary have become the two most common crimes occurring in residential districts. As a result, defensive fortifications built around residential developments to restrict access and deter crime, gained momentum. Not only were newly constructed residential developments, but many existing non-gated housing estates were retrofitted to be walled or fenced as well (see Figure 1.7 below). To combat crime, it was

---

4 These are planned residential districts developed by work-units (i.e. state-owned or municipality-owned enterprises, or danwei). The compound integrates housing and facilities. It is surrounded by walls and gates and secured by the guards employed by the workplace.

5 For example, from 1993 to 1995, the incidents of criminal cases in Shanghai increased by 15%-21% annually (C. Guo, 1996).
reported that the local police department would have representatives in the Urban Planning Bureau, reviewing the design proposals of housing developments and making sure that the neighborhood walls have been designed to a sufficient height of 2 meters (about 6’ 6”) (Fang, 2010). Moreover, the local authority issued ordinances to ensure security technologies such as video surveillance and infra-red detectors are being used in property management after 2001 (Municipality, 2001; Office of Technological Defense of Shanghai Municipal Public Security Bureau, 2003, 2007). The historical development of gating in Shanghai is illustrated by Figure 1.8 below.

Figure 1.7: The varying boundary configurations in Shanghai’ high-rise gated developments
Source: Analysis on authors’ own pictures
In sum, the surge of high-rise gated developments in Shanghai results from the convergence of fast urban densification and the growing practical need for walls in residential developments. With the propagation of these gated housing estates and their unquestionable dominance in the local urban housing market, more and more residents of such developments have their life worlds associated with the shared spaces within these housing enclaves.

1.3 The Evolving Residential Space-Sharing Patterns

Historically, the emergence and popularity of shared spaces in high-rise gated developments mark a significant evolution in the space-sharing patterns in local residential space.

In Shanghai, local housing has undergone significant adaption in terms of how parts of residential space appear to be communally used and controlled by multiple households. Space-sharing in this sense is based upon overt behaviors (e.g. residents’ collective occupation, utilization, and control of communal spaces) rather than by implicit legal definitions such as property ownership. As Figure 1.9 reveals, the general trend of space-sharing patterns is toward more types of residential spaces (interior and exterior) being shared by more households, except for public housing during the socialist era when exterior spaces were designated to be all public.
The shared spaces fed by the proliferating high-rise gated developments after the 1990s manifest an unprecedented form of space sharing (see Figure 1.10 below).

First of all, the common exterior spaces being shared are bounded by walls or fences, exhibiting a rigid solidification of boundary never seen before. Second, hundreds or even
thousands of households share the same interior or exterior spaces. The size of the space-sharing user group is much larger and potentially more diverse than at any previous time in the history of Shanghai. In recent years, the typical development and sales cycle of a high-rise housing estate spans three to five years in Shanghai. Hence the financial capabilities of homeowners from the same development are often diverse as they purchased properties in different years meanwhile the real estate prices for high-rise apartment units have been rapidly inflated. Third, the present shared spaces provide many more spatial types in much larger spatial dimensions and afford many more behavioral possibilities. For a typical high-rise gated development in Shanghai, shared spaces account for about 10-15% of its total Gross Floor Area (GFA) and up to 70% of its site area. They support various recreational, commercial, and educational functions that have previously been unavailable in conventional residential spaces.

1.4 The Contemporary Social Political Contexts of Shared Spaces

Probably the most fascinating characteristic of the shared spaces within contemporary high-rise gated developments in Shanghai is their unusual legal definitions and social organizational settings given the complex historical, social, and political dynamics that have unfolded in post-socialist China, which further distinguish them from the historical space-sharing patterns in Shanghai or the high-density gated residential communities found in other places.

1.4.1 Legal and Institutional Context: Entrenched Ambiguity in Property Ownership

While shared spaces embody a sizable share of the overall property value of a high-rise gated development in Shanghai, their exact property owners are extremely difficult to pin down in reality. Currently, an overwhelming majority of newly developed housing packages in Shanghai are created by the private sector. The continual privatization of housing provision and land supply, actualized through a series of governmental initiatives taking place in the past few decades, have overhauled the entire housing system in China (see Figure 1.11 below). Since the 1990s, with global practice of multinational corporations and their institutional impact on China’s urban policies and local governance, the real estate development mode in some highly developed coastal cities like Shanghai strikingly resemble those found in the U.S. or Western
European market (F. Wu, 2001; Zhang & Ong, 2008). Yet, China adopted a gradual and prudent strategy of reform, where the new market elements have been grafted onto the existing socialist institutional system and the reform of the latter often falls behind (Bian & Logan, 1996). The system hence includes a mix of market and nonmarket elements (Y. P. Wang & Murie, 1997). This overarching political atmosphere has significant impacts upon the introduction and practice of high-rise gated developments in Shanghai and the legal settings of shared spaces.

Figure 1.11: The timeline of housing privatization and introduction of property management in China (national level) and in Shanghai (local level)

One essential implication is the murky legal definition of property ownership in China. Given the current urban land market\(^6\) constructed upon public ownership of all urban land and the separation of land use rights from ownership rights, homeowners in China merely possess incomplete property ownership (Ho, 2001; Tian, 2004), which has not been altered after the “New Property Deed” (i.e. Law of the People’s Republic of China on Real Right) was enacted in 2007. The current land use rights system in China still requires public ownership. The purchased property has a lease-hold nature in China and the state,\(^7\) the sole supplier of land in urban

---

\(^6\) China differentiated the nature of property ownership of rural land from that of urban land. According to the Land Administration Law of 1986, the state owns all original urban land while ownership of rural farmland resides with the “rural collective”. However, according to the same law, rural land cannot be employed for non-agricultural purposes without the permission of the state. This basic legal arrangement was not adapted in the New Property Deed of 2007.

\(^7\) According to the Interim Regulations of The People’s Republic of China “Concerning the Assignment and Transfer of the Right to the Use of The Stated-Owned Land in the Urban Areas” of 1990, the maximum term with respect to
areas, reserves the privilege to reclaim the land and any rooted structure for free once the lease expires (Ho, 2001). However, the current legislation does not clarify the exact content of land use rights (or “usufruct” as in legal documents) purchased from the state. In China, after 20 years of extensive use of land, usufruct has been practically accepted as having an independent real right status in law, which has almost encompassed all the four constitutive elements of land ownership right (i.e. occupancy, use, benefit, and disposition) (Liu, 2006). Such a condition is logically incompatible with the separation of private land use with public ownership (see Figure 1.12 below). This inherent institutional ambiguity in land use regime underlies all inextricable mysteries in China’s real estate system and often induces further confusions and misunderstandings in practice (Liu, 2006).

Moreover, the current real estate regulations in China do not clearly define the property ownership of the “common part” in a gated residential development, which refers to all the air space and physical objects that are not exclusively owned by individual homeowners. Therefore shared spaces as common elements predictably suffer from obscure legal definition.

The surge of private-developed gated compounds in Shanghai (and in China at large) coincided with the continual privatization of the housing supply. In many urban developments, outdoor spaces confined by walls gradually emerged as a valuable spatial resource where the assigned right to the use of the land shall be determined respectively in the light of the purposes. The term is 70 years for residential purposes.
amenities were set up and reserved for homebuyers. Over time, more exquisitely designed common indoor or outdoor spaces were introduced from a well-furnished building lobby to an extravagant 18-hole golf course. Today, shared spaces are typically provided and maintained by the private developing corporations and management companies. The use and access of shared spaces are deemed as the collective privilege bestowed to a multitude of homebuyers. Superficially, shared spaces can be understood as the “collective property” in Common Interest Developments (CID)\(^8\) that is a growing component of housing in the United States (see Barton & Silverman, 1994; Boddy, 2002; McKenzie, 1994; Pacione, 2006) with gated communities being the defensive variants of CIDs. Nevertheless, shared spaces in the secured compounds in China are not attributed with an enforceable “collective property right” as are the American counterparts.

Before 2007, the housing developers in China assumed the ownership of almost all common elements. The homebuyers could use little legal support to collectively claim any property rights beyond their private dwelling units. With the introduction of the “New Property Deed” in 2007, it was legally confirmed for the first time that homeowners enjoy collective real rights over spaces such as “roadways, green spaces, common places, and common facilities”. However, it is not regulated in this law or in other real estate laws if these rights must be stated and established at the moment of property purchase. Today, real rights assigned to the different components of a residential development are usually not clarified in home purchase contracts. Developers therefore could still withhold the most valuable shared elements without violating any existing property laws or regulations. As homebuyers in China do not have explicit agreements with their developer regarding the division of real rights in residential developments, subsequent problems ranging from minor misunderstanding to aggravated dispute often arise in reality.

A third institutional context feeding the ambiguous property ownership of shared spaces lies in the absence of a legal subject in China’s gated developments to claim and defend collective ownership and communal property rights. Several of the latest national or local

---

\(^8\) Also Common Interest Communities (CIC) in some texts
legislations (e.g. the “New Property Deed” of 2007, Regulation of Property Management of 2007, and Regulation of Shanghai on Residential Property Management of 2004) acknowledge the role of the Homeowners’ Council (HOC) (yezhu dahui)⁹ as the nominal owner of the communal properties in the residential development and that it can make decisions about these properties, however the current laws regarding social organizations and corporations do not recognize the homeowners’ council as a formal legal entity with independent legal person status. Thus the homeowner’ council cannot legally own properties as a person does. Actually, it is never clearly mentioned in any regulation or law that the council owns the common elements of a housing development.¹⁰ The council also lacks the right of collecting assessments, or membership fees from homeowners. Instead, property management companies directly charge homeowners “property management fees”. The council’s major financial right lies in the establishment and management of the so-called maintenance provident fund (weixiu jijin)¹¹ and the communal income (gongtong shouyi) yielded from the utilization of the common spaces.¹²

The establishment of a homeowners’ council is a responsibility of the local housing authority and neighborhood-level governmental agencies. Developers are also supposed to take part. But no entity is given incentives to facilitate the founding of homeowners’ councils. Many fully inhabited developments in Shanghai are operating without any established and functional homeowners’ councils. To sum up, although the Homeowners’ Council (HOC) sounds like a Chinese counterpart of the Homeowners’ Association (HOA) or RCA (Residential Community

---

⁹ Homeowners’ councils are defined by China’s “New Property Deed” of 2007 and Regulations of Property Management of 2007 as the “regulating institution of the buildings and the affiliated facilities in a housing development”.

¹⁰ For example, the New Property Deed of 2007 merely states that the streets and greenery within a development belong to all the homeowners and the council has the authority to manage or modify the common elements, but it says nothing about what the council legally owns.

¹¹ This is a provident fund established to prepare the possible major repair or replacement of the building’s equipment or facilities in the future. Each homebuyer should contribute an amount equal to a certain percentage (3%-4% in Shanghai) of the construction cost of the purchased home to the fund.

¹² In reality, both funds could be taken over by real estate managers.
Association) as in the common interest developments from the United States, it never enjoys comparable financial and legal autonomy.

1.4.2 Neighborhood Organizations: Asymmetrical Power Distribution

In addition to nebulous ownership conditions, shared spaces in Shanghai’s high-rise gated developments are also characterized by an exotic landscape of the interacting social organizational entities as the major actors and stakeholders in secured housing compounds.

For the private-funded residential developments in Shanghai and in other major Chinese cities, there are three basic neighborhood-level organizations: the property management company (wuye gongsi), the neighborhood committee (juweihui), and the Homeowners Council, which represent the interest of the private corporations (esp. the private developers), the authority, and the homeowners respectively. Each of them has certain resources at their disposal and practice differential functions. During the fundamental change in housing supply and residential development in China in the past three decades, these three organizational entities experienced evolutions that have drastically altered their roles in the neighborhood and their relationships to each other.

1.4.2.1 The Property Management Company

Development-based professional property management companies have a brief history as they were gradually introduced together with the reformed housing provision and commoditization of housing. In China, they are often the subsidiaries of housing developers and virtually possess or control many important collective properties in gated developments; both were resultant from historical conditions.

The system of housing provision in China has experienced major changes since 1979 when economic reform was initiated and the Open Door Policy adopted (see Tolley, 1991; Zhu, 2007). Housing reform was characterized by the expansion of housing supply as well as the transition in housing distribution.13 At that time, residential estates were developed by work-
units or municipalities and assigned to qualified persons (usually the work-unit employees) who stayed as tenants. Community services (e.g. the maintenance of the common spaces in and around micro-districts) were regarded as a welfare function granted to eligible residents and also provided by work-units or municipalities. Later, the houses developed by work-units were sold to staff at a discount price, and the housing departments under work-units gradually turned into the first real estate developers through different avenues (e.g. direct conversion or co-investment with private companies). Meanwhile, the community service parts of those housing departments also evolved and many later became the first property management enterprises in China.\(^{14}\)

Since the 1990s, workplaces have discontinued their housing production and allocation functions, and professional developing companies have taken over, including both the fast-growing private-established developers and the developing companies originated from the developing departments of work-units or municipalities. Community service provision has also been transferred to professional property management companies. However, these major transitions all took place in less than 10 years and two problems persist.

First, the historical affiliation of the first property management companies to the first market-based developers has cultivated a market where independent real estate managers are uncommon.\(^{15}\) The intimate relationship between the developer and the property management company thus has been accepted as a norm. In contemporary Shanghai, developers’ interests in gated developments are often actualized through the agency of the property management companies affiliated to them.

---

\(^{14}\) Interview with Kang Yuan, the chief manager of Shanghai Dazhong Ltd. (a local housing developing company)

\(^{15}\) Due to the derivation of major developing companies and property management companies from former housing departments in work-units, the bureaucratic ties were inherited and the administrative hierarchy largely maintained in the disguise of a subsidiary relationship.
Second, although the responsibility of community services, such as landscaping, cleaning and security, once was undertaken by work-units or local governments (as the owner of housing estates). It has been relayed to property management companies and developers. The “ruling position” of the provider of community services over neighborhoods’ common elements is still assumed. Property management companies have often appropriated the “owner’s” role in shared spaces without much disagreement from homeowners who simply adapted from their lifelong role as public housing tenants. As more and more master-planned high-density housing enclaves become popular in Shanghai and in other places in China, management companies now have access to much greater financial and human resources and therefore are able to exert greater environmental influences over shared spaces.

1.4.2.2 The Neighborhood Committee

The neighborhood committee as a characteristic Chinese social organization has its origin dating back to China’s communist revolution in 1949 and it is ubiquitous in all Chinese urban neighborhoods. It is defined as a ‘residential voluntary’ organization, namely a ‘self-organized mass organization’ according to the Constitution of China of 1982 and the Organizational Law of Urban Neighborhood Committees of 1989. But in reality, the committee operates as a mass organization under the Street Office (Jiedao Banshichu, or Jiedao), the sub-district urban government or the representative agency of district government. The neighborhood committee is administrated and funded by the municipality and executes many tasks assigned by the street office or higher levels of local government. The neighborhood committee handles a residential group of a given size (1000 households in Shanghai) (D. Wu, 2010) and it operates within a particular geographical area as its jurisdiction. In recent years,

16 The “New Property Deed” of 2007 tries to clarify the ownership conditions in existing housing estates to reduce the increasing conflicts between homeowners and property managers as well as the developers they work for. However, because of the lack of supporting legislations, property management companies or developers still have great freedom to exert unauthorized real rights in the developments they work with and practically own or control many profit-yielding common facilities such as parking lots and clubhouses.

17 The head of a neighborhood committee is the Committee Secretary, who is usually a communist party member appointed by the governing street office. The secretary will then organize a corps of residential volunteers, who are usually recruited from the local party organization to carry out the committee’s designated functions (Shengli Guo, 2006).
with the spread of high-density gated housing enclaves in China, many neighborhood committees have their offices\textsuperscript{18} located within the developments.

Neighborhood committees in Shanghai have undergone many transformations in their mission, social role, and mode of organization. In the socialist era (1949-1980s), neighborhood committees in Shanghai played an overt administrative role and undertook various responsibilities as the finest execution branch of the government, ensuring tight governmental control over the society.\textsuperscript{19} On the other hand, neighborhood committees provided, channeled, and distributed miscellaneous social goods and services\textsuperscript{20} as the major supplier of welfare second to work-units (Shengli Guo, 2006). During the transitional period (1980s-1990s), neighborhood committees were still essential for the residents within their jurisdictions as they organized the provision of many community services given up by work units or the municipality. Meanwhile, neighborhood committees in Shanghai set up thousands of small for-profit businesses\textsuperscript{21} to mitigate the serious shortage of such businesses in neighborhoods and also to subsidize their many other not-for-profit social services (Shengli Guo, 2006).

With the rapid development of the market economy at neighborhood level and the rise of commodity housing enclaves packaged with comprehensive community services in the housing market, the importance of Shanghai’s neighborhood committees in neighborhood-level service provision plummeted after 2000. Currently, running on a limited budget,\textsuperscript{22}

\textsuperscript{18} Neighborhood committees usually occupy one or more dwelling units conceded by the developers according to my interview with Jun Yang, sales manager of Shui On Development (a major local real estate developing company).

\textsuperscript{19} The committee leaders acted like governmental employees, administrating all kinds of governmental permits and certificates in regular office hours (Shengli Guo, 2006)

\textsuperscript{20} For example, selling movie tickets, maintaining public security, promoting children’s education, and creating employment opportunities (Shengli Guo, 2006)

\textsuperscript{21} For example, hostels, restaurants, day-care centers, barber shops, telephone kiosks, senior recreational facilities. The commercial practice of the neighborhood committee was triggered by the constrained public fund for governmental service provision. It also greatly facilitated the commoditization of community services as committee offices later contracted out or sold their profit-making services to private business owners.

\textsuperscript{22} The typical budget is 10 to 40 RMB Yuan, or 1.6 to 6.3 USD per household in their jurisdiction, which is granted from street offices or the Department of Civil Affairs of Shanghai (W. Wang, 2010).
neighborhood committees focus their work on a few governance assignments and certain social services that have not been undertaken by any private company or nongovernmental organization, such as property relief and unemployment support (Z. Wu, Zhai, & Wang, 2008). Although neighborhood committees may access some public resources and possess certain administrative authority, when compared to the property management companies, they are typically short of funding, manpower, and expertise, to exert greater influence over the secured developments’ common spaces (Z. Wu et al., 2008).

1.4.2.3 The Homeowners’ Council

The homeowners’ council (HOC) as a developing urban social organization emerged in China in less than two decades. Its initial introduction dated back to 1994 when community services being provided by property management companies gradually became a market standard and there had to be a legal entity representing homeowners to sign contracts with real estate managers. The homeowners’ council (HOC) sounds like the Chinese version of the Homeowners’ Association (HOA) of the Common Interest Development (CID), but it is actually a very different neighborhood-level social organization as previously mentioned.

These assignments cover four major aspects: planned parenthood (jihua shenyu) to enforce the “one child” policy, neighborhood security watch (with the inclusion of a police officer, or “community police”, in their office), youth education, and regulation of domestic immigrants. (W. Wang, 2010)

In 1994, the Ministry of Construction of People’s Republic of China enacted the Regulation of Newly Constructed Urban Residential Micro-districts, which stated that for the housing developments featuring a set of amenities and facilities, an “administration committee (guanweihui)” representing all homeowners must be established to serve as the collective client of the property management company. In this law, the “administration committee” was loosely defined as a representative group composed of “the representatives elected by the owners and users of the property within the micro-district under the instruction of local housing authority” to “represent and secure the legal rights of the owners and users.” Specially, the administration committee was endowed with the right to establish, negotiate, or cease contract with the property management company. As the introduction of new legislations concerning property management, the concept of administration committee has later evolved into “homeowners’ committee (yezhu weiyuanhui)” as the governing and executive body of homeowner’s council of which only legal homeowners could be the members. In the more recent national and local regulations on real estate management, the concepts of homeowner’s council and homeowners’ committee have been widely adopted.

In the United States, HOAs are the nonprofit corporations with formal bylaws that are created to own or manage the CIDs’ common interests and enforce the deed restrictions. The functions of a HOA are executed by its
The development of homeowners’ councils in China has been sluggish as their establishment and operations are encumbered by several legal barriers and particular socio-political conditions. In China, both the central and local governments are watchful for non-governmental grassroots organizations that could potentially operate beyond governmental inspection. Neighborhood committees as a governmental agency do not prefer an influential neighbor-based residential organization that challenges their authority (D. Wu, 2010). Developers and property management companies do not want to see a consolidated residential group with strong bargaining power. Also, regular persons in China usually lack the knowledge and experience to organize and develop grassroots democratic organizations.

In Shanghai, although official reports said homeowners’ councils have been founded in 60%-80% of the existing residential developments, most of them are actually nominal at best and usually not functional. Board members are usually not elected and there are no permanent office spaces assigned to house board meetings. Few fliers or publications are created and distributed by homeowners’ councils in gated developments. Property management companies typically regulate the use and maintenance of shared spaces according to the provisional deed restrictions (qianqi guiyue) written by developers. Homeowners usually cannot make amendments to these restrictions after moving in.

Taken together, the neighborhood committee, the real estate management company, and the homeowners’ council are three social organizations that are involved in the management and regulation of shared spaces. Their roles in local housing have been adapting quickly (as summarized by Figure 1.13 blow). Currently, property management companies are the most dominant organizational entities in the high-rise gated developments in contemporary Shanghai. They enjoy diverse privileges and advantages to control and manage shared spaces.

---

26 For example, an independent legal status is not guaranteed, the membership and voting rights of the homeowners’ council are vague in laws as well, and the necessary legal framework for enacting its governing documents is absent.
Neighborhood committees have been less significant than they were historically, but they still possess some unique political administrative resources. Homeowners’ councils are the least influential entities and thus residents typically lack collective representation to voice their collective interests and rights concerning shared spaces.

Figure 1.13: The adapting roles of the three major neighborhood-level social organizations in Shanghai, China

1.5 Research Interest and Theoretical Lenses

Even a cursory look into the shared spaces in Shanghai’ high-rise gated developments discloses their unique and intricately overlaid spatial, social, and political dimensions that defy easy categorization or analogy to other residential environments in different socio-spatial contexts. They appear to have a clearly defined spatial order established by tangible physical boundaries and salient demarcation of spaces. Yet the primary users of these spaces, the residents of gated developments, are highly heterogeneous and do not compose unitary social groups characterized by intragroup similarities and intergroup differences. They are contextualized in a special institutional setting that is rapidly changing and their legal definitions contain significant vagueness, inconsistencies and breakdowns. According to the socio-spatial criteria of “access”, “actor” and “interest” introduced by Benn and Gaus (1983), these shared spaces are extremely complex and fuzzy as they afford socio-spatial realities that
demonstrate varied, inconsistent degrees of “publicness” and “privateness” due to their large and diverse user groups as well as their problematic institutional conditions.

The complexities of these shared spaces fascinated me and I identified several natural puzzles within them, some of which are enumerated as follows. These instinctive questions sparked my initial research interest.

- How do residents as homeowners actually make use of shared spaces?
- To what extent do they feel they own and control shared spaces?
- Would the flawed legal definition of shared spaces and disadvantaged homeowners’ councils impact homeowners’ proprietary attitudes about shared space?
- How well do homeowners accept non-resident visitors entering their secured development and using shared spaces?
- Would space sharing involving large groups of diverse persons influence homeowners’ sense of possession and control regarding shared spaces?
- How well do homeowners identify with shared spaces?
- To what extent do homeowners feel responsible for shared spaces?

This list could extend further. Yet, as an architectural researcher, I am always concerned with the behavioral and psychological aspects of physical spaces as perceived and experienced by ordinary users.

As I started to address my preliminary research interest, I realized that such a research topic could be examined through many theoretical lenses. The exploration of the behavioral and perceptual significance of space sharing for residents may fit into several theoretical domains or their intersections, such as the multidisciplinary discourse on the global spread of gated communities, the cultural anthropological analysis of human settlements in architecture, the human geographical discussion of place meanings, and the behavioral and cognitive investigations of residential spaces. These discourses transverse some eight disciplines including political science, anthropology, sociology, urban studies, geography, psychology,
urban planning, and architecture (see Table 1.1 below). The candidate theories and key concepts that I employ include *boundaries* and *transitional spaces* (e.g. R. J. Lawrence, 1979; Pellow, 1996), *place* and *place attachment* (e.g. J. A. Agnew & Duncan, 1989; Canter, 1977; Massey, 1994; Relph, 1976), *gating* and *segregation* (Blakely & Snyder, 1999; Caldeira, 2000; Christopherson, 1994; Low, 2003; McKenzie, 1994), *home* and *identity* (e.g. Altman & C. M. Werner, 1985; Benjamin, Arén, & Stea, 1995; Duncan, 1981; Marcus, 1995), *spatial appropriation* (e.g. Korosec-Serfaty, 1985; Korosec-Serfaty & Bolitt, 1986), *territoriality* (e.g. Altman, 1975; Edney, 1976a; Sack, 1986; R. B. Taylor & S. Brower, 1985), and *environmental cognition* (e.g. Appleyard, 1978; Canter, 1977; Gärling, 1995; Gibson, 1966; Lynch, 1960; Steiner & Nauser, 1993).

Table 1.1: The disciplinary discourses potentially relevant to my initial research interest

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>AP</th>
<th>S</th>
<th>U</th>
<th>G</th>
<th>PS</th>
<th>UP</th>
<th>AR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boundaries and Transitional Spaces</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Place and Place Attachment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gating and Segregation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Home and Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spatial Appropriation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Territoriality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Cognition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: (1) filled cells indicate the major disciplinary backgrounds of theoretical discourses. (2) P=Political Science; AP=Anthropology; S=Sociology; U=Urban Studies; G=Geography; PS=Psychology; UP=Urban Planning; AR=Architecture.

I framed my research through the perspectives of “territoriality” and “environmental cognition”. First of all, both discourses afford the examinations of spatial, psychological, and behavioral factors on an individual level and at a small geographical scale, therefore they are the most relevant, considering the basic parameters of my research interest (e.g. assumed research spatial scope, implied level of inquiry, etc.). Specifically, I believed that “territoriality” was an illuminating theoretical lens for my research because shared spaces within high-rise
gated developments can be seen as a “territory” that apparently “marks a differentiation between an ‘inside’ and an ‘outside’” and “inscribes certain sorts of meanings” indicating “the practical significance of being on the inside or the outside or of crossing the line that distinguishes one side from the other” (Delaney, 2005, p. 15). Also, territoriality research thrives in a truly trans-disciplinary environment and its theories can deal with the various political, social, spatial, behavioral and psychological facets of shared spaces that interest me. I chose “environmental cognition” because this discourse examines the significance of the spatial environment and revolves around the mental processes and products whereby persons learn about and make sense of the surrounding world. My interest in the “understandings” or “meanings” that residents derive from shared spaces as well as my concern with individuals’ experiences and interpretations of shared spaces fit well within the intellectual scope of “environmental cognition”. The exact theoretical models that I extracted from these two discourses and exploited to inform my research are discussed in Chapter Two.

1.6 The Problem Statement

Concerning territoriality and environmental cognition, this dissertation research investigates the use and interpretations of shared spaces in Shanghai’s high-rise gated developments, especially residents’ “territoriality-related” opinions, senses and attitudes (e.g. possession, control, spatial privileges, etc.) about shared spaces as contextualized in particular spatial, social, and political settings. I am especially interested in studying how individual persons “territorially” experience and perceive shared spaces and how the physical space contributes to their perception. Instead of adopting a macro-scale strategy that draws approximate parallels between the physical dimensions of residential space and the social cultural processes, my goal exceeds the piecemeal study of either the spatial or the human attributes of built environments and investigate the interrelations between them.

1.7 Research Relevance

Despite their complex nature, shared spaces in high-rise gated developments have not been explored. The most pertinent literature has surveyed the cultural and historical trajectories of gating in a few Chinese cities and demonstrated some grand interplays between
the geography of gated housing estates and the contextual social relations, cultural norms, or moral politics (Lu, 2004, 2005; C. P. Pow, 2006; F. Wu, 2005). However, considerable uncertainty remains concerning residents’ use, interpretation and understanding of assorted interior and exteriors shared spaces shrouded behind walls and fences. By spotlighting shared spaces in high-rise gated developments as experienced and interpreted by their residents, this research will significantly expand the existing knowledge about gating in high-density urban contexts.

Historically, the dramatic emergence and proliferation of shared spaces will probably usher the urban housing in China into a new era of space use, as high-rise gated developments are expected to shape many other major Chinese cities and redefine the inhabitation for tens of millions of residents. Nevertheless, so little has been studied about the on-going environment change that is so profound and is impacting so many people. While there could be many equally important research initiatives in response to a variety of burning questions about shared spaces, I believe that studying their subjective user experiences and understandings is a meaningful and valuable start.
CHAPTER 2. METHODOLOGY, CONCEPTUAL FRAMEWORK, AND RESEARCH QUESTIONS

Engaging the particular spatial and social settings of Shanghai’s high-rise gated developments, this dissertation studies residents’ “territorially-charged” senses and understandings about interior and exteriors shared spaces regarding a set of social psychological meanings such as possession, control, spatial rights, and responsibility. To effectively configure, organize and bound this study, I conducted an extensive survey of relevant literature, trying to identify the nature of the research problem as embedded in a broader intellectual context. This chapter reveals and justifies the research strategy and the guiding research framework, on the basis of which I defined the concepts central to this research, clarified presupposed assumptions, decided the scope and scale of inquiry, and identified the essential research questions.

2.1 The Methodological Orientations

2.1.1 Qualitative Inquiry

I chose qualitative inquiry, in the most general terms, as the overarching methodological orientation of the present study. Many scholars use the phrase qualitative inquiry as an umbrella designation for an array of methods relying primarily on non-numeric data (e.g. verbatim scripts) and now being widely employed in fields such as education, anthropology, sociology, community psychology, criminology, and political science for better understanding complex social phenomena (see Denzin & Lincoln, 2008; LeCompte, Millroy, & Preissle, 1992; Marshall & Rossman, 2006; Wolcott, 1990). Its proponents generally share “a rejection of the blend of scientism, foundationalist epistemology (and) instrumental reasoning” (Schwandt, 2000, p. 190) and call for a “naturalist” observation and “holistic” interpretation in research (Denzin & Lincoln, 1994; Lincoln & Guba, 1985b). Despite nuanced disagreements,

27 Historically, qualitative inquiry emerged as a reformist movement launched in the late 1960s in the Anglophone academy to criticize these dominant social scientific research methods in various fields and disciplines (Schwandt, 2000). But not all methodological researchers agree that the use of qualitative methods inherently implies the endorsement of anti-positivist epistemological assumptions (e.g. interpretivist, intentionalist, social constructivist.) (Krathwohl, 1997).
methodologists generally agree upon some recurring features of qualitative inquiry and acknowledge its strengths when dealing with certain research questions (Creswell, 2009; Krathwohl, 2009; Marshall & Rossman, 2006). Referring to Marshall and Rossman’s summary of the values of qualitative studies (2006), the appropriateness of employing a qualitative approach in this research is illuminated below.

- Qualitative inquiry delves into the meaning of human action and is concerned with how individuals perceive their world and interpret their reality, which corresponds to the aim of this dissertation that is the extraction of the authentic accounts of lived, inner experience by the residents of gated developments.

- Qualitative research usually practices in non-experimental, contextualized settings to investigate naturally occurring phenomena in the real world. The study of residential attitudes and experiences cannot be executed experimentally for practical and ethical reasons, therefore qualitative methods are reasonable.

- Qualitative research is able to ask open-ended questions and begin with few precedent explanatory theories. As very little has been discussed about the residential perception of collective elements in gated developments, the groundbreaking exploratory nature of this study entails qualitative methods.

- This research emphasizes the identification of manifold factors potentially involved in the systematic social psychological process of residents’ experiences and attitudes, hoping to establish a holistic picture of the phenomenon, which can be promoted by qualitative inquiry considering its advantage of exploring and analyzing the many facets of the complex development of a process.

- Qualitative research effectively deals with multiple forms and sources of empirical data, which match the probable data collection and analysis scenario of this study because the relevant variables are yet to be identified and the research will inevitably measure a range of constructs in various dimensions.
2.1.2 Grounded Theory and Case Study

In terms of the specific types of research methods, or the middle-range method types\textsuperscript{28} that were adopted in this study, I chose grounded theory and case studies to inform and organize this research.

The term grounded theory is often discursively used to refer to any endeavor to generate theoretical ideas that begins with data\textsuperscript{29} (Schwandt, 2007). But grounded theory methodology is a specific and highly developed set of procedures for producing substantive theory out of qualitative data, which involves conducting multiple stages of data collection, continual review and comparison of the data, and constant theory development and refinement (Charmaz, 2005, 2006; Glaser & Strauss, 1967; Schwandt, 2007; Strauss & Corbin, 1998). In opposition to conventional hypothesis-testing research, a grounded theory approach typically begins with minimal \textit{a priori} theories\textsuperscript{30} and elicits and analyzes qualitative data to identify important categories in the material to develop and verify contingent theories “grounded” in the data. Therefore, it is especially appropriate for discovery-oriented research like the present study.

Specifically, this study was enhanced by incorporating several essential procedures of data analysis and theory generation that characterize a grounded theory approach, including \textit{constant comparison}, \textit{coding} and \textit{thematic analysis}, and \textit{conceptual theory building} (see Figure 2.1 below). These procedures require that raw empirical indicators be compared (looking for differences and similarities), coded categories or constructs produced, tentative theories then formed by proposing plausible relationships among constructs or sets of constructs, and emergent theories be further scrutinized, tested, and modified as more data are gathered and

\textsuperscript{28} The specific types of research methods are alternatively phrased as strategies of inquiries (Creswell, 2009), approaches to inquiry (Creswell, 2007), or even research methodologies (Mertens, 1998) in different texts.

\textsuperscript{29} In this sense, almost all qualitative methods more or less feature a grounded basis.

\textsuperscript{30} Glaser and Strauss argued that it was necessary and possible to preclude any prior theoretical assumptions before data collection and analysis (Glaser & Strauss, 1967). But more recent grounded theory researchers maintained that it was not operable to have researchers’ implicit hypotheses and theoretical inclination fully purged or avoided before empirical investigations.
interpreted. The employment of these procedures allows the introduction of post-defined concepts and relationships and hence greatly improves the utility of qualitative data and theoretical exploration. Except for a few research-guiding concepts necessarily predefined by a minimal conceptual framework, most detailed supporting constructs and factors were emergent and post-defined in this research. Also, explanatory models were gradually constructed during data analysis without referring to a concrete, pre-established hypothesis. The specific design of data analysis is illustrated in Chapter Three.

I also employed the memo writing technique that is integral to grounded theory. Memo writing not only generated an importance reference for the interpretation and transformation of data and the identification of potential relationships between concepts, but it also provided an “audit trail” of the research process and cultivated reflexivity (the revelation of an investigator’s philosophical assumptions and other subjectivity) to enhance the trustworthiness of the research (detailed in Chapter 3).

![Figure 2.1: Key components of grounded theory methodology (Glaser & Strauss, 1967) and their introduction in this study (the items in shaded text boxes were incorporated in this study)](image)

This research also exploited the method of case studies. Defined as an empirical inquiry that investigates a phenomenon within its real-life context (Yin, 1994), the case study strategy involves studying a case in relation to the complex dynamics with which it intersects. My investigation was naturally associated with a multitude of contextual factors pertaining to the subjective residential experience. The case, or basic unit of analysis was defined as “an
individual resident of a high-rise gated development in Shanghai whose particular circle of life involves the development's shared spaces to some extent”. Since the focus, or “heart” of the research was about individual experiences in the environment, the real-life contexts the cases were embedded in are virtually inseparable from the cases themselves (Miles & Huberman, 1994; Yin, 2003). This study involved multiple cases concerned with different residents with the expectation to achieve a deeper understanding of the interested phenomenon (Miles & Huberman, 1994).

A case study approach shares important characteristics with a grounded theory one. Both rely heavily on multiple forms of evidence and the commitment to study naturalistic and contextual phenomenon. This guarantees inherent compatibility with between grounded theory and case study procedures.

Further details about the selection of cases, sampling operations, and analysis measures are discussed in Chapter Three and Chapter Four.

2.2 The Guiding Conceptual Framework

2.2.1 The Rationale

Due to the epistemological and methodological underpinnings, qualitative methods put much less emphasis upon pre-definition, or the elaboration of a priori theories, laws and concepts to prefigure data collection and analysis (as manifested in grounded theory research) than quantitatively-orientated approaches. Nevertheless, this does not mean that orienting ideas or preexistent theories are extraneous, irrelevant or even counterproductive when conducting qualitative research. Instead, qualitative studies are often, to varying degrees, pre-structured. Highly inductive, loosely designed qualitative exploration is not frequently ventured (Miles & Huberman, 1994). Priori bounding and focusing strategies including the constructing of an initial framework were practiced in this study.

31 However, the necessity to completely rule out any pre-established conception was implied in some phenomenological or classic grounded theory approaches.
The conceptual framework developed for this research delineated the research space, recognized the major analytic facets, dimensions and categories, and identified assumed dispositions prior to the field research. Its design reflected the difficult equilibrium between the effectiveness to streamline data collection and analysis and the capacity of continual evolution and development during research. It was not a rigid and specific explanatory model, but rather, a dynamic arrangement flexible enough to accommodate post-defined categories, concepts, and relations emerging during the course of study. It facilitated exploration in a qualitative perspective without compromising the unique merits of qualitative methods.

In the following sections, I make explicit the basic conceptual categories serving as the building blocks of this research framework and the existing paradigmatic theories that inform its configuration. To do so, I scrutinized and analyzed the discourses of environmental cognition and territoriality that were regarded as the most pertinent to my research interest (detailed in Chapter One).

2.2.2 Environmental Cognition

Environmental cognition, in the broadest sense, refers to the mental processes whereby people think about and interpret their social and spatial surroundings. As a form of humans’ sensing and knowing, environmental cognition is thought to be located in the middle range of the inseparable perception-cognition-evaluation continuum (Rapoport, 1977, 2005), although there is disagreement over the exact distinction between the three interrelated concepts in many texts. Since the so-called “cognitive revolution” initiated in the 1950s, environmental cognition has been invoking vibrant research endeavors in anthropology, psychology, sociology, economics, and education (R. Sun, Marsh, & Onof, 2008). Undoubtedly, the term has different

---

32 This broad-sense definition incorporates the anthropological meaning of cognition (see Casson, 1981). A narrower but better known psychological definition of environmental cognition is the human mental process of extracting and abstracting information from the environment as well as storing, categorizing, and accessing such information (Golledge, 1987). This narrow-sense definition manifests the influential tradition of experimental psychology and the information-processing theory in cognitive psychology (as explicated in the following text).

33 The conceptual conflation of perception and cognition is not an unusual treatment in psychology literature (see Canter, 1977) and other texts where perception and cognition are used in metaphorical ways.
meanings in various theories across disciplines. In fact, there exist conceptually and methodologically diverse approaches to its inquiry. The multidisciplinary discourse of environmental cognition reveals two rival theoretical paradigms: information-processing theory and situativity theory.

2.2.2.1 Information-Processing Theory of Cognition

The information-processing theory or the symbolic representational approach has largely functioned as the foundation of post-war cognitive science and dominated the thinking of human perception and cognition to the present day (Proctor & Vu, 2006). This paradigmatic perspective embraces a perceiver-environment dualism and conceptualizes environmental cognition as an internalized process mediating the environmental stimuli and the perceiver, or the cognitive agent (Lachman, Lachman, & Butterfield, 1979). Assuming that cognition is more or less comparable across persons and settings, this theory directs the researchers to the internal psychological process through which cognitive agents pick up information from and about the environment and generate mental representations\(^{34}\) of this information. This mental representation are alternatively labeled as scripts (e.g. T. Lee, 1968), images (e.g. Boulding, 1956), or schemata (Bartlett, 1932; Hochberg, 1964; Neisser, 1976).

The influence of the information-processing model has been wide and profound (see Norman, 1993). It underlies several classic explorations (e.g. way finding and cognitive mapping research) in the fields of Environment-Behavioral (EB) Relation. Its impact is also traceable in some substantive design theories such as Rapoport’s discussion of the “filtering” effects of cultural and personal factors upon environmental cognition (Rapoport, 1977, 2005). Applied research adopting this paradigm typically concerns environmental attributes as the source of stimulus information, the mental representations of the processed environmental messages, the data collected through objective and detached observation, and the mechanism explaining the internal transformation and organization of cognitive information.

\(^{34}\) or alternatively termed as symbolic representations in many texts.
2.2.2.2 Situativity Theory

The situativity theory or ecological approach is the other prominent orientation toward environmental cognition. It is developed in the ecological tradition of James J. Gibson and it has been gaining attention since the 1990s in many intellectual fields including psychology, philosophy, sociology, ecology and education as well as the intersections of them. While Gibson’s original work (1966, 1979; Gibson, Reed, & Jones, 1982) was limited to an ecological account of spatial perception (esp. visual perception) and action, subsequent ecological theorists have applied and extended his approach to promote a much boarder discussion of environmental cognitive and behavioral phenomena (e.g. Greeno, 1994; Oaksford, 1986; R. Shaw, Turvey, & Mace, 1982; Turvey, 1992; Turvey & Carello, 1985, 1986).

Situativity theory rejects many meta-theoretical stances held by the advocates of Information-processing. It conceptualizes the perceiver-environment relationship as reciprocity instead of dualism, viewing the cognitive agent and the environment as relationally or mutually defined entities rather than discrete categories enjoying independent ontological status (Heft, 1997). Alternatively put, this perspective maintains that the holistic perceiver-environment system is irreducible and could not be comfortably decomposed into subsystems to be further analyzed. Cognition is thought to be actualized through the process by which the agent makes interactive transactions with the environment. Environmental understandings as cognitive products are situated in and derive from the activities co-determined by the intention of the agent and the properties of the context (Schliemann, 1998). The real locus of cognition, argued by situativity theorists, is in the interactive actions involving a cognitive agent in a specific situation rather than in an individual’s mind capable of constructing and representing the surrounding world (Greeno & Moore, 1993).

As a novel school of thought, the situativity theory emerged as a powerful intellectual movement challenging the dominance of the information-processing paradigm in psychology and cognitive science (see Calvo & Gomila, 2008). Terms such as (socially) situated cognition, situated action, and embodied cognition have been coined and introduced to many social and cultural researchers who appreciate the merits of the situativity approach (E. R. Smith & Semin,
Studies following this paradigm are usually carried out in real-world contexts, observing and investigating the embeddedness of environmental cognitive processes and the systematic relations between the perceiving individuals and the environment.

2.2.2.3 Environmental Cognition in this Study

As Figure 2.2 above shows, the divergence between the two competing paradigms regarding environmental cognitions lies in their distinct conceptualizations of environmental cognitive processes and the roles of the environment and perceivers. The information-processing model assumes environmental settings and perceiving individuals as independent entities and considers environmental cognition an internal process all inside the head. Research adopting this model concentrates upon understanding brain mechanisms and mental representations of mind as well as their relationships with environmental attributes. In contrast, the situativity theory recognizes the “mutual accommodation” of perceiving agents and the environment as the foundation of environmental cognition, which is always embodied through the situated interaction between people and the environment as two inseparable parts of one and the same integral unity. The empirical studies inspired by the situativity approach focus on
the perceptual and behavioral transactions between people and the environment as reciprocally defined entities relative to each other.

For this dissertation, the conceptual framework was constructed in accordance with the situativity theory of environmental cognition given the following considerations.

First of all, the situativity theory has been less applied and tested in empirical studies. Due to its rejection of “the separateness of contexts and psychological processes” and treating them as “aspects of a holistic unity” (Altman & Rogoff, 1987, p. 27), situativity theory is also regarded as an exemplar *par excellence* of the “transactional worldview” in environmental psychology, which has been argued to be “a potentially fruitful vantage point” to understand psychological and behavioral phenomena (Altman & Rogoff, 1987, p. 36). However, despite the considerable recognitions in cognitive science, environmental psychology, and social psychology, situativity theory has not been theoretically assimilated in today’s architecture and planning research and its empirical application is even more scarce.

Second, the general intention of the present research favors the employment of the situativity theory. Emphasizing contextuality and situatedness, the situativity approach is especially promising when employed to comprehensively explore individual persons’ subjective interpretations of the environment, the derivation of which inevitably mobilizes varieties of personal, social, and spatial contextual factors that meaningfully mix to constitute a concrete and multi-dimensional person-environment situation. My localized investigation of residential perception and experience needs the wide scope of observation and depth of analysis that a situativity approach engages.

Last but not the least, investigation through an information-processing perspective appeared to beyond my data collection capacity considering the preparatory knowledge and logistic resources I had at the onset of this research. Research exploiting the information-processing theory entails particular knowledge in cognitive science and psychology to study the complex “symbolic representations” held by individuals. Also a study based upon the information-processing model often requires massive quantifiable data that focused on a few variables as to human behaviors, neurophysiologic measurements, or subjective impressions,
which are almost impossible for me to collect as an individual given the available techniques and resources.

As Figure 2.3 below displays, the conceptual framework of this study was first developed by incorporating the situativity theory of environmental cognition. The definitions of the major constitutive categorical concepts are clarified as follows.

![Figure 2.3: The conceptualization of environmental cognition in this research](image)

In general, the environment refers to the external multi-dimensional settings that surround and interact with persons as perceiving agents. Persons are the inhabitants who behave within particular environmental settings and possess the mental ability to make sense of their physical or social surroundings. In the light of the person-environment reciprocity emphasized in the situativity theory, this research introduced a pair of interdependent concepts: *situational environments* (concept No. 1 in Figure 2.3) and *situated persons* (concept No. 2 in Figure 2.3) that function as two mutually-defining aspects of a unitary person-environment situation. A situated person is *the individual who actively selects, interacts with, and gives meanings to a set of environmental elements to frame a particular situational environment that she inhabits according to her intention and ability*. A situational environment is defined as *a meaningful assemblage of physical, behavioral, and societal elements that are relevant to a particular situated person to whom the environment is behaviorally, cognitively, *
and affectively bonded. Specifically, a situational environment encompasses two subcategories: the often tangible activity-space and the relatively intangible social conditions. Activity-space means a set of environmental elements comprising physical spaces, objects, and overt behaviors of others taking place in these spaces that have some influence over the situated person. Social conditions refer to a set of environmental elements including the interpersonal, organizational, institutional, and ideational systems that have impact on the situated person. The reciprocal bond between situated persons and situational environments is manifested through person-environment interactions (concept No. 3 in Figure 2.3), which means the various behavioral or social transactions between the situated person and the situational environment that associates the two parts to form a particular person-environment situation. Environmental understandings (concept No. 4 in Figure 2.3), or the product of environmental cognition, are conceptualized as the particular environmental meanings the situated persons attribute to the situational environments regarding their behavioral or social implications.

As required by the grounded theory method, the exact relationships between these categorical concepts were considered indefinite (as indicated by dashed linking lines) in the conceptual framework. The potential links suggested by the situativity theory (e.g. the contribution of person-environment interaction) were not assumed but were hypothesized and then scrutinized during data analysis.

2.2.3 Territoriality

The conceptual framework of this research was further elaborated by examining the research traditions within the studies of territoriality.

The concept of territoriality has a complex history of use in a wide range of literature sources. Used as an abstract blanket term to encompass a constellation of concrete objects, elements, processes, relations, or events, territoriality has been rendered in a myriad of 

---

35 The same term was also introduced by David Haviland (Haviland, 1968) to describe “discrete units of the behavior-environment relationship for architectural design”, which was considered an equivalence of “behavior setting” in ecological psychology (Lang, 1987a, p. 113). In this study, I employ the same term with a different definition.
alternative conceptions due to evident disciplinary divergence. Generally speaking, current thinking on territoriality divides two major discourses: human territoriality and political-geographical territoriality. The former is most engaged by anthropologists and psychologists as well as some biologists who compare human territoriality to animal territoriality. This discourse has its roots in mid-20th century ethological discussions on animals’ defensive behaviors to claim and maintain turf. The latter is employed by geographers and political scientists and is concerned with the political attribution of space, dating back to the coinage of the word territory in English from its Latin origin *territorium* in the 15th century. While the two discourses used to exhibit significant diversity in terms of the conceptual assumptions, research problems, sites and subjects, and methodology, recent theoretical reorientation occurring in both camps is making their conceptual frameworks much more analogous to each other, implying a possibility of conceptual fusion that could inspire exploration of territoriality from an interdisciplinary perspective.

### 2.2.3.1 Human Territoriality

Human territoriality research is an important concern for researchers interested in human behaviors and environment-behavior relations (EBR) at the scale of buildings, urban complexes and open spaces. It has experienced a major paradigmatic shift since the 1950s. The concept was initially introduced to illuminate humans’ spatial occupation and behavioral regulation mechanisms that are comparable to the aggressive defense and exclusive use of space manifested by nonhuman populations (e.g. birds, mammals). The concept was most often defined through the identification of a characteristic type of space (territory) or behavior (territorial behavior) (Goffman, 1963; Sommer, 1966). The research interest was usually in overt behaviors (e.g. “staking out” a territory and defensive response to intrusion), prominent spatial features (e.g. boundaries such as walls and fences that physically mark territory) and the statistical correlation between them (e.g. behavioral “effect” or “result” of the spatial characters of territory). Since parallels were drawn between human and animal territoriality

---

36 According to Karrholm, the earliest behavioral notion of territory was introduced by Oliver Goldsmith to metaphorically “describe space appropriated by birds through singing” in the 18th century (2007, p. 438).
and the biological-ethological interpretation of territoriality was dominant, territoriality was assumed to reflect a universal and natural imperative that is genetically programmed to serve the biological purpose of reproduction and survival (Alland, 1972; Ardrey, 1966; Dawkins, 1976; Malmberg, 1980). The studies on the social explanation of human territorial phenomena were hence scarce due to this emphasis on biological determinism. Most early empirical studies of territoriality were quantitatively-based, where the interpersonal and social factors modifying the presumed territory-behavior correlation were regarded as confounding variables and their significance not considered a central concern.

From the 1970s to the present, leading authors in psychology such as Julian Edney and Irwin Altman produced two major theoretical updates in human territoriality research. First, human territoriality should be viewed as goal or purpose-oriented. Thus, the connection between the salient territorial spatial-behavioral system and implicit psychological needs or social-organizational reasons, which entail acquisition and defense of territory, should be further examined. Second, the study of territorial phenomena should also attend to the internal mediating (cognitive and motivational) processes that tie the physical and the behavioral components. Although empirical inquiries representing this progressive adaption remain inadequate, more researchers have given theoretical explorations to involve factors such as socio-cultural conditions, territorial attitudes and cognition, and personal characteristics with reference to the larger social context. The research framework on territoriality thus gradually departed from dealing solely with the physical and behavioral facets and began incorporating multiple associated dynamic elements as was manifested in Altman’s typological classification of territory (1975), Edney’s discussion of territoriality’s organizational implications (1976a), and Taylor and his associates’ systematic theories of territorial attitudes and cognition (Taylor, 1978; R. B. Taylor, 1988; R. B. Taylor & S. Brower, 1985; Taylor, Gottfredson, & Brower, 1981). The tradition and conceptual evolution of human territoriality research is illustrated by Figure 2.4 below.
Given the theoretical advancements, the more recent definitions of territoriality are less biased toward genetic determinism and are less defense-oriented. But the inclination to illustrate territoriality by its geographical and behavioral expressions remains conspicuous (see Bell, Greene, Greene, Fisher, & Baum, 2001; Gifford, 1997; Kopec, 2006; Veitch & Arkkelin,
1995). Typical human territoriality research seldom places as much importance on personal, social, and psychological (in this case, cognitive and affective) factors as important as it does to spatial (e.g. demarcation and personalization) or behavioral aspects (e.g. occupation, behavioral control, defense, maintenance, etc.) (e.g. J. H. C. c. Clitheroe, 1991). Empirical studies on the social or cognitive dimensions of territories are scarce in the environment-behavior (EB) fields except for those avoiding use of the term territoriality. This situation might result from the methodological difficulties in dealing with human subjectivity and the restrictive disciplinary perspective. Except for theoretical treatment, the socio-cultural processes undergirding the establishment and maintenance of territories and the cognitive dimension of territoriality have not been comprehensively investigated in existing human territoriality research.

2.2.3.2 Political-Geographical Territoriality

As the other influential strand of thinking about territoriality, the political-geographical interpretation of territoriality is shared by human or political geographers and other social scientists who are interested in humans’ claim and exclusive use of space. Traditionally, political-geographically territoriality was assumed to operate at the global or regional spatial scale. The social organizational and political relations underpinning the spatial formation of territories were most discussed and examined, while human behaviors and cognition were less attended. Yet, the developments in geography over the past decades have unfolded, showing a

---

37 For example, in The Social Logic of Space, architectural scholars Hillier and Hanson examine the social dimension of built forms by asking how arrangement of spaces could shape social processes with regard to controlling behavior in host-guest relations (1984). The concept of territoriality is not literally introduced although their research addresses issues relevant to the newer, sensitive understanding of human territoriality.

38 For one thing, territorial cognition studies demand sophisticated qualitative or mixed methods to handle introspective self-reports and unravel the richness of human environmental understandings. For another, complex social procedures and person-society interactions often fall outside the domain of psychology and environment-behavior (EB) studies.

39 In several texts, a sense of psychological ownership of space has been premised as the base of human territoriality (Altman, 1975; Bakker & Bakker-Rabdau, 1973; Edney, 1976b). Yet meticulous inquiry into these proprietary feelings and their social basis has rarely been attempted, even though it is pronounced essential, implying that the assumed innate base of human territoriality has never completely melted away despite the fact that strong determinist explanations have been declared obsolete and overtly rejected by many (Brown, 1987).
gradual trend toward applying the concept to micro-level social and spatial settings such as individual buildings or urban areas where human territoriality research thrives.

Geographers used to define territory “in reference to the area of land claim by a country” and territoriality indicates the process of contestation and control of territorial lands (Storey, 2001, p. 1). Research adopting this perspective has described the territorial political systems and the geographical sphere of influence on an interstate or sub-state level, including the topics of international politics, territorial division, sovereignty, multilevel governance, and public policy. At the same time, the territorial implications of globalization are also focused on (J. Agnew, 2005; Flint, 2007; Le Heron & Pak, 1995). In contrast to the ethological determinism implied in classic human territoriality, the political-geographical understanding of territoriality often takes a social constructivist perspective (Brighenti, 2010; Storey, 2001), which ascribes territorial phenomena to the conditioning of political power (Gottman, 1973, 1975). The linkage between power and territory (as a geographical space) secures the top concern for this strain of territoriality studies.

Gaining momentum in the 1980s, an intellectual movement in geography known as social-theory-and-geography (STGM) brought consideration of territoriality to contexts other than the state. Possibly inspired by Michel Foucault’s writing on social power relations and space (1979, 1980), protagonists of this movement started to analyze territorial phenomena as a manifestation of political power, which does not necessarily have to do with the state but generally signifies “who controls whom for what purpose.” With the broader definition of power, territories as bounded spaces at a variety of spatial scales are recognized as concrete spatial expressions to fulfill abstract power relations (Cox, 1991, 2001; Delaney, 2005; Sack, 1986). As Robert Sack posits, territoriality is a geographical strategy whereby social power is asserted and exerted upon people through the classification and control of space (1986). Embedded in social relations, territorial strategies can be employed to serve specific ends by governments, social organizations, or individuals. Reifying different forms of power,

40 This conception lends to one of the most common dictionary interpretations of territoriality: “a geographical area belonging to or under the jurisdiction of an authority” (“Merriam-Webster's Collegiate Dictionary,” 2007)
territoriality operates from the global scale down to that of the workplace and the home (Sack, 1986). In this vein, the concept of territoriality was introduced in several urban studies which consider and assess the players’ social power relations, the perception of urban areas as territories and their territorial behaviors (Childress, 2004; Herbert, 1997; Kintrea, Bannister, & Pickering, 2010; Michney, 2006; Wacquant, 1997). In these refreshed applications of political-geographical territoriality, researchers have engaged topics such as human behaviors and environmental meanings that were traditionally considered peripheral to political and urban geography.

In brief, the dominating research framework in political-geographical territoriality is gradually migrating to an interdisciplinary one grounded on updated conceptions of power and territory (see Figure 2.5 below). The research sites are being scaled down to embrace locality and the definition of politics expanded to include multiple social relations with relevance to power. Players of territoriality may range from the aggregate of governmental authorities to the individual person. Even the typically underexplored human behavioral and cognitive aspects have garnered research attention in recent year. The growing interest in territoriality and people’s identification with places is discernible in the current geographical studies on an urban or state level (e.g. Bozzoli, 1999; Davis, 1990; Shnell, 1994). But in-depth analysis of individuals’ territorial behaviors and related environmental cognition is still lacking, which is mainly due to the disciplinary tradition that emphasizes abstract societal level patterns or structures rather than microscopic observation of individual activities.

---

41 For example, Sack states that human experience of territory and its social meanings are framed by the underlying social power structure (1986).
2.2.3.3 Territoriality in this Study

The continual evolution of the two territoriality research agendas is compromising and reconciling many of their divergences in terms of the fundamental explanation of territoriality, the research scope, and the conceptual entities involved in research. This makes possible a conceptual fusion of the two.  

42 In practice, the informal mixed-up definition of the term has
been introduced (J. Agnew, 2000; Rapoport, 1994) and a few studies have been quoted by both sides in parts of their discussions.43

In this research, I intended to synthesize the concerns in human territoriality and political-geographical territoriality as the recent convergence of the two traditions is especially advantageous to this research. Territoriality in this dissertation is defined as a multidimensional, systematic phenomenon with interrelated spatial, social, behavioral, and cognitive facets, characterized by the actual or perceived control over people-space relationships via real or symbolic means of spatial classification and identification, reifying the particular social power relation(s) embedded in certain social and cultural settings. This hybrid conceptualization of territoriality recognizes the multi-dimensionality and contextuality of territorial processes. This conception facilitates my investigation of residents’ experiences and understandings of shared spaces as situated in Shanghai’s high-rise gated developments because it prompts the consideration and examination of both behaviors and environmental cognitions manifesting at an individual level in small social-spatial settings and within the broader social conditions that frame and contextualize territoriality.

Moreover, I introduced two concepts specifically describing territorially-charged environmental attitudes: territorial meanings and quasi-territorial meanings, both of which are subcategorical to the concept of environmental understandings. Figure 2.6 below summarizes these two concepts and their constituents.

Territorial meanings refer to the environmental understandings about territorial control over particular spaces. Territorial meanings encompass two interrelated facets: perceived control and perceived spatial rights. Perceived control concerns persons’ interpretations of certain spaces as to “who can exert control over what spaces to what extent?” Perceived spatial rights describe persons’ environmental interpretations in terms of “who can have access to what spaces and do what there?” These two facets of territorial meanings have been theorized in the existing literature on human territoriality and political-geographical territoriality and considered central to almost all territorial phenomena (detailed in Chapter Four and Five).

Quasi-territorial meanings are sets of environmental understandings closely associated with territorial meanings but which do not manifest the defining features of territoriality. Quasi-territorial meanings subsume multiple components. In this study, I attempted to study five of them: Perceived “at-homeness” or imagined home range (how a space is experienced regarding its “home-like” qualities), care-taking attitudes (how much responsibility one assures to maintain and take care of a space), perceived security (to what extent does one feel secure when experiencing a space), and perceived social cohesion (to what extent does one feel socially connected with others in a space). These environmental understandings were discussed together with territorial meanings and territorial behaviors in many texts and even seen as an
integral part of territoriality by some.\textsuperscript{44} But they are not unanimously accepted as essential to territoriality.

\subsection*{2.2.4 Synthesized Conceptual Framework}

Given the proceeding theoretical explorations, I finalized the conceptual framework for this research by synthesizing my conceptualizations of territoriality (emphasizing multiple representational dimensions, especially the cognitive aspects) and environmental cognition (structured by a situativity perspective). As Figure 2.7 below illuminates, this conceptual framework designates the basic constituents required to form a comprehensive understanding of environmental cognition regarding territoriality-related environmental understandings. It assembles four basic categorical concepts essential to the present study: situational environments, situated persons, person-environment interactions, and environmental understandings. It also specifies a few subcategorical concepts: activity-space, social conditions, territorial meanings, and quasi-territorial meanings, as well as several more detailed supporting constructs. The assumed logical relationship between categorical concepts, subcategorical concepts, and constituent constructs were delineated. Other linkages between these concepts and constructs, on the other hand, were treated as tentative.

\textsuperscript{44} Some environmental researchers introduced the term “territorial functioning” to encompass both territorial and quasi-territorial meanings (Brown, 1987; R. B. Taylor, 1988).
2.3 Research Questions

As explicated in Chapter One, my initial research interest concerned the subjective aspects of residential experiences in Shanghai’s gated high-rise developments. I tried to understand the residents’ perceptions and attitudes about the shared spaces in their neighborhoods in terms of how shared spaces are perceived as possessed, used, controlled, and influenced. Exploiting the previously elaborated conceptual framework, I identified three specific research goals: (1) to make explicit the territorial and quasi-territorial meanings that individual residents assigned to their shared spaces; (2) to understand the sources of territorial and quasi-territorial meanings and the ways through which residents derive these meanings; (3) to evaluate the role and significance of environmental elements, physical spaces in particular, in shaping and modifying territorial and quasi-territorial meanings attributed to shared spaces.

These three goals were further developed into the following research questions and sub-questions as follows. The response to the first research question entails a descriptive account, while explanatory understandings are needed to answer the second and third questions.

---

**Figure 2.7: Synthesized conceptual framework for this research**
1. What are the territorial and quasi-territorial meanings individual residents develop with regard to the shared spaces in Shanghai’s high-rise gated developments? Specifically:
   a. What are residents’ perceptions about their ability to control and influence shared spaces and their attitudes about who can have access to and make use of shared spaces?
   b. What are residents’ interpretations of shared spaces regarding the sense of “at-homeness”, care-taking attitudes, perceived security, and perceived social cohesion?

2. How do residents derive and generate territorial and quasi-territorial meanings about the shared spaces of their gated developments? Specifically:
   a. How does each individual resident, as a situated person occupying a corresponding situational environment, describe and substantiate his/her territorial and quasi-territorial understandings?
   b. What are the factors, conditions, or processes directly and immediately related to residential territorial and quasi-territorial meanings for individual residents?
   c. What are the factors, conditions, or processes that indirectly contribute to residential territorial and quasi-territorial meanings for individual residents?
   d. What are the probable overall patterns whereby various spatial, social, personal, and behavioral factors contribute to residential territorial and quasi-territorial environmental understandings?
   e. How well does the situativity theory of environmental cognition offer believable explanations to the derivation of residential territorial and quasi-territorial meanings?

3. What is the role of physical space in residents’ territorial and quasi-territorial understandings? Specifically:
   a. How should the overall relevance of physical space be defined?
   b. What specific spatial attributes have implications for territorial and quasi-territorial meanings and how?
c. To what extent and in what ways could architectural designers and planners possibly influence residential territorial or quasi-territorial meanings?

2.4 Additional Research Design Implications

In addition to identifying and framing research questions, my considerations of research methodology, strategies of inquiry, and conceptual framework also translated to the following research guidelines that informed my data collection and data analysis decisions, which will be presented in detail in Chapter Three and Chapter Four.

- **Inferred from the research framework and qualitative methodology**: The problem of focus in this study is residents’ territorial meanings and quasi-territorial meanings about shared spaces in Shanghai’s high-rise gated developments. These meanings are particular sets of environmental understandings and are potentially related to various social, spatial, and behavioral factors.

- **Inferred from the research framework and the method of case study**: This study shall focus upon individual level environmental conception and interaction and explore the possible interrelation between personal, environmental, behavioral, and cognitive elements through the collection and analysis of the pertinent qualitative data. Each individual resident shall define and distinguish a self-contained case in this investigation.

- **Inferred from the research framework and the method of case study**: Individuals’ territoriality-related environmental understandings are hypothesized to be generated through the interactive transactions between persons and the environment as relatively defined entities. A perceiving individual as a situated person is defined in relation to a specific constellation of environmental elements. The corresponding situational environment is defined with reference to the specific person it surrounds and interacts with. Situational environments, situated persons, and their interactions are bounded in different individual cases.

- **Inferred from the research framework and the method of grounded theory**: The general linkage suggested by the situativity theory among situated person,
situational environment, person-environment interaction, and territoriality-related meanings as environmental understandings is to be tested. The exact linking patterns between various factors and elements are to be examined and discovered. The specific constructs pertaining to the solution of the research problems are expected to be unearthed and identified during data analysis.
CHAPTER 3. DATA COLLECTION SCHEME AND FIELD RESEARCH

To carry out the qualitative inquiry of an under-theorized phenomenon, I organized this research by ordering its major stages in a chronological sequence (see Figure 3.1 below). This chapter presents my data collection scheme, which bridges the cleavage between abstract predefined concepts and concrete site-specific observation and engagement. This chapter also introduces the field research I conducted in Shanghai during 2010 and gives an overview of the extracted raw datasets.

3.1 Research Design of Data Collection

To address the aforementioned research questions, I devised a data collection scheme that governed the extraction of empirical indicators to measure the concepts and constructs involved in the conceptual framework and the research questions. This scheme helped me to identify the specific data-gathering techniques, data sources, and sampling strategy. My data collection scheme embodied several important considerations, which are clarified in the following subsections.
3.1.1 Definitions of Cases and Settings

As stated in the end of Chapter Two, the most relevant qualitative data for this research are those measuring and describing the predefined concepts of situated persons, situational environments, person-environment interactions and environmental understandings on an individual level (See Figure 3.2 below). Hence I collected these data in the unit of cases, which centered upon individual residents as situated persons. The data measuring other pertinent concepts and giving additional background information beyond the scope of cases were collected to constitute settings, or the sets of contextual data representing broader and inclusive domains where the cases are embedded.45

3.1.2 Perspectives of Observation and Measurement

The data that were later organized into cases were collected employing an immersed and situated perspective. The data specifically concerning situated persons and situational environments reflected the particular perspectives of individual residents about the experienced and perceived person-environment situations. Yet, I also gathered the data regarding environmental elements and persons that were identified through an alternative detached perspective (see Figure 3.2 below). These data corresponded to the concept of permanent environments and absolute persons. Permanent environments in this study are defined as the encompassing, fixed environmental settings that are considered constant to all perceiving individuals. Unlike situational environments, permanent environments are not considered relative to any particular persons. They are defined and described through a detached perspective that is independent of their perceivers. Absolute persons, likewise, refer to the group of persons who are defined by the characteristics independent of environmental settings. Absolute persons are not inherently relational to any specific environment.46

45 In many methodologist’s discussions of qualitative inquiry, the term “site” that is defined as the social or spatial location where the phenomenon of the case occurs is often introduced to represent such contexts (Miles & Huberman, 1994). This research employs the term “setting” to differentiate multi-dimensional contexts from the physical “sites” that are conceptualized as spatial locations where the observations were conducted.

46 It should be noted that the concepts of absolute persons as opposed to situated persons or permanent environments as opposed to situational environments merely denote the alternative perspectives of observation and description and they may be based on the same actual referents. For example, a person may be regarded as a
The inclusion of the data on permanent environments and absolute persons was necessary because the empirical evidence collected in a detached perspective is able to provide a panoramic view of the environmental and human factors relevant to the study. For example, a particular gated development illustrated by official maps and documents denoted a permanent environment universal to all residents, thus providing critical contextual information to help understand the embedded cases. Absolute persons measured by demographic profiles described the population of which a particular situated person was a member. Moreover, the data collected in the disengaged, etic perspective of experts’ or public authorities’ can be compared with the individual residents’ interested, emic accounts to expose their respective qualities and to facilitate a data triangulation procedure that adds to the believability of this study (Lincoln & Guba, 1985a) (detailed in Chapter Four). In addition, as the concepts addressed in contemporary architectural and planning research are predominantly the ones measured through a detached perspective, the theory utilization of the present study may be improved if its examination of situational concepts can be presented and discussed with reference to non-situational concepts and theories.

situated person in a study if she is described through “the role she plays in a socio-spatial process” or an absolute person if the data defining her are collected on the criteria of “age” and “religion”. In the same vein, a particular environmental element (e.g. a bounded physical space, a behavioral occurrence, or a social relation) can be defined and measured alternatively.
3.1.3 Data Types and Sources

The data collected for this study can be distinguished by predefined concepts for measurement. For the concepts necessitating a detached observation perspective, the measurements were created by the researcher as a disinterested “outsider” or by other third-party observers (e.g. experts, governmental officials, or other informants), while the concepts of the situated perspective were measured by collecting first-person reports and by becoming immersed in situations to develop empathsies with the resident research participants. In this light, I collected four different groups of empirical data for this research: *interactive observation records, introspective self-reports, detached observation records*, and *documents & archives* (see Figure 3.3 below). This categorization reflects different data sources and distinct actors in data generation.
Interactive observation records are researcher-created descriptive or interpretive field notes that document the occurrences and the researcher’s experiences in the field as the researcher interacting with the researched individuals in the field (with the role of researcher concealed or unconcealed).

Detached observation records are different in that the researcher does not directly encounter the researched and only records from a hidden or unobtrusive viewpoint.

Introspective self-reports are the verbal or graphic accounts generated by the researched individuals out of their subjectivity. Self-report data may reflect a situated perspective if they are created by residents about their personal experiences, behaviors, attitudes, opinions, and beliefs in their high-rise gated developments (first-person reports). Likewise, they may reflect a detached perspective if they are generated by third-party informants to describe other persons or settings (third-party reports).

Documents and archives refer to the public or private materials created by special agents or institutions (e.g. public media, governments, academic researchers, private companies, etc.). They can give rich details on certain aspects and they always represent a detached perspective of observation.

Different types of data were extracted from several major data sources. Interactive and detached observation records were collected in the neighborhood environment of the high-rise gated developments in Shanghai. First-person reports were yielded by the resident participants in high-rise gated developments and third-party reports are obtained from non-resident informant participants (e.g. experts and public officials). Documents and archives were from libraries, academies or governmental agencies. Most data sources were located in Shanghai except for the documents or archival records that are accessible through the Internet.
3.1.4 Data-Gathering Methods

To effectively acquire the relevant datasets, I surveyed several fields for data gathering techniques including psychology, anthropology, sociology, and geography, where researchers often employ case studies or grounded theory approaches. In this study, I employed multiple date-collecting methods including participatory observation, detached recording (or non-participant concealed observation), structured interview, semi-structured in-depth interview, interactive sketch mapping, voluntary photography, and documents search. The relevance among concepts of interest, data types, and data-gathering means are summarized by Figure 3.3 above.
Specifically, semi-structured interview and interactive map-drawing were the most important tools to elicit residents’ environmental understandings (which encompass their territorial and quasi-territorial attitudes) in a situated perspective as well as other qualitative data gathered from a situated-perspective.

In-depth interviews, which by definition are conversations that develop research relationships and rapport with participants by focusing on participants’ experiences from their perspective (Minchiello, Aroni, Timewell, & Alexander, 1995), are particularly valuable for yielding situated introspective self-reports. In this study, I tried to gather two types of self-reported information. One indicated the content of environmental meanings, revealing the perceived relation between self, other and the environment (e.g. how a particular shared space should be used by whom in what way). The other revealed the linkage between these meanings and other meanings (e.g. the creation and maintenance of a particular environmental meaning with reference to its contributors such as prior experience, accepted social norms, or perceived spatial environment). While the former is relatively explicit to human awareness and may be collected via alternative methods like questionnaires, the latter is much more inherent and elusive, and not likely to be gained without the use of in-depth interview to promote introspection (Schooler, 2002).

Interactive map-drawing was the other crucial research device to extract non-verbal self-report data about environmental understandings. It also helped research participants to realize how they derived these understandings. In this study, interactive map-drawing prompted resident participants to draw annotated neighborhood maps using self-created symbols to indicate the specific environmental meanings that they attributed to different shared spaces. The drawing procedure was interactive as I questioned participants about the meanings of maps with research participants while they created the maps. This method qualifies as an innovation. Its design was modeled after the “cognitive mapping” technique pervasively employed in geography and urban planning research.47 “Cognitive mapping” allows

47 My method is actually inspired by a long tradition of using sketch maps in environmental psychological research, with its earliest exploration regarding the relation of physical and conceptual spaces demonstrated in Lee’s study
investigation of humans’ spatial cognition and navigation in natural or built environments (see Garling & Golledge, 2000) but environmental meanings in addition to perceived spatial structure are not emphasized. In the field research for this study, interactive map-drawing stimulated introspection and helped articulate the intricate environmental meanings that were often beyond the participants’ verbal expression capacity, revealing the complex relation between space and environmental meanings by integrating spatial and semantic information in composite hand-illustrated maps.

Other measures to collect qualitative data in a situated perspective included voluntary photographs, which asked participants to take photos of the shared spaces in their neighborhood that had salient territorial or quasi-territorial meanings for them, and interactive participant observation of the residents’ daily activities in neighborhood spaces to tease out their roles in the neighborhood and their behavioral and social relationship with their particular situational environments.

The detached-perspective data including detached observation records, documents and archives, and third-party reports were collected through document search, structured interviews with research informants, unobtrusive detached observation, and recording of neighborhood environments. These data gathering methods extracted demographic information, local legal and social institutions, contemporary and historical architectural and planning practices, spatial adaption of urban contexts, etc.

Most raw data in this study were first collected in analogue form and then digitalized. Interview data (either from semi-structured or structured interviews) were manually recorded by taking notes or audio recorded if the interviewee agreed. I used a laptop computer to document the interview records or store the digital audio files of the interview recordings. These were to be destroyed after transcription to enhance participant anonymity. Sketch maps manually created by the resident participants were scanned with original hard copies preserved. All the digital photographs were stored on the same laptop computer. The collected

of the "neighborhood" concept as a schema (1954) and Kevin Lynch’s well-known study on the "mental images" of cities (1960).
documents, paperwork, and archives were also digitalized and stored together with other data in digital format. To help the organization of voluminous qualitative data in varied forms and to improve efficiency, this research utilized NVivo 8, a computational qualitative data analysis (CAQDAS) and synthesis tool to manage and process the massive amounts of data (Bringer, Johnston, & Brackenridge, 2006).

3.1.5 Sampling and Participant Recruitment

As disclosed in Chapter One, there are hundreds of high-rise gated developments in the central city of Shanghai. Restricted by available resources, I selected research sites and research participants that provide the greatest potential to probe my research questions. I based this research on three high-rise gated developments as the research sites and contacted about twenty resident participants at each site. The sampling decisions explained in this section reflected both site sampling and resident participant recruitment.

The site sampling procedure considered variation and accessibility. First, I intended to obtain a wide variation in community size, neighborhood spatial design, and urban contexts in the sampled research sites following Trost’s recommendations for strategic non-representative sampling for qualitative research (1986). Since spatial factors are important in this research, I tried to maximize variation in neighborhood boundary conditions and neighborhood spatial configurations (see Figure 3.4 below) in the sample of research sites. Second, I considered social and spatial accessibility, availability of neighborhood liaisons, and background information sources to ensure that I could extract sufficient research data from the sampled developments. Site sampling took two stages as a candidate pool was first identified and then three final research sites were identified.
Resident participants were recruited from among the homeowners and tenants or their family members living in sampled high-rise gated communities. Recruitment of participants who were minors (below 20) was also attempted, as I believed that children might perceive the residential environments quite differently than adults. I felt that examining such a difference could improve the productivity of this research. All resident participants were selected on a voluntary basis. A few candidate resident participants were rejected for either of the following reasons: first, the residence occupied was not the resident’s primary home; second, the resident had stayed in the community for less than six months; third, for a variety of reasons, the resident lacked the literate capability necessary to complete an interview. Several recruiting measures were practiced to contact and recruit resident participants, once the actual site was identified and conditions known (detailed in the next section).

In addition to resident participants, I also tried to recruit a certain number of local research informants. They were expected to yield the data from a third-party detached perspective about researched developments, resident participants, and local housing and urban contexts. There were three types of informant participants recruited in this study: industry informants including architects, developers, and real estate managers; governmental informants including current or retired public officials and governmental employees; and academic informants such as scholars at local universities or research institutions. The
recruitment of the informants was made through my social and personal connection with the local community.

3.2 Data Collection in the Field

Practicing the above explicated data collection scheme in the field, I conducted seven months (Jan 2010 - July 2010) of intensive field research involving 61 resident participants from three high-rise gated developments located in the “core urban area” of Shanghai (hexin chengqu, see the definition in Chapter 1). The field research yielded voluminous data in diverse forms (interview recordings, sketch maps, archival documents, photos, video clips, etc.) that measured a wide range of concepts and constructs predefined in the conceptual framework. This section specifically describes the actual data collection efforts and outcomes.

3.2.1 Research Sites

Among the 421 private housing estates characterized by fortified boundaries and high-rise residential towers, I first selected 12 candidate sites representing different geographical locations, site areas, population densities, development floor-area-ratios (FAR), and years of construction (see Figure 3.5 below, information about candidate sites are detailed in Appendix A). By the end of February 2010, I decided on the three high-rise gated developments which would be the site of my research. They are Dahua Qingshuiwan at Putuo District, Ruihong New Town II at Hongkou District, and Shanghai Luchen at Pudong New Area (see Figure 3.6 below). These developments were all constructed after 2000 and they are composed of 12- to 35-story high-rise residential complexes and represent distinct spatial and economic characteristics (See Figure 3.7 below).
Figure 3.5: Candidate research sites (solid gray shapes) and final research sites (solid black shapes)

Figure 3.6. Three final research sites
3.2.2 Data Collection Based on Research Sites

I applied multiple data collection means including interviews, sketch mapping, voluntary photography, interactive participant observation, and detached observation at the three research sites. These research tactics were performed with or without the involvement of resident participants to reflect a situated or detached perspective.

I made tremendous efforts to publicize my study and recruit resident participants. Different publicity and recruitment techniques were practiced in the research sites (see details about research publicity and participant recruitment in Appendix B). Publicity materials were presented in both paper-based (e.g. posters or fliers) and digital format. Participant recruitment in the early stage of field research was greatly enhanced with the aid of the local liaisons, many of whom were also resident participants.48 Some liaisons were neighborhood activists49 and helped me to get connected with many potential research participants. For

---

48 Some liaisons also had access to site-specific statistics as well as other relevant background information that benefited my archival studies. Therefore, they also served as informant participants in my research.

49 Due to the universal lack of public participation in political activities in China, activists here refer to those who enjoy extensive interpersonal networks in the neighborhood and play important roles in non-political
example, my friend Mr. M at Shanghai Luchen (Site C) introduced me to the few first recruits in this neighborhood. Others were the “gatekeepers” for the studied developments and also played pivotal roles in recruitment. For instance, Mr. Y at Ruihong New Town II (Site A) was a real estate agent working for the development of this property and Ms. Z at Dahua Qingshuiwan (Site B) was the director of the on-site neighborhood committee. Both of them helped me to recruit the first participants from these two sites.

In total, 61 resident participants were formally employed by the technique of “snowball” sampling and more were contacted directly. The final pool of resident participants covered several demographic groups (see Table 3.1 below). Overall, the resident participants from Shanghai Luchen (Site C) were generally younger than those from Dahua Qingshuiwan (Site B) and Ruihong New Town II (Site A) and more males were involved than females. All resident research participants were homeowners (or co-owners). No tenants were recruited. As Table 3.2 below shows, resident participants from Dahua Qingshuiwan (Site B) generally had stayed there longer as it was the oldest development of the three.

50 Residents were contacted and recruited via the introduction of existing participants. Therefore, the recruits were associated to different extents to form site-specific networks of acquaintances, friends or family members. Due to the introduction of acquaintances, gaining trust from the participants turned out to be simpler and smoother, helping me to cultivate rapport with them and facilitate research actions.
Table 3.1: Distribution of resident participants of different genders and age groups across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 80</td>
<td>1 (0/1)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>70s</td>
<td>1 (1/0)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>60s</td>
<td>4 (2/2)</td>
<td>5 (3/2)</td>
<td>3 (0/3)</td>
</tr>
<tr>
<td>50s</td>
<td>3 (1/2)</td>
<td>2 (0/2)</td>
<td>3 (2/1)</td>
</tr>
<tr>
<td>40s</td>
<td>3 (2/1)</td>
<td>5 (3/2)</td>
<td>2 (1/1)</td>
</tr>
<tr>
<td>30s</td>
<td>5 (4/1)</td>
<td>7 (4/3)</td>
<td>10 (5/5)</td>
</tr>
<tr>
<td>20s</td>
<td>4 (2/2)</td>
<td>1 (1/0)</td>
<td>1 (1/0)</td>
</tr>
<tr>
<td>Below 20</td>
<td>0</td>
<td>0</td>
<td>1 (1/0)</td>
</tr>
<tr>
<td>Total</td>
<td>21 (12/9)</td>
<td>20 (11/9)</td>
<td>20 (10/10)</td>
</tr>
</tbody>
</table>

Note: the numbers in brackets indicate the number of male versus female resident participants.

Table 3.2: Distribution of resident participants of different durations of stay across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 years</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4-5 years</td>
<td>18</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>6-9 years</td>
<td>0</td>
<td>11</td>
<td>0</td>
</tr>
</tbody>
</table>

All resident participants engaged in a semi-structured interview to yield qualitative data in a situated perspective, the length of which ranged from 37 minutes to 108 minutes. About 80% of the interviews lasted around one hour. The interviews were directed but not restricted by a printed script, which was updated a few times during the research process\textsuperscript{51} (See Appendix C for details) as new concepts or constructs emerged on the site and existing constructs were adjusted. The interview questions generally concerned several topics including personal residential history, the use and experience of shared spaces, the interpretation of territorial and

\textsuperscript{51} During the extraction of in-depth interview data, after conducting a considerable number of interviews, I developed a more sophisticated approach to carry out on-site data analysis that enhanced the mutuality between me (the researcher) and the participants, fully exploiting the advantage of qualitative in-depth interviews over conventional questionnaires. While the first few interviews were done in a manner close to that of impersonal question-answer sessions (i.e. the participants gave comments on the provided constructs or dimensions of the interview themes but few new constructs were elicited). I quickly identified the problem and improved my interview performance. In the remaining interviews, I deliberately used some questions that are multidimensional in nature and open to interpretation. Then I tried to summarize and categorize the response into a few constructs that I thought were relevant, and asked the respondent to check upon my emergent on-site analysis. By repeatedly applying such an on-site “member check”, I was able to develop some novel constructs with participants.
quasi-territorial meanings, the neighborhood’s social and cultural climate, and personal housing ideals. All interviews were audio recorded with the agreement of the participants. Some of the interview data were later converted into verbatim scripts with the content checked by interviewees.

Some resident participants also created sketch maps illustrating the environmental meanings of their neighborhood’s shared spaces. The maps allowed probing of areas such as: the general spatial image (60 maps), the sense of imagined home range (42 maps), security perception (43 maps), neighborhood cohesiveness (32 maps), and care-taking attitudes (42 maps). These freehand-drawn maps vividly illustrated these meanings as assigned to different spaces (detailed in Chapter 6 and Chapter 8). Most resident participants were able to use graphic symbols to illustrate their spatial perception and experience. Some also put short notes on their maps to help convey their ideas.

Only a small number of participants completed the voluntary photography session and allowed me to conduct interactive participant observation with them. These residents used their own digital cameras or camera phones to take the pictures that were later sent back to me by email or phone-to-phone Bluetooth transmission. Some of these pictures revealed their unique situated relationship to their neighborhood’s common elements. A few residents also agreed to spend time walking with me and showing me around. Thus I had the chance to witness some of their behaviors (e.g. socializing with acquaintances when strolling in the landscaped areas) within the development as a participating agent. Such experiences greatly improved my comprehension of the behavioral or affective significance of some environmental elements for these residents, understanding their roles as situated persons in specific situational environments.

52 Some senior participants did experience difficulty to graphically represent their thoughts and attitudes. The younger the participants, the more comfortable they were with the sketch map drawing sessions.

53 For example, the view from a dwelling unit on the 32-story down to the landscaped areas below was not available for me as an observer.
In addition, I also independently observed the physical and behavioral environments of these developments. Spending days recording the behaviors of the residents as well as other actors within and around these gated housing estates, accumulating over 500 field pictures, multi-hour video clips and pages of field notes (find the samples in Appendix D). These data gave invaluable detached-perspective information to measure the concept of permanent environments and provided supplemental references to study situational environments as well.

3.2.3 Data Collection beyond Research Sites

Structured interviews with informant participants and document searches were conducted off the research sites to collected data reflecting a detached perceptive of observation, measuring concepts of permanent environments and absolute persons as well as several additional concepts pertaining to the phenomena of interest.

Altogether 16 informant participants were recruited from various local institutions; including four senior architects specialized in housing, three residential real estate developers, two property management professionals, 54 five governmental employees or officials, 55 and two local scholars of sociology and economic history. Structured interviews with these people were mostly conducted at informants’ offices and typically lasted one and a half hours. The scripts applied in these interviews were drafted to address my questions about gated residential developments in Shanghai and thus took different forms (see Appendix C for interview scripts) in response to the interviewees' distinct fields of expertise. These interviews generated multiple informal expert reports on topics including the geography and residents of the researched high-rise gated developments, local institutional and legal environments, housing policies and regulations, real estate management, and the history of gated developments in

54 Both of them are directly associated with the research developments. Mr. Y works for the property management company of Ruihong New Town II (Site A). Mr. L works for the property management company of Shanghai Luchen (Site C).

55 Two of them are directly associated with the researched developments. Ms. Z is the director of the neighborhood committee of Dahua Qingshuwan (Site B). Ms. C is the party secretary of the neighborhood committee of Shanghai Luchen (Site C).
Shanghai. Some informants also provided supporting materials including maps, drawings, and paper documents.

I also conducted document searches and archival studies at Shanghai Library, Shanghai Tongji University, and Shanghai Social Science Academy. The extracted data included municipal and national laws and regulations on property management and real estate development, building and planning codes, zoning ordinances, and research reports on housing development and community governance, all of which further informed this research.

3.2.4 Raw Datasets in Cases and Settings

The collected empirical data for this study has been reviewed and distilled and is presented in Figure 3.8 below. These raw data were soon grouped into multiple cases and settings according to their relevance to predefined concepts under investigation. According to my data collection scheme, data reflecting individual residents as situated persons perceiving and interacting with particular situational environments should be grouped together to form multiple cases, while the data measuring permanent environments and absolute persons as well as other contextual factors were ascribed to settings (see Figure 3.9 below).

Initial sorting and clustering of various datasets approximately marked the end of data collection and the onset of data analysis. However, it should be noted that data collection and analysis were never starkly separated in this research. Extraction, transformation and categorization of qualitative data were often interwoven during the field work.

For example, preliminary interpretation and analysis of the collected interview data were often conducted with the involvement of some resident and informant participants. According to some qualitative methodologists, on-site data analysis not only cultivates positive interaction with research participants, but also helps improve data accuracy and clarifies the position the researcher takes in theory building (see Marshall & Rossman, 2006; Miles & Huberman, 1994), thus enhancing the overall research quality.

Further illustration of data analysis procedures and the specific measures that ensured research quality will be addressed in Chapter Four.
Figure 3.8: Data of different types and sources that were collected in this research.
Figure 3.9: Sorting and clustering of raw data into cases and settings
CHAPTER 4. DATA ANALYSIS SCHEME AND PRELIMINARY ANALYSIS

After the collected data were clustered into various settings and cases according to my research design, they immediately underwent multiple passes of preliminary analyses guided by a data analysis scheme until the relevant segments of the data were identified, categorized and coded. As Figure 4.1 below shows, the data analysis scheme plays a critical role in this research to direct the procedure of converting enormous raw empirical data into succinct categories that depict the constructs or concepts of interest and illuminate potential linkages demonstrated by the data. Thus the complexity of the phenomena of interest may be unraveled, the multi-dimensional reality sufficiently measured and represented, and propositional arguments finally reached. This chapter introduces the data analysis scheme that I applied to process raw data and displays preliminary data analysis results.

Figure 4.1: The path of conceptual development of this research (the shaded text boxes indicating the content addressed in Chapter 4)

4.1 Data Analysis Scheme

My data analysis scheme represented my research design decisions about data analysis strategies and tactics, incorporating components of a grounded theory approach such as coding and thematic analysis and conceptual theory building (detailed in Chapter 2). This data analysis scheme tackled a knotty challenge any multi-case qualitative researcher should deal with,
which is to achieve a difficult equilibrium between preserving the richness and idiosyncrasy of individual case that may illuminate the nature of the research problem and maintaining a small set of thematic categories that make possible cross-case comparison, evaluation, and theorization.

4.1.1 Overall Data Analysis Strategy

With regard to the master plan of data analysis, the descriptive accounts to address the first research question were elicited by the summarization, condensation and interpretation of the data reflecting residential territorial or quasi-territorial understandings about shared spaces, while the explanatory propositions that the second and third research questions entail were formulated through pattern finding, evaluation, and discussion that involved all the collected data (See Figure 4.2 below). Data bounded in cases and settings informed each other. Initial empirical evidence collected for this study was condensed through coding and thematic analysis after preliminary data treatment, which took place within and between cases as codes emerged.
4.1.2 Data Condensation and Interpretation Measures

After I accomplished the preliminary formatting, organization and transformation of all the raw data (e.g. interview audio recordings were transcribed, scribbled field notes were converted into legible verbatim scripts or write-ups, scan images of sketch maps were created and enhanced), I categorized and labeled them by various codes, which greatly facilitated data
retrieval and designated the particular dimensions or aspects of the empirical indicators relevant to the study. These codes were generated through a coding procedure, namely the data analysis actions that summarized, distilled, and interpreted initial qualitative data in diverse forms, converting them into commeasurable categories in relevance with the concepts of interest.

![Figure 4.3: Beginning list of codes introduced in my coding procedure](image)

The initial set of codes was created according to a provisional “starting list” based on the categorical concepts and constructs identified through my initial conceptual framework and introduced in my data collection scheme (see Figure 4.3 above). These codes were adapted or flourished as the coding procedure advanced. Multiple sub-codes were derived from the beginner codes when new notions or perspectives were introduced by research participants. For the data categorized in multiple cases, the continual promulgation, extension, adaption, and refinement of the initial codes and newly identified codes were informed by intensive within-case examination and constant cross-case comparison. For the data describing the contextual settings, I also proposed sets of codes after examining the preset labels and extracting new layers of information from the available data.

My coding strategies emphasized a distinction between thematic pattern coding and relational coding: the former refers to the creation of multiple thematic categories and the latter to the relations between categories (see Flick, Kardorff, & Steinke, 2004; Miles & Huberman, 1994). Using thematic pattern coding, I compiled and condensed enormous
descriptive and inferential information embedded in raw data; these were organized by thematic pattern codes (tags of parsimonious categories), thematically bundling or packaging data segments. Referring the predefined beginner codes (all of them are pattern codes by definition), chunks of verbal data, be they words, phrases, sentences, or paragraphs regarding the categorical concepts concerned in this research, were converted into post-defined thematic pattern codes.

Visual data such as the interactive sketch maps went through a graphic abstraction process whereby the contained idiosyncratic spatial and semantic information was synthesized and translated into schematic diagrams configured by standardized graphic features. These schematic diagrams were also categorized to define a set of thematic pattern codes. When recognizing and defining thematic pattern codes, I also conducted relational coding that focused on the potential interconnection between thematic pattern codes, generating relational codes that represent the association between coded information. These relational codes were introduced to highlight the linkages between different concepts or constructs and helped deepen understanding and explanation of the complex processes and events involving multiple factors.

The identification of thematic pattern codes and relational codes involved both within-case interpretation and cross-case comparison. Codes emerging from the data of a particular case were always contrasted with those from other cases to decide if they fit under existing code meanings or if sub-codes should be introduced to reflect nuances. I continued the coding efforts until all thematic pattern codes and relational codes necessary to theory building were created, assessed, compared, and revised. These codes denoted various concepts or constructs that were either post-defined, re-defined, or coincided with prescribed ones. They served as the building blocks of descriptive or explanatory accounts that I ultimately developed.

4.1.3 Theory Building Tactics

According to the previously described data analysis strategy, I generated descriptive accounts answering the first research question through a relatively straightforward summarization and interpretation of the thematic pattern codes reflecting territorial and quasi-
territorial environmental meanings. To address the second and third research questions, I utilized both thematic pattern codes and relational codes. I employed a case-oriented strategy to expose the hidden configurations holding together various factors and elements bounded in multiple cases. In this way I developed emergent theoretical models.

A case-oriented strategy combines within-case analysis and cross-case comparison. As recommended by some qualitative methodologists, it protects the networks of effects and outcomes within each case (or the networks of thematic pattern codes linked through relational codes) without decomposing them into variable-based parts (see Miles & Huberman, 1994). It avoids a hasty aggregation of individual codes before comparison of case configurations and examination of possible “families” of cases sharing certain “scenarios” or “plots”. As Figure 4.4 below demonstrates, a case-oriented strategy is especially effective to understand the significance of case individualities and to generate explanatory theories about the phenomenon studied. Figure 4.4 also highlights the multi-modal nature of the relationships between interacting factors.
Specifically, I employed a three-stage procedure to execute emergent theory building by ordering and processing thematic pattern codes and relational codes within and across cases (see Figure 4.5 below). First, I produced a within-case network display of codes, organizing thematic pattern codes and relational codes and visualizing them in a diagrammatic format. The same diagrammatic method was exploited to encapsulate case configuration for all individual cases. Second, I conducted cross-case comparisons to categorize cases into “families” based on the similarity and difference in their configurations. Third, I looked into distinct case “families” and examined their defining characteristics, namely the availability of certain thematic pattern codes and relational codes in different case “families”. These were further translated into explanatory propositions involving the concepts or constructs represented by the relevant codes.

**Case-Oriented Data Analysis Result:**
Two models:
- Model 1: Variable B is associated with both A and C
- Model 2: Variable A is associated with C

**Variable-Oriented Data Analysis Result:**
One model:
- Variable A, B, and C are all interrelated with the A-B and B-C associations being more significant more the A-C association

**Note:**
"A", "B", and "C": Thematic Pattern Codes
"A and B", "B and C", and "A and C": Relational Codes

---

**Figure 4.4: Comparison of case-oriented strategy and variable-oriented strategy in qualitative data analysis**
I also utilized the codes attributed to contextual settings to support and reinforce the case-oriented analysis and theory building endeavors. This was especially true when I developed explanatory propositions for the third research question. This question, of interest to architects and planners, examines the role of physical space in residential territorial or quasi-territorial understandings of shared spaces. Actually, codes describing the contextual data in a detached perspective always provided significant supplemental information in data analysis. They also functioned as a perfect touchstone to ensure the appropriate coding and interpretation of the case-bounded data that were collected in a situated perspective.

4.2 Early Steps in Data Analysis

I deployed my data analysis scheme during and after the field research. Specific techniques and measures were under continual adjustment as data analysis advanced. Preliminary data analysis outcomes are presented in this section, which illustrates and displays coded data in settings and cases. Chapter Five, Six, Seven and Eight cover the more profound findings in response to research questions.

Figure 4.6 below shows all major thematic pattern codes and sub-codes introduced in this study (relational codes are not included as there are too many of them). It should be noted that these codes were not universally shared among all cases or setting due to the variation in
data. Some cases or settings only accommodated part of them. Compared to the beginner codes displayed in Figure 4.3, this final list of codes kept some beginner codes (especially those denoting the conceptual concepts) but included many more signifying the post-defined constructs and concepts that emerged in data analysis. These codes were organized in a hierarchical structure according to their relative conceptual relationship.
### Codes bounded in cases

<table>
<thead>
<tr>
<th>SE: SITUATIONAL ENVIRONMENT</th>
<th>AP: ABSOLUTE PERSONS</th>
<th>O: Other Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAS: ACTIVITY-SPACE</td>
<td>AP-A: Age</td>
<td>O-L: Legal Environment</td>
</tr>
<tr>
<td>- PAS-U: Urban Spatial Context</td>
<td>AP-G: Gender</td>
<td>O-P: Political Environment</td>
</tr>
<tr>
<td>- PAS-M: Master Layout</td>
<td>AP-E: Education Level</td>
<td>O-U: Urban Planning History</td>
</tr>
<tr>
<td>- PAS-A: Architectural Design</td>
<td>AP-I: Income Level</td>
<td>O-D: Development History</td>
</tr>
<tr>
<td>- PAS-S: Shared Spaces</td>
<td>AP-B: Birth Place</td>
<td>O-C: Crime History</td>
</tr>
<tr>
<td>- PAS-AC: Access control means</td>
<td>AP-E: Employment</td>
<td></td>
</tr>
<tr>
<td>- PAS-P: Property Management</td>
<td>AP-F: Family Type</td>
<td></td>
</tr>
<tr>
<td>- PAS-R: Residential Activities</td>
<td>AP-D: Duration of Residence</td>
<td></td>
</tr>
<tr>
<td>PSC: SOCIAL CONDITIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-DL: Development Legal Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-DR: Development Regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-O: Organizational Entities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-R: Residential Groups (informal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC: SOCIAL CONDITIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-F: Family Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-I: Interpersonal Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-SO: Social Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-CN: Cultural Norms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-LS: Legal Settings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEI: PERSON-ENVIRONMENT INTERACTIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SB: Spatial Behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SB-U: Use of Shared Spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SB-A: Daily Access Mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SI: Social Interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SI-CO: Communication with Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SI-CLO: Contact with Local Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP: SITUATED PERSON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SP-LR: Life Rhythm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SP-F: Family Responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SP-S: Social Identity in the Neighborhood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SP-LH: Living Habits and Hobbies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PE: PERMANENT ENVIRONMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS: ACTIVITY-SPACE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-U: Urban Spatial Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-M: Master Layout</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-A: Architectural Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-S: Shared Spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-AC: Access control means</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-P: Property Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PAS-R: Residential Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSC: SOCIAL CONDITIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-DL: Development Legal Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-DR: Development Regulations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-O: Organizational Entities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PSC-R: Residential Groups (informal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC: SOCIAL CONDITIONS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-F: Family Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-I: Interpersonal Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-SO: Social Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-CN: Cultural Norms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSC-LS: Legal Settings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU: ENVIRONMENTAL UNDERSTANDINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSE: SITUATED SPATIAL EXPERIENCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSE-OPMP: Opinions on PMP’s Behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSE-ONEU: Opinions on NEU’s Behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSE-PS: Perceived Spatial Features</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SSE-PB: Perceived Boundary Conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCU: SOCIAL COGNITION AND UNDERSTANDINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SCU-SPO: Sense of Property Ownership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SCU-SPR: Sense of Social Power Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SCU-E: Evaluation of Property Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- SCU-O: Opinions on Social Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TM: TERRITORIAL MEANINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- TM-AC: Positive Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- TM-PC: Passive Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- TM-A: Accessibility Attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- TM-B: Behavioral Rules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QTM: QUASI-TERRITORIAL MEANINGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- QTM-SHR: Sense of Home Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- QTM-C: Care-Taking Attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- QTM-SP: Security Perception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- QTM-N: Neighborhood Cohesion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.6: A “codebook” of major thematic pattern codes yielded in data analysis and their operational definitions

Note: “PMP”=Property Management Persons and “NEU”=Neighborhood Environment Users (residents plus non-resident visitors)
4.2.1 Labeling Cases and Settings

As the raw datasets gradually built up in the field and underwent a profiling, formatting, and coding process, multiple cases and settings\(^{56}\) were assembled. Codes were ascribed to different cases and settings.

In this study, I recognized the three high-rise gated developments as the three most relevant settings,\(^{57}\) which were conveniently named as “Site A”, “Site B”, and “Site C”. These settings were the multi-dimensional contexts where individual cases were embedded. I identified 61 cases in correspondence to the 61 individual residents whom I contacted, recruited, and investigated in different research sites. These cases were labeled according to the chronological order of investigations. Therefore the cases of “A-01” through to “A-21” were named to represent the resident participants from Ruihong Hong New II (Site A). The cases of “B-01” to “B-20” and “C-01” to “C-20”, respected resident participants from Dahua Qingshuiwan (Site B) and Shanghai Luchen (Site C) respectively.

4.2.2 Settings

The high-rise gated developments regarded as contextual settings manifested the spatial, financial, social, legal, behavioral, and demographic conditions that were measured as independent of the perception and experiences of individual residents. Several types of detached-perspective data were coded with regard to these settings including site pictures, video clips, maps, charts, newspaper or journal articles, professional publications, governmental documents, informant interview records, etc. Coding of these raw data was performed after a preliminary sorting, refinement and digitalization procedure. I divided verbal

\(^{56}\) As implied in Chapter Two, there was not a stark division between the settings and the cases. Instead they formed a continual stream of data that spans from a more etic and peripheral level of description of the researched phenomenon to a more emic and central level. Some data are reconfigured or reassembled in alternative forms and incorporated in both the cases and the settings. On many occasions, the data in settings and those in cases triangulate, corroborate, or complement each other.

\(^{57}\) Some collected data actually described even more encompassing settings such as “political and legal environments in Shanghai, China” or “social organizational settings in Shanghai, China”, which were partly discussed in Chapter One. But these global settings were not considered immediately contextual to the cases defined in this research.
data (e.g. texts, scripts, interview transcripts, etc.) into units of meanings until the thematic dimensions or topics (i.e. thematic pattern codes or relational codes) surfaced. I transformed the graphic data (e.g. maps, charts, scanned images, pictures, video clips, etc.), conveying spatial or geographical information, into diagrams or hybrid images that were associated with verbal codes via documented cross-reference links. The inputs from a few particularly knowledgeable resident participants were also assimilated to triangulate or supplement the available data. Codes in these settings mostly concerned the categories of “Permanent Environments” and “Absolute Persons”. Coded data about these settings are elaborated as is evident from the discussion of significant codes regarding spatial context (coded as PAS-U, PAS-M, PAS-A, and PAS-S), behavioral environment (coded as PAS-AC, PAS-P, and PAS-R), social and legal conditions (coded as PSC-DL, PSC-DR, PSC-O, and PSC-R), as well as demographic compositions (coded by AP-A, AP-G, AP-E, AP-I, AP-B, AP-E, AP-F, and AP-D). Some additional codes (e.g. O-U or O-D) are also involved in the discussion.

4.2.2.1 Ruihong New Town II (Site A)

Ruihong New Town II is a compact high-rise gated development where 21 resident participants were recruited and investigated. It was developed by Ruian Group (Ruian Jituan), a Hong Kong based real estate developer and its construction lasted until 2006 with the first buildings completed in July 2004. The official sale of its apartment units was launched in September 2003 and concluded around November 2006. It currently houses about 1700 households of residents.

Urban context

The development of Ruihong New Town II (Site A) is located in a very heterogeneous urban context (see Figure 4.7 below). The neighboring housing estates include both high-rise gated developments targeting the new middle-class or new-rich and squatter settlements housing the population in poverty. These form a collage of contrasting urban textures and landscapes. The urban developmental history shows a continual densification process, with

---

58 It is allowed in Shanghai (as well as in many other places in China) to sell housing product before the construction is finalized as long as the buildings’ structure system is finished.
many tracts originally developed as low-rise housing have been later redeveloped to incorporate high-rise buildings. The urban district where this development is located was dominated by the shantytowns built by domestic immigrants from northern Jiangsu province in the 1930s and the 1940s. As a result, the neighboring street blocks are small and often in irregular, fragmental shapes. Also, there are still plenty of walkable and publically accessible streets in the vicinity. Due to the relative high cost of land acquisition,\textsuperscript{59} the process of redevelopment is relatively gradual compared to other urban districts in Shanghai. Actually, Ruihong New Town II is one part of an ambitious ten-phase urban renewal project initiated by the same developer to gradually convert deteriorating squatter settlements scattered in this area into high-rise compounds named Ruihong New Town I through to Ruihong New Town X. Since 2000, about 40% of the land within the one-square-mile context of this development has been redeveloped into high-rise housing estates.

\textsuperscript{59} Most squatter and slum homes there were privately owned. Therefore developers have to pay more compensation to obtain the land in comparison to the case of land used for public housing or industrial facilities.
Figure 4.7: The urban context of “Ruihong New Town II” (Site A)

**Spatial Layout**

As the smallest development among the three, Ruihong New Town II (Site A) covers a total of 4.5 ha. (11.12 acres) of land and it is a characteristic transit-oriented development that is located directly above an underground metro line station. To make way for the tunnel of the metro line running beneath, the developer created a commercial plaza in the middle of the development that divides two subareas. The first eleven 35-story residential towers (building No. 1-3 and 5 to 12\(^{60}\) are located to the north of the plaza and are walled in an area of 3.3 ha. (8.15 acres). These are partially attached and form three major volumes. The other two

---

\(^{60}\) No. 3, 13, and 14 are deliberately avoided as the developer considers these numbers inauspicious.
attached 35-story towers (building No. 15 and No. 16) are to the south and connected to the walled area through an elevated breezeway spanning over the plaza (see Figure 4.8 below).

Figure 4.8: Overall spatial configuration of Ruihong New Town II (Site A)

Overall, the circular layout with high-rise towers roughly lined along the perimeter of the site defines a self-contained courtyard space where the development amenities are assembled. This development features a separation of traffic modes within the gated area. Pathways for vehicles are relegated to the peripheral. Free from any car traffic, the pedestrian spaces with discrete entrances are secured in the center are bounded by high-rise towers. This development contains a massive 3-story underground structure accommodating a grocery shopping center, underground parking lots (460 parking spots), and bicycle storage spaces, all of which are conveniently linked with the exits of the metro station. The total commercial space (including the underground part) in this development is about 18,000 sq. m. (193,750 sq. ft.).
This development features multiple formal and informal entrances. The configuration of the development’s boundaries is illustrated by Figure 4.8 above and Figure 4.9 below.

Figure 4.9: The shared spaces and boundary conditions of Ruihong New Town II (Site A)

Shared spaces

There are several important shared spaces in Ruihong New Town II. Every residential tower features a grand, well-illuminated entrance lobby (see Figure 4.10 below) equipped with couches, coffee tables, indoor plants, and framed paintings or murals. These lobbies are around
In the center of the gated area of Ruihong New Town II (Site A) lies a 13,000 sq. m. (139,931 sq. ft.) continual green space centered on a lawn, dotted by various exterior shared elements such as jogging paths, ponds, children’s play yards, and outdoor fitness mini-parks. Set upon a mound, this central green space naturally joins the second-floor patio space of the clubhouse where an outdoor swimming pool and tennis courts are located. The green space affords a variety of outdoor activities such as dog-walking, children-playing, strolling, meditating, and exercising.

The commercial plaza outside the gated area is open to the public and hence not exactly a share space as defined in this study. But it is an important transitional space where residents can access near-home retail spaces or reach public transit hubs. In a sense, it weaves together the public urban space and enclosed gated development space and serves as a buffer zone between them.

---

61 The clubhouse is owned by the developer and operated by its affiliated property management company. Homeowners there need to pay a membership fee to use the amenities within the clubhouse. Nonresident visitors can also apply to be a member at a higher price.

62 Also owned by the developer and its maintenance is financially supported by the rents of its surrounding retail spaces
Figure 4.10: Interior and exterior shared spaces in Ruihong Newtown II (Site A)

**Residences**

The design of the individual residential buildings in Ruihong New Town II (Site A) adopts a so-called “composite-unit” floor layout (see Figure 4.11 below). This design ensures that a set of vertical circulation means (elevators and fire stairways) are shared by a smaller number of dwelling units than the conventional apartment floor plans introduced in Shanghai before 2000. In this development, typically four to eight apartment units on each floor share two to three elevators. All housing units in this development were fully furnished when sold, which is different from the conditions of the other two research sites and represents a distinctive feature considering that the mainstream high-rise housing market in Shanghai is still dominated by unfurnished apartment units.

Figure 4.11: Typical residential building floor layout in Ruihong New Town II (Site A)
Social organizational conditions

The most influential social organization on site is the real estate management company, *Shanghai Fengcheng*, which was retitled from *Shanghai Xinchang Ruian* but is still subsidiary to *Ruian*, the developer, and serves as its representative. The property management company maintains a permanent office space in building No. 12 and makes many major decisions shaping the neighborhood environment, including a few on-going renovation projects within the clubhouse. They also regularly sponsor some holiday events involving homeowners. As part of their comprehensive property management plan, sometimes they give homeowners discount coupons to promote the retail establishments on the commercial plaza. This development does not have a functional homeowners’ council (HOC) although there were several “preparatory meetings” (*choubeihui*) that involved a few neighborhood “activist” (e.g. Ms. Z, one of my resident participant). However, these efforts ended inconclusively and there was never a vote on board members. This development is the only one among the three research developments that does not have an on-site neighborhood committee office. The presence of this neighborhood level governmental entity is minimal, except for some occasional notices bearing their seals in elevator hallways.

Access control and security means

In this development, access control is implemented through a combination of technology and manpower. Development walls are reinforced by video surveillance and infra-red detectors. Guards are at gates and patrolling around. Every day after 11 pm, all gated are closed except Gate 2. To pass development gates or enter individual residential buildings, one should use an electronic key fob, which is only issued to homeowners and their families. The same security doors are also installed on every exit to and from underground retail and parking spaces. Compared to the other two developments, the actual access control level in Ruihong New Town II is moderate. Non-resident visitors should sign up at the guardhouse before proceeding but guards usually do not make phone calls to residents to verify the visitors’ identities. During my field research, I found that sometimes the guards at the gates behave negligently and not ask any questions. Also, it was extremely easy to tailgate during the peak
hours in a day (e.g. 9 am ad 6pm) when large numbers of people come in and out. Furthermore, there are a few meandrous routes through the adjacent clubhouse and retail space to circumvent the development gates. As a result, there are some unauthorized fliers’ and solicitors’ activities inside the gated part of this development.

![Figure 4.12: Entrances and perimeter walls in Ruihong New Town II (Site A)](image)

**Inhabitants**

Among the 1700 occupied dwelling units of Ruihong New Town (Site A), about 600 are inhabited by tenants. 10-13% of the residents there are above 55. Most residents there are young or mid-aged professionals or small business owners. Most homeowners are Shanghaiers born in the local or immediately neighboring urban districts. Some of them stay with their retired parents but extended families consisting of three generations are uncommon as most dwelling units in the development feature less than three bedrooms. In the field research, I was
also impressed by the number of foreign residents from the Middle East and European countries. I was told that they are either multinational corporation employees or international students at Shanghai Fudan University.

As the price for a typical apartment unit increased drastically from 8000 Yuan/sq. m. (91.79 USD/sq. ft.) in 2003, to 20,000 (235.58 USD/sq. ft.) in 2006, and to around 37,000 (514.77 USD/sq. ft.) in the end of 2010, it is expected that homebuyers moving in later probably enjoy greater final capacity and represent a higher income level. However, I collected no substantial data to help understand the socioeconomic composition of the residents in this development.

4.2.2.2 Dahua Qingshuiwan (Site B)

Dahua Qingshuiwan is a medium-sized, waterside high-rise gated development where I recruited and interviewed 20 resident participants. It was developed by Huayun Real Estate Development Ltd., a Shanghai based developer with a strong governmental background. It was completed by 2004. The developer started to sell the apartments there in 2001 and major sales activities lasted until around 2006. The residents in this development amount to about 1460 households.

Urban context

Dahua Qingshuiwan (Site B) is sited in an urban district where many educational and industrial facilities are clustered. It borders the “core urban area” of Shanghai. As Figure 4.14 below shows, sided by the Suzhou Creek to the east, this development features a unique waterfront location. Three university campuses surround the site and an elevated metro line runs on its west side. In the past 10 years, about 30% of the urban space within the one-square-mile context has been renewed and converted into high-rise developments. Most low-rise traditional Lilong housing and squatter settlements in proximity have been razed to make way for newer housing estates, but there are still some remaining pockets of low rise neighborhoods featuring dense and complicated pedestrian walkways and small street blocks.
Figure 4.13: The urban context of “Dahua Qingshuiwan” (Site B)

Spatial Layout

This development contains two subareas distinguished by construction phases. In total, it covers a land area of 9.8 ha. (24.22 acres). The north part (Phase One) was completed in August 2001 and the southern part (Phase Two) in 2004. The whole development is walled except for its water front side. A Phase Three area was still under construction during my field research and it will merge with the current part once it is completed, extending the entire development further south and adding more waterfront space.

63 There was a time when the Phase Two area was still in construction and the Phase One area was discretely walled.
There are altogether 48 residential towers (12- to 28-story) that are attached to form 13 volumes in 8 rows arrayed in the south-north direction. Various neighborhood amenities are scattered between these rows, the most prominent of which is a river-side promenade lined with exuberant plants and pavilions extending 1000 feet through the length of the development. Two major parking garages (capacity: over 680 parking spots in total) are located underground and some ground parking spaces are also provided. The circulation system within the gated area does not separate traffic modes. There are a few cul-de-sac paths as well as some circular ones that connect the entire compound and afford both pedestrian and motorized-vehicle use. The major entrances, boundary conditions, and community amenities of this development are represented by Figure 4.14 below.
Figure 4.14: Spatial layout of Dahua Qingshuiwan (Site B)
Shared spaces

In Dahua Qingshuiwan (Site B), neighborhood shared spaces are predominantly exterior landscaped areas (see Figure 4.16 below). This development boasts lavishly landscaped spaces surrounding residential buildings. The total green spaces add up to 47,922 sq. m. (515,828 sq. ft.) and cover almost half of the site area. Outdoor recreational amenities include children’s play grounds, landscaped ponds, tree-lined promenades, and plazas with sculptures or water features. Given the size and geometry of the development, it is especially convenient for the residents there to stroll between several major landscape destinations within this secured neighborhood. But in the streets, shared with cars, pedestrians do not walk comfortably because of the noise and exhaust of passing vehicles and the ever-growing street side parking. In this sense, the riverside walkway is especially favored as it is free of cars. The waterside space also provides nice views and plenty of outdoor seats for rest and meditation. The plaza located in the Phase Two area (see Figure 4.15 below) is the other frequently used outdoor shared space. Seniors often gather there to dance or exercise. Children also go there to watch and feed the fish in the pond and meet each other.

In comparison, interior shared spaces are much more limited and insignificant. The lobbies in residential buildings are much smaller than those in Ruihong New Town II (Site A) and contain no lavish features. There was a clubhouse located in the north end of the development but it has been adapted by the developer in 2004 into a bathing and recreational facility open to the public called Panwan Fangzhou. The only interior shared space worth mentioning is the so called “Senior Center”, which is a space retrofitted from the original apartment sales center and free for the homeowners to access. But it merely affords a large meeting room for the seniors to play cards or board games. Youngsters rarely patronize that facility.
Residences

As Figure 4.17 below shows, the architectural layout of the residential towers in this development also follows a “combined-unit” style. On each floor, two to three dwelling units are juxtaposed around one set of vertical circulation means (two elevators and two fire exits
provided by scissor stairs). The majority of the residential units there were unfurnished before sale, except for those in building 50, 51, 52, and 53, the four last built residential towers.

![Typical floor plan at Dahua Qingshuiwan](image)

Figure 4.17: Typical residential building floor layout in Dahua Qingshuiwan (Site B)

**Social organizational conditions**

The real estate management company and the on-site neighborhood committee are two dominant neighborhood organizations in Dahua Qingshuiwan (Site B). *Ruiyun* the property management company is evidently affiliated to *Huayun*, the developer. They have demonstrated overwhelming clout in many neighborhood affairs and have prevailed in several conflicts with the homeowners, especially the conversion of clubhouse that resulted in a lawsuit and gathered considerable media attention. The role of the local neighborhood committee is also influential. They have secured a permanent office in building No.18. Their staff and recruited volunteers regularly carry out several governmental initiatives in the development. Their influence is generally limited to seniors because young people are usually less concerned with the committee activities except for the governmental services they provide. The neighborhood committee often organizes tours involving senior residents. They also have some impact upon the spatial usage in the “Senior Center” by sponsoring special events there.

---

64 The developer, Huayun Real Estate Development Co., Ltd. is an enterprise with a complicated history. It was co-founded by several public or formerly public enterprises, Dahua Group, Ruihua Group, and Jiaoyun Group in May 1998. To launch the project of Dahua Qingshuiwan, Huayun the developer acquired the land, a 37-arce plot where a warehouse facility was located from its original owner Jiaoyun Group. As a stipulation in exchange for the land, Huayun created a property management company called Ruiyun that was staffed by many employees from Jiaoyun Group who would have been laid off due to the concession of the warehouse facility. The intricate connections on a personnel level thus have been robust between the management company and the developer.
A homeowners’ council (HOC) was never successfully established in this development. The neighborhood committee and a few resident activists made a few attempts to help the organization of a homeowners’ council with no productive results.

*Access control and security means*

Although fully gated and equipped with state of art surveillance technologies (see Figure 4.18 below), the access control in Dahua Qingshuiwan is quite lax. Visitors are rarely stopped and screened at entrance gates, especially at Gate 1 and Gate 2, the two major thresholds of this development. There is an implicit reason for the loose access control at the development’s gates. According to local zoning, the river-side promenade and the street separating the two development phases are assigned for public use. Hence, the property management company feel obliged to allow outsiders’ access.\(^6\) However, there are quite a few vigilant guards patrolling behind the walls and they appear to be very attentive to suspicious activities. Also, all residential buildings have security entrances and the visitors need to have a conversation with the visited over a telecommunication system to obtain access.

\(^6\) Given this background, the head of the property management company considered this development a “semi-enclosed” one.
Inhabitants

Dahua Qingshuiwan (Site B) has a total population of around 4500. About 300 units are occupied by tenants. 108 units are leased out for non-residential use (e.g. office space or art/craftsmanship studio). Around 460 residents are seniors over 60 years old and 337 residents are not citizens of the mainland of China. Compared to Ruihong New Town II (Site A), this development provides many large three-bedroom units, and hence there are some 150 households of extended families. There are also 100 households that are empty-nesters. The homeowners’ birth places are more diverse than those in Ruihong New Town (Site A), especially those buying into the Phase Two area. Due to large number of minors and seniors in the development, many families there employ domestic workers such as cooks, nannies, and baby-sitters. These people also constitute a sizable user group in the development. Real estate price in this development also have been inflated since its completion. Those who moved in later are likely to be from a more affluent social stratum.

There has long been significant cultural and economic disparity between the different parts of China, especially between more developed coastal cities and the developing hinterland areas. Thus different birthplaces translate on some level to varying cultural beliefs and behavioral norms.
4.2.2.3 Shanghai Luchen (Site C)

Shanghai Luchen (Site C) is the largest and most populous development I researched. It was developed by Luchen Group, a Hangzhou based private developer. Its development was divided into three phases that were completed between 2004 and 2007. Sales of the properties there began in 2003 and continued until around 2009. There are altogether about 2800 households, and I recruited and engaged 20 resident participants.

Urban context

This development is located in a southern part of Pudong New Area. This location was completely rural before the 1990s and it experienced some of the most fervent land development and building activities in Shanghai. Almost 90% of its one-square-mile urban context was newly constructed after 2000 and there is no existing low-rise housing. With little restriction in land acquisition and master-planning, the neighboring developments constitute large street blocks in regular geometrical shapes bounded by multi-lane roadways that are specialized for motorized vehicles and are not pedestrian-friendly (see Figure 4.19 below). The residential developments in this area along with the supporting community facilities (e.g. hospitals, primary schools and high schools) manifest a “neighborhood unit” schema reinterpreted and localized in Shanghai where housing and facilitates are integrated (Lu, 2006).
Spatial Layout

Shanghai Luchen (Site C) is composed of three development phases covering a total 18 ha. (44.48 acres) area. This development is completely walled and there are only three major entrances (see Figure 4.20 below).

There are some 79 high-rise attached or detached residential towers, forming 31 discrete architectural volumes in varied sizes. Like Ruihong New Town II (Site A), the master-planning of Shanghai Luchen also implements the separation of different modes of traffic as car lanes attached with the exits of underground parking garages are assigned to the periphery. Underground parking (capacity: over 1700 parking spots in total) is directly connected with dwelling units through elevators and stairways. Ground parking spaces are also provided for
residents’ or visitors’ use. An interesting design feature of this development is that parking garages are located beneath a few platforms (elevated approximately 7 feet above the grade) between multiple high-rise complexes. Courtyards defined by clusters of residential towers are on the top of these platforms, where many landscape features and amenities are implanted (see Figure 4.21 below).
This development provides a full spectrum of quality amenities to its residents, featuring the most superior interior and exterior shared spaces among the three researched sites (see Figure 4.22 below). The extensive open spaces between buildings are exploited to create distinct places meeting the demands of different user groups. Children’s play yards, gazebos, decked terraces, and pergolas are contained within individual courtyard spaces for the convenient access of seniors and children. An 80-foot wide “landscape boulevard” anchored by a series of fountains, plazas, and a 60-foot tall domed pavilion links the south entrance and the heart of development. The clubhouse of Shanghai Luchen flanked by a sunken garden (about 13 feet below the grade) and an outdoor swimming pool lie at the heart of the development. The “landscape boulevard” serves as a multi-purpose social space that attracts residents of different ages. The southern terrace of the clubhouse is the other important neighborhood place where homeowners can rest and socialize with friends, enjoying cool breezes on summer nights or bathing in the sun in winter.
The clubhouse of Shanghai Luchen (Site C) includes multiple amenities. Its floor area measures 7,300 sq. m. (78,577 sq. ft.), covering an aquatic center, a recreational and fitness center, two lounges, a restaurant (capacity: 250 people), several card and board game rooms, and six full-sized hospitality rooms. Because of its superior location, homeowners there often choose to host their visiting friends in the clubhouse. The clubhouse operates through membership dues. Except the restaurant and lodging space, all of its functional spaces are reserved for homeowners or tenants, who need to provide copies of property sales contracts or rental lease agreements when applying to be members.

Figure 4.22: Interior and exterior shared spaces in Shanghai Luchen (Site C)

Residences

The plan layout of the residences there matches the “combined-unit” style. There are usually only two units sharing a stairway and elevator system on each floor. Most dwelling units at Shanghai Luchen include three-bedrooms of 130 sq. m. (1,400 sq. ft.) and all apartment units were unfurnished when sold.

---

67 For the buildings of the more upscale Phase Three area, only one large unit is located on each building floor.
Social organization conditions

The on-site property manager, Luchen Real Estate Management Ltd., is directly affiliated with the developer. It represents the most influential social organization in this neighborhood. Given the size of this development, the yearly annual service fee charged to the homeowners yields the property management company around 14 million RMB Yuan (2.2 million USD). They also enjoy other income sources at their disposal such as clubhouse membership fees, parking lot rents, and advertisement post lease. They employ an army of guards, cleaners, gardeners, as well as other professional staff. The security staff includes over 100 people. They have made several decisions that profoundly impact the social climate of this development. For example, they launched a campaign during 2007 and 2008 to enforce access control and combat overcrowding in rental units. By establishing security doors at development entrances and issuing a limited number of key cards (3 to 4) to each household, they were able to crack down on the so call “collective renting” behaviors (qunzu) characterized by cramming over six renters into one apartment unit. While the original purpose was to prevent low-income persons from renting in the development, the heightened access control level also resulted in many non-resident visitors from neighboring housing estates being turned away at the development gates.

The local neighborhood committee is present and they run a permanent office located at building 57. Because the developer and the property manager are not enterprises registered in Shanghai, the governmental neighborhood committee as a local agency does not have as

---

68 The property management company claimed that they set up a separate bank account to keep the communal income.
much leverage over them as they would enjoy over local companies. Instead, they often need to rely on the “resources” (e.g. expertise and manpower) of the property manager to carry out their missions. Therefore, the neighborhood committee often works together with the property manager to introduce jointly-sponsored programs.

The homeowners’ council has not been set up after several rounds of unsuccessful meetings to nominate the candidates. The homeowners thus do not “have a say” in many neighborhood issues. Yet, homeowners there do form a few unofficial groups through the Internet or personal connections to exchange their concerns and collect opinions.

**Access control and security means**

The access control in Shanghai Luchen has been the most restrictive among the three sites after the above mentioned security enforcement in 2008. Visitors are always screened by guards at development entrances and identities must be verified through phone calls to the visited residents. However, my personal experience indicated that pedestrian visitors are checked more frequently than those arriving in taxis. The boundary conditions are presented by Figure 4.24 below.

![Entrances and perimeter walls in Shanghai Luchen (Site C)](image-url)
Inhabitants

Shanghai Luchen (Site C) is the most spacious development but only 70% of the units are occupied, translating to around 2000 households comprised of about 1850 households of homeowners or long-term tenants and 150 households of short term tenants. Some 202 households are registered as foreigners, including Chinese with foreign passports. Comparable to the other two research sites, many homeowners at Shanghai Luchen were not born in Shanghai. Some bring their parents from other provinces in China to live together with them in the development, as most housing units there are large enough to accommodate extended families. This diversity is obvious as I encountered seniors speaking diverse dialects at the development. Domestic workers are also abundant in this development. The socioeconomic conditions of the homeowners are complex. Those living in the Phase Three area are likely to be better off residents than those in Phase One or Two. Also, as property values in this development have almost tripled since their apartment units were first available on the market, the later homebuyers are sure to be more financially well off.

4.2.2.4 Contextual Settings in Summary

In sum, the analysis of the relevant codes regarding spatial, social, behavioral, and demographic facets illustrates that the three high-rise developments as settings contextual to individual cases are comparable to each other but also exhibit diversity and variation.

While the intensity of urban renewal varies, these developments have witnessed significant urban redevelopment and densification taking place around them. They are all located in urban contexts where community amenities such as neighborhood parks and children’s playgrounds are scarce. Although it is safe to roughly categorize them as “high-rise gated developments”, they display diverse spatial environments in terms of overall spatial layout, provision and arrangement of amenities, and boundary conditions. Their social contexts typically manifest the dominance of property management companies and neighborhood committees over homeowners without the support of functional homeowners’ councils, even while specific conditions vary. Despite their seemingly similar “impervious” appearances and common employment of security measures, the actual access control level differs significantly
across research sites with multiple spatial, legal, and managerial factors coming into play. Moreover, the residents in these three developments are in complex but relatively stable socioeconomic compositions. On the one hand, there is evidence that residents in these developments probably belong to various social groups, each with distinct cultural and socioeconomic traits. On the other hand, the complicated demographic compositions in these developments are likely to be relatively stable at present. Most residents have stayed for over five years and the turnover rate of housing tenure has slowed since the first homes were sold over eight years ago.

As these developments represent the first-rate housing products in their respective urban districts and provide many quality amenities not available in Shanghai’s public urban spaces, they understandably tantalize “free riders” from outside the developments to exploit the shared spaces enclosed behind walls. Also, their perimeter walls as spatial barriers often stimulate “shortcut-taking” pedestrians to penetrate them and save walking time. During my fieldwork, I observed and recognized visitors who tried to enter these developments for different purposes.

All of these observations and interpretations on settings, from an external, disengaged viewpoint, establish a framework within which residents’ perceptions and attitudes toward shared spaces can be examined and discussed.

4.2.3 Cases

As large amounts of situated-perspective data (e.g. interview records, sketch maps, and field notes on participant observation), grouped in the 61 individual cases were, coded and gradually transformed into succinct thematic pattern codes and relational codes, I was able to holistically understand the residents dwelling in high-rise gated developments in terms of their particular relationships and transactions with shared spaces in their walled neighborhoods as well as their subjective interpretations about these spaces. Guided by a case-oriented strategy, I mapped out and investigated idiosyncratic case configuration for each individual case.

69 The exquisite landscape features and well-equipped children’s amenities enclosed within these developments constitute an unmistakable advantage that was stressed in the marketing rhetoric of these developments.
In this section, I first briefly introduce the major categories of codes and sub-codes in cases, clarifying their operational definitions and general coding processes. Then I explain and illustrate the procedures and outcomes of within-case data analysis and display.

4.2.3.1 Major Codes and Sub-Codes

Determined by the conceptual framework of this research, the generated thematic pattern codes were organized by a few fundamental categorical concepts including situational environment (code: SE), situated person (code: SP), person-environment interactions (code: PEI), and environmental understandings (code: EU). As Figure 4.25 below illustrates, all of these “categorical codes” encompass sets of constitutive sub-codes. The codes of SE, PEI and EU contain multi-level sub-codes. The relational codes link individual codes between or within these major groups of thematic pattern codes. The specific meanings of these codes are summarized as follows.
**Thematic Pattern Codes**

<table>
<thead>
<tr>
<th>SE: SITUATIONAL ENVIRONMENT</th>
<th>EU: ENVIRONMENTAL UNDERSTANDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• SAS: ACTIVITY-SPACE</td>
<td>• SSE: SITUATED SPATIAL EXPERIENCES</td>
</tr>
<tr>
<td>• SAS-PMP: PMP’s Behaviors</td>
<td>• SSE-OPMP: Opinions on PMP’s Behaviors</td>
</tr>
<tr>
<td>• SAS-NEU: NEU’S Behaviors</td>
<td>• SSE-ONEU: Opinions on NEU’s Behaviors</td>
</tr>
<tr>
<td>• SAS-S: Spatial Features</td>
<td>• SSE-PS: Perceived Spatial Features</td>
</tr>
<tr>
<td>• SAS-B: Boundary Conditions</td>
<td>• SSE-PB: Perceived Boundary Conditions</td>
</tr>
<tr>
<td>• SSC: SOCIAL CONDITIONS</td>
<td>• SCU: SOCIAL COGNITION AND UNDERSTANDINGS</td>
</tr>
<tr>
<td>• SSC-F: Family Environment</td>
<td>• SCU-SPO: Sense of Property Ownership</td>
</tr>
<tr>
<td>• SSC-I: Interpersonal Network</td>
<td>• SCU-SPR: Sense of Social Power Relations</td>
</tr>
<tr>
<td>• SSC-SO: Social Organizations</td>
<td>• SCU-E: Evaluation of Property Management</td>
</tr>
<tr>
<td>• SSC-CN: Cultural Norms</td>
<td>• SCU-Q: Opinions on Social Context</td>
</tr>
<tr>
<td>• SSC-LS: Legal Settings</td>
<td>• TM: TERRITORIAL MEANINGS</td>
</tr>
<tr>
<td>• PEI: PERSON-ENVIRONMENT INTERACTIONS</td>
<td>• TM-AC: Positive Control</td>
</tr>
<tr>
<td>• SB: Spatial Behaviors</td>
<td>• TM-PC: Passive Control</td>
</tr>
<tr>
<td>• SB-U: Use of Shared Spaces</td>
<td>• TM-A: Accessibility Attitudes</td>
</tr>
<tr>
<td>• SB-A: Daily Access Mode</td>
<td>• TM-B: Behavioral Rules</td>
</tr>
<tr>
<td>• SI: Social Interactions</td>
<td>• QTM: QUASI-TERRITORIAL MEANINGS</td>
</tr>
<tr>
<td>• SI-CO: Communication with Others</td>
<td>• QTM-SHR: Sense of Home Range</td>
</tr>
<tr>
<td>• SI-CLO: Contact with Local Organizations</td>
<td>• QTM-C: Care-Taking Attitudes</td>
</tr>
</tbody>
</table>

**SP: SITUATED PERSON**

| • SP-LR: Life Rhythm           | • SCU-SPR and TM-PC |
| • SP-F: Family Responsibilities |       • QTM-SP: Security Perception |
| • SP-S: Social Identity in the Neighborhood |       • QTM-N: Neighborhood Cohesion |
| • SP-LH: Living Habits and Hobbies |     |

**Relational codes**

*Between SE and PEI:* e.g. SAS-S and SB-U, SSC-I and SI-CO, etc.

*Between SP and PEI:* e.g. SP-F and SB-U, SP-S and SI-CLO, etc.

*Between PEI and EU:* e.g. SB-U and SSE-ONEU, SI-CLO and SCU-SPR, SB-U and QTM-C, etc.

*Within PEI:* e.g. SB-U and SI-CO

*Within EU:* e.g. SCU-SPR and TM-PC

---

**Figure 4.25:** Major thematic pattern codes and relational codes in cases

**Situational environment (SE) and situated person (SP)**

Situational environments and situated persons were defined as interdependent and relative to each other. Therefore, the corresponding codes were attributed to the data describing or implying the particular spatial, behavioral, and social conditions of shared spaces.
that significantly define or constitute the “lifeworld” as engaged and experienced by individual residents. Those reflecting the environmental aspects were coded as the sub-codes of SE. The data manifesting residents’ roles as “actors” situated in their neighborhoods were coded as part of SP. I differentiated two “subcategorical codes”: “activity space (SAS)” and “social conditions (SSC)” within the category of SE. The former emphasized the behavioral and spatial environmental aspects and considered components of shared spaces as a physical spatial existence (coded by SAS-S and SAS-B). The latter dealt with the social and institutional factors that were involved in residents’ use and experience of shared spaces.

*Person-environment interactions (PEI)*

Data coded as PEI and its sub-codes were essentially those describing the social and behavioral transactions residents have with their neighborhood environments. These involve shared spaces. Two “subcategorical codes” were identified. Codes of “spatial behaviors (SB)” were about persons’ various forms of behavioral interactions with shared spaces. Codes of “social interactions (SI)” condensed the data on residents contact or engagement with other individuals (property management staff, other residents, or non-resident visitors) or neighborhood level social organizations (property management companies, neighborhood committees, and homeowners’ councils). Both recurring environmental interactions on a daily or regular basis or special historical incidents were coded.

*Environmental understandings (EU)*

The majority of case-bounded qualitative data for this study were coded as part of EU. The data coded as such represented residents’ interpretation of their territoriality-related environmental perception or non-territorial social understandings regarding shared spaces. This comprehensive categorical code consisted of four “sub-categorical codes”: “situated spatial experiences (SSE)”, “social cognition and understandings (SCU)”, “territorial meanings (TM)”, and “quasi-territorial meanings (QTM)”. Each of them subsumed multiple sub-codes.
Relational codes between SE, SP, PEI, and EU

This research extracted abundant empirical indicators disclosing the association between the codes or sub-codes of categorical concepts. The connections binding thematic pattern codes were recorded as relational codes. Recorded interviews and sketch maps showed that the way residents interacted with environmental elements (PEI and its sub-codes) had implications for their environmental understandings (EU and its sub-codes). For example, some interviewed residents confirmed that the frequency and mode of their use of shared spaces (code: SB-U) noticeably impacted their spatial knowledge about shared spaces (code: SSE-PS), as well as their sense of positive spatial control (code: TM-AC). Also, there were many qualitative data demonstrating the interrelation between resident as situated person (SP and its sub-codes), their particular situational environment (SE and its sub-codes), and the way they made behavioral and social transactions with environmental elements (PEI and its sub-codes).

Relational codes within EU and PEI

During my ongoing coding procedure, I also unearthed relational codes within the sub-codes of EU and PEI. These relational codes captured the plausible linkages among residents’ territorial/quasi-territorial attitudes, their non-territorial environmental interpretations, and their social and spatial behaviors in shared spaces. For instance, residents’ scope of spatial usage in shared spaces (code: SB-U) sometimes contributed to their interpersonal activities (code: SI-CO) in their neighborhoods. Also, people’s social knowledge and beliefs about non-resident visitors (code: SCU-O) often had some influence on their territorial attitudes regarding non-resident access to shared spaces (code: TM-A).

[70 Not all possible relations between coded data were coded as relational codes. Some relations between thematic pattern codes were guaranteed in definitions and did not necessarily give any new information suggested by data. For example, the interdependence between the codes of “situated persons” (SP) and “situational environments” (SE) was not documented as relational codes. Also, I introduced no relational codes to link the environmental factors (SE and its sub-codes) as the subject of perception and the environmental meanings (EU and its sub-codes) as the outcomes of environmental perception.]
4.2.3.2 Individual Case Configurations

Once I accumulated sufficient thematic pattern codes and relational codes, I practiced within-case data display for each case in preparation for further cross-case analysis and theory building. To effectively represent unique case configurations, I employed diagrammatic means to “map out” the coded data and create case maps, which were a series of schematic diagrams graphically organizing and highlighting the thematic pattern codes and relational codes that define each case and representing them in a designed layout to facilitate cross-case comparison and categorization.

The creation of individual case maps followed a standardized procedure narrated below.

- All thematic pattern codes and sub-codes were itemized and arranged in a layout according to their definitional relationship.
- **Nodes** are given to graphically signify the thematic pattern codes and sub-codes. Nodes come in two forms. They can be solid black dots if the signified codes are present in a particular case. Otherwise, they are rendered as gray dots. Using black and grey nodes, a case map can expose the differences in thematic pattern codes between cases.
- **Linking lines** are introduced to represent relational codes.
- Linking lines are color coded to distinguish different types of relational codes.

During the preliminary data analysis stage, I tried to create individual case maps on case-by-case basis and successfully generated 60 of them, covering all cases except for case B-08. These case maps distilled and preserved the richness of individual cases and visualized the intricate “life stories” of the residents as situated in distinct, individualized environmental context, unveiling distinctive patterns whereby environmental, human, behavioral, and cognitive factors were interrelated. The functions and characteristics of case maps can be demonstrated by the following example.

---

71 I was not able to create a case map for this case due to the severe incompleteness of relevant data.
Figure 4.26 below shows an instance of case map (Case B-13), which encapsulates the coded qualitative data about the use, perception, and evaluation of shared spaces by Ms. Z, who was the 13th research participant (interviewed on 4/19/2010) from Dahua Qingshuiwan (Site B).

Ms. Z had been a homeowner there since 2002 in a 12-story building located at the eastern part of the development’s Phase One zone that adjoined the Suzhou Creek. She lived together with her husband and a nanny who helped her with housework.

As a retired college teacher, Ms. Z enjoyed a leisure and yet routine life style. She appreciated the closeness of her residence to the Suzhou Creek, which she regarded as one of the most important reasons that she bought into this housing estate. She spent most of her outdoor activity time on the riverside promenade, which was signified by the linking lines between the nodes of SAS-S, SP-LR, and SP-U on the case map (see Figure 4.26 above). She took part in regular physical exercises within the development: jogging, strolling, or body stretching for about one and a half hours in the morning and around half an hour in the afternoon. Her...
exercising activities often took place in the riverside promenade or the landscaped walkways to the west of her building.

She usually did not explore or use other parts of the development, especially the Phase Two zone. On some level, she wished the development could be smaller and the ideal size should be that of the Phase One zone so that it could be neater and quieter as few users would be present. She also rarely used the development’s exterior areas after sundown. Ms. Z owned a car and sometimes she left or return to her gated neighborhood by car. But she tended to walk and frequently used the pedestrian exit in the north (Gate 3) to get to the nearest metro station. Her familiarity with the environmental features that she contacted and utilized most is highlighted by the linkages between SSE-PS and SB-U as well as SB-A on the case map (see Figure 4.26 above).

Ms. Z unambiguously expressed a strong sense of collective ownership of the neighborhood’s shared spaces. She based this understanding upon her home buying experiences years ago (“the price I paid covers the value of these shared elements of the development”). In her observation, the homeowners were actually disempowered compared to the developer and the management company. Therefore she believed that the residents here lacked means and venues to actually make decisions about their collectively owned property, while the property management company could exert greater and more direct influence over the shared spaces. She felt that individual residents were quite disadvantaged compared to the management company that enjoyed greater clout. She was aware that the Homeowners’ Council had never been established and was not in operation, and the governmental Neighborhood Committee was often not addressing the residents’ concerns. Both conditions further weakened the residents’ ability to actualize their common property rights. The multiple ties between her social role in the neighborhood, social contextual conditions, and her territorial understandings are summarized by multiple linking lines on the case map (e.g. SP-S and SCU-SPR and TM-AC plus TM-PC; SI-CLO and SCU-SPR; etc. see Figure 4.26 above).

Ms. Z was apparently not satisfied by the lax access control at the entries to this development, which she believed would incur substantial damages to the neighborhood’s
quality and financially burden the residents here in terms of the incurred cost of maintenance. She assumed such damage was primarily made by the behaviors of non-resident visitors (e.g. littering and vandalism) who did not own nor care about the neighborhood’s common property. She also thought the neighborhood’s security personnel should carefully screen anyone entering the development and restrict public access. She related the excessive access of non-residents to her fear of crime and inadequate sense of security in this development. Her knowledge of the anecdotal burglary incidents victimizing her neighbors strengthened this belief. Thus she deemed that non-resident visitors should not enter nor loiter in the development unless they were invited by their friends or relatives who were homeowners. Also, walls at the development perimeter were very necessary to enhance her sense of security. These opinions and perceptions were interrelated and the case map reveals these linkages through the linking lines between the nodes of SP-S, SB-U, QTM-SP, TM-A, SSE-OPMP, SSE-PS, SCU-SLO, SCU-E, etc. (see Figure 4.26 above). Moreover, she reported that some shared spaces outside her dwelling unit could make her feel relaxed and being herself as if she was home.

Ms. Z recognized the spaces where she spent most time, particularly the creek-side promenade, as an extension of her home and assigned. In those areas or locations father away from her building or the subarea of the development she often visited, the perceived quality of “at-homeness” gradually diminished. She related this “home range” perception to her sense of ownership of some shared spaces. She knew a lot of her neighbors, especially those from the same building and the neighboring buildings to the south. Her acquaintances were mostly in the Phase One zone with only a few in the Phase Two zone. In general, Ms. Z had a strong caretaking attitude about the areas or facilities close to her home, especially those within her own building. She would actively report problems or intervene if she saw non-civil behaviors (e.g. vandalism) taking place in those spaces. But she cared less about the Phase Two zone as she seldom went there. These interrelationships across different categories of concepts are represented on the case map by the linking lines between the nodes of SB-U, QTM-SHR, QTM-SP, QTM-C, QTM-N, TM-PAS, etc. (see Figure 4.26 above).
4.2.3.3 Preliminary Case-Oriented Analysis in Summary

The recognition of thematic pattern codes, relational codes and their network display in case-specific diagrams, or case maps, laid foundations for the construction of descriptive and explanatory propositions in a more advanced stage of data analysis. The coded data measuring the concepts of situational environments and situated persons depicted reciprocally defining human and environmental factors in relation to shared spaces. Residents’ “lifestyles” annotated by their environmental roles in their neighborhoods mirrored a set of interior or exterior shared spaces plus neighborhood-level social conditions that essentially constituted their distinctive residential domains. As the meaningful spatial and social transactions involving shared spaces bonded situated residents and their situational neighborhood environments together, the residents’ territorially-charged environmental understandings and non-territorial social and spatial cognitions seemed to be intricately interwoven and linked with some aspects of their person-environment interactions. Yet the exact patterns of linkage differ from one case to the other.

A fine-grained examination and illustration of residents’ territorial and quasi-territorial perceptions about shared spaces are given in Chapter 5 and Chapter 6 where detailed-level sub-codes are explored and the coding and analysis of sketch maps are incorporated. Chapter 7 and Chapter 8 move on to present the development of explanatory models illuminating the sources of residential territorial experiences in shared spaces. Case-oriented data analysis strategy is implemented with meticulous comparison and explanation of case maps in these two chapters.

4.3 Research Quality

Modeled after the qualitative approaches of case studies and grounded theory, the qualitative data in this research went through a continual transformation from assorted uncategorized empirical indicators, to ordered and organized codes, and finally underpinned emergent conceptual theories. The iterative and extensive process of data conversion, translation, and interpretation reflects considerations of research quality.
I took several measures in this study to abide to the most agreed-upon quality standards of qualitative inquiry. The scholarly discussion on the standards employed for judging the quality value, or the believability of qualitative research, has been passionate and multiple perspectives coexist (Creswell, 1998). Some prefer the criteria that parallel the quantitative counterparts while others advocate a restructured framework in line with an anti-fundamentalist epistemology (Creswell, 1998). For the present study, four criteria, namely credibility, transferability, dependability and confirmability, which were first suggested by Lincoln and Guba (1985), were introduced as major evaluation standards with considerations of other methodologist authors’ perspectives. The standards and the suggested “quality-establishing tactics” are summarized by Table 4.1 below.

Table 4.1: Quality standards and quality-establishing tactics

<table>
<thead>
<tr>
<th>Credibility</th>
<th>Triangulation (the use of multiple and different sources, methods, and theories) (Creswell, 1998; Groat &amp; Wang, 2002); member check (checking the data and interpretation with the studied respondents or groups) (Groat &amp; Wang, 2002)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The truth value of the research findings (Lincoln &amp; Guba, 1985b); The accuracy of subject description (Marshall &amp; Rossman, 1999)</td>
<td>A sufficient thick description of research context (Groat &amp; Wang, 2002); Statement of the theoretical parameters of the study (Marshall &amp; Rossman, 1999)</td>
</tr>
<tr>
<td>Transferability</td>
<td>Dependability</td>
</tr>
<tr>
<td>The applicability of the research findings to be applied to another context (Marshall &amp; Rossman, 1999)</td>
<td>The fundamental consistency within the data and the consideration of their “instability” (Groat &amp; Wang, 2002)</td>
</tr>
<tr>
<td></td>
<td>The establishment of an “audit trial” which documents the process of data collection, analysis and interpretation (Groat &amp; Wang, 2002)</td>
</tr>
<tr>
<td></td>
<td>Combination of triangulation and reflexivity (the revelation of researcher’s philosophical assumptions and other subjectivity) employed by researcher (Groat &amp; Wang, 2002)</td>
</tr>
</tbody>
</table>

I considered all of these four quality criteria and adopted several measures to improve my research quality. First of all, my research design determined that data on environmental and personal factors were collected from alternative perspectives and sources so that data triangulation could be practiced. For instance, the spatial data of shared spaces were collected

122
through in-depth interviews with resident participants and my independent observation as well. Also, the social organizational conditions of the developments studied were elicited both from informants’ reports and feedback from individual residents.

Moreover, the interactive data collection methods I used to extract self-report data acknowledge a share of power between the researcher and the participants and stress reflexivity in theory development (Mills, Bonner, & Francis, 2006). Practicing on-site data analysis, I always tried to interpret the collected verbal and graphic responses together with my interviewees. I asked as many questions as possible during the interview session to make sure there was no distorted understanding or omitted ideas. I also kept a memo regarding my influence, perspective in my data gathering and interpretation behaviors, making sure my subjectivity was identified and revealed.

Additionally, I created and maintained a detailed research log that documented important data collection and analysis events, recording adjustments to research parameters, historical changes to data collection means, refinement and development of codes, and updates to emergent theories. This enacted establishment of a sufficiently thick description of the research process and an “audit trial” for later inspection or peer review.

All these above mentioned techniques were practiced throughout my data collection and analysis processes. Further discussion on the transferability and credibility of this study are included in Chapter Nine.
CHAPTER 5. DESCRIBING TERRITORIAL ATTITUDES

Dealing with the first research question, this chapter presents relevant data analysis outcomes to illustrate the two constitutive components of territorial meanings about shared spaces: “perceived spatial control” and “perceived spatial rights”. These environmental meanings further revealed complex thematic patterns. They also implied an extremely complicated network of contributors.

5.1 Perceived Control of Shared Spaces

Territorial spatial control has long been recognized as a fundamental aspect of territoriality across disciplines. In geography, Robert Sack illustrated important social relational implications of territorial control (1986). In the environment-behavior (EB) and design fields, the first systematic study of spatial control dates back to Julian Edney’s classic quasi-experimental study on territorial control behaviors and environmental evaluation in college students’ dormitories (1975). As human territoriality research gradually migrated from the study of overt behaviors to implicit meanings, perceived control received more attention. Manifested in cognitions and affective ties to things, objects or spaces, perceived control of space is arguably linked to many important psychological processes including ownership, identity, and competence (see Brown, 1987). In this chapter, I disclose and summarize the residents’ perceived ability to “actively” or “passively” control the shared spaces in their high-rise residential compounds. My findings are based upon several thematic pattern codes regarding territorial meanings.

5.1.1 Active Control

5.1.1.1 Definition and Overview of Data

As is indicated by the classic works on human and political-geographical territoriality, the environmental meanings regarding “active control” denote the freedom and privilege one possesses to influence over other people, physical space, or people-space relationships (e.g. geographical locations of certain persons or their spatial behaviors), implying the overarching social power relations in a particular social-historical context (Edney, 1974, 1975, 1976a; Sack,
1986; Taylor, 1978). These meanings manifest the subject’s perceived ability to occupy, utilize, manipulate, or manage her environment both in a spatial and social-relational sense.

A few interview questions (question series 15 and 16, see Appendix C for details) were introduced to inspire the research participants to express their experienced active control over the communal spaces of their neighborhoods. Three themes were recognized and elicited from the relevant responses made by 59 residents: (1) the ability to manage and make decisions about the shared spatial resource, influencing its physical or social-legal conditions (54 cases, thematic pattern code: TM-AC-Management); (2) the freedom to engage in various spatial behaviors within shared spaces and to make use of them for different purposes (9 cases, thematic pattern code: TM-AC-Freedom); (3) the perception of being respected and served by the property management personnel in shared spaces (11 cases, thematic pattern code: TM-AC-Respect). These themes are not mutually exclusive. Some respondents focused upon one particular theme while others’ reports spanned across multiple aspects. The specific “active control” meanings reported by my research participants are elucidated as follows.

5.1.1.2 Perceived Resource Management Capability

Among the participants who described perceived active control in terms of spatial resource management and regulation, many (36 out of 54) reported that their property managers or real estate developers enjoyed greater influence over shared spaces as a valuable environmental and economic resource than they did as individual residents. In contrast, only 5 reported that the residents as a whole had greater control and 1 said that the state agencies reserved the power of spatial management. The remaining 12 gave ambivalent or contradictory statements. In general, interviewed residents experienced limited active control over shared spaces because the property management companies and the developers (to whom the property management companies are subsidiaries or financially affiliated to, see Chapter 1 and 4) were believed to play a more predominant role, while the residents typically did not have much leverage over them. The residents reported three salient facts to demonstrate their claims.
First of all, property managers or developers were able to solely decide the spatial rules and regulations of neighborhood amenities or facilities. In the developments of Ruihong New Town II (Site A) or Shanghai Luchen (Site C), the developers or their affiliated management companies could freely alter the hours, services, or spatial functionality of clubhouses without negotiating with or getting approval from residents. One resident (Mr. M) who was among the first buying into Shanghai Luchen (Site C) complained about this situation.

“...When we just moved in, I remember it was October 1st, 2005... The clubhouse hours lasted until 11pm every day. Some places like the room for playing Mahjong was open all night long. As time went by, they reduced the hours... They have been charging more for the same services... we residents basically have little to do with that, all I can do is to vote with my feet, that is to say I simply walk away from the clubhouse... We residents hope we can control it and or we can make a big amount of decisions... like extending the hours of the indoor and outdoor pools. But they are now open for a very short period of time every day... this issue has turned into a deep-seated grudge... “ (C-01: 7min-9min; 56min-57min)

In the development of Dahua Qingshuiwan (Site B) where the residents lost their clubhouse to the developer’s unilateral decision to convert it into Panwan Fangzhou, a public bathing and entertainment center years ago, the poignancy due to the developer’s dominance and the sense of disempowerment were even more apparent. Eight\(^72\) of 20 resident participants from that development confirmed the residents’ weak sense of control over their clubhouse and other common interior spaces. One senior resident there (Ms. J) commented:

“... The developer obviously has greater power while we don’t have any. They don’t give us the clubhouse so we don’t have it. They spare a small place (out of the original sales center) as the seniors’ entertainment room and that is all we have here. In a nutshell, we are the weak side...” (B-10: 25min-26min)

\(^72\) Five of them (B-01, B-06, B-07, B-12, B-15) were also involved in a legal battle against the developers’ concession of the clubhouse in 2004-2005. Altogether 95 residents participated. They collectively sued the developer for illegally changing the function of the clubhouse and removing the residents’ exclusive privilege to it. They lost the lawsuit in the end. For details about the lawsuit, please refer to (in Chinese) [http://china.findlaw.cn/fangdichan/wuyeguanli/wygljf/90254.html](http://china.findlaw.cn/fangdichan/wuyeguanli/wygljf/90254.html). The full report about the lawsuit was published on *Caijing Shibao (China Business Post)* 2005/3/30, which has ceased publication since 2008.
Residents also reported that their property manager could restrict residential access to some particular open spaces or manipulate the functions of some shared interior spaces. For example, one senior female resident (Ms. C) who took care of her 3-year old grandson expressed her frustration when she and the child were turned away by a patrolling guard at a lawn:

“I feel we resident do not have enough freedom... they don’t allow even toddlers to walk on lawns. For the kids who just learn to walk, it is much safer for them to be on lawns. I wish they can assign some lawns for the little ones to play and walk around. Small kids won’t cause any damage to lawns. But the guard told us to leave. It gave homeowners a bad feeling that this is not our place. It is their call anyway.” (C-10: 56min-61min)

Second, developers or property managers could also change the physical conditions of communal spaces without resident intervention. A few residents from Ruihong New Town II (Site A) and Dahua Qingshuiwan (Site B) observed that some amenities in their developments had been downgraded or even removed. For example, the fountain at the main entrance of Ruihong New Town II (Site A) is said to “only run on important holidays, but it operated much more often before (A-07: 41min).” In the same development, the sales-center-turned entrance hall (i.e. the Rotunda, see Chapter 4) was not air-conditioned in summer as it used to be (A-20). The major walkways were lined with many landscape lights, but now only half of them would be on at night (A-12). Also, one senior resident in Dahua Qingshuiwan (B-10) complained that the developer moved some lamp posts from the Phase One area to the Phase Two area and the property manager had left a children pool unmaintained since its construction. These residents suspected that such downgrading changes saved operational cost in the developers’ or the managers’ favor. More often than not such environmental changes just happened without any substantial resistance from the residents.

Third, developers or property managers could claim the financial yields generated from shared spaces with little or no scrutiny by residents. In all three studied developments, I observed that property management companies could make a profit by charging fees for ground level parking (either by visitors or homeowners) or putting up advertisement billboards
in the development. Some residents were aware of this cash flow known as “communal income (gongtong shouyi)” and believed that homeowners have a right to it, but they did not know precisely how this income was handled. Several interviewees (B-04, B-11, and C-10) reported this problem and condemned poor financial transparency. As one of the senior residents (B-04) from Dahua Qingshuiwan (Site B) put it,

“How they manage and dispose of the parking revenue is a total mystery to us. There is simply no portfolio for the homeowners to review…” (B-04: 63min)

To some extent, there is a consensus that residents’ ability to manage, physically modify, and financially benefit from the communal spaces is partial and significantly overpowered by their property management companies or their developers. This observation reflected the special institutional context of these high-rise gated developments with respect to the ambiguity in property ownership and the asymmetry in power distribution (detailed in Chapter One and Chapter Four).

5.1.1.3 Freedom of Spatial Behaviors

The other prominent interpretation of perceived active control is the degree of freedom to conduct various spatial behaviors in shared spaces. Although freedom of access and behavioral freedom were theoretically considered the central content of active control and territoriality (Edney, 1975, 1976a), only a few residents mentioned them. Nine residents from the three sites indicated that they felt free to spatially interact with shared spaces in a variety of ways. One typical expression of this feeling was “you can choose different parts of the environment to enjoy” (A-18: 26 min) or “this is my development (the actual word used is xiaoqu or microdistrict) and I can do a lot of different things here like jogging or strolling” (B-13: 25min). Also, it is interesting to see some residents (A-03 and C-15) carefully differentiate the concept of “use right” from that of “ownership” when talking about their freedom of spatial usage, implying their cognizance of the problematic legal definition of these shared spaces.

73 Ruihong New Town II (Site A) and Shanghai Luchen (Site C), the managers of the property management companies reported that they have established a separated account to keep the communal income.
5.1.1.4 Perception of Being Served and Respected

A few resident participants (11) proudly reported that they were well respected and served by the management personnel such as the guards or the maintenance persons in their developments. In a sense, these residents noticed some experiences that made them feel like a “master” when they were in their neighborhoods’ shared spaces. For example, a married female resident (Ms. L) commented,

“When I returned from the grocery with both hands full of loaded shopping bags, the guard at the entrance to No.12 building would open the lobby door for me. I feel I am being served. I didn’t have any similar experience in other developments.” (A-04: 44min-45min)

A male resident in his 20s (Mr. Z) recalled a similar experience to explicate his understanding of enjoying a sense of control,

“Sometimes I return home and realize that I don’t have my key card on me, I ask one of the patrolling guards nearby to buzz me in and he will surely do that.” (B-17: 20 min)

While environmental meanings like these were less often addressed in literature about active territorial control, the underlying logic clearly qualifies it as an integral aspect of perceived “active control”. If the intention to exert active control in a behavioral sense (i.e. to initiate some behaviors in shared spaces) is frequently honored, residents do feel an enhanced sense of active control. In other words, residents do feel they can actively control the common environment as long as the management persons there are always respectful to them and ready to help.

5.1.1.5 Active Control in Sum

In the present study, perceived active control as a specific category of territorial meanings reveals the understandings individual residents have about their ability to actively influence or affect the shared spaces of high-rise gated developments or others’ behaviors in said spaces. These abilities are manifested on both the spatial behavioral and management level.
My data analysis revealed that residents were aware that their spatial rights and privileges over shared spaces were seriously compromised or even encroached upon by developers or property management companies, the other important agent of such spaces as territories. On the behavioral level, individual residents did enjoy a certain degree of freedom to access and use shared spaces but developers and management companies could intervene and set limits to that freedom by regulating spatial usage.

With respect to physical modification and management of shared spaces, most residents felt significantly disfranchised. Representing the group of homeowners as a whole, the residents involved in this study reported that they lacked effective means to set up spatial use rules and decide resource management strategies. Their ability to exert active control over shared areas was very circumscribed while property managers or developers secured many rights to manipulate, regulate, or make a profit from these spaces. Those who believed that residents were entitled to more active control voiced their discontent. As one senior female resident (Ms. Z) said in an extremely disappointed tone,

“Legally we collectively own the common spaces. But in reality the property management company claims and controls these resources... This is quite obvious. We don’t feel like a “master” here and we can do little to influence them.” (B-13: 21-23min)

Residents seemed to derive their sense of active control from many sources, ranging from their personal experiences and observations, to the anecdotal incidents they witnessed or heard about, to their imagination based on their social knowledge. Some non-territorial factors were also involved that were irrelevant to spaces and people’s relationship to them (i.e. a dominant and confident personality to feel in control in any space one interacts with). There is also a site difference observed as proportionally more participants from Site B and Site C felt overtaken by their property managers or developers (see Table 5.1 below) than those from Site A. Related to this pattern is that more cases of behavioral level active control were from Site A versus the other two research sites (See Table 5.2 below), which implies that a property manager or developer that is perceived to be more dominant engenders a reduced sense of behavioral freedom, of respect, and of service. Also, those who are more senior reported the
dominance of property managers and developers proportionally less often than the youngsters (see Table 5.3 below). Yet, the quantitative categorization of the perception of active control could not fully reflect the intricate patterns of diverse opinions, let alone the sources of these subjective interpretations.
Table 5.1: Number of cases indicating who exerts greater control over shared spaces in a managerial sense across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeowners</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>PM or developer</td>
<td>7</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>The state</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 5.2: Number of cases indicating behavioral level active control across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom to use</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Being served</td>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 5.3: Number of cases indicating who exerts greater control over shared spaces in a managerial sense across major age groups

<table>
<thead>
<tr>
<th></th>
<th>Above 50s</th>
<th>40s to 50s</th>
<th>Below 40s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeowners</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>PM or developer</td>
<td>5</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>The state</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

5.1.2 Passive Control

5.1.2.1 Definition and Overview of Data

By definition, “passive control” encompasses the set of environmental meanings concerning the power an individual or a group has to intervene, discourage or prevent the behaviors or environmental changes initiated by others (Edney, 1975, 1976a). Passive control perception therefore reflects people’s perceived ability to maintain the preferred mode of people-environment transactions against external interruption in their territories, manifesting the defensive aspects of territoriality. Coupled with perception of active control, perceived passive control measures the freedom of choice in territories that individuals believe to enjoy.

Altogether 54 participants described their experienced passive control in shared spaces by responding to the relevant interview questions (question series 21, see Appendix C for details). Their responses revolved upon two themes: (1) the motivation or confidence to deter
uncivil spatial behaviors initiated by other residents or non-resident visitors (48 cases, thematic pattern code: TM-PC-Behavior); (2) the ability to thwart or reverse unfavorable environmental changes introduced by property management companies or developers (17 cases, thematic pattern code: TM-PC-Management). Interviewees typically addressed the spatial behavioral aspect more than the managerial aspect, with some residents giving data concerning both. This may be due to the fact that no interview question specifically investigated resident passive control against unfavorable management decisions.

5.1.2.2 Perceived Ability to Dissuade or Resist Uncivil Behaviors

Most residents felt confident that they would passively defend, either directly or indirectly, the shared spaces in their developments from adverse spatial behaviors while the remaining said they would rather take no actions and walk away from problems. Some interviewed residents gave information about their would-be responses in different places inside and outside the development. Some specifically described their intended defensive behaviors, giving additional details about their sense of passive control.

Over half of those who talked about behavioral-level passive control agreed that they would choose to directly engage the actors (other residents or nonresidents) who conducted problematic behaviors in communal spaces (27 out of 48) such as littering, vandalism, and making loud noises. Some of them (8) implied that their defensive intention derived from the legal or symbolic definition of shared spaces and their relationship to these spaces, confirming the territorial foundation of their attitudes. For instance, one young male resident (Mr. H) from Dahua Qingshuiwan (Site B) clearly stated his varying attitudes toward the different persons who have different relationships to the development:

“... If I notice a car driver who behaves badly in the neighborhood, like parking illegally or driving too fast, and I know he is a non-resident, I surely will intervene. As a homeowner here, I believe I am a ‘master’. But if the driver turns out to be a resident here, I may feel reluctant to discipline him. As long as I can tell if the offender is a resident here or not, I would admonish the outsiders but might feel too shy to say something to the one who is also a homeowner. ” (B-11: 59min-61min)
In contrast, a few inputs in this category were due to a non-territorial basis such as a dominant personality or heightened social conscience. As one senior resident (Ms. Z) indicated, “If somebody fails to collect dog waste when walking their dog, I will stop him and tell him to do so. This is a public place and we have some behavioral deeds to follow. I will be like that basically anywhere even when I am outside the development.” (A-14: 85min)

There are some other residents (9) who indicated that they would intervene in an implicit or indirect way by reporting problems to their property managers (e.g. call their office or notify a patrolling guard) and avoid direct confrontation with the offenders. Some ascribed this strategy to their personalities or to the serious concern with personal security. Yet these people still believed that they could effectively deter uncivil activities in the shared spaces in their developments via indirect measures.

Still others (13 cases) said that they would do nothing in the case of problems, although some of them (5 cases) stated that they did loathe the uncivil behaviors and felt offended by them. Most of these residents did not give more explanation for their attitudes other than their individual disposition to tolerate or their personal tendency to eschew potential interpersonal conflict. The personality factors are non-territorial, as geographical boundaries and social power relations were not considered relevant by these respondents, and they implied that they would have the same interpretations for spaces outside of their developments. Only one senior female resident (Ms. L) alluded to the territorial meaning of spaces when explaining her no-intervention policy. Her comments divulge the importance of identity, locations, and spatial rights. As she noted,

“Sometimes I see people napping on the lobby couch and I really don’t like that. But I could not do anything to intervene because I don’t know if that person is somehow associated to the residents here. If he turns out to be a guest to some homeowner here, then it will be quite inappropriate to discipline his behavior.” (A-18: 23min-24min)
For various reasons, these people believed that they were not able to exercise passive control over shared spaces to stop unwanted behaviors conducted by others, whether or not such an attitudes have a territorial basis.

5.1.2.3 Sense of Power to Alter Unsatisfactory Management Decisions

In terms of the other type of passive control perception, more residents (9 versus 8) said that they could do little to resist unfavorable environmental changes to shared spaces by developers or property manager and they would just remain silent. Even among those who thought about doing something to defend their spatial rights, some admitted that their efforts would most likely be futile. In short, the residents felt that their passive control ability was severely compromised with property managers and developers playing a much more influential role than residents in environmental decision making.

Among those (9) indicating that they would take no action when feeling offended by unsatisfactory management decisions, many (6) also expressed a deep frustration with regard to their inability to defend common resources and spaces. This perceived lack of passive control derives from repeated failures to exert influence. One senior female resident (Ms. Z) who claimed to be an activist seriously caring about her neighborhood environment said,

"...The real problem is that we can make no decisions. I have long been pushing the manager to take good care of the neighborhood amenities. Does it make any difference at all? No! All the free riders can enter the development as they wish. Even though I believe the amenities belong to me, I cannot do anything to control them. I noticed that outdoor fitness equipment for seniors’ use have been badly torn and worn, and literally I can do nothing about that!" (B-13: 21min)

Other residents (8) mentioned that they would choose to contact property management companies and talk them out of their problematic management decisions. But several of them (3) reported that negative results were common. For the successful defensive attempts, either the resident’s demand was so trivial that the property management side would be glad to accept (e.g. in the case of C-08, the resident successfully had the management people replace a few pieces of outdoor furniture after they removed them from their original location) or it was significant enough to agitate an outcry of many residents and generate serious opposition
against property management companies. The latter situation was best described by a young male resident (Mr. H) from Dahua Qingshuiwan (Site B),

“There was a time, the developer attempted to do something shady. But they failed as the homeowners here strongly opposed. They planned to have a few cellular radio towers set up in our neighborhood. We were not sure if the radiation of these towers would be a health hazard to us. Some said yes and some said no, but most residents suspected that it would be detrimental and therefore aggressively resisted the plan. There was a fierce battle between the residents and the management company plus the developer. At last, a few militant residents threatened that they would tear down the towers on their own should the developer insist on the construction. The developer finally did nothing except for firing the management company, probably for its failure to control the residents in this case.” (B-11: 46min-48min)

5.1.2.4 Passive Control in Sum

The interview data concerning residents’ perceived passive control over shared spaces revealed the multidimensionality of this group of environmental meanings. Some responses may not concern territoriality because the interview questions may have been interpreted in such a way that interviewees actually provided information about individual personality rather than the behavioral or cognitive significance of the environment. This is a common measurement error in environmental studies (see Richards, 1990). Taking into account the territorial perception of passive control, I found that the residents typically understood shared spaces as where they could to some extent defend against unfriendly or destructive spatial behaviors. However, they also felt unable to influence the undesirable decisions made by property managers or developers concerning these spaces. Interviewed residents substantiated their interpretation through description of their past social or spatial experiences in shared spaces as well as their social understandings plus their personal dispositions.

Grouping the coded interview data by criteria such as age group, gender, and research site, I did not detect any significant pattern worth attention in terms of people’s perceived passive control on the behavioral level. There are some interesting quantitative distributions of managerial level passive control perception across different age groups and sites (see Table 5.4 and Table 5.5 below). However, here are two few data to support further inference, except for
the fact that residents from Dahua Qingshuiwan (Site B) were generally more unsatisfied about property management behaviors and hence more cases of strong passive control attitudes against their property managers were reported. As some respondents constructed specific situations to explain their attitudes while others gave comments in very general and vague terms, coding and quantification often cannot effectively capture the significant heterogeneity of interview data.

Table 5.4: Number of cases reporting managerial level passive control attitudes across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defend</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Take no action</td>
<td>4</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5.5: Number of cases reporting managerial level passive control attitudes across major age groups

<table>
<thead>
<tr>
<th></th>
<th>Above 50s</th>
<th>40s to 50s</th>
<th>Below 40s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defend</td>
<td>2</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Take no action</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

5.1.3  **Spatial Control Capacity: the Unbalanced Reality**

Considering both the active and passive dimensions (see Figure 5.1 below), residents’ perception of territorial control over the communal indoor and outdoor spaces in high-rise gated compounds is complicated and unbalanced.
As homeowners, the residents involved in this research did enjoy considerable privilege to actively initiate behaviors in shared spaces and to deter uncivil activities by others. Interview data also imply that the greater active and passive territorial control residents perceive on the behavioral level, the more these shared spaces are conceptually understood as their home environments when compared to the urban spaces beyond their gated neighborhoods (detailed in Chapter Six). 74

On the other hand, the residents’ perceived ability to managerially affect or influence shared spaces was quite restricted compared to that of property managers or developers. Either as individuals or as a group, residents felt or believed that they could not substantially rearrange or manipulate the common spaces of their developments, benefit from any financial gains yielded by the commercial use of these spaces, or intervene in the management decisions made by developers and property managers. On the managerial level, the high-rise gated

74 This is especially true for the common spaces that residents frequently utilize and consider important. During my interview with a senior female participant (Ms. Z, Case A-12) in a clubhouse, she stopped talking when she noticed a teenager boy was tampering with a floor electrical outlet. She patiently dissuaded the boy out of that and proudly told me that she felt the clubhouse was like her secondary “living room” and she cared it a lot. Such a comparison was not uncommon among those who were confident about their behavioral control of their neighborhoods’ common spaces. Similar conceptions were also expressed by a few who really enjoyed behavioral freedom in outdoor communal spaces (e.g. the case of B-09 and C-08).
developments’ shared spaces were never perceived as part of their private domains but more like public spaces under the jurisdiction of other agents.

Overall, the qualitative data analysis of the collected data also demonstrates that perception of territorial control is always contextualized in specific situations. An accurate description of the subjective interpretation of a resident’s territorial control regarding shared spaces essentially involves several key factors including spaces (shared spaces as valuable amenities or not), actors (residents, property managers and developers, and non-resident visitors), inter-actors relationship, space-actor relationship, and specific forms of control (behavioral or managerial). Variations in spaces, perceivers and other environmental actors could all give rise to different profiles of territorial spatial control perception. When trying to clarify their understandings of spatial control, residents typically gave supportive information with regard to these factors. Table 5.6 below summarizes the multiple situations and the associated spatial control perceptions.
Table 5.6: Diverse spatial control perceptions when different actors and spaces are considered

<table>
<thead>
<tr>
<th>Property managers / Developers</th>
<th>Non-residents</th>
<th>Other residents as homeowners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared spaces as valuable amenities that require “high cost maintenance” (e.g. clubhouses, water features, children’s play yards, etc.)</td>
<td><strong>Behaviorally:</strong> moderate active control (relative behavioral freedom with restrictions)</td>
<td><strong>Behaviorally:</strong> strong passive control against uncivil behaviors</td>
</tr>
<tr>
<td>Managerially: Extremely weak active control; very weak passive control</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other shared spaces (e.g. pathways, gardens, plazas, etc.)</td>
<td><strong>Behaviorally:</strong> strong active control (greater behavioral freedom)</td>
<td><strong>Behaviorally:</strong> strong passive control against uncivil behaviors</td>
</tr>
<tr>
<td>Managerially: Extremely weak active control; weak passive control</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Some interview data on territorial control meanings (e.g. the investigations of passive control against vandalism) yielded ambivalent data. This made it difficult to decide if these data described non-territorial personalities that are insensitive to geographical locations or environmental meanings that feature spatiality. Even after on-site and off-site “member check” sessions, some residents still gave quite ambiguous responses. Such observations may simply remind us about the intriguing nature of perception of territorial control and how it could be easily colored by personal dispositions.

### 5.2 Perceived Spatial Rights

The spatial rights of accessing and exploiting territories constitute a fundamental segment of territorial meanings. Such meanings specify the behavioral significance of being on the inside (shared spaces behind walls or fences) or the outside (urban spaces beyond gated developments) and of crossing the physical boundaries (perimeter walls of gated developments) that distinguish the two areas.
Ralph Taylor elaborated the relevance of accessibility and spatial usage in his conceptualization of territoriality (1978). Likewise, political-geographical territoriality theorists have long been concerned with spatial accessibility and the underlying social power structures (Gottman, 1975; Sack, 1983, 1986). In this study, I investigated the residential attitudes about who should be allowed to access what part of the shared spaces in high-rise gated developments and how access was made possible (i.e. rights of spatial access). Such attitudes were often specified by an understanding of behavioral rules in these spaces.

5.2.1 Rights of Spatial Access

5.2.1.1 Definition and Overview of Data

All resident participants took for granted their freedom to access the communal spaces in their gated neighborhoods. They considered this freedom a basic component of active behavioral control as has been previously discussed. But they also had varied opinions about who else should be able to enter these housing enclaves and make use of the shared spaces behind walls and fences. The environmental meanings attributed to the different parts of the development’s interior and open spaces regarding non-resident visitors’ spatial rights and privilege were investigated through interviews (question series 14, see Appendix C for details).

Relevant data were produced by 54 interviewed residents, which can be roughly categorized into four themes: (1) accept: non-residents shall be allowed to enter the gated area with minimal restrictions (13 cases, thematic pattern code: TM-A-1-Accept); (2) partially accept: non-residents may be allowed to enter the gated area with spatial or behavioral restrictions (15 cases, thematic pattern code: TM-A-2-Partially Accept); (3) partially reject: non-residents shall not be allowed to enter the gated area in general but there are some exceptions (14 cases, thematic pattern code: TM-A-3-Partially reject); (4) reject: non-residents’ access is almost always rejected and loathed with minimal exceptions (12 cases, thematic pattern code: TM-A-4-reject). These themes are mutually exclusive (no data were coded to more than one theme) and an attitudinal divergence is conspicuous. The disparity between the polarized opinions is also significant. Slightly more residents were inclined to accept non-residents’ access than those who were not (28 versus 26). Further examination of these interview data demonstrated that
both the supporting and opposing voices had complex compositions. Two underlying conceptual understandings that could frame residents’ accessibility attitudes were discovered. One concerns residents’ conceptual imagination of shared spaces while the other concerns the images of non-resident visitors.

5.2.1.2 Park-Like or Home-Like: the Image of the Common Open Spaces

When considering access by non-residents, the interviewed residents were found to hold noticeably different images about their neighborhoods’ communal spaces. For those who acknowledged non-residents’ rights of access, shared spaces (especially exterior shared spaces) were conceptually more “park-like” than “home-like”. In contrast, those who largely rejected non-residents’ access to common spaces viewed these collective elements almost as part of their private domains.

The “park-like” image is actually composed of three jigsaw pieces, all of which depict the attribution of a community park: (1) the freedom to access open spaces is a human right that comes with citizenship; (2) common spaces are precious resources that are scarce in the neighborhoods nearby and should be generously shared among more people; (3) common spaces are the place where the residents can have a chance to mix with people from the outside. Although only two participants literally talked about the enclosed areas as analogous to parks (case A-06 and B-07), the “park-like” image and the supporting ideas and thoughts were implied by many more who generally found non-residents’ access acceptable. For instance, one young male resident in his 30s (Mr. S, case A-09) said accessing a residential development’s open spaces reflected “human nature”, and he would “try to get into other gated neighborhoods if they look attractive and interesting” to him. Similar attitudes were shared among 9 other residents from all of the three research sites, even though many of them believed that legally the common elements were only entitled to the homeowners residing there. In Dahua Qingshuiwan (Site B), two residents went further to say that the riverside promenade in their development was owned by the city and hence should be open to all citizens living in Shanghai. Regarding space sharing, a female resident (Ms. W), who was parenting a 10-year old child said,
“Although it is us who are paying the monthly property management fee (to maintain this place), I still wish others could be allowed to enter our neighborhood. That is because in Shanghai, there are way too few places featuring high-quality environmental resources. It is a good deed if our development is open to others.” (B-20: 33min-34min)

Three other interviewed residents said likewise. Also, a few residents stated that the neighborhood should be open as a venue of necessary socialization. For example, one middle-age male resident (Mr. Z) said,

“I believe that our neighborhood should not exclude others. It is good to have some communication with the visitors. We shouldn’t be contained. Communication is always necessary.” (A-20: 14min)

In opposition to the conceptions in line with a “park-like” image, some residents compared the development’s common spaces to private homes. The “home-like” image also brings together three constitutive pieces: (1) those who do not reside here have no rights to enter our secured development; (2) there should be a procedure to verify the visitors’ identities and regulate their admission; (3) authorized visitors can gain access to common spaces, but there should be spatial restrictions. In brief, shared spaces should be guarded like a home place and non-resident visitors should always be examined and their activities restricted. The “home-like” image strongly contrasts with the “park-like” image, as a young male resident (Mr. X, case A-07) put it when talking about the sight-seeing behaviors by random non-residents, “there are parks run by the authority, and they can go sight-seeing there, that is the true public space.”

Many residents in this camp emphasized that non-resident access without justifiable reasons (like visiting a friend or relative) was an unpleasant and unacceptable free-riding behavior because those non-residents had no financial commitment to their developments. For example, a young female resident (Ms. D) from Ruihong New Town II (Site A) made it clear to me in a strong territorial tone,

“Our property is one of the most expensive in the district. … Most homeowners here feel averse to the non-residents (entering our property) because we feel our interests and our rights are violated. Though we don’t think we legally own the land here, we do believe we are its only legitimate user group.” (A-08: 35min)
Five others affirmed her position. In addition, ten respondents insisted that any non-residents attempting to enter their developments should obtain permission from the guards at entrances or should be accompanied by a legal resident. For these people, identity inspection was considered necessary just as it would be for any visitors to a private home. Seven other respondents noted that spatial restrictions should be imposed to determine what spaces a non-resident visitor could potentially access. Interior common spaces such as clubhouses or residential building lobbies were thought to be more “private” and therefore should always be off limits to random visitors.

5.2.1.3 Beware or Befriend: the Image of the Visitors

The other conceptual understanding framing the residents’ attitudes towards visitors’ right of spatial access hinges around the moral assumptions about non-resident visitors. Some residents thought that random non-residents were morally inferior and their access to shared spaces would inevitably undermine the pristine and secure environment of gated developments. Others, on the contrary, believed that non-residents trying to enter their walled neighborhoods for various reasons are generally courteous and well-behaved guests. The former assumption was primarily shared among those who rejected or disliked access by non-residents. This group of residents suggested that visitors would naturally display a lack of respect for the privacy, sanitation and peacefulness of the communal spaces within their developments and they might even be a potential security threat. Hence, they believed non-resident visitors should mostly be refused entry into gated areas. The comments from a 50-year old male resident (Mr. X) from Shanghai Luchen (Site C) well represent this perspective,

“Visitors generally don’t have any emotional attachment to our development... Out of social conscience, I may tolerate those who bring children to hang out here. But many other visitors are likely to cause damage to our neighborhood environment and affect the functionality and maintenance of this residential development.” (C-06: 30min-31min)

There are seven other residents who expressed comparable beliefs about non-residents, including a couple of senior female residents (B-13 and C-10) who were concerned about
security and supposed that lurching criminals might be disguised as nonchalant visitors to their neighborhood’s amenities.

Providing the opposite perspective, a total of seven participants expressed a distinct image assuming that visitors are generally benevolent and friendly. This group seemed to “have no prejudice against the visiting non-residents” (Ms. L, case C-11). They would like to see the visiting non-residents as their “neighbors” in a broader sense, as one young female resident (Ms. Q) said,

“As long as they are from the neighboring housing estates, I still recognize them as my neighbors. Neighbors are not just defined by sharing one building or one development. People from the whole district are my neighbors” (C-13: 26min)

5.2.1.4 Spatial Accessibility in Sum

To sum up the preceding analysis, residents understood the spatial rights of non-residents toward the shared spaces secured within their developments in opposing ways. While some would welcome or feel indifferent about non-residents’ access, others found it very offensive and uncomfortable. As Table 5.7 below highlights, this disagreement can be illustrated by examining residents’ beliefs regarding two wedge questions: (1) whether a gated development’s shared spaces are more like a “park” promoting sharing and communication or more like a “home” that is an exclusive property “owned” by residents; (2) whether non-resident visitors are potentially amicable or detrimental to the development. Besides abstract conceptual understandings, the exact source of which needs further exploration, some residents also mentioned specific personal experiences (such as spatial experiences and social contacts with non-residents in shared spaces) to explain their opinions. A few referred to the signage at compound entrances or the actual access control conditions of their residential developments to uphold their interpretations.
Table 5.7: The distribution of coded accessibility attitudes across the different conceptions of shared spaces and non-resident visitors

<table>
<thead>
<tr>
<th></th>
<th>Shared spaces are “park-like”</th>
<th>Befriend visitors</th>
<th>Shared spaces are “home-like”</th>
<th>Beware of visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Partially accept</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Partially reject</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Reject</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

The quantitative spread of coded qualitative data by research site and a few demographic criteria (e.g. age, gender, family type, etc.) shows a moderate gender difference (see Table 5.8 below) as proportionally females were more likely to reject non-resident access. Seniors tended to support restrictive access control more than youngsters (see Table 5.9 below). These observations imply the possible importance of human factors, such as severe vulnerability in residents’ interpretation of spatial access rights. In addition, there is an observable site difference (see Table 5.10 below) that the interviewed residents from Shanghai Luchen (Site C) generally held stronger access control attitudes than those from Ruihong Newtown (Site A) and Dahua Qingshuiban (Site B). Considering the varying boundary conditions and access control levels across the three research sites (Site C being the most restrictive and Site B the most lax, see Chapter 4), such a pattern suggests the potential contribution of physical and regulatory factors to the perception of spatial rights.

Table 5.8: Number of cases reporting different accessibility attitudes across gender groups

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Partially accept</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Partially reject</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Reject</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 5.9: Number of cases reporting different accessibility attitudes across age groups

<table>
<thead>
<tr>
<th>Accept</th>
<th>Above 50s</th>
<th>40s to 50s</th>
<th>Below 40s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Partially accept</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Partially reject</td>
<td>4</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Reject</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 5.10: Number of cases reporting different accessibility attitudes across research sites

<table>
<thead>
<tr>
<th>Accept</th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Partially accept</td>
<td>7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Partially reject</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Reject</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

5.2.2 Visitors’ Behavioral Rules in Shared Spaces

5.2.2.1 Definition and Overview of Data

The environmental understandings describing how the residents expect non-residents to use shared spaces (if their admission is permitted) is complimentary to the territorial meanings of spatial rights and accessibility as they add up to a set of perceived “territorial rules”, which indicates the latent “program” of a territorial space (Taylor, 1978). The interview data pertinent to the meanings of visitors’ behavioral rules were obtained from those who did not absolutely reject non-resident access and usage of shared spaces (question series 14, see Appendix C for details). The relevant responses from 32 residents vividly portray the range of non-residents’ behaviors in shared spaces that were thought to be acceptable to these residents. They felt that they would grant some privilege (from 18 cases, thematic pattern code: TM-B-Privilege) to the visitors and also impose some restrictions (from 23 cases, thematic pattern code: TM-B-Restriction) as well. Some interviewed residents made comments on both aspects.

5.2.2.2 Privileges and Restrictions

In residential interpretation, visitors’ behavioral privileges in shared spaces were typically associated with particular activities or population groups. Some eleven residents from
all the three research sites agreed that non-residents should be allowed “taking a walk in the
development” and “seeing around”. Five residents felt that children should be allowed to use
children’s play areas or other amenities. Two believed that the seniors should have the privilege
of strolling around in gated open spaces or taking short cut paths through a gated
neighborhood. The other two thought walking dog was an acceptable behavior.

On the other hand, some residents gave their understandings of behavioral restrictions
for non-resident visitors in terms of different considerations. For example, six of them stressed
that visitors must conform to basic social ethics and moral deeds. Therefore, uncivil behaviors
such as soliciting, littering, spitting, or vandalism should never be allowed. Also, six residents
stated that there should be a maximum number of non-residents allowed to enter their
developments, so that “the needs of the residents here can be satisfied first”. Five emphasized
that visitors should not generate excessive noise inside their neighborhoods. Four disapproved
of dog-walking by visitors.

It should be noted that six residents used spatial division to set limits for non-residents’
behaviors in shared spaces, representing a territorial perspective *par excellence*. They said that
non-residents should not be admitted to interior shared spaces such as residential building
lobbies or clubhouses. As these residents recognized various “sub-territories” inside gated
residential developments and assigned different accessibility meaning, their interpretation
manifested the underlying connection between the territorial meanings of spatial access and
behavioral rules.

5.2.2.3 Visitors’ Behavioral Rules in Sum

The expected visitors’ behavioral rules, by which the residents believed non-residents
should abide if they were permitted to enter their high-rise gated developments and utilize the
shared spaces there, comprise environmental meanings regarding freedom and constraints.
Overall, most residents understood visitors’ behavioral freedom as a relative one because it
was conditional and restricted in many respects. Non-resident visitors’ priority to access and
use shared spaces was considered secondary to that of the residents, and they were thought to
be subject to varied behavioral or spatial restrictions. In essence, residents believed that non-
residents should not enjoy the same behavioral privileges as residents when they were inside
gated developments. Shared spaces as a whole were assigned territorial meanings that were
radically different from the urban spaces outside of neighborhood walls and fences. A senior
female resident (Ms. G) made this point saliently as she said, “After all, this is a residential
district, not exactly a place for public use. There is a big distinction.” Also, interior shared spaces
were perceived by some as more restrictive than exterior shared spaces. Residents’
understandings of visitors’ behavioral rules were often related to their social knowledge, daily
experiences in shared spaces, past encounters with non-resident visitors, and security concerns
(especially for the seniors and females).

A rough quantitative grouping of coded meanings of behavioral rules by research sites
and demographic variables revealed a possible age group difference in the data with
proportionally more seniors talking about restrictions than privileges (see Table 5.11 below).
Also, more residents from (Site A) reported the need for restrictions than the other two
research sites (see Table 5.12 below). In terms of the specific content of behavioral restrictions,
more female residents considered the factor of spatial limits important than males (see Table
5.13 below).

Table 5.11: Number of cases reporting different visitors’ behavioral rules across major age groups

<table>
<thead>
<tr>
<th></th>
<th>Above 50s</th>
<th>40s to 50s</th>
<th>Below 40s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privileges</td>
<td>1</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Restrictions</td>
<td>4</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 5.12: Number of cases reporting different visitors’ behavioral rules across research sites

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privileges</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Restrictions</td>
<td>11</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 5.13: Number of cases giving different interpretation of behavioral restrictions across gender groups

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics and behavioral norms</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Types of actions</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Noise</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Size of visitors</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Spatial limit</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

5.2.3 Spatial Rights Interpretation: Divergence and Complexity

Residents involved in this research attributed a set of territorial meanings regarding spatial accessibility and behavioral rules for the communal spaces enclosed by walls or fences, illuminating the spatial rights of non-resident visitors as opposed to residents (see Figure 5.2 below).

Figure 5.2: Coded data regarding the perceived spatial rights of shared spaces

Considerable divergences and disagreements among these meanings are present. For some residents, non-resident visitors were imagined as innocuous neighbors sharing the pleasant, “park-like” outdoor environment located within their gated developments, and therefore should be allowed to enter the gated areas. While in others’ eyes, the anonymous, loitering non-residents were annoying or even threatening trespassers who would encroach upon a harmonious and private “home-like” space and hence should be turned away at gates. Also, some residents came up with behavioral privileges and restrictions to specify non-residents’ spatial rights. The complexity of these subjectively derived territorial meanings among residents mismatches the relatively consistent “no entry” or “restricted area” messages
communicated by the walls, gates, and guards of gated developments as well as the signage at these enclosed neighborhoods’ entrances (see Figure 5.3 below).

![Signage at the entrances to Dahua Qingshuiwan (Site B) and Shanghai Luchen (Site C)](image)

Note: the sign in the left image reads “no dog-walking by the outsiders”; the sign in the right image reads “private property, no entry unless invited”

At an individual level, the interpretations of spatial accessibility and behavioral rules are highly interrelated. Those who hold a “liberal” opinion about spatial accessibility (e.g. visitors to shared spaces are like friends to a park) were often the ones who thought visitors had some behavioral privileges in shared spaces, while the “conservative” ones said that more behavioral restrictions were reasonable. The confluence of these two environmental understandings is well illustrated in Table 5.14 below.

Table 5.14: The number of cases reporting different assumed behavioral rules across the groups giving different conceptions of shared spaces and non-resident visitors

<table>
<thead>
<tr>
<th></th>
<th>Shared spaces are “park-like”</th>
<th>Befriend visitors</th>
<th>Shared spaces are “Home-like”</th>
<th>Beware of visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privileges</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Restrictions</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

The rich qualitative interview data illustrates that the perception of the spatial rights of non-residents visitors is composite and deals with multiple situations, involving factors such as actors (seniors, children, and other non-resident visitors), activities (different types of behaviors
conducted by visitors), and spaces (what shared spaces visitors attempt to access and utilize). In summary, residents were likely to accept or tolerate quiet, harmless spatial behaviors such as walking or viewing by seniors or children as visitors in exterior shared spaces and approve their access to such spaces, while they would detest more “active” or “destructive” behaviors by other population groups in interior shared spaces and deem that such access attempts should be refused.

5.3 Conclusion

This chapter meticulously explored two key themes of territorial environmental meanings assigned to shared spaces in the researched high-rise gated developments: spatial control perception and spatial rights interpretation. One deals with residents’ perceived ability to exert influence over shared spaces or other agents (i.e. non-resident visitors, property managers, and developers) and regulating the relationships between spaces and different agents. The other addresses the residents’ interpretation of spatial rights to access and make use of shared spaces that non-resident visitors enjoy. These two kinds of territorial understandings are distinct but complimentary as well.

Data analysis shows that the collective spaces behind walls and fences are interpreted by residents as a very complicated territorial landscape that defies a unitary definition. Within their gated neighborhoods, residents experienced considerable active and passive control on the behavioral level in comparison to non-resident visitors. Their behavioral priority and freedom were also guaranteed in certain spaces when facing property management persons. However, residents, either as individuals or as a group known as “homeowners”, had little capability to actively or passively impact the environmental managerial decisions made by developers or property managers. Thus, their overall territorial control ability over shared spaces is partial and unbalanced. With regard to residents’ perceptions of non-residents’ spatial rights to shared spaces, residents acknowledged and accepted some spatial behaviors by certain non-residents and rejected other attempts to gain access to and utilize shared spaces, especially the interior ones.
The specific content of these two environmental meanings were highly diverse and even polarized across cases. Quantitative distribution patterns identified that these territorial interpretations could be associated with differences in research sites, gender, and/or age. Residents from certain gated developments or demographic groups were likely to give consistent opinions. This suggests that both environmental and individual variations may account for different territorial meanings. Qualitative interpretation and comparison also implies that a multitude of factors and conditions may precursor individuals’ territorial perception of shared spaces, which include physical settings of developments, practices of real estate management companies, institutional conditions, social climate, historical events, and personal interests, concerns and needs. The diverse possible contributors to territorial meanings make the explanation of residential territoriality in Shanghai’s high-rise gated developments a daunting task. The exact mechanisms explaining residents’ territorial senses and experiences will be examined and unraveled in Chapter Seven.
CHAPTER 6. ILLUSTRATING QUASI-TERRITORIAL MEANINGS

Extending the discussion of Chapter Five, this chapter addresses quasi-territorial meanings with regard to shared spaces. The original data collection scheme concerns four types of quasi-territorial meanings including “imagined home range”, “care-taking attitudes”, “security perception” and “neighborhood cohesion”. In the field research, I gathered data measuring all of those four constructs. Yet, the coding and thematic analysis of the data about “imagined home range” and “care-taking attitudes” yielded much more productive and consistent outcomes than of those regarding the other two quasi-territorial meanings. Therefore, this chapter focuses on the themes of “imagined home range” and “care-taking attitudes”. Resident research participants reported interesting interpretations concerning these environmental understandings through both verbal and graphic means. The analysis of these empirical data resulted in complicated thematic patterns that entail a systematic explanatory account as presented in Chapter Seven and Eight.

6.1 Imagined Home Range

Imagined home range, or the conceptual and imaginative interpretation of the home in terms of how “home-like” environmental qualities are perceived and experienced by residents in their dwellings and neighborhoods, is considered and studied as a quasi-territorial concept in this dissertation. While the concept itself does not reflect the defining features (e.g. spatial control and spatial rights) of territoriality, it describes important cognitive aspects of territorial phenomena in residential environments and thus it deserves meticulous investigation.

The concept of the home has been closely linked to the studies of territorial meanings and attitudes. Geographers acknowledge the home as a “territorial core” (Porteous, 1976) and discuss it as an important place exemplifying territoriality (Sack, 1986). In the territorial models introduced by environmental psychologists (Altman, 1975; Altman & Chemers, 1980; Brower, 1965), the home is recognized as a “primary territory” that is central to the resident’s life and reflects her sense of control and pride. The connections among the home, its emotional and psychological implications (e.g. exclusiveness and possessiveness) or behaviors (e.g. personalization and demarcation) in territorial senses have been examined in several
environmental psychologist texts (e.g. Harris & Brown, 1996; Hirschon & Gold, 1982; Sebba & Churchman, 1983). During the past decades, research on the territorial meanings of the home, or the emotional, affective, and cognitive bonds established and maintained between the resident and her home territory have been promoted by the interdisciplinary discourses of place attachment (Altman & Low, 1992) and place identity (Proshansky, 1978; Proshansky, Fabian, & Kaminoff, 1983). Phenomenologist researchers have also emphasized the cognitive aspect of home territory, calling for a study on the perceptual quality of “at-homeness” (Seamon, 1979).

With the growing research on the subjective interpretation of the home, it has been widely recognized that the home in its resident’s experience and imagination may not perfectly match the physical structure of residential dwelling. The distinction between house and home has been addressed in various discussions (e.g. R. J. Lawrence, 1987; Saegert, 1985). According to human geographic and phenomenological psychological studies, the home, as perceived, is best understood as an existential state, which is often metaphorically used to assemble a range of implicit, subjective experiences about different places other than the physical residence (e.g. Manzo, 2003). The home as residence is part of the physical-spatial habitat of humans and its spatial range usually does not correspond with its experiential or conceptual boundary (Oswald & Wahl, 2005; A. Sixsmith & Sixsmith, 1991; J. Sixsmith, 1986). In other words, “home does not end at the front door but rather extends beyond (R. B. Taylor & S. Brower, 1985, p. 183)”.

Instead of being equated to some fixed physical territories behind house doors, the spatial configuration of the home as experienced and imagined may be much more complex and diverse. In multi-family housing environments, communal spaces could be perceived as part of the home.

Given the relevance of the home to territoriality, the significance of its perceptual and experiential dimensions, and its potential relevance to shared spaces, this study examines how the residential environments of Shanghai’s high-rise gated developments are perceived and conceptually interpreted as the home by their residents, focusing upon the “home-like” meanings of shared spaces.
6.1.1 Definition and Overview of Data

Imagined home range or home range perception is defined as the environmental meanings associated with different physical areas that manifest an individual’s imaginatively understood home. In this research, residents’ self-report data on these meanings were elicited through a series of interview questions (question series 17, see Appendix C for details) along with a sketch mapping exercise. The obtained verbal and graphic indicators showed diverse conceptual understandings of the home with varied spatial basis. The shared spaces in the investigated high-rise gated development were interpreted in distinct ways with respect to their environmental qualities of “at-homeness”.

Altogether 60 resident participants gave verbal responses regarding imagined home range, among which 42 also produced additional sketch maps in varied levels of details. The verbal data showed that residents imbued shared spaces with a wide variety of meanings with regard to “home-like” qualities. The graphic feedback, in the form of freehand sketch maps, further revealed several distinct structural patterns framing the participating residents’ imagined home ranges. Shared spaces were found to play significantly different roles in these various patterns.

6.1.2 Verbal Interpretations of the Home as Imagined

The participants from the three research sites reported differing psychological significance of the shared spaces near their individual dwelling units and within the boundary of gates and walls. The accumulated interview data were divided into eight thematic groups ranging from “this is the place where I really feel like being myself” to “that space is definitely not part of my home”, which form a continuum where there are distinct changes, or "steps" that demarcate and highlight the shifting meanings attached to these spaces. Figure 6.1 below shows that the left end of this continuum includes themes that denote stronger and more salient senses of “being-at-home”, while those weaker or more tenuous “at-homeness”
meanings are relegated to the right end. It should be noted that many responses covered multiple themes with respect to different spaces.\footnote{For example, a young male resident (Mr. L, case A-06) indicated that he would feel as if he were “arriving home” once he entered the “Glass Rotunda” (a glass pavilion serving as a major entrance to the Ruihong New Town II featuring, see Chapter 4), and he felt being “already at home” when he stepped into the lobby of his residential tower, reflecting two distinct thematic meanings in the continuum.}

Figure 6.1: The continuum of the quasi-territorial meanings regarding home range perception

Within the eight steps of this continuum, an approximate division can be made to distinguish the environmental meanings that generally connote the qualities of “being-at-home” from those that do not. A closer look into this conceptual division illuminates how and why some residents tended to include certain common spaces such as building lobbies or outdoor children’s playgrounds into their imagined home range while others did not perceive these spaces in this way.

6.1.2.1 Positive End: “This Space is within My Home as Imagined”

Many interviewed residents (50) reported that they perceived particular interior or exterior shared spaces in their gated developments as being private and intimate, as if they are part of their homes or their immediate extension. Such a perception was embodied in several alternative expressions.

First of all, the “home-like” perceptual qualities were attributed to some shared spaces as residents would enjoy greater freedom, or “at-easeness” (Seamon, 1979) and be less concerned with their persona\footnote{Or the outer self, or the social façade or front one presents to the world.} in these spaces. Four residents gave this environmental interpretation. For example, a young male resident (Mr. X) from Ruihong New Town II (Site A)
said that he experienced less behavioral restrictions imposed upon him when he was in the hallway next to his dwelling unit and he almost saw the hallway as a private domain for him. He said,

“In the case of dumping trash at night; the trash bin is located right next to the elevator; I would walk out of my door into the hallway in pajamas, just like I am inside my unit. That is not because I just want to save the time of getting changed. There is a psychological and emotional reason. I already take it (the hallway) as part of my home.” (A-07: 23min)

His attitude and feeling is comparable to a young female participant (Ms. Z, case A-13) from the same development. She said that she did not have to “care about her dress at the clubhouse”, just like when she was “at home”.

Moreover, some residents indicated that they perceived some shared areas as part of their home (15) or such spaces appeared particularly intimate to them (4). They said that they were already home once they were inside these spaces or passing through the “gates” or “thresholds” toward such spaces. For instance, one middle-aged male resident (Mr. G) from Shanghai Luchen (Site C) described the courtyard space adjacent to his residential tower as part of his home place.

“There are few pieces of patio furniture there. I often sit there to enjoy my leisure time... this is my place. I sit there as if I am in my own garden. If I sit elsewhere, I would just feel I am inside the development. But this place is where I simply feel really at home.” (C-08: 63min-64min)

Furthermore, quite a few residents (24) said that they felt “arriving home” or “almost at home” when reaching some shared spaces from a journey. While they did not literally confirm that these spaces were a fraction of their homes or private domains, they would regard them as the symbolic extension and the immediate threshold to their homes. For instance, a male resident (Mr. W, case B-10) from Dahua Qingshuiwan (Site B) said “once I open up the glass entrance door to my building, I strongly feel I am arriving home”. The other individual (Mr. H, case B-11) reported a similar experience about the entire Phase One area where his building is located. He recognized a landscape sculpture located in the center of the courtyard bounded by
a few residential towers including this as a strong indicator of his home place. He indicated that he would “feel relaxed and almost home once returning there from a walk around the neighborhood”.

In different locations and spatial dimensions, several types of shared spaces or objects were interpreted as being “home-like” to varied extents. Indoor spaces such as hallways, lobbies, and clubhouses usually received more recognition. But some outdoor spaces or objects such as landscape features or the development gateways were also able to arouse the sense of “at-homeness.” Most residents assigned “home-like” meanings to smaller spaces that were relatively close to their dwelling units, but there are exceptions. One senior male resident (Mr. L, case A-05) from Ruihong New Town II (Site A) went to extremes and his imagined home range extended beyond the gated area of his development and included some urban spaces in proximity.

6.1.2.2 Negative End: “This Space is beyond My Home Range”

Not all responses confirmed that shared spaces were somehow seen as part of resident participants’ imagined homes. Many carefully differentiated and disregarded these spaces in their home range perceptions. This understanding features a few typical descriptions.

Some residents (11) reported that accessing certain common spaces made them feel “getting close to the home” and those who said that usually also implied that these spaces were not exactly part of the home. A senior female resident (Ms. G, case B-09) from Dahua Qingshuiwan (Site B) specifically elaborated on this point.

“Once I step into this development, I mean when I pass the guard post, I feel I am getting close to my home. Entering the No.56 building makes me believe I am even closer... Meanwhile, I do have the experience of gradually approaching my home. But I still don’t feel truly relaxed at any point en route. By “feeling truly relaxed” I mean the freedom and casualness that I would enjoy when I am actually inside my apartment unit... If I am at home, I would be in pajamas and slippers, but other places are still public areas and I must care about my appearance and behaviors.” (B-09: 29min-30min)
A few respondents (8) confirmed that they feel relaxed and comfortable when they are in some particular common spaces. Such spaces were definitely not viewed as part of their home as imagined, but they did make the resident experience less restriction and more privilege of “lying back and taking life easy”. For instance, a young female resident (Ms. S, case B-03) from Dahua Qingshuiwan (Site B) believed that staying at the Phase One area of her residential development could let her feel relaxed.

“I probably would not feel at home until I enter my apartment door. This is my real domain, where I belong. As to the other areas, maybe I would feel calm there... I mean the whole Phase One area. I have been here long enough to make me feel that way.” (B-03: 18min)

Also, some residents (8) admitted that while they were extremely familiar with some shared spaces, they still could not agree to conflate familiarity with “at-homeness” qualities. One young male resident (Mr. W, case C-14) clearly distinguished the sense of familiarity from that of a “home-like” experience. He said,

“There are some places or areas that are quite special to me. For example, the entrance gate to the building, including the underground parking garage. I am extremely familiar with it. That is a sure thing. On some level, the whole development is familiar to me. But can this familiarity be seen as a “home-like” experience? I think there is still a major difference.” (C-14: 27min)

Several others (9) suggested that some shared spaces could not even remotely engender the sense of “at-homeness”. For instance, one senior female resident (Ms. L, case C-11) from Shanghai Luchen (Site C) said that “when you open the door (of the dwelling unit), you are literally outside... These common places are not part of my home or an extension of it. These are two very different things”.

In brief, many different interior or exterior common elements in gated developments were interpreted by residents as not bearing the environmental qualities of “at-homeness.” In some cases, the environmental meanings attributed to these spaces may be distantly related to the perception of “being-at-home.” But the residents made it clear that such spaces were still not qualified as a home place.
6.1.3 Sketch Mapping of the Home as Imagined

The data collected in graphic format provided a valuable perspective of the “spatiality” of home range perception concerning shared spaces. By incorporating the analysis of the manifold freehand sketch maps produced by study participants, I was able to capture the spatial structure or the "contour" of imagined home range meanings across various shared spaces.

After a quick morphological read of all collected sketch maps on imagined home range, I identified three categories: (1) the onion type; (2) the line-of-beads type; and (3) the composite type. Each of them features distinctive graphic characteristics.

The onion type maps (see Figure 6.2, 28 inputs) are graphically composed of several enclosed curves that were interpreted by their creators as the boundaries of varied spaces. These curvilinear shapes usually form a multi-ring structure that resembles the cross-section of an onion, with the shape in the center representing the “real home” or the interior space of individual dwelling unit and the shapes on the periphery signifying some collective spaces that were interpreted as being “home-like” to certain extents. The spaces represented by these shapes are typically items from the following list:

- Elevator hallway
- Residential building interior spaces (e.g. lobbies at the ground level or lower parking garage level)
- A particular subarea of the development (e.g. a courtyard space or the space defined by the strolling or dog-walking route by a particular resident)
- The entire gated area enclosed by neighborhood perimeter walls
- A space larger than the walled area of a gated development

The line-of-beads type maps (see Figure 6.2, 14 inputs) typically show several arrows or linking lines connecting several dot-shaped graphic symbols or text boxes that signify particular objects or thresholds, such as “the entrance gate to this development” or “the fountain near my building”. The symbols, arrows, and/or the linking lines were described as movement routes
that the interviewed residents would follow to return or depart from their dwelling units. The symbols indexing the apartment units are always the ends of these routes, and other symbols or text boxes assigned with varied senses of “being-at-homeness” are arranged in a defined spatial order, which may comprise:

- Elevator doors
- Building lobby entrances (either at the ground level or lower parking garage level)
- A threshold or a landmark (e.g. a sculpture in the landscape)
- An entrance gate to the development
- Landmarks or thresholds beyond my development

The composite type maps (see Figure 6.2, 19 inputs) are characterized by mixed graphic featuring defining the two previously mentioned types. Multiple types of shared spaces and objects in gated developments are represented in these maps.

Figure 6.2: Preliminary categorization of sketch maps: the onion type (left); the line-of-beads type (mid); and the composite type (right)

6.1.4 Synthesis of the Verbal and Graphic Accounts

To effectively condense and interpret collected data, I developed and applied a graphic analysis procedure to combine and convert both conceptual meanings and spatial configurations into schematic diagrams based on a standardized format. Spatial data encapsulated in the sketch maps of different types were synthesized with the semantic data elicited from interview recordings. This technique was exploited to create “Onion-and-Beads”
diagrams that tremendously facilitate cross-case comparison and analysis. These diagrams essentially represented “what shared spaces are perceived as ‘home-like’, to what extent and how they are conceptually organized to compose a holistic image of the home”. I also created “Onion-and-Beads” diagrams for those who did not produce any sketch maps by interpreting the underlying spatiality of their imagined home ranges from their verbal reports. The total “Onion-and-Beads” diagrams amounted to 60.

The basic design of an “Onion-and-Beads” diagram uses graphic symbols (or “visual codes”) including lines, rings, and circles to represent different shared spaces, objects, or movement routes that were perceived as significant in residents’ home range perceptions. As Figure 6.3 through to Figure 6.5 below illustrates, the graphic symbols were adopted and “Onion-and-Beads” diagram were produced according to the following visual coding criteria.

- Multiple concentric rings, or tracks, are used to code the different boundaries demarcating and defining major interior or exterior shared spaces that were mentioned in residents’ descriptions of their imagination home ranges. These boundaries may be physically existent (e.g. perimeter walls or building walls) or behaviorally defined by particular residents (e.g. the boundary of my strolling area). Tracks are hinged upon a solid core, which represents a private dwelling unit. Tracks are numbered from 1 through to 5 in the order of their spatial distance from the dwelling unit. For example, Track No.2 represents “walls of a residential building” and Track No. 3 signifies a particular boundary that defines a “subarea” of the development, for example, a courtyard space bounded by a cluster of buildings or part of the development in which a resident usually spends most of her time. The combination of different tracks demonstrates how shared spaces were conceptually identified and categorized by residents in their perception of home range.

- Larger circles positioned on tracks are the visual codes for the small interior or exterior shared spaces (e.g. clubhouses, promenades, and plazas) that are located in different parts of a gated development and involved in residents’
perception of home range. For example, a children’s play yard is coded as a large circle on Track No.3 to show that this particular exterior shared space is located within the gated development.  

- Small circles are used to code the landmarks (e.g. physical objects such as sculptures or fountains) or thresholds (e.g. gates and doors) that concern residents’ imagined home ranges. These circles are also positioned on different tracks to indicate the particular spaces where these objects or thresholds are located.

- A straight line is the code for the route that residents consider significant when describing their perceptions of home range. The line usually connects multiple small circles on different tracks to reflect how the route is defined by various landmarks or thresholds.

- Tracks, circles, and lines can be represented in varying graphic styles (see Figure 6.4 below). They may be illustrated as filled shapes or unfilled shapes enclosed by double line, solid line, dashed line, or hidden lines to specifically reveal how different spaces, boundaries, landmarks, thresholds, and routes were indicated by the interviewed residents regarding their imagined home ranges. Thus, data collected from the residents who gave few graphic responses were translated into diagrams featuring all dashed lines.

- Tracks and circles, if not in hidden lines, are also rendered in either black or grey to represent the different environmental meanings attributed to different shared spaces in terms of their “home-like” qualities (see Figure 6.5 below). Tracks and circles in black mean that the associated shared spaces are assigned strong “home-like” meanings while those in grey imply a weak perception of “at-homeness” with regard to the coded shared spaces.

---

77 Small shared spaces such as clubhouses, children’s play yards, pavilions in landscaped areas, plazas are always located somewhere behind the perimeter walls and fences of a gated development. They are not large enough to enclose the building where the interviewed resident is from. Therefore, they are represented as large circles on Track No. 3. This does not mean these spaces are right on the boundary of a “subarea” but they are inside the perimeter walls (Track No.4) and external to individual buildings (Track No. 2).
Figure 6.3: The basic design of an “Onion-and-Beads” diagram and visual coding criteria
Figure 6.4: Converting verbal and graphical data into an “Onion-and-Beads” diagram (Step 1)

Note: This is the first step to create an “Onion-and-Beads” diagram where spatial elements involved in residents’ verbal or graphical descriptions of home range perceptions are transformed into visual codes.
By revealing how residents differentiate and categorize shared spaces in their imaginations and incorporate them in their home range perceptions, “Onion-and Beads” diagrams unearthed a range of distinct patterns of imaged home ranges where shared spaces were perceived very differently in terms of their qualities of “at-homeness”. Such a variation is well reflected in changing graphic characteristics of these diagrams. For residents, the imagined scope of the home may extend beyond the perimeter walls of a high-rise gated development or remain behind an apartment door. Interior and exterior shared spaces may be experienced as a unitary whole or as a complicated amalgam comprising fragments with distinct “home-like” qualities. A discussion of the multitude of imagined home range patterns follows.
6.1.5 Patterns of Imagined Home Ranges

Overall, four major patterns of “Onion-and-Beads” diagrams (labeled as A, B, C, and D) were discovered with Pattern C containing three variant groups (labeled as C1, C2, C3). Each specific diagrammatic pattern represents a distinct quasi-territorial understanding of shared spaces regarding the perception of the home. The typology of diagrams principally considers if tracks or large circles in black outlines were present, which means different diagram types refer to the different patterns where interior or exterior shared spaces (either recognized through boundaries or perceived as discrete places) were accepted as part of imagined home range.

Diagrams of Pattern A are characterized by a core-only structure. As Figure 6.6 below highlights, these diagrams do not contain any large circles or tracks in black outlines except for a few filled small circles signifying some landmarks or thresholds, showing that the represented imagined home ranges do not subsume any salient shared spaces outside private dwelling units. 22 residents reported their home range perceptions that were coded as this diagrammatic pattern. For example, a female resident in her 50s (Ms. L) from Shanghai Luchen (Site C) said,

“I think there is a huge distinction between the “inside” and the “outside”. Even the hallway of my floor is part of the “outside”. Once the (dwelling unit) door is open, you are going to step into the outside world. This is a public, social place… Entering the development makes me feel like going into a courtyard, but it is definitely not my home. The difference is outstanding. Only the space inside my apartment door is my home. Those outside it don’t count.” (C-11: 20min-22min)
Some Pattern A diagrams (those of A-02, A-03, B-12, and C-02) feature a line linking several filled or unfilled small circles on different tracks. For the residents associated with these diagrams, their imagined home ranges are primarily organized by a movement route that is traveled along on a daily basis. For cases A-02 and A-03, some landmarks or thresholds such as their developments’ entrance gates appeared to be significant indicators of the imagined home. However, there were still no shared open spaces or interior spaces considered “home-like”. The home was still understood as something behind apartment doors, or the final destination of a journey marked by a few stops reminding and indexing the true home ahead. As one male resident (Mr. S) from Dahua Qingshuiwan (Site B) put it,
“This is pretty much a routine or a behavioral habit. If I am extremely familiar with a place and I know I will be home soon when I pass it, the place will become a signal reminding me about homecoming. I first approach the development, then I enter it, drive to the parking garage, take the stairway to exit the garage, then I buzz into the building lobby, and step into the elevator, the whole process is repeated over and over again every day, which makes me feel that I am going home.” (B-12: 31min-32min)

The diagrams categorized as Pattern B are different from those of Pattern A in that Track No. 1 or Track No. 2 (or both) in these diagrams are in solid or dashed black outlines, indicating that interior shared spaces within residential buildings were recognized as part of the home in participants’ imagination (see Figure 6.7 below). Yet, no more tracks or large circles were outlined in black therefore exterior shared spaces or interior shared spaces outside of residential buildings (e.g. clubhouses) were generally not perceived as “home-like”. These diagrams can be noted as “Track (1, 2)”. The conceptual home, for the 10 residents associated with this diagrammatic pattern, is bounded by the walls of residential towers. This perspective is well clarified by a middle-aged man (Mr. C) from Shanghai Luchen (Site C).

“It seems to me that I feel at home when I am inside the lobby of my building. If I am outside in the neighborhood, I don’t feel that way. I don’t have a strong sense of “being-at-home” once I enter our gated neighborhood, but I do as long as I step into building No. 68.” (C-18: 32min-33min)
Diagrams of Pattern C feature a few subtypes but they do share some common characteristics (see Figure 6.8 through to Figure 6.10). Mostly importantly, all the 21 diagrams matching this pattern imply that shared spaces within and beyond residential buildings were interpreted as important components of the home as imagined, as is manifested by Track No. 1 and/or Track No. 2 in black outlines plus additional visual codes on Track No. 3 or Track No. 4 that are also outlined in black. The difference between subtypes lies in the varied combination of within-development shared spaces that are included in residents’ home range perceptions: Pattern C1 (associated with 8 cases) features visual codes on Track 3 in black outlines, Pattern C2 (associated with 7 cases) includes Track No. 4, and Pattern C3 (associated with 6 cases) covers both Track No.3 and No. 4. The residents corresponding to Pattern C “Onion-and-Beads” diagrams typically believed both building interior spaces (like lobbies or hallways) and the interior or exterior spaces shared on the neighborhood level (such as clubhouses, landscaped areas, and walkways) bear some qualities of “at-homeness” and it was necessary to differentiate them because their “home-like” meanings are of different strengths. Usually, the within-building spaces were linked with a stronger experience of “being-at-home”. For instance, a senior male resident (Mr. C, Pattern C2) from Dahua Qingshuiwan (Site B) commented,
“I have to say the entire development makes me feel at home. I dwell here and I am part of this place. I am the resident of this development... Once I go through the development gate, no matter which gate I use, I somehow feel like getting back home... The building lobby makes me feel the same way. In case of rain or snow, I would feel I am right below my floor and my unit when I get there. I am away from the influence of winds. There is a sense of protection.” (B-14: 48min-51min)

While usually the closer a shared space is to a resident’s dwelling unit, the more likely it would be perceived as bearing stronger “home like” meanings, there were also exceptions when interior shared spaces like clubhouses were involved. A young male resident (Mr. X, Pattern C1) from Ruihong New Town II (Site A) explained why he thought the clubhouse of his neighborhood was more like his home place than other shared spaces.

“Actually I feel the clubhouse is more home-like than the garden or lawn, because if I am going to the clubhouse I would not be concerned with my appearance that much. I could wear a very casual dress when visiting it, which I will not do if I am taking a walk on the lawn. Also, I would sit idly on the couch in the clubhouse as if I am in my home, but probably I would not do so at my building’s lobby, although there is also a very nice upholstered sofa down there.” (A-07: 24min-25min)
Pattern D diagrams represent a very special home range perception (see Figure 6.11 below). The seven residents whose home range perceptions corresponded to this diagrammatic pattern basically disregarded within-building shared spaces or the physical boundaries defining them. These residents either considered indoor communal spaces within their residential buildings irrelevant to the sense of home (as in the case of C-12), or thought that there was no need to differentiate them from a larger and more inclusive space (as in other cases), such as
the entire gated area. For these people, the home conceptually referred to a mixture of various private and shared spaces that were considered of similar psychological significance.

![Pattern D: Track (3, 4, 5)](image)

Figure 6.11: “Onion-and-Beads” diagram Pattern D on home range perception

### 6.1.6 Imagined Home Range, Physical Space, and Territoriality

As “Onion-and-Beads” diagrams real, the “contour” of the perception of “at-homeness” across the different parts of a high-rise gated development, are notably varied. The spatiality and semantics of the home in the imagination among different residents is diverse. Interior and exterior shared spaces may or may not be perceived as part of the home or its immediate extension, depending on the specific imagined home range patterns (see Table 6.1 below). In general, those corresponding to “Onion-and-Beads” diagram Pattern C and Pattern D tended to assigned stronger “home-like” meanings to shared spaces than the ones of Pattern A and Pattern B.
Table 6.1: Number of cases matching different “Onion-and-Beads” diagram patterns across different verbal interpretation themes of imagined home range

<table>
<thead>
<tr>
<th></th>
<th>Diagram Pattern A</th>
<th>Diagram Pattern B</th>
<th>Diagram Pattern C</th>
<th>Diagram Pattern D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1_being myself</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2_part of my home</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>3_intimate</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>4_arriving home</td>
<td>2</td>
<td>5</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>5_getting close</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6_comfortable</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>7_familiarity</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8_not my home</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Comparing and summarizing the four major diagram patterns that signify the imagined home range patterns, I reached the following conclusions regarding the ways in which shared spaces are imagined as part of the home place.

- Private dwelling units, the private, personal, and owned spaces, secured as the fundamental center of home imagination. Over one third of the resident research participants did not think any shared community spaces bore “home-like” qualities. For these people, the division between the private-personal domains and the public-community spheres was clear and unquestionable.

- Interior shared spaces were more likely to be accepted as part of the imagined home than exterior shared spaces. Residents associated with diagram Pattern B through to D (37 altogether with case C-12 excluded) considered within-building interior spaces as “home-like”. Among them, six residents saw the interior spaces of clubhouses as a place giving them the feeling of “being-at-home”. In comparison, 26 residents included different outdoor shared spaces in their imagined home ranges.

- Shared spaces proximal to private dwelling units were more often interpreted as part of the imagined home. This proposition is well confirmed by the fact that within-building shared spaces were widely perceived as part of the home. However, there are two important caveats regarding this: (1) some interior
shared spaces such as the functional spaces of clubhouses were assigned stronger “home-like” meanings than the exterior shared spaces that were closer to dwelling units; (2) some exterior shared spaces that residents frequently accessed for daily routine (e.g. children’s play grounds or walkways) were likely to be seen as part of the home even if they are relatively far away.

To help communicate and clarify their subjective home range perceptions, residents referred to several sources including prior social encounters and spatial activities in shared spaces, daily experiences, conceptual beliefs, and social understandings. Spatial and social environmental factors as well as personal traits and conditions were involved to spawn the varying interpretations of the home as perceived. Actually, the distributions of home range perception patterns explicitly varied by age group (See Table 6.2 below). For the seniors, predominantly more reported a circumscribed imagined home range (as represented by diagram Pattern A and Pattern B). But middle-aged residents (40s and 50s) seemed to perceive a spatially more inclusive home place while youngsters (those below 40s) gave bifurcated responses about the imagined range of the home in imagination. Except for age difference, the quantitative spreads of coded imagined home range patterns across genders and research sites did not show noticeable differences. However, one can still identify some trace indicating the possible contribution of site conditions if taking a more fine-grained look into the perceived home range patterns. As Table 6.3 below illustrates, while all residents associated with diagram Pattern C held a “multi-tier” structure of home range perception, proportionally fewer residents from Shanghai Luchen (Site C), the largest development involved in this research, agreed that the development’s perimeter walls defined a salient “layer” of their imagined home range in comparison to those from the other two research sites.

Table 6.2: Number of cases in different diagram patterns across major age groups

<table>
<thead>
<tr>
<th>Diagram Pattern</th>
<th>Above 50s (13)</th>
<th>40s to 50s (18)</th>
<th>Below 40s (29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagram Pattern A</td>
<td>8</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Diagram Pattern B</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Diagram Pattern C</td>
<td>2</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Diagram Pattern D</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 6.3: Number of cases associated with different subtypes of diagram Pattern C across research sites

<table>
<thead>
<tr>
<th>Diagram Pattern</th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>C2</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>C3</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

As quasi-territorial meanings examined in this research, the “home-like” qualities of shared spaces were experienced and reported by residents to varied extents. However, I found that these environmental meanings seemed not conspicuously related to territorial meanings. As Table 6.4 below displays, across the groups of distinct “Onion-and-Beads” diagram patterns, the residents supporting lax access control for non-resident visitors were roughly the same size as the ones proposing restrictive access control, which means those who experienced different home-related psychological significance of shared spaces reported somewhat similar patterns of access control attitudes. Also, variation in imagined home ranges was not evidently reflected in residents’ perceptions of spatial control. This finding implies that the conceptual understandings of the home that transcends the material characteristics of domestic spaces and private dwellings may not coincide with territorial senses and experiences.

Although some residents did perceive “home-like” experiential qualities in the shared spaces in Shanghai’s high-rise gated developments, such meanings did not consistently translate into a strong sense of control or spatial rights as in the case of privately owned houses or “primary territories” that has been assumed in existing literature on territoriality (Altman, 1975). This intriguing disconnect may be due to the rich and complex psychological meanings of the home. According to Putnam and Newton, the home as a spatial and conceptual entity has manifold affective and perceptual associations including security, privacy, family, intimacy, comfort, and control (1990), which encompass much more than territorial meanings that inevitably focus on control and power. Furthermore, individual conceptualizations of the home are always culturally framed and shaped (Case, 1996; Rapoport, 1995). Therefore, the home as imagined could be interpreted by Chinese residents in a way distinct from that of English-speaking persons, reflecting a different set of experiential meanings that may not be closely interwoven with territoriality. In the same vein, the varied cultural belief systems different
groups of residents (e.g. people of different generations) espouse could make their home range perceptions even more complicated and the imagined-home-and-territoriality connection uncertain and problematic.

Table 6.4: Number of cases of different diagram patterns across groups of different territorial access control

<table>
<thead>
<tr>
<th></th>
<th>Diagram Pattern A</th>
<th>Diagram Pattern B</th>
<th>Diagram Pattern C</th>
<th>Diagram Pattern D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accept</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Partially accept</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Partially reject</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Reject</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

6.2 Care-Taking Attitudes

Residential care-taking attitudes concern residents’ sense of responsibility and caring in residential environments. These attitudes were examined as the other important set of quasi-territorial meanings in this dissertation.

Plentiful theoretical and empirical explorations have argued for the underlying association between territories, care-taking understandings, and territorial behaviors. In his renowned work on defensible space, architect Oscar Newman passionately argued for the positive psychological and behavioral implications of defensible environmental design (1972, 1976, 1996). In Newman’s view, perceived security, defensive initiatives, care-taking attitudes and upkeep activities are all interrelated and can be induced or enhanced by particular spatial conditions. Other scholars of territoriality also recognize the relevance of care-taking attitudes to human territoriality. In research on public and market-rate housing, the levels of residential control, care, and maintenance are often found to be interrelated and considered important indicators of residential territoriality (Brown & Werner, 1985; Brunson, Kuo, & Sullivan, 2001; Taylor et al., 1981). Yet, most existing investigations focus upon direct care-taking activities or intentions concerning semi-private spaces (e.g. porches, steps, front yards, etc.) that are not shared among many people.

Given the characteristic legal and spatial settings of Shanghai’s high-rise gated developments, residents’ attitudes of caring with regard to neighborhood’s shared spaces are
usually implemented in an indirect manner. Maintaining collective properties is essentially a service provided by real estate management companies that residents regularly pay for. As many actual care-taking obligations such as garbage collection, street cleaning, gardening, equipment and amenities upkeep have been transferred to professional property managers, residents do not have to physically take part in maintaining activities in shared spaces.

During my multi-month field research, I did not witness any resident physically conducting maintenance behaviors in communal spaces, except for a small number of “activist” residents who indicated that they would participate in the upkeep of common areas or objects. However, due to the lack of equipment, supplies, manpower, and time, the scope of their potential care-taking behaviors was limited to within-building interior common spaces. The impact of such behaviors is likely to be minimal. For example, a middle-aged male resident (Mr. T, case B-06) said that he thought about repainting the hallway space of his floor but he never actually made it to do that. A few others (A-19, A-20, B-10, etc.) claimed that they would pick up trash in their building lobbies or mop the floors if the janitor were not present but they also implied that they would not do more than that. As a matter of fact, the most common and operable approach for the residents in these high-rise gated housing compounds to express their caring attitudes about shared spaces was to make maintenance calls to their property managers when noticing problems or giving them advice to make improvements.

6.2.1 Definition and Overview of Data

In this study, residents’ care-taking attitudes were assessed through their intentions and motivations to direct the property manager’s attention to any possible deterioration of shared spaces or stimulate them to improve their upkeep services. A few interview questions (question series 21, detailed in Appendix C) along with the sketch mapping session were used to investigate residents’ care-taking attitudes as to indirect maintenance and intervention. 59 out of the 61 research participants gave verbal responses to the interview questions, among which 32 also produced graphic responses in form of sketch maps. These data reflected the different shared spaces considered important to residents and worthy of attention for better maintenance as well as the different residential care-taking attitudes attributed to these spaces.
6.2.2 Verbal Interpretations of Care-Taking Attitudes

Most residents who contributed to the research on this group of quasi-territorial meanings (57 out of 59) expressed some form of concern for various shared spaces; only two individuals (B-02 and C-11) admitted that they did not feel obliged to care about any shared spaces in their developments. Residents’ verbal reports on care-taking attitudes revolved around four major themes characterized by different reasons and strengths of their senses of caring and responsibility. I have labeled these themes with the key words “daily usage”, “security”, “visual contact”, and “prestige”. These meanings are not mutually exclusive as some residents’ care-taking attitudes were framed by more than one of these ideas. As Figure 6.12 below shows, these thematic verbal responses fall into two categories: the meanings due to the aesthetic or symbolic values of shared spaces and the meanings growing from the practical or utilitarian significance.

![Figure 6.12: The continuum of the quasi-territorial meanings regarding care-taking attitudes](image)

6.2.2.1 Strong Care-Taking Opinions and Utilitarian Reasons

Practical or utilitarian meanings were found to be mostly strongly associated with care-taking attitudes toward shared spaces. Many residents claimed that they would contact their real estate managers when they had concerns about the maintenance of the shared spaces that bore important practical meanings for them. Caring thoughts and beliefs motivated in this way were always definite, concrete and strong.

“Daily usage” was the most adopted practical reason (47 inputs) for care-taking intentions. If some shared elements (either enterable spaces or objects external to users) served as important “props” or “sites” to facilitate and actualize an individual resident’s daily
tasks, the resident would divulge unambiguous care-taking attitudes for such spaces or objects. For some, the zones that they traversed when leaving and returning home on their daily rounds were very important and deserved attention. Others attended and cared for particular amenities (e.g. clubhouses, children’s playgrounds, lawns, etc.) that they frequently utilized. For instance, a resident as a daily car driver (Ms. S, case B-03) cared about the underground parking garage in her neighborhood. Also, a parenting mother (Ms. Q, case C-13) who spent plenty of time at children’s play sites with her child everyday deemed these facilities worthy of caring about.

“Security” was mentioned by a small number of participating residents (5 inputs). These people believed that proper maintenance of shared facilities was crucial for the personal security of themselves and their children. Therefore, they felt responsible for noting and reporting any potential threat in their neighborhood environment that was related to poor maintenance. A security entrance out of order or a broken children’s slide would catch their attention and prompt them to immediately contact their real estate management companies.

Concerns for security and use utility were always entwined with everyday experience. The residents who mentioned security concerns were all from the group indicating the importance of daily usage. As one young female resident (Ms. C) from Shanghai Luchen (Site C) said,

“I definitely care about the maintenance of the elevators and the hallway next to my apartment... (I am also concerned with) the facilities, any facilities, including the door of electric closet and the doors to fire exits...I will report problems in children’s play yards if there is any equipment found broken.... Public furniture in our landscaped promenade is the other concern... I care about the doors and windows within my building most. If they are poorly maintained, there will be a lot of inconvenience and insecurity.” (C-15: 47min-49min)

6.2.2.2 Weak Care-Taking Opinions and Symbolic Values

Some residents felt motivated to make maintenance calls to their real estate managers because they care about the aesthetic or symbolic value of some shared spaces. Visual qualities and prestige were mentioned by them. Compared to the care-taking opinions fueled by
practical reasons, the caring meanings in this category were less substantial in that the residents implicitly listed symbolic concerns as secondary. For instance, a male resident (Mr. L) from Shanghai Luchen (C-03) clarified,

“From the perspective of security and sanitation, I care about what is inside my residential building and nothing else. Yet I also attend the residents’ clubhouse in a different sense. I see the clubhouse as the façade (‘menmian’) to this development. If it is well maintained we will all feel proud and benefit from the heightened image of this neighborhood.” (C-03: 25min)

Often, these residents did not report clear and specific intentions to stimulate property managers to improve the symbolic value of shared elements, although they did feel upset when there was any sign of deterioration.

For the ones (12 inputs) who derived caring attitudes from the concern with “visual appearance”, they felt responsible for the communal spaces that were visually pleasing to them. This mentality was most reported by those who rarely utilize neighborhood amenities. Their major behavioral transactions with shared spaces were merely seeing and passing through them. For example, a young male resident (Mr. S, case B-12) expressed his concern with the visual quality of landscaped area after he gave comments on his stronger caring attitude toward building lobby and parking garage,

“... next, the areas that I pass by everyday should be clean. Plants in the neighborhood shall be exuberant. I don’t want to see withered flowers and trees. The blight in landscape will affect my mood.” (B-12: 33min)

“Prestige” was also found to underlie residents’ sense of care-taking (8 inputs). The residents adopting this idea cared about some shared elements because they believed that some architectural or landscape forms communicated favorable symbolic meanings such as high social status or financial wealth to promote their sense of fulfillment and self-esteem. In their perspective, a grand development gateway or a well-equipped and maintained residents’ clubhouse signified high property value and a privileged “social stratum” (dangci). They took pride in their relationship to these shared elements whether or not they had frequent contact
with them. This mentality was illuminatingly expressed by a young female resident (Ms. D, case C-02). As she said,

“I care about the greenery on the “grand promenade”. I find it is important to me although I don’t often use it. But it matters because it showcases the quality of Luchen, whether it means an enjoyable view or some ornament. Actually, as an avenue of representation, this is an important aspect to show if I should to sell my house in the future.” (C-02: 27min-28min)

6.2.3 Sketch Mapping about Care-Taking Attitudes

Residents exploited graphic means to supplement their verbal descriptions, creating sketch maps to differentiate shared spaces in terms of different care-taking meanings assigned to them. Comparable to the maps on home range perception, these maps adopted improvised graphic symbols and brief verbal annotations to clarify the spatial distribution of shared spaces considered important in terms of care-taking meanings and their significances in relative to each other. All sketch maps on this topic featured an onion-like structure with illustrated curves or circles represented the boundaries that mark different zones or particular locations or objects. The types of spatial boundaries and physical objects indicated in these maps included development walls or fences, building walls, paths and walkways, clubhouses, amenities in neighborhood open spaces, etc., which were similar to those reflected in the maps on imagined home range. Both tangible physical boundaries (e.g. walls) and behaviorally defined contingent boundaries (e.g. the boundary of my daily walking tour area) were emphasized. Thresholds including development and building entrances were often indicated in these maps.

6.2.4 Synthesis of the Verbal and Graphic Accounts

The synthesis of the multi-dimensional qualitative data on care-taking attitudes also employed a diagrammatic strategy to summarize raw verbal and graphic reports and convert them into succinct and comparable schematic diagrams. The specific procedure of diagrammatic coding was very akin to the one developed for the analysis of home range perception, which can be illustrated by Figure 6.13 below. Applying appropriate graphic coding criteria, spaces associated with strong care-taking meanings were distinguished from those of weak meanings. A total of 59 “Onion-and-Beads” diagrams were generated, including the ones
created on the basis of verbal reports only for those who did not yield any graphic data. These diagrams divided four categorical patterns (labeled from A through to D) that are elucidated in the following section.
Figure 6.13: The "Onion-and-Beads" diagram design for analyzing residents' care-taking attitudes.

- **Ratings**
  - The relative "care-taking values" of different spaces, thresholds, or landmarks
  - Landmarks or thresholds beyond perimeter walls
  - Entrance gates on perimeter walls
  - Landmarks inside perimeter walls
  - Entrance doors to a building
  - Elevator doors to a floor

- **Circles (large)**
  - Small interior or exterior spaces
- **Circles (small)**
  - Additional landmarks or thresholds
  - Track 5: Streets or other boundaries outside perimeter walls
  - Track 4: Perimeter walls of a gated development
  - Track 3: Paths or other boundaries that define a "subarea"
  - Track 2: Walls of a residential building
  - Track 1: Walls defining the hallway on a floor
    - Core: A private dwelling unit

- **Rings (Tracks)**
  - Boundaries that demarcate major exterior and interior shared spaces
    - Multiple boundaries are drawn out in sketch maps
    - A boundary is drawn out
    - A boundary is verbally indicated but not drawn out
    - No boundary is drawn out or verbally indicated

- **Exterior shared spaces defined by tracks**
  - Track 5: (An urban space larger than the gated area)
  - Track 4: (The entire gated area)

- **Interior shared spaces defined by tracks**
  - Track 3: (A courtyard space)
  - Track 2: (The interior spaces of a building)
  - Track 1: (An elevator hallway)
6.2.5 Patterns of Care-Taking Attitudes

Similar to the way the diagrams of home range perception were analyzed, the diagrams on residents’ senses of caring and responsibility were categorized considering what shared spaces (as represented by circles or tracks in diagrams) were assigned with care-taking meanings and how strong the associated attitudes were (as indicated by black or grey coloring). I found these diagram patterns were distributed unevenly across cases.

There are only five cases matching a Pattern A diagram on care-taking attitudes, which is characterized by a minimalist, core-only configuration that indicate that residents perceived no care-taking obligations for anything outside their private apartment units (see Figure 6.14 below). For these people, they believe themselves not responsible for the shared spaces of their neighborhoods. While some of them (A-03, A-04, and C-02) expressed some concern with communal elements, such attitudes were relatively ambivalent and weak. The comprehensive social services provided by their real estate management companies made them feel their personal caring over shared spaces was unnecessary. As a senior female residents (Ms. L, case C-11) said,

“I am not obliged to care about anything. Once I step out of my apartment, it appears to me that everything has been taken care of. You don’t have to feel responsible. (C-11: 32min)”

Figure 6.14: “Onion-and-Beads” diagram Pattern A on care-taking attitudes
The diagrams of Pattern B represented a group of residents who assigned no significant care-taking attitudes to the shared spaces outside of their structures where they resided (see Figure 6.15 below). In these diagrams, Track No. 1 and/or Track No. 2 were in black solid outlines. 12 residents are associated with this pattern. A young female resident (Ms. D, case A-08) from Ruihong New Town II (Site A) clarified this stance,

“First of all, I would care about the facilities on my floor. If any of them were found out of order, I would bring it up (to the property manager). Besides I would also attend to the lobby downstairs, but only a little. I almost won’t care about the areas outside my building unless something really awful took place there” (A-08: 48min)

Over two thirds of the “Onion-and-Beading” diagrams on care-taking (38 out of 59) fell into the category of Pattern C (see Figure 6.16 below). These diagrams shared the graphic features of Track No. 1 and/or Track No. 2 outlined in black as well as circles on Track No. 3 (or Track No. 3 itself) also in black. These characteristics mean that the residents corresponding to this diagram have strong care-taking ideas toward the interior shared spaces of their buildings and some interior or exterior shared spaces on the neighborhood level. The opinion of a young male resident (Mr. S, case B-19) from Dahua Qingshuiwan (Site B) was representative,
“This children’s playground is the most important to me and I care about its maintenance condition the most. What comes second is the mini plaza surrounded by landscape where many kids would come and play. This pond is also important as there are fish in it... Wait, the elevator and hallway of my building should be at the top of my list. They are the most important. I am also concerned with the development’s pathways, all the pathways here.” (B-19: 29min-30min)
Figure 6.16: “Onion-and-Beads” diagram Pattern C on care-taking attitudes
Most residents within this group implicitly or explicitly agreed that they cared more about the common elements that were spatially proximal to their private dwelling units. As a resident (Mr. W, case B-18) said,

“Intuitively, I would say that I care more about the things closer to me. In fact, this area (referring to the riverside promenade of the development) is where I often get to and hang out; therefore I care about its maintenance.” (B-18: 44min)

However, a few exceptions did exist (e.g. A-20, C-13, C-14, and C-18). These residents typically found that certain common spaces were more central to their lives and hence they were more concerned with them even if they were spatially more distant than other shared spaces. For some of them (A-20, C-13, and C-14), the care-taking concerns for outdoor shared spaces such as lawns, children’s play yards, and walkways overweighed those for any interior shared spaces.

The diagrams of Pattern D represent the most exotic and unusual pattern of care-taking attitudes (see Figure 6.17 below). These diagrams feature circles in black outlines on Track No.3 and no additional visual codes on other tracks, showing that residents felt strongly attached to and seriously cared about some particular shared spaces in their neighborhoods but did not have similar attitudes toward the common spaces within their buildings. Only four people reported data matching this pattern. Given the fact that their comments were somewhat complicated and unclear, the exact reason that they disregarded within-building shared spaces is difficult to pin down. Both the utilitarian importance of neighborhood amenities (such that they were stimulated to develop a caring attitude) and the thorough maintenance services by their property manager (therefore they feel not obligated to take care) may contribute to this intriguing pattern.
6.2.6 Care-taking Attitudes, Space, and Territoriality

The typology of “Onion-and-Beads” diagrams of care-taking attitudes demonstrates that residents attributed varying degrees of caring sensibility to different types and categories of shared spaces. Table 6.5 below displays that those associated with diagram Pattern C were proportionally more likely to derive strong care-taking meanings from shared spaces.

Table 6.5: Number of cases matching different “Onion-and-Beads” diagram patterns across different care-taking meanings

<table>
<thead>
<tr>
<th></th>
<th>Diagram Pattern A</th>
<th>Diagram Pattern B</th>
<th>Diagram Pattern C</th>
<th>Diagram Pattern D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong caring attitudes</td>
<td>0</td>
<td>3</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>Weak caring attitudes</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

Condensing and refining the analyses above, I drew the following conclusions from my exploration of residents’ care-taking attitudes towards shared spaces as contextualized in the particular social and spatial settings of Shanghai’s high-rise gated developments.

- Although in practice residents were free from the actual responsibility of care-taking and maintenance of shared spaces, the majority of the resident research participants still had intentions to indirectly enhance the upkeep of communal elements through their real estate management companies.
- Generally, interior shared spaces, especially within-building shared spaces such as lobbies and hallways received more caring attention than exterior shared spaces.
spaces. Residents linked with diagram Pattern B and C (50 in total) cared deeply about the interior communal spaces of their residential towers.

- Residents’ care-taking senses tended to target small-scale shared spaces and objects. Caring attitudes ascribed to large “subareas” (e.g. zones of a certain construction phase or large fraction of a development that includes several buildings and the open space between them) were only reported by three residents (B-09, C-01, and C-06). Only two (B-09 and C-06) felt responsible for the entire gated area.

- The role of spatial proximity in molding residents’ caring senses is influential but not absolute. On the one hand, many residents’ care-taking attitudes corroborated that those shared spaces proximal to an individual’s dwelling unit were associated with stronger care-taking meanings. At least for these residents, more chances for visual contact and greater psychological significance credited to the nearby shared spaces did heighten levels of responsibility. There were ten residents who overtly stated “proximity” as a criterion that shaped their care-taking attitudes. On the other hand, however, there were still a few cases (8) demonstrating that the influence of distance was not absolute as neighborhood amenities relatively farther away from dwelling units were even more cared about and attended to.

Many factors seemed to contribute to residents’ senses of caring about shared spaces, such as spatial conditions, personal spatial needs and behaviors, social and legal conditions, and social understandings, among which the majority of property management companies in actual care-taking activities was notable. Eight residents literally indicated property managers taking over most maintenance responsibility discouraged them to feel concerned with shared spaces. Quantification of coded data also implied that personal and spatial factors could be significant as age and site differences were present between different patterns of residents’ care-taking attitudes. Table 6.6 below discloses that proportionally the care-taking attitudes of the residents above 50s were more associated with diagram Pattern B than those of other age groups. Also, the middle-aged (those in their 40s and 50s) residents contributed more to the
dataset of diagram Pattern C. Across research sites, residents from Site A tended to report more caring attitudes of Pattern B versus Pattern C than those from other sites, which might possibly mean that spatial conditions have some effect (considering Site A is the one with smallest site area and with least shared spaces among the three research sites) but other reasons may also come into play.

Table 6.6: Number of cases in different diagram patterns across major age groups

<table>
<thead>
<tr>
<th>Diagram Pattern</th>
<th>Above 50s (12)</th>
<th>40s to 50s (18)</th>
<th>Below 40s (29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagram Pattern A</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Diagram Pattern B</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Diagram Pattern C</td>
<td>7</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Diagram Pattern D</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 6.7: Number of cases in different diagram patterns across research sites

<table>
<thead>
<tr>
<th>Diagram Pattern</th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagram Pattern A</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Diagram Pattern B</td>
<td>8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Diagram Pattern C</td>
<td>8</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Diagram Pattern D</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Existing literature on residential care-taking concerning low-density and non-gated residential contexts usually argues for the linkage between territorial spatial control and residents’ caring for the territories, either in behavioral or perceptual senses. Conventional Defensible Space (DS) theory developed in Newman’s tradition asserted that if people care more about the spaces around their homes, they also exhibit stronger territorial claim and demonstrate greater control of it (Newman, 1972, 1976, 1996). Taylor and his associates made similar argument in his research on “territorial functioning” (R. B. Taylor, 1988; R. B. Taylor & S. Brower, 1985). This study demonstrates that this connection is elusive and obscure if examined in an alternative residential context like the high-rise gated developments in Shanghai. The linkage may be partly legitimate given the observation that those holding more inclusive care-taking attitudes (i.e. those of diagram Pattern C) also espoused stronger behavioral-level passive control over shared spaces (see Figure 6.8 below). However, no further evidence confirmed that residents’ indirect caring senses about shared space are linked with other
components of experienced territorial control (e.g. active control perception or managerial-level passive control perception). Based on quantified coded data, I also did not find any salient pattern that connects care-taking attitudes with territorial perceptions in terms of visitors’ spatial rights. The palpable disconnect between care-taking meanings and territorial perception may result from the extraordinary conditions of property ownership and space-sharing in the researched developments as well as the fact that care-taking concerns and intentions are usually indirectly implemented.

Table 6.8: Number of cases of different diagram patterns across groups of different passive control senses

<table>
<thead>
<tr>
<th>Diagram Pattern</th>
<th>Diagram Pattern A</th>
<th>Diagram Pattern B</th>
<th>Diagram Pattern C</th>
<th>Diagram Pattern D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct intervention</strong> (Strong)</td>
<td>2</td>
<td>3</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td><strong>Indirect intervention</strong> (Medium)</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td><strong>No action</strong> (Weak)</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

6.3 Conclusion

To address the research question on the descriptive account of residents’ quasi-territorial perceptions and senses, this chapter highlights two sets of environmental understandings that can be categorized as quasi-territorial meanings: residential care-taking attitudes and imagined home range. I illuminate assorted patterns of these environmental meanings that are characterized by different spatiality and semantic meanings. Exploiting graphic means, I present the analysis outcomes by organizing social and psychological meanings with reference to a geographical framework. In this chapter, I also make initial efforts to examine the intricate connection of territorial and quasi-territorial environmental meanings and discuss the potential contributing factors to these quasi-territorial meanings.

In the light of rich literature on the concept of home, I consider the home as a system of interrelated physical, social, and psychological components. By assigning “home-like” meanings to the communal spaces shared by many, residents in Shanghai’s high-rise gated developments were able to appreciate the home as a conceptual imagination the spatial referents of which often extended beyond their privately owned housing units. Also, residents may develop and
hold attitudes of caring and responsibility toward certain shared spaces, even though their intentions to improve the maintenance and upkeep of such spaces could not be directly carried out. The examination of these two quasi-territorial perceptions builds to a few key findings as follows.

- There were a variety of ways by which residents interpreted and perceived shared spaces in terms of their “home-like” qualities or their relevance to maintenance concerns. Some residents found shared spaces quasi-territorially significant while others did not. Residents’ home range perceptions were more complicated and varying than their care-taking attitudes.

- Shared spaces proximal to private dwelling units were more often than not attributed stronger quasi-territorial meanings. But there was counterevidence evincing that shared spaces distant to private owned homes were perceived to be psychologically more important to some residents than to others. The topography or spatial distribution of quasi-territorial meanings was not perfectly in line with the “step framework” (R. B. Taylor, 1988; R. B. Taylor & S. Brower, 1985), or a “territorial gradient” around the home (as the privately-owned house) where stronger and weaker attitudes are respectively attached to the spaces closer to and further from the home.

- The association between territorial and quasi-territorial meanings is unclear and intriguing. Whereas the senses of home, territories, residential commitment, and neighborhood community are often considered interrelated in human and political-geographical discourses of territoriality, this study illustrates that in Shanghai’s high-rise gated developments, the assumed convergence of territorial and quasi-territorial attitudes requires more justification if the home as an imagined and conceptual entity is considered and if agents’ care-taking attitudes were embodied in a circumlocutory way through surrogates.

A preliminary investigation into the sources of quasi-territorial meanings of shared spaces suggests that a complex set of spatial, social, behavioral, and personal factors may
potentially be pertinent. The transactions between residents and multiple socio-spatial
environmental elements grounded in shared spaces seem to be influential. Nevertheless, the
investigation based on quantification of coded qualitative data at the neighborhood level did
not lead to more decisive findings perhaps because many significant details may have been
collapsed or abbreviated. A comprehensive explanatory account illuminating the derivation of
residential territorial and quasi-territorial meanings in Shanghai’s high-rise gated developments
is to be explored in following Chapter Seven and Eight, which specifically present case-oriented
qualitative data analysis findings that penetrate the varied profiles of aggregated data and
unravel the mystery at an individual level. Those chapters also incorporated the analysis of the
qualitative data regarding the quasi-territorial meanings of “security perception” and
“neighborhood cohesion” that are not discussed in this chapter.
CHAPTER 7. EXPLAINING TERRITORIALITY-RELATED UNDERSTANDINGS

Following the description and summary focused on the territorial meanings and quasi-territorial meanings attributed to shared spaces, this chapter proposes a series of explanatory models that answer the “why” behind residents’ diverse territorially-charged environmental meanings. Implementing a case-oriented data analysis approach (detailed in Chapter 4), I traced the flows and configurations of observable facts bounded within each case to see what explained residents’ territorial and quasi-territorial meanings and how these meanings were naturally generated for every participating resident. To so do, I examined and processed the “case maps” (detailed in Chapter 4) that encapsulate the “full stories” of individual cases. By distilling, comparing, and categorizing these case maps, I was able to discover recurrent patterns of case configurations and group cases into distinct categories accordingly. I found that the generation of territoriality-related environmental understandings is essentially a multi-modal process, and spatial and social person-environment interactions, with certain qualifications, play a central role in articulating multiple spatial, social, and personal factors that account for residents’ territorial and quasi-territorial interpretations about shared spaces.

7.1 Case Configuration Comparison Studies

7.1.1 Compact Case Maps

The cross-case analysis necessary for the proposal of explanatory accounts began with the effort of converting original cases maps into more compact forms, such that their characteristic patterns were accented and the evaluation across cases facilitated.
Figure 7.1: Two exemplar case maps in varying configurations (case B-15 and C-07)

Note: The vast diversity in case map configuration was due to the fact that thematic pattern codes and relational codes vary significantly across cases.
The 60 case maps produced during the preliminary analysis stage effectively captured the particularity and distinctiveness of individual cases by diagrammatically assembling and arranging thematic pattern codes and relational codes in a visual format. These case maps exhibited intricately diverse graphic forms (see Figure 7.1 above).

Case maps highlighted a multitude of idiosyncratic patterns. They also accentuated the axiom that the differences between people and the contexts which contribute to those differences are profoundly meaningful and important. These differences often galvanize qualitative research. Yet, it is also necessary to streamline and condense these case maps to facilitate cross-case comparison and categorization. In this study, I created a set of “compact case maps” by focusing on a few major thematic pattern codes and their interconnections. As Figure 7.2 below illustrates, a typical compact case map included only nine “nodes” signifying the nine categorical thematic pattern codes. Their constitutive sub-codes were not displayed. The relational codes associating these hidden sub-codes were summarized and represented by “linking lines” in different thicknesses between nodes. The light weights of these linking lines reflect the prominence of underlying relational codes. These linking lines were color coded for the convenience of recognition and cross-case comparison.

78 the nine categorical thematic pattern codes included in a compact case map are “activity-space of the situational environment (code: SAS)”, “social context of the situational environment (code: SSC)”, “(characteristics of) the situated person (code: SP)”, “situated spatial experiences (code: SSE)”, “spatial behaviors (code: SB)”, “social interactions (code: SI)”, “social cognition and understandings (code: SCU)”, “quasi-territorial meanings (code: QTM)”, and “territorial meanings (code: TM)”. 
Figure 7.2: An exemplar conversion of an original case map (up) into its compact format (below)
7.1.2 Universal Case Map Features

Through the diagrammatic simplification of case maps, structural details in original case maps were collapsed, sub-codes abridged, and overall case configurations rendered more pronounced. As I reviewed all the compact case maps, I discovered that the nodes of “spatial behaviors (code: SB)” and “social interactions (code: SI)” always intermediated the nodes of “activity-space of the situational environment (code: SAS)”, “social context of the situational environment (code: SSC)”, and “(characteristics of) the situated person (code: SP)” (see Figure 7.3 below). This universally shared feature corresponded with the conceptually presumed centrality of person-environment interactions in binding residents as situated persons together with their relatively defined situational environments to compose inseparable person-environment systems. This feature fits well by the situativity perspective of environmental cognition that was incorporated in the conceptual framework directing this research (detailed in Chapter Two and Three).
On a fine-grained level, the resident participants’ spatial and social transactions with their residential environments, namely their person-environment interactions, resulted from the mutual “fit” between certain environmental conditions and personal factors, both of which were contextualized in Shanghai’s high-rise gated developments. In several nuanced ways, the residential use and experience of the environment were predicated upon the reciprocal relationship between what the environment could “offer” or “support” and what the residents needed or were capable of. Within each individual case, the code of “situated person” encompassed the “characteristics” of a particular resident taken relative to the environmental settings that ultimately promoted or restrained certain person-environment interactions. For example, a resident’s daily work-life rhythm (coded as “life rhythm” or “SP-LR”) greatly impacted the person’s intention and capability to make environmental transactions and further influenced the actual spatial behaviors in shared spaces (coded as “use of shared spaces” or “SB-U”). The work-life rhythm was indicated by the resident’s typical duration of stay, during a
day, at different geographical locations including private dwelling unit, neighborhood shared spaces, and other urban locations. Given the same environmental settings, a “hectic” individual that spent most of his or her daily time on career was much less likely to exploit neighborhood amenities than a “leisure” one, as the “leisure” individual would give much greater weight to health, pleasure, and family. On the other hand, the specific spatial and social conditions of a gated high-rise development also appear to set limits for its residents’ spatial activities occurring within it. For example, the availability of certain spaces, such as a clubhouse, was pivotal to support many particular spatial behaviors.

Through meticulous data collection and analysis, I successfully extracted several interrelated threads of environmental, personal, and behavioral facts that appositely evidenced the interdependent and complementary relationship between the situated person and the situational environment, which is manifested by the social and spatial person-environmental interactions that associate the two (see Figure 7.4 below). As an example, residents’ social identities in their residential developments (e.g. homebuyers, homebuyer’s family members, developer’s employees, communist party members, neighborhood committee members or associates, etc.) and presence of local social organizations (e.g. neighborhood communist party organization, homeowners’ council, neighborhood committee, developer, and property management company) jointly shaped and hence were linked via the residents’ social engagements with the various neighborhood level organizations.
Although this study did not accomplish an exhaustive survey of all the complimentary aspects of situated persons and situational environments and the pertinent person-environment transactions that embodied their mutuality, it has empirically demonstrated that the presumed situativity perspective was appropriate to organize and help understand the complicatedly interwoven environmental and personal factors unearthed by my case studies. The reciprocity between personal characteristics and environmental attributes were reported by resident participants in distinct forms with varied details. The within-case data analysis corroborated that resident research participants in Shanghai’s high-rise gated developments did engage and define different situational environments through various styles of person-environment interactions (see Figure 7.4 above). Together, the residents and the distinctive situational environments that constituted their circles of life formed diverse ecological person-environment situations.
environment situations, or the integral, inseparable systems comprising intertwined elements of situated persons, situational environments, and the intermediating person-environment interactions. Each case represented a special person-environment situation where a particular resident, as the situated person, paired with a situational environment relative to him or her, and the person-environment situation was essentially indexed by the case-specific person-environment interactions.

7.1.3 Varying Case Map Features and Case Families

As I moved on to distinguish and analyze the differing features of compact case maps, I found that the nodes of “spatial behaviors (code: SB)” and “social interactions (code: SI)” were often linked with the nodes of environmental understandings including “situated spatial experiences (code: SSE)”, “social cognition and understandings (code: SCU)”, “quasi-territorial meanings (code: QTM)”, and “territorial meanings (code: TM)”. Yet, there were multiple patterns where the nodes of “territorial meanings” and “quasi-territorial meanings” were linked with others. Actually, the linkage between spatial and social interactions and territorial and quasi-territorial meanings differed remarkably across cases. This observation suggested that although spatial and social person-environment interactions served as a critical “actor” holding together a network of factors contributing to the environmental meanings pertaining shared spaces (including territorial and quasi-territorial understandings), residents’ territoriality-related interpretations were not derived in a consistent manner (see Figure 7.5 below).
According to the distinct variation in the disposition of the nodes of “territorial meanings” and “quasi-territorial meanings” in compact case maps, I grouped cases into several
“case families”. These case families highlighted the fact that territorial and quasi-territorial meanings about shared spaces were yielded by different residents in multi-modal ways. The formal traits that characterized these case families and the relevance of case families with residential territoriality are discussed in detail in the following sections.

7.2 Case Families and Person-Environment Situations

7.2.1 Overview of Case Families and Outlier Cases

Through examining compact case maps, I differentiated three major case families (A, B, and C) by recognizing the altering networks of contributing factors where territorial and quasi-territorial meanings were embedded. These cases families contained 10, 26, and 20 cases respectively, and the remaining four cases were considered outliers that did not fall into any case family. Specifically, case family B contained two subgroups: Family B1 of 12 cases and B2 of 14 cases. Likewise, case family C may be divided into Family C1 of 12 cases plus C2 of eight cases. As Figure 7.6 above shows, in each of the case families and sub-families, there were cases from all the three research sites. When I carefully examined the cases grouped in these case families, I found that not only did they suggest different “trails” or “models” whereby territorial and quasi-territorial meanings were generated, but they also manifested categorically distinct person-environment situations. These person-environment situations are distinguished by mode of person-environment transactions, socio-spatial composition of the situational environment, and traits of the situated person.

Moreover, I discovered that contrasting person-environment situations matched the varying ways residents derived and infused territorial and quasi-territorial meanings into shared
spaces. The following text renders holistic pictures in which residents’ territorial and quasi-territorial perception and experiences were understandably generated from the different person-environment situations characterizing their case families. Interrelated personal, environmental, and person-environmental transactional facets of these situations all came into play, and yet person-environmental interactions at the neighborhood level emerged as the most important precursor to understand residents’ territorial and quasi-territorial opinions and attitudes. Their significance can be established in two senses:

- Different modes of person-environment interactions, especially the different spatial behavior patterns between case families indicated different types of person-environment situations that generally predicted the different models whereby residents developed their territorial and quasi-territorial interpretations of shared spaces.
- In each case family and every individual case, the specific person-environment interactions influenced residents’ territorial or quasi-territorial understandings in varied ways according to the specific model by which such understandings were generated.

While person-environment interactions playing a vital role in explaining territorial and quasi-territorial meanings seemed to substantiate the situativity paradigm, I also noticed that person-environment interactions did not solely determined residential territoriality. Other factors were also influential, thus prompted me to critically evaluate the credibility of situativity theory and its explanatory strength in this study as well as in a broader context of investigations of environment-behavior relations (EBR).

7.2.2 Case Family A

7.2.2.1 Synthesized Case Configuration (Family A)

Case family A included four cases from Ruihong New Town II (Site A), four from Dahua Qingshuiwan (Site B), and two from Shanghai Luchen (Site C). They were categorized as such because their compact case maps shared two defining graphic characteristics (see Figure 7.7
and Figure 7.8 below). First, the nodes of “territorial meanings” were always linked with the nodes of “social cognition and understandings” but never with the nodes of “situated spatial experiences”, “spatial behaviors” or “social interactions” in all the cases within this family. Second, the nodes of “quasi-territorial meanings” were connected with the nodes of “situated spatial experiences”, “spatial behaviors” and “social interactions”. This particular pattern indicated that the residents represented by this case family commonly derived their territorial attitudes about the shared spaces in their high-rise gated developments from their social knowledge and conceptions regarding their neighborhood environments (see Figure 7.8 above). Conversely, their quasi-territorial understandings were associated with their perception of the physical spaces and human behaviors in their neighborhoods as well as their social and behavioral transactions taking place there. Cases belonging to this family embodied comparable person-environment situations that in many ways, gave rise to their typical case configuration explaining territorial and quasi-territorial attitudes and senses.

Figure 7.7: Overlaid image of the compact case maps in case Family A
7.2.2.2 Person-Environment Situations (Family A)

The person-environment situations manifested by the cases falling into case Family A can be summarized by a categorical template in terms of three interdependent personal, environmental, and person-environment interactional aspects: (1) the residents as the situated persons had inadequate time and weak intentions to exploit shared spaces other than those travelled through; (2) only a small fraction of shared spaces, an underdeveloped interpersonal network, and few social organizational entities constituted the residents’ within-development situational environments; (3) The residents’ behavioral and social ties with the residential neighborhood were extremely weak and tenuous.

Specifically, residents within this case family shared a hectic lifestyle as the major breadwinners of their families. They were mostly young professionals and all had full-time jobs to deal with, leaving them with limited time at home during weekdays. Overall, these residents reported a low level of behavioral engagement with their neighborhood environments. Shared spaces for them mostly meant interior circulation spaces such as hallways and elevators (four
cases), parking lots or garages (seven cases), or streets and pathways (seven cases) because *traversing different indoor and outdoor shared spaces when leaving and returning home on a daily basis is the predominant form of within-development spatial behaviors* for these people. The majority of them (seven out of ten cases) moved in and out of their gated developments in cars, collective spaces for motor vehicles were more frequently accessed and utilized than pedestrian spaces.

For these residents, other types of spatial behaviors such as strolling or idling in open spaces were rare and sporadic.79 They also had few family responsibilities or life style habits that motivated them to use the shared spaces of their gated developments.80 Given the lack of substantial spatial use, their neighborhoods’ landscaped areas were merely picturesque views for them to behold from a distance when they walked or drove by or from above when they were behind the windows of their dwelling units (see Figure 7.9 below). In terms of amenities featuring interior spaces, only two (A-07 and A-13) occasionally visited the residents’ clubhouse to use its functional spaces such as the reading room or public bath. Mrs. D (C-02) well described the way the most majority of this case family (nine out of ten cases) utilized the shared spaces behind their developments’ walled perimeters.

“The most often used common elements are streets and paths, especially those in proximity to the entrances. The green spaces and the clubhouse are the next. Other than those, I have rarely used any shared spaces since I was here. When I just moved in, I dined at the cafeteria within the clubhouse for a few times, but my interest soon wore off. Once there were newly opened restaurants outside of our development, I stopped visiting the clubhouse cafeteria anymore. And...you know there is a vine-covered pergola down in the courtyard next to our building. We used to be there, for no more than three times, to hang out with my friends.

79 Once in a while, some would take a walk around alone (A-07, A-03, and C-01) or with their family members or friends (five cases), but such occasions were fewer (five cases). That was because either their interest had weakened (A-07 and C-02) or they had advanced to a new life stage that came with an even tighter daily schedule (A-03, B-19, and C-01).

80 Although three of them were parenting (B-12, B-15, and B-19; all were males), they usually did not play with their children in shared spaces such as lawns or playgrounds because in their families, it was the wives or the seniors (parents or parent-in-laws) who took care of the children.
It was really a beautiful day and we basked in the sun there. But we did that for no more than three times. And it was only in this courtyard. We never went to other courtyards. (C-02: 9min-10min)"

Only in Case B-03 did the resident, Ms. S engaged with shared spaces more often and extensively. She was the only one out of this case family who played the role of “care-taker” in family. Every day after work, Ms. S walked her pet dog in landscaped areas and hence considered such spaces important in her spatial behaviors.

81 In this study, “care-takers” refer to the residents who are either the primary person in their family to take care of the underage family member(s) or the pet(s) such as a cat or a dog. One defining feature of the care-takers is that they would utilize some part of the development’s common spaces on a regular basis together with the subjects (children or pets) they take care of.
As these residents’ neighborhood activities were often restricted to a few locations and their spatial behaviors there created few chances promoting social interactions with others, they understandably had quite weak interpersonal relationships with other inhabitants or property management crew. Almost all of them had a small size of acquaintances, usually no more than the a few homeowners on the same floors. The condition indicated by Mr. S (Case B-19) was representative,

“I almost don’t know anybody here. Except for a few in this building, I almost know no residents. I have very few friends. My wife knows several people. There is one acquaintance in building No.7. There is the other one in the building in front of ours. Both are known through our child... The grandparents (of these families) all know each other... All in all, I know very few even in my own building. (B-19: 27min-28min)”

Only three of these residents (A-07, A-13, and B-03) contacted others through the use of shared spaces. In these cases, space-dependent interpersonal communication was scant. The residents of this case family usually got to know other persons either through non-spatial means or at locations outside the neighborhood.

Regarding their interactions with social organizations, this group of residents maintained a relatively closer relationship with their property management companies, but the connection did not go further than routine transactions such as paying assessments (four cases) or making maintenance calls (four cases). They rarely had sustainable contacts with neighborhood committees or homeowners’ councils since the former mostly dealt with the seniors and the latter was either not available or not operating normally (detailed in Chapter

82 Actually, a couple of them (B-15 and C-02) did not even recognize the guards or the janitors working in proximity.

83 These means included work connection (A-03), family members (A-13, B-12, and B-19), online discussion forums (four cases), or other special personal experiences (four cases). The only exception is still the case of B-03, who had successfully developed quite a few connections through her daily dog-walking activities. Unsurprisingly, she noted the contribution of dog-walking to her social life in the development. As she said, “I know quite a few people through walking my dog. If I didn’t walk my dog, I would talk to almost nobody in this neighborhood. Because of dog-walking, I got to communicate with others. This is quite obvious. The dogs would greet each other when they meet; their owners would also feel obliged to break the silence. Therefore I gradually got acquainted with some people here. (B-03: 44min)”
One and Four). A clear apathy with these two institutions was expressed by two among this group of resident research participants (A-07 and C-02).

7.2.2.3 Explaining Territorial and Quasi-Territorial Understandings (Family A)

Case Family A represented a categorical type of person-environment situation that was framed by the residents’ “weak” behavioral and social bonds with their neighborhood. Such person-environment situations had significant implications upon the way these residents perceived and interpreted shared spaces in territorial and quasi-territorial terms.

Territorial Understandings

The residents' territorial opinions were almost never related to their actual spatial experiences in shared spaces or their within-development social transactions because they did not have enough behavioral or social interactions involving the shared spaces in their neighborhoods. Their social knowledge was the sole contributor to their senses of territorial control and spatial rights (see Figure 7.10 below).

![Figure 7.10: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of territorial meanings (Case Family A)](image)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

When describing their perceived control over shared spaces as “collective properties”, the majority (nine out of ten cases) agreed that management companies possessed greater active control than homeowners with reference to the common areas and objects. However, this belief was often not grounded upon any concrete social or spatial experiences in their neighborhoods but rather some abstract concepts or general impressions about the power
relationship between homeowners and developers (or property managers) or about the legal ownership conditions of shared spaces. The exact source of such knowledge was either from the residents’ historical interactions with developers or property management companies or simply unknown. The accuracy and completeness of their social beliefs were problematic in some cases and were reflected in the reported territorial meanings. For example, in three cases (A-09, A-13 and B-19) the residents were not aware of the actual power asymmetry or of all the problems besetting the homeowners’ councils of Shanghai residential developments. Thus, they still assumed that residents’ “collective agency” through the homeowners’ council could in some form actively influence the use or management of shared spaces.

Also, when explaining the territorial attitudes about non-resident access and behavioral rules in shared spaces, these residents typically did not refer to their own spatial or social interactions. Whether they leaned towards acquiescing or rejecting non-residents’ access to their secured developments, their rationales were typically some normative ideas or thoughts that had little to do with their actual spatial use or social experiences. The divergence found in their spatial rights attitudes was thus rooted in their different social beliefs. For instance, one resident (B-15) considered using open spaces a fundamental piece of civil rights and he had no problem with non-residents’ visit to his neighborhood’ outdoor common areas, while the other (A-07) loathed non-resident access as he insisted that free access was only allowed in public parks and his housing compound was nothing like parks.

Quasi-Territorial Understandings

Quasi-territorial senses by these residents, on the other hand, were interrelated with their spatial experiences and their particular mode of interactions with socio-spatial environmental elements (see Figure 7.11 below). The residents’ limited spatial extent of behaviors, sparse and unvaried spatial uses, scarce social activities, and the consequent spatial

---

84 For example, in a few cases (B-03, B-12, and B-15) from Dahua Qingshuiwan (Site B) and the case of C-01 from Shanghai Luchen (Site C), the residents all had some direct or indirect historical transactions with the developers or property managers concerning the regulation and use of clubhouses (see also in Chapter 6).
understandings and memories all contributed to explain their characteristic imagined home ranges, care-taking attitudes, and experienced neighborhood cohesion.

![Diagram of Underlying relational codes](image)

Figure 7.11: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of quasi-territorial meanings (Case Family A)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

Firstly, their perception of the home as subjectively imagined and interpreted showed that interior and exterior shared spaces were assigned with weak “home-like” meanings in general, which were associated with their limited socio-spatial transactions pertinent to shared spaces. As Figure 7.12 below highlights, the “Onion-and-Beads” diagrams reflected that the imagined home ranges of these residents revealed two patterns. Six of them reported data that were encapsulated by Pattern A diagrams, implying that the residents perceived no shared spaces as a salient part of the home. The imagined home range meanings yielded by the remaining four residents matched Pattern C diagrams. These persons recognized within-building shared spaces and some within-development exterior or interior locations as “home-like”. This disagreement can be partly explained by the within-family differences in person-environment interactions, as the only two occasional clubhouse users (A-07 and A-13) in this case family both considered the clubhouse part of the imagined home.
Secondly, these residents’ care-taking attitudes also reflected the implications of their special person-environment situations and person-environment transaction mode. Figure 7.13 below demonstrates that in five out of ten cases within this family, the residents expressed few significant care-taking concerns for shared spaces beyond their high-rise residential buildings, which were divulged by the corresponding Pattern A and Pattern B “Onion-and-Beads” diagrams. These residents expressed weak care-taking feelings for indoor or outdoor amenities in their neighborhoods as they did not carry out frequent activities there or rely on these common elements heavily in their daily lives. The other five residents, however, did reported care-taking meanings attributed to some shared spaces scattered in their neighborhoods that were illustrated by Pattern C diagrams. Yet, three of them (B-03, B-12, and C-01) directed their caring focus to the parking facilities that they used most often every day, indicating the relevance of person-environment interactions. On a nuanced level, one can detect more evidence in support of the influence of person-environment situations over care-taking attitudes.
Moreover, for the cases within this family the sense of neighborhood cohesion or the perceived connection of residents with other neighborhood inhabitants was related to residents’ social and behavioral interactions. Within-development shared space did not exhibit palpable social psychological differentiation for these residents. Most (eight out of ten cases) admitted that they had difficulty to recognize homeowners (telling co-residents from non-residents) anywhere in their gated developments other than the interiors of their residential towers. This was reasonable considering their rare contacts with others in any other shared space. Only the two occasional clubhouse visitors (A-07 and A-13) reported encountering a few familiar persons in the clubhouse.

**7.2.2.4 Brief Summary (Family A)**

In short, cases in this family consistently demonstrated a distinctive type of person-environment situation that predicted a particular pattern through which territorial and quasi-territorial understandings were cultivated by multiple contributing factors. In terms of grand processes, the mode of person-environment interactions in spatial and social dimensions impacted the production of various territorial and quasi-territorial attitudes, with the former exclusively dependent upon social understandings and the latter fed by more experiential, perceptual, and behavioral elements. On a finer level, the specific social and spatial behaviors partly explained the variation in these territoriality-related environmental meanings.
7.2.3 Case Family B

7.2.3.1 Synthesized Case Configuration (Family B)

Case Family B comprised two subgroups. Family B1 consisted of four cases from Ruihong New Town II (Site A), three cases from Dahua Qingshuiwan (Site B), and five cases from Shanghai Luchen (Site C). Family B2 contained six, four, and four cases from the three research sites respectively. Compared to those in case Family A, cases in this family were identified by the case configurations that implied more contributors to territorial meanings of shared spaces (see Figure 7.14 and 7-15 below). In their compact case maps, the nodes of “territorial meanings” were always linked with the nodes of “situated spatial experiences”, suggesting a chain of interconnection that brought together “territorial meanings” with “spatial behaviors” through “situated spatial experiences”. For those in Family B2, an additional direct link between “territorial meanings” and “spatial behaviors” was included in their compact linkage between “spatial behaviors” and “social interactions”. As a whole, cases belonging to Family B1 and B2 displayed person-environment situations distinct from those displayed in case Family A, which further led to a different explanatory model of territorial and quasi-territorial understandings.
Figure 7.14: Overlaid image of the compact case maps in case Family B
Figure 7.15: The case configuration shared by the constituent cases in case Family B
7.2.3.2 **Person-Environment Situations (Family B)**

Roughly speaking, the cases categorized as Family B manifested a special type of person-environment situations where shared spaces were more involved in residents’ behavioral and social transactions with their neighborhood environments than those within case Family A. This unfolded in three interrelated aspects in terms of situated person, situational environments, and person-environment interactions: (1) the residents as situated persons played certain social or family roles that prompted them to have some behavioral and social connections with their neighborhoods; (2) in comparison to those in case Family A, a wider range of shared spaces and more extensive interpersonal network defined the residents’ situational environments; (3) the residents developed moderately stronger behavioral and social ties with their secured neighborhoods and exploited shared space more actively than for case Family A. These characteristics can be illustrated as follows.

In this case family, the residents expressed greater “abilities” and/or stronger “needs” to reach and use shared spaces more frequently, especially interior or exterior amenities. Although most of them were still professionals or students burdened with full-time commitments (12 out of 12 for Family B1 and nine out of 14 for Family B2), there were four retired residents (all from Family B2) who had plenty of free time and 11 (four from Family B1; and seven from Family B2) serving as the major care-takers in their families, who therefore needed to spend some time every day in their neighborhoods’ open spaces with little children or house pets or both. There were also a few others (four cases) who were enthusiastic clubhouse users. Overall, the recurring within-development spatial behaviors of these residents were diverse recreational activities in both indoor and outdoor shared spaces that were often considered important. This marked a major distinction from the behavioral patterns of those in Family A. As highlighted by Table 7.1 below, movement for circulation purposes and viewing landscaped areas from afar were not reported as often in the cases of this family as those in Family A, while other spatial interactions with shared spaces seemed to take priority.
Table 7.1: Comparison of spatial behaviors across case families (without considering the incidences of these behaviors)

<table>
<thead>
<tr>
<th></th>
<th>Movement</th>
<th>Viewing</th>
<th>Strolling</th>
<th>Walking dogs</th>
<th>With little children</th>
<th>In clubhouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (10 cases)</td>
<td>7</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>B1 (12 cases)</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>B2 (14 cases)</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

With regard to specific behaviors, about half of the participants in this group strolled along various promenades, walkways or paths in their gated neighborhoods for relaxation (7 out of 12 for Family B1 and 5 out of 14 for Family B2) with a variety of motivations. Instead of just viewing their neighborhoods’ picturesque outdoor landscapes from afar, they preferred to become immersed in it, as Mr. L (A-06) put it,

“In fact I can almost have a panoramic view of our neighborhood when I am home, but it feels better to step out of my apartment and get into the landscape. (A-06: min 13)”

Accompanying little children to landscaped areas or children’s play yards was the other often mentioned spatial usage (six out of 12 for Family B1 and five out of 14 for Family B2) (see Figure 7.16 below). Some of them (four cases) regarded this behavior as a daily task and the primary approach to make use of the neighborhood environment. Routinely spending

---

85 For example, fresh air (A-06 and C-18), abundant greenery (A-18), visually appealing landscapes (B-09, B-16, and C-14), and availability of outdoor furniture (C-20) encouraged their strolling in open areas. Some of them also mentioned that they would walk together with their family members including spouses (C-09 and B-18), children (B-16, B-18, and C-18), or parents (B-17).

86 Those who taking children to shared spaces were fathers (A-02, B-16, B-18, C-17, and C-19), mothers (A-08, B-20, C-04, and C-15), or grandparents (C-18, A-10).

87 For instance, Ms. Z (A-10) was a senior woman in her 60s who had been taking care of her daughter’s children for years. Her daily schedule was adapted according to the children’s life rhythm. As she said, “I spend about one hour every morning (to accompany the little child walking around) from 9 to 10. We will also take a walk in the afternoon for about half an hour. If the little one wakes from his nap at 3 then we will be back at about 3:30. That makes a 2-hour activity time in the neighborhood. This is the second child; my older grandson goes to primary school and now stays with one of his teachers, which makes my job a lot easier. Two children are already too much for me. I usually do not walk around alone. (A-10: 15min-16min)”
time in exterior shared spaces with minors was a spatial behavior absent for the residents in case Family A. There were also four individuals (all from Family B2) who regularly contacted and utilized outdoor shared spaces via dog-walking, thus spending regular hours in gardens and lawns. As to the residents’ behaviors in interior shared spaces, 12 residents (five from Family B1 and seven from Family B2) mentioned the functional spaces in residents’ clubhouses.88

Figure 7.16: Behaviors in landscaped areas reported by the case of B-16 through voluntary photography (from the perspective of a father)

Through multiple spatial behaviors, *recreational shared spaces* mainly affording recreational or entertainment uses, rather than circulation purposes, were engaged with greater frequency for those in this case family than the cases in Family A (see Table 7.2 below).

88 Different actions were performed in clubhouses including swimming (five cases), exercising (A-01, A-11, and C-19), jogging (C-17), taking shower (A-11, A-20, and C-19), dining (C-14 and C-15), and playing Ping-Pong (C-17). A couple of research participants (A-20 and C-14) had purchased yearly memberships to use the clubhouses.
Also, recreational shared spaces implied more behavioral significance for the individuals in Family B2 than those in Family B1.

Table 7.2: Comparison of the utilization frequency of neighborhood recreational shared spaces across case families

<table>
<thead>
<tr>
<th></th>
<th>Rare</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>As caretakers</td>
<td>As clubhouse users</td>
</tr>
<tr>
<td>A (10 cases)</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B1 (12 cases)</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>B2 (14 cases)</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: recreational shared spaces refer to the interior or exterior shared spaces for recreational or entertainment purposes, for example, landscaped areas, clubhouses, outdoor fitness courts, children’s play yards, etc.

In fact, 15 residents (seven from Family B1 and eight from Family B2) in case Family B indicated that they used recreational shared spaces frequently or occasionally. Moreover, two residents (C-4 and C-18) from Family B1 and six others from Family B2 reported that they would access and utilize some common spaces as a daily routine. For these eight residents, strolling or jogging along the paths in landscaped areas, walking dogs, visiting children’s playgrounds with little ones, and using clubhouse functions were the typical daily activities that they would carry out in regular hours every day. As Mr. C (C-18) put it,

“I probably, if I have no other meeting call, would spend one to one-and-a-half hours (in the development) because of my granddaughter. When I am off work, I would bring her to the plaza to play for a while. Usually, I return home at 5:15 while dinner is at 6:30. I will use this one-and-a-half-hour window to take the child to a walk… I also stroll around after dinner at around 8 on the neighborhood’s paths, covering two big loops around the entire development. The air quality is pretty good (inside this residential development). I spend around half an hour out in the neighborhood’s common areas before I get back at about 9. (C-18: 18min-21min)”

On the social-interactional level, the residents in this case family generally had more contacts with their neighbors or property management crew than those in case Family A. The ones in Family B2 also enjoyed even more developed interpersonal ties with others than those in case Family A. Using shared spaces seems to have promoted interpersonal communications for these persons. Due to the socialization opportunities created by dog-walking (three cases),
accompanying little children (seven cases including four from Family B1 and three from Family B2), or using clubhouses (five cases), 12 residents (five cases from Family B1 and seven cases from Family B2) enjoyed a somewhat developed interpersonal network with other residents. Mr. Z (A-20) aptly described the contribution of spatial behaviors to interpersonal interactions with other residents.

“I first got to know almost all of my friends at the Residents’ Club. Therefore I say the Club act as a platform to get acquainted with others. It will be relatively difficult to know others without it. For example, if you run into someone looking familiar in the neighborhood, you may feel reluctant to initiate a talk with him even if you may have encountered him a dozen times and you know exactly that he is one of the homeowners here. Is this often the case? That is the way it works when it comes to social contacts. Through the clubhouse, for example, going to sauna together, where there are only two persons and it feels a lot easier to talk to each other... (A-20: 42min-43min)”

Even the use of interior circulation spaces such lobbies or elevator hallways helped four other residents to get acquainted with a few in their residential towers. Only seven residents (five cases from Family B1 and two from Family B2), which accounted for less than one third of case Family B, indicated that their social contacts were initiated mostly through non-spatial means (e.g. the Internet) and that they had limited acquaintance circles that were akin to those in case Family A.89

Despite all the above mentioned differences, the residential transactions with development-based social institutions were somewhat similar for those in this case family and Family A. Most of these residents (seven from Family B1; eight from Family B2) interacted with property management companies on regular occasions such as making assessment payments or giving maintenance requests, but nobody tried to further intervene with their property managers’ operations. In terms of the other two organizational entities, four stated that they knew very little about homeowners’ councils or did not feel it even existed and three said they

89 As one young male resident (Mr. X, C-09) indicated, “I got to know people primarily through the Internet. Therefore, the distribution of my acquaintances in the neighborhood has little to do with geographical locations...(C-09: 35min)”
were not aware of neighborhood committees. Only four (one from Family B1 and three from Family B2) had some real contacts with neighborhood committees due to practical concerns. Mr. H (C-17), a young father, presented well interactions with neighborhood-level social organizations typical for the individuals in this case family.

“I had contacts with all (of these three institutions) except for the homeowners’ council. This is a weird situation. Our homeowners’ council is something that we always hear about but never actually see. I have some contact with the neighborhood committee because we needed to get the childbirth permit and register our child’s “hukou” there. We also got the admission tickets to the Shanghai Expo from them. There are few reasons other than those for us to contact them. I don’t really like dealing with them. I feel it is unnecessary (to contact them). Yet we have sufficient contacts with our property management company. We had some problems when furnishing our apartment and asked for help from them. Hence I got to know a few persons in their office. Everyday maintenance, such as plumbing or gardening, also gets me to contact them. Their service is fairly good. (C-17: 48min-50min)”

7.2.3.3 Explaining Territorial and Quasi-Territorial Understandings (Family B)

Cases in Family B represented comparable person-environment situations that were established through a more robust behavioral connection between the residents and their gated development’s shared spaces and more interpersonal contacts in their neighborhoods. This observation was even more salient for the ones in Family B2. Shared spaces meant more than movement corridors or backdrops pleasant to eyes for the residents in case Family B. Instead, some recreational shared spaces were critical venues for them to play out their family roles or satisfy their residential needs. Their enduring engagements with certain activity-spaces (e.g. a clubhouse fitness room shared with many users or a children’s playground where many parents and children were present) induced their interpersonal transactions with other residents. I found that this distinct type of person-environment situations was significantly associated with how territorial and quasi-territorial meanings about shared spaces were generated for these residents.

90 Because of China’s one-child policy, couples need to obtain a childbirth permit from their local neighborhood committee before they try to conceive.
Territorial Understandings

Figure 7.17: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of territorial meanings (Case Family B)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

The frequent uses of neighborhood communal locations and heightened social interactions apparently spawned psychologically significant events and experiences through
which the residents of Case Family B could evaluate shared spaces in a territorial perspective. Therefore, these residents derived their territorial opinions from multiple sources that included spatial and social interactions and situated spatial experiences, which represent non-territorial spatial memories and understandings about physical settings and others’ behaviors in shared spaces (see Figure 7.17 above). The following text elucidates these two contributors of residential territoriality in detail.

The association between residents’ territorial interpretations of shared spaces and their situated spatial experiences comprised three major threads, with each of them encompassing several underlying relations codes: First, the observation and comprehension of the behaviors by other neighborhood actors (including co-residents, non-resident visitors, property management crew, etc.) influenced the residents’ territorial opinions about non-residents’ rights of spatial access. Second, the observation and comprehension of the behaviors by other neighborhood actors contributed to the residents’ senses of active and passive spatial control. Third, the residents’ spatial memories had some bearings on their territorial senses of both spatial control and spatial rights.

The first and strongest thread of the situated-spatial-experiences-and–territorial-meanings linkage was substantiated by 19 out of 26 cases from this family. For those whose gave comments confirming this association, their access control attitudes were inferred from their observations of development guards’ or outsiders’ behaviors in shared spaces, whether or not they were inclined to accept or reject non-residents’ access. Those residents whoever were against allowing non-residents in their gated developments often justified their position by mentioning visitors’ uncivil behaviors or development security crew’s responses that they saw and remembered. The supporters of lax access control mentioned their comfortable experiences with visitors from the outside. For instance, Mr. C (C-18), a man in his 50s who regularly took his grandson to play around in the neighborhood said, "I don't have a problem (with non-residents’ entering our restricted housing compound). Recently, I can see visitors from the housing developments close by often go to the gardens in our neighborhood and hang out there. I think that is fine. Yet my wife doesn't like that. She believes visitors would undermine our
interest as homeowners here. That is just her personal opinion. (C-18: 28min-29min)”

The residents also explained their senses of active or passive control through their observation of property management crew’s or visitors’ behaviors. This thread of linkage was verified by 16 cases. A sense of active control over certain shared spaces may derive from the memory of the guards or janitors there who kindly respected the residents’ intentions and demands (see also in Chapter 5). Also, passive control perception may be rooted in what a resident observed regarding behaviors of others in the neighborhood. As, Mr. L, a male resident (B-16) who was parenting commented,

“There are motorized vehicles running around in the development. They are so rude as to honk when approaching pedestrians. Some are cabs, others are delivery vehicles. They are fast and dangerous in (this neighborhood’s) streets and there is little I can do to prevent that. (B-16: 42min)”

Finally, the association between perceived spatial features and residential territoriality was only reflected in a few cases (6 out of 26) that were dominantly from Family B2 (5 cases). The relevant verbal and graphic data illustrated the implications of spatial cognitions upon territorial meanings. For example, Mr. Z (B-07) tended to differentiate the locations where he could accept use by non-residents from other common spaces where he felt non-residents should not be allowed. As he said,

“I think I can accept outsiders entering our compound. If they just take a walk here, I find it is perfectly normal. But the bottom line is that they keep away from our residential towers. The interior residential spaces are absolutely off limit to them. They may only use the open spaces. For those who would like to walk their dogs in my neighborhood, I am not averse to their behaviors as I also have a pet dog. (B-07: 33min-34min)”

The situated spatial experiences contributing to perceived territoriality were reflected in all cases of Family B, while the spatial or social interactions as a source of territorial understandings were only seen in case Family B2 where the residents had even more transactions with their neighborhood environments. In the 14 cases of this sub-family case group, the linkage between spatial/social interactions and territorial meanings of shared spaces
manifested itself in three ways with varying strengths. First, the residents’ spatial behavioral patterns were connected with their spatial control perception. Second, the residents’ spatial behavioral patterns influenced their territorial beliefs concerning spatial accessibility and behavioral rules. Third, the social interactions with neighborhood organizations were associated with the residents’ perceived positive control over shared spaces.

As discovered by several within-case analyses, some residents’ spatial uses swayed or gave grounds for their opinions about spatial rights and privileges. If one regularly encountered visiting outsiders in some recreational shared spaces and enjoyed the contacts, he or she tended to believe that non-residents deserved some spatial rights in the gated development. For instance, a young mother (Ms. W, B-20) who took care of her 9-year old son said,

“I always bring my boy to the children’s play yards here and expect to meet some other kids of his age... It is great that the children from the outside can play together with my son and we adults could enjoy some free time... I always encourage him to get to know more playmates but it is difficult to find other children to play with. (B-20: 50min-51min)”.

Also, there were the ones who expected greater enforcement of restricted access and behavioral rules against outsiders because non-residents got in the way of his or her “daily tasks”. For example, Ms. L (A-18), a retired female resident who spent regular hours swimming deemed that non-resident visitors should never be allowed to enter the clubhouse and they should not be allowed to walk dogs in her neighborhood. She commented,

“Once I saw somebody who was not the homeowner here went to the swimming pool. She didn’t swim there and just showered for a really long time in the change room. I noticed that she was still there showering when I was leaving. I think we’d better stall those annoying visitors who would maliciously squander our resources. Besides, I am very averse to those outsiders who walk dogs in our development. There were times when I was jogging and saw a bad dispute between an (dog-walking) outsider and a resident here. (A-18: 35min-39min)”

Moreover, spatial behaviors could inform and modify perceived active or passive spatial control. For some who often used shared spaces, their spatial control perception was firmly
grounded upon the nature of their daily spatial use patterns. For example, Mr. H (C-17), a young man who was both parenting and raising a pet dog, said,

“\textit{I intensively use the collective resources here in my housing estate. Probably because these elements are shared, I don’t have a strong sense of ownership and control. I merely use the shared spaces and there is someone else who manages and maintains them. Suppose that there was no property manager and the homeowners took care of the neighborhood by themselves: we swept the development streets and we chipped in to maintain the properties, probably we would feel a stronger sense of control. However, we just pay management fee monthly and it is the property management company who takes care of everything with their crews having different specialties. Given that, I simply feel I can always use the shared spaces but not actually control them. (C-17: 24min-27min)\”}

In addition, the interview data from a few respondents suggested that social transaction with local social institutions could also shape positive control beliefs. These residents were energetic ones who constantly had requests or complaints to their property managers regarding shared spaces and always received positive feedback. They therefore felt empowered and enjoyed a great sense of control. Yet, social interactions did not play a significant role for the entire case family, as it was only verified in four cases.

While the preceding analysis demonstrated the implications of spatial experiences and socio-spatial activities upon the territorial meanings of shared spaces for those in case Family B, it should be noted that social beliefs and understandings still significantly contribute to shape their territorial understandings. For instance, Ms. G (B-09), a middle-aged woman expressed complicated territorial attitudes as her daily experiences made her against lax access control but she was also aware that some shared spaces were public property.

“\textit{In my view, if they (the visitors) are very civil, then it is no big deal for them to take a walk around here. However, there were some random visitors, some youngsters from nowhere who smoked by the creek. There were also those in filthy clothes and behaving badly. I would like to get them to stand off our neighborhood. After all, the creek (and the walkways by it) belongs to the public and it is not private property. If the visiting outsiders are all in nice dresses, there}
are few reasons for us to intervene (their accessing behaviors). (B-09: 35min-36min)"

Quasi-Territorial Understandings

With reference to quasi-territorial understandings of shared spaces for the cases in Family B, the residents’ spatial behaviors, spatial experiences, and social interactions were all significant contributors. Connections can be drawn between them and different quasi-territorial meanings including home range perceptions, care-taking attitudes, and neighborhood cohesion (see Figure 7.18 below).

Figure 7.18: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of quasi-territorial meanings (Case Family B)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

First of all, these residents’ imagined home ranges reflected that in general, shared spaces were more likely to be perceived as being “home-like” in comparison to the ones in case Family A. This difference was due to broader and more frequent spatial usages, longer duration in shared spaces, and more abundant spatial experiences. For example, Mr. L (C-03, Family B2)
who was a frequent clubhouse user believed that the clubhouse in his neighborhood was “an extension of family entertainment”. He also differentiated the open spaces located in the different development phase. He only recognized the “family strolling areas” within the Phase One area (where his apartment was located) as “part of home” because he was “extremely familiar with these spaces” and derived “a sense of being at home when spending leisure time there with the family”. In fact, the “Onion-and-Beads” diagrams of home range perceptions (see Figure 7.19 below) disclosed that the residents who often carried out activities in development-level shared spaces were inclined to recognize such venues in their home ranges (four from Family B1 and seven from Family B2). In contrast, those who engaged shared spaces (especially A-04, A-08, and C-14 from Family B1) less frequently reported exclusive and simplistic home range patterns. Proportionally more residents from Family B1 excluded neighborhood amenities from their imagined home ranges (as represented by “Onion-and-Beads” diagram Pattern A and B) than those of Family B2 did. This resulted from the fact that those from the former sub-family group were generally less ardent shared space users as those from the sub-family group B2.

91 There were two loyal clubhouse patrons, five children’s active care-takers, one jogger and one frequent dog-walker.
Figure 7.19: Categorization of the schematic “Onion-and-Beads” diagrams showing the senses of imagined home range reflected by the cases in case Family B1 and B2
The residents’ care-taking attitudes also manifested robust association with various perceptual, experiential, and behavioral factors that characterized the person-environment situations of case Family B. For example, Mr. Z (B-16, Family B1), a high school student confirmed that his care-taking opinions were closely related to his typical behaviors in shared spaces and his spatial experience. As he said,

“I care about all the pathways in the development. There are too many cars randomly parked in this compound and sometimes they block the walkways to my building. Once I was heading back from school and I saw several cars in front of the building entrance. I had to weave through them. Then I lightly swiped a side mirror and set off the burglary alarm. It was really annoying... (B-17: 32min-33min)”.

Again, the “Onion-and-Beads” diagrams unveiled a bigger picture (see Figure 7.20 below). The ones who had broader and more stable behavioral interactions with shared spaces usually extended their senses of care-taking beyond their dwelling units and residential towers. As a group, those in Family B2 (11 out of 14 cases) cared more about development facilities and landscape features than did the residents in Family B1 (seven out of 12 cases). Specifically, the 18 cases that yielded “Onion-and-Beads” diagrams that included development-level collective elements (Pattern C or D) covered those maintaining relatively stronger behavioral ties with their neighborhood environments for a range of reasons. These different reasons include child-caring parents (six cases), pet lovers (four cases), enthusiastic clubhouse users (four cases), and regular physical exercise participants (one cases). Their detailed care-taking opinions also expressed the importance of recreational amenities over traffic spaces such as parking or roadways.
Figure 7.20: Categorization of the schematic “Onion-and-Beads” diagrams showing care-taking attitudes reflected by the cases in case Family B1 and B2
It is also worth mentioning that spatial behaviors and interpersonal contacts explained better neighborhood cohesion for some of those categorized in case Family B, who said that they expect to see familiar others in clubhouses (two cases), building lobbies (five cases), parking garages (one case), or landscaped areas (three cases) as a result of adequate environment interactions in these locations. Yet most residents emphasized that given the development’s size and population, it was always a daunting task to recognize co-residents in shared spaces. The perceived social legibility of shared spaces often involved additional factors other than spatial uses or social interactions. The rational or intuitive imagination about space users’ identities was one of the extra contributors, as Mr. Q (A-02, Family B1) said,

“I believe that if I encounter somebody in the lobby of Tower No. 5 (my building), I can confidently tell if the person belongs here. I may not be able to do that in other buildings. Yet, the way I decide a random person’s identity in this neighborhood is mostly through his appearance. I would ponder if he looks like he is staying here... If there are some persons loitering on the lawn, I assume all of them are homeowners here. Outsiders basically cannot freely enter the development without a key card and the guard would question them before approving their access. (A-02: 35min-37min)”

7.2.3.4 Brief Summary (Family B)

To sum up the explanation of territorial and quasi-territorial understanding for this case family, it is clear that as the residents in question generally performed richer and more extensive spatial use patterns in shared spaces (especially in neighborhood recreational amenities), their spatial experiences and spatial behaviors influenced their territorial senses and attitudes about shared spaces to varied extents and social knowledge was no longer the sole contributor of residential territoriality. The quasi-territorial interpretations and experiences were derived from multiple sources including cognitions, experiences, spatial behaviors, and social interactions. The more active person-environment interactions a resident engaged in, the more significantly spatial experiences and behaviors had implications on the territorial and quasi-territorial environmental meanings of shared spaces. As a whole, these residents’ quasi-territorial interpretations exhibited characteristic qualities since they generally spent more regular time in shared spaces (especially recreational shared spaces) and took part
in more socio-spatial happenings in shared spaces. Also, minor variations in the reported quasi-territorial meanings between the two sub-family case groups or individual residents echoed the detailed distinctions regarding what people observed and experienced, how they behaved in shared spaces, and how they transacted with others or social organizations in the neighborhoods.

7.2.4 Case Family C

7.2.4.1 Synthesized Case Configuration (Family C)

Case Family C divided two sub-family groups. Family C1 included four cases from each of the three research sites. Family C2 was composed of two cases from Ruihong New Town II (Site A), four cases from Dahua Qingshuiwan (Site B), and four cases from Shanghai Luchen (Site C). As Figure 7.21 and 7-22 below exhibit, the cases in this case family featured complex case configurations as multiple factors were extensively interrelated. A few important characteristics distinguished them from those in Family A and B. Both the nodes of “quasi-territorial meanings” and “territorial meanings” were linked with more items and they were mostly connected with each other as well. “Social cognition and understandings” were associated with “quasi-territorial meanings”. Moreover, the linkage of “spatial behaviors” and “social interactions” were observed in most cases in this case family, so were the association between “activity-space” and “social interactions”. On a finer sub-family level, those in Family C2 also exemplified that the nodes of “social interactions” were always related to “territorial meanings”.
Figure 7.21: Overlaid image of the compact case maps in case Family C
In brief, I found that the factors of social behaviors and social understandings were better enmeshed with physical spaces and behaviors, and their relevance to the territorial and
quasi-territorial meanings of shared spaces was more conspicuous for the cases in Family C. These conditions were understandable considering the person-environment situations revealed by the case of this case family.

### 7.2.4.2 Person-Environment Situations (Family C)

The residents belonging to this case family were typically those who developed and maintained the strongest bonds with their neighborhood environments in both behavioral and social senses. The overarching person-environment situations that they inhabited were comparable and can be described in three aspects: (1) the residents as situated persons needed to constantly access and utilize various common interior or exterior spaces to carry out their “daily tasks” given their social or family roles plus the free time or energy they possessed; (2) indoor or outdoor recreational shared spaces and developed interpersonal networks were fundamental components of the (within-development) situational environments relative to these residents; (3) the residents intensively and extensively made use of multiple recreational shared spaces, which prompted them to encounter and get to know other space users or interact with the local social institutions.

In more detailed terms, these residents enjoyed a leisure and routine lifestyle with the freedom of arranging their own daily schedules. Over half of them (seven out of 12 for Family C1 and four out of eight for Family C2) were either retired or self-employed, and the rest were all in stable career stages. Almost all of them were able to designate regular hours to engage the open spaces or residential amenities in their developments during the weekdays and weekends. A majority of them (seven from Family C1 and five from Family C2) spent regular hours in these shared spaces on a daily basis. The recurring within-development spatial behaviors for these residents were frequently taking part in recreational activities within neighborhood amenities either alone or together with pets or young children. As Table 7.3 below shows, travelling through shared spaces was rarely reported but proportionally more residents reported recreational activities in various forms.
Table 7.3: Comparison of spatial behaviors across case families (without considering the incidences of these behaviors)

<table>
<thead>
<tr>
<th></th>
<th>Movement</th>
<th>Strolling</th>
<th>Walking dogs</th>
<th>With little children</th>
<th>In clubhouse</th>
<th>At fitness court</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1 (12 cases)</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>B2 (14 cases)</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>C1 (12 cases)</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>C2 (8 cases)</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

As active physical exercise participants (14 cases), pet raisers (six cases), clubhouse patrons (nine cases), or children’s care-takers (six cases), the residents from this case family exploited recreational shared space even more frequently than those in Family B (see Table 7.4 below). The most utilized neighborhood amenities included tree-lined promenades, landscaped areas, lawns, children’s playgrounds, clubhouses or other residents’ entertainment facilities.

Table 7.4: Comparison of the utilization frequency of neighborhood recreational shared spaces across case families

<table>
<thead>
<tr>
<th></th>
<th>Rare</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Daily</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>As caretakers</td>
<td>As clubhouse users</td>
</tr>
<tr>
<td>B1 (12 cases)</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>B2 (14 cases)</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>C1 (12 cases)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C2 (8 cases)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: recreational shared spaces refer to the interior or exterior shared spaces for recreational or entertainment purposes, for example, landscaped areas, clubhouses, outdoor fitness courts, children’s play yards, etc.

In comparison to the cases in other case families, habitually conducting physical exercises in outdoor shared spaces is a distinctive spatial behavior displayed by the cases in Family C. For these regular exercise participants, exuberant greenery, pleasing views, car-free walkways, and outdoor physical exercising equipment are the most valued environmental qualities. A sizable portion of the residents of this case family carried out daily physical exercises at neighborhood fitness courts\(^{92}\) (three from Family C1 and three from Family C2). Also, many (nine cases) chose to stroll or jog around in their neighborhoods every day to keep

\(^{92}\) The specific activities included playing tennis or badminton (B-05 and C-12), performing t’ai chi (B-13), doing gymnastics (B-10), or exercising on some outdoor fitness equipment (A-14 and B-14).
fit. This behavior was well afforded by their neighborhood environments since all the three high-rise gated development under investigation featured first rate landscaped open spaces given the local market conditions. Mr. Z (A-14), a resident in his 50s felt more motivated to do physical exercise using open spaces than in his past neighborhoods. He said,

“When I get up in the morning, I jog around in this neighborhood. Unlike the old neighborhoods, this development allows me to exercise inside as its environmental quality is better than the streets outside. I also take a walk around after dinner for about half an hour. I mostly stroll in the main green space and also work out on the outdoor fitness equipment there. I go there for a walk at night also. (A-14: 29min-30min)”

Given their spatial activity patterns, these residents generally enjoyed more robust interpersonal bonds with their co-residents and property management crews. Proportionally, far more residents in this case family (18 out of 20) maintained an extended social network than those in case Family B (10 out 24). Only two individuals (A-21 and C-03) had minimal acquaintanceship with others in their neighborhoods. These individuals basically knew no others than their neighbors on the same building floors. The other 18 residents unanimously indicated that their social encounters were enhanced due to their behaviors in shared spaces. For instance, Mr. H (B-11) emphasized the relevance of dog-walking to his social relationship with other residents,

“I often walk my dog in the neighborhood. Therefore I constantly run into other dog-walkers, my ‘dog friends’. I get many chances to talk to my ‘dog friends’. In general, I know more people in the Phase One area than the Phase Two area and my acquaintances here are quite dispersed. It is just because that I have been in Phase One for a long period of time and I got my pet dog once I moved in, so relatively I know more residents here. (B-11: 54min-55min)”

Developing a local social network is often considered a housing need. Thus some of the respondents capitalized on social events initiated by their neighborhood committees (B-04, B-10, and B-14) or property management companies (C-11), others initiated or joined scheduled homeowners’ get-together events (A-16, C-06, and C-08). Usually these events or activities are
held in the clubhouse or other facilities. There were also cases where physical spaces appeared to be irrelevant to interpersonal interactions. For example, one young female resident (Ms. B, C-12) said that she became familiar with her co-residents whose children went to the same kindergarten as her child did. Special anecdotal events (e.g. property purchase) or existing social networks prior to move-in also predicted some residents’ social network conditions.

Concerning the transactions with the three neighborhood-level social entities, these residents have slightly more contacts with and hence more knowledge about their neighborhood committees and homeowners’ councils (even if they were not functioning normally) compared to those in Family A and B.

Half of the residents were in their 50s or beyond (eight for Family C1 and four for Family C2). Therefore, they were a focus of the neighborhood committees who generally target seniors. Three (A-12, B-04, and B-14) reported some interactions with the staff or officials of their local neighborhood committees. Two used to engage their neighborhood committees for other reasons (A-14 and B-01). Yet, overall these residents still found neighborhood committees quite detached from their living realms, which was especially so for those from Ruihong New Town II (Site A) where its neighborhood committee office was located outside of the gated development. As Ms. Z (A-14) put it,

“As to the neighborhood committee, we almost have no contact. Had it not been for the preparation for our homeowners’ council, I would have no chance to know where their office is. I thought it was within our development but actually it is not. It is outside on Tianbao Road. How could they function as a neighborhood committee like that? How could they play their role and contact the residents? They are completely disengaged from us since ours is an enclosed neighborhood and we have virtually no contact with them.” (A-14: 91min-93min)

The residents of this case family were generally more aware of the conditions of their homeowners’ councils than others. The most majority (13 out of 20) knew that their

93 Such as the Senior Center in the development of Dahua Qingshuiwan (Site B)
developments had no functional homeowners’ councils (eight from Family C1 and five from Family C2), among which were four residents (A-12, B-04, B-14, and C-08) who made attempts to help establish homeowners’ councils for their developments. Three other residents only conceptually knew about homeowners’ councils without any substantial contact (A-14, A-19, and A-21). The remaining four gave little relevant comments about homeowners’ councils.

With regard to property management companies, a sustained connection between residents and property management companies was confirmed by 13 residents (nine from Family C1 and four from Family C2). The residents’ transactions with their neighborhood-based property managers were mainly through requesting and receiving services, which was consistent across the case families discussed so far. The general pattern was also largely the same that residents were more connected with their professional property management companies than with the other two neighborhood-level social institutions.

7.2.4.3 Explaining Territorial and Quasi-Territorial Understandings (Family C)

In essence, the person-environments situations represented by the cases of this case family were similar and shared the features of vigorous behavioral interactions with recreational shared spaces (the ones in Family C2 used recreational spatial behaviors even more frequently and enthusiastically than those in Family C1), enhanced social engagement with the persons and some social organizations in their neighborhoods, and the strong association between their spatial behaviors and interpersonal activities. For these residents (especially those in Family C2), indoor or outdoor recreational shared spaces in their gated developments were indispensable for them to effectively perform their “daily tasks”, to execute their family or social roles, and to satisfy their special living demands. These person-environment situational traits, as further analyzed below, significantly affected the formation and content of territorial and quasi-territorial understandings.
Figure 7.23: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of territorial meanings (Case Family C)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

The abundant social and spatial transactions between the residents from this case family and their neighborhood environments cultivated diverse socio-spatial and behavioral
contexts in which territorial perception and experiences were embedded. Therefore, there were factors in varied dimensions linked to territorial meanings of shared spaces. Situated spatial experiences, spatial behaviors and social interactions, and social understandings were associated with residents’ territorial understandings to various extents (see Figure 7.23 above). Each of these linkages can be analyzed along several underlying themes.

To begin with, situated spatial experiences were interrelated with territorial meanings via three avenues: (1) the residents’ observations of other environmental users’ behaviors in shared spaces contributed to their beliefs about spatial rights and behavioral rules; (2) the observations of others’ behaviors in shared spaces were connected to their perceived active and passive spatial control; (3) the residents’ perception of physical settings was linked with their attitudes on spatial rights or perceived spatial control.

In many senses, the situated-spatial-experiences-and-territorial-meanings linkage demonstrated by this case family bore many resemblances with the one reflected in case Family B. The constitutive components (namely the supporting relational codes) and their relative strengths were all alike. However, the linkage in case Family C actually contained richer content, as it encompassed one more relational code (SSE-ONEU and TM-B). This meant that spatial behavioral rules in shared spaces for outsiders were related to spatial experiences and observations. As an example, Mr. Z (A-19), a senior resident who viewed certain shared spaces as crucial to his daily life, implied that non-residents not visiting anyone in the development should not enter or loiter in any residential building lobbies. His opinion derived from what he saw in the entrance lobby of his residential tower, which assured him that loitering outsiders do not belong here. As he said,

“Homeowners sure can use the lobby. If there are non-residents down there, then they must be the ones who are waiting for somebody. Usually, the delivery guys don’t stick around there. They are always in a rush. The security guards or janitors would not stay long in the lobby either. Normally there are not many people in the lobby. Sometimes I would wait on the couch (in the lobby) to pick up my newspapers. This place is very necessary for me... If the lobby is better furnished, I could even host some of my friends down there. I definitely need that space.” (A-19: 34min-36min)
As to the connection between spatial and social interactions and territorial meanings, it was more likely to be manifested by the ones whose everyday spatial actions and social lives relied heavily upon neighborhood shared spaces. This connection encapsulated three distinct senses: First, the residents’ spatial behavior patterns were associated with their attitudes about access control and behavioral rules. Second, the residents’ spatial behavior patterns were linked to their sense of positive and active territorial control over the shared spaces. Third, interactions with local social institutions were related to perceived positive and passive territorial control.

The spatial/social interactions-and-territorial-understandings link as observed in the cases of Family C was similar to that of Case Family B2 in terms of the overall configuration of its components, except that the contribution of social interactions to territorial meanings was more significant. This can be seen through a relational code (SI-CLO and TM-PC) that is unique for case Family C. This relational code indicated that some residents’ past transactions with their developments’ property management companies informed their sense of passive control. For instance, several residents in Dahua Qingshuiwan (Site B) used to be involved in a legal feud against their developer’s conversion of the clubhouse into a public bath and entertainment center (see also in Chapter 5). Since they finally lost in the court, these residents believed that homeowners were defenseless when developer-initiated environmental changes were imposed upon them. As Ms. L (B-01) said,

“We fought hard and spent much money (on this lawsuit). All was in vain. They (the developer and the property management company) simply enjoy greater financial clout and are much more influential. That was how we lost our swimming pool and clubhouse... Now they are even more unfettered. Parking goes crazy here, because they channel the extra cars from the bath house parking into our development... There is little for us to intervene and reverse this horrible situation.” (B-01: 76min-79min)

In the other case, the resident (B-11) felt more confident to exert negative control over the management of shared spaces as he joined a homeowners’ initiative that successfully overruled the property management company’s decision to have cellular base stations located
within the housing compound. Either way, the implications of social organizational interactions upon territorial spatial control perception was evident.

Concerning the role of social understandings related to territorial meanings, the residents in case Family C reported a robust connection between the two. The social knowledge regarding property ownership or social power relations always profoundly impacted their territorial meanings. Actually, for those from this case family, their social cognitions were commonly informed by their interactions with neighborhood-level organizations,\textsuperscript{94} which contrasted with all cases in Family A as well as a few cases in Family B. Considering this fact and the above discussed spatial/social interactions-and-territorial-understandings linkage, it is apparent that these residents’ territorial opinions were yielded from concrete spatial or social level person-environment interactions directly and indirectly through social beliefs and understandings as intermediating factors.

To summarize, those in Case Family C profoundly and persistently made transactions with the social and spatial settings in their developments and intensively utilized shared spaces, especially those introduced for recreational and entertainment use. Thus, their spatial behaviors, spatial perceptions, social transactions, and social understandings were all found to be the major sources from which their territorial opinions were framed and assembled. Recreational shared spaces served as requisite locations where essential daily activities took place and hence their territorially-charged environmental meanings were naturally derived from assorted person-environment interactions as well as the immediately associated non-territorial environmental understandings.

**Quasi-Territorial Understandings**

For the residents within Case Family C, their quasi-territorial perception and senses, including imagined home ranges, care-taking attitudes, and perceived neighborhood cohesiveness, were connected with the same set of multi-factors as were their territorial

\textsuperscript{94} Specifically, residents’ opinions about the property ownership of shared spaces, their understandings of neighborhood-level social power relations, and their evaluation of property management were usually associated with their transactions with developers or property management companies on occasions such as home-buying.
understandings (see Figure 7.24 below). The influence of person-environment interactions and spatial experiences were apparent. Social understandings and territorial meanings also had implications for their quasi-territorial attitudes about shared spaces, which distinguished this case family from the previously discussed ones.

![Figure 7.24: Underlying relational codes (annotated by the number of supporting cases) that imply the contributing factors of quasi-territorial meanings (Case Family C)](image)

Note: solid linking lines correspond to the relational codes that were recorded from more than half of the cases in this case family. Dashed linking lines indicate the relational codes that are only supported by minority cases.

First, constant spatial interactions with neighborhood recreational shared spaces and abundant spatial experiences in such spaces heavily molded the home range perceptions for the majority of these residents. They were dedicated shared-space-users and hence had their imagined home ranges extended far away from their private dwelling units to cover various amenities and sub-areas of their gated development. For example, Ms. L (C-07) said she could perceive a “home-like” quality from the clubhouse in her neighborhood because she “always visited there and felt it was an intimate place” for her. As was convincingly demonstrated by the relevant “Onion-and-Beads” diagrams (see Figure 7.25 below), interpreting within-
development shared spaces as “part of home” or “home-like” were prevalent for those in this case family. Their social knowledge about property ownership also reinforced such home range perceptions in some cases. As an example, Mr. X (C-06) considered that common elements owned by all homeowners in the neighborhood were part of his asset and therefore home did not stop at the front door but extended beyond (see also in Chapter Six).

Nevertheless, there were some seven cases (four from Family C1 and three from Family C2) where the residents disregarded all shared spaces outside their residential towers when describing their home range perceptions (as represented by “Onion-and-Beads” diagram Pattern A). From this subset of Case Family C, two (C-10 and C-11) mentioned their beliefs that shared spaces were not individually owned by any homeowners while the others did not gave specific explanations. I postulate that some cultural beliefs unexamined in this research were shared among these persons, which might ultimately decide the special configuration of their imagined home ranges. Some common educational experiences or cultural indoctrinations seemed to influence how these residents conceptually define their homes, making them assign the boundary of (domestic) interior spaces with unparalleled social, psychological, and conceptual significance that completely divided two worlds of domestic interior and all that lay outside that (see also in Chapter Six). These negative cases suggested that social understandings about property ownership and the broader conceptual norms about residential environments may noticeably discourage some residents from recognizing that shared spaces are part of their homes.
Figure 7.25: Categorization of the schematic “Onion-and-Beads” diagrams showing the senses of imagined home range reflected by the cases in case Family C1 and C2
Second, the care-taking attitudes indicated by the residents in case Family C were intimately related to their mode of person-environment interactions and also influenced by their social understandings concerning property ownership. In almost all cases from this case family, the specific physical spaces that made possible the residents’ regular behavioral or social activities within the development were always cared about. As Figure 7.26 below shows, dominant views were that within-development shared spaces, especially recreational amenities should be concerned and cared about. On a finer level, the livelier person-environment interactions a resident was involved in, the more shared spaces he or she expressed a caring attitude about. For some residents, their social cognitions (esp. the understandings of the legal definition of shared spaces in terms of property ownership) worked together with their behavior patterns to direct their care-taking opinions. For example, Mr. G (C-08) said,

“I am most concerned with the greenery in the development... Many of them are planted in the sheltering earth above the underground parking garage. Quite a few hence died because the layer of earth is too thin to support them... The gardening work here is commissioned to a professional company yet they often don’t report the loss of trees and simply remove the dead ones without replacing them... These trees belong to us and they are hired to take care of our trees. I feel really bad to see the fewer and fewer trees (when strolling in the development).”

(C-08: 78min-81min)

Only one resident (Ms. L, C-11) asserted that caring for shared spaces was completely unnecessary because of her evaluation of the property management company. She believed that since the property management crew took over all caring and maintenance responsibilities, the residents did not have to care about any collective elements in the neighborhood (see also Chapter Six). Her explanation disclosed that the association between social understandings and care-taking attitudes was multifaceted.
Figure 7.26: Categorization of the schematic “Onion-and-Beads” diagrams showing care-taking attitudes reflected by the cases in case Family C1 and C2
Third, for this case family the residents’ perceived social cohesiveness in their neighborhoods was connected with their person-environment interactions. As these residents typically conduct extensive social interactions with their co-residents when using recreational shared spaces, they were able to recognize others present in these spaces. Therefore, joggers, walkers, or pet owners reported that they could confidently tell residents from non-residents in the places along their frequently jogging or dog-walking routes. Parents involved in child-caring were able to recognize familiar faces at children’s play yards or clubhouses. In short, active social and spatial activities in shared spaces gave rise to strong social cohesion as perceived.

Yet, one phenomenon worth mentioning is that the residents were often not aware of where their acquaintances actually lived in the neighborhood, although they might easily recognize their faces when meeting in various common locations. In the spatially expansive and populous high-rise gated developments investigated in this research, the residents’ feeling that they were surrounded by a known population was dependent upon and often restricted within the sites they visited and utilized most. For instance, one senior resident (Ms. J, B-10) commented,

“I think my acquaintances in this development are considerable, because I have been here for six or seven years. Those who regularly do gymnastics at the plaza are most familiar. But I don’t really know where they actually live. If I run into somebody who is familiar, I can only roughly tell if that person is from the Phase One area or Phase Two area. I have no idea to tell his specific address in the neighborhood. Generally speaking, I meet more familiar faces in the Phase One area.” (B-10: 44min-45min)

7.2.4.4 Brief Summary (Family C)

In conclusion, the residents from case Family C derived their territorial and quasi-territorial senses about shared spaces from multiple behavioral, experiential, and conceptual sources. They were the residents who universally spent considerable daily time in their neighborhoods and often played the role of care-takers in their families, therefore they intensively accessed and utilized the recreational shared spaces in their gated housing estate and frequently engaged in social interactions with others or with their property management companies, all of which stimulated them to understand shared spaces in territoriality-related
perspectives. Hence, their territorial and quasi-territorial senses and opinions were framed by their periodic behaviors and their spatial experiences in shared spaces, their contacts with their co-residents or their real estate management companies, as well as their social understandings as to their neighborhoods.

The multiple contributing factors complicated the consequent territorial and quasi-territorial meanings reported by Case Family C. Diverse social knowledge, distinct spatial experiences, and different outcomes of spatial and social activities led to notable variation in the reported territorial and quasi-territorial understandings within the case family. Furthermore, some unexamined factors regarding persons’ cultural or conceptual schemata seemed to have had significant effects upon some quasi-territorial senses, such as imagined home range.

### 7.2.5 Outlying Cases

#### 7.2.5.1 Case Configuration Characteristics

The cases of A-17, B-02, C-05, and C-16 do not comfortably fit into any of the aforementioned case families and they were regarded as outlying cases. Their special case configurations can be represented by Figure 7.27 and Figure 7.28 below. The most prominent feature shared by these cases was the absence of linkage between the nodes of “social cognition and understandings” and those of “territorial meanings”, which was significant enough to differentiate these cases from all the others that were able to be categorized in case families. The nodes connected with “territorial meanings” and “quasi-territorial meanings” were somewhat inconsistent among the four outliers. Yet, the node “situated spatial experiences” was always linked with “territorial meanings”. Likewise, there were always links between “spatial behaviors” and “quasi-territorial meanings” as well as “social interactions” and “quasi-territorial meanings”. Additionally, the nodes of “spatial behaviors” were mostly linked to those of “social interactions”.
Figure 7.27: Overlaid image of the compact case maps of outlying cases

Figure 7.28: The case configuration shared by the outlying cases
For the residents reflecting these outlying cases, their territorial and quasi-territorial understandings had little to do with their social knowledge and conceptions but were still informed by their person-environment interactions and their spatial experiences. This unique formative pattern of territorial and quasi-territorial meanings was at odds with what their person-environment situations would predict according to the preceding analysis based on case families. The existence of these outlying cases underscored the intricate nature of residents’ territorial and quasi-territorial interpretations of the shared spaces in high-rise gated developments.

7.2.5.2 Person-Environment Situations (Outliers)

The four residents representing by these outlying cases were lodged in person-environment situations similar to those from case Family B or Family C. As situated persons, these residents frequently contacted and interacted with some recreational shared spaces in their developments. Their situational environments thus contained several neighborhood amenities as their regular use settings. Therefore, these persons were behaviorally attached to such amenities. Their social ties with other neighborhood protagonists were moderately strong and well maintained through periodic interpersonal encounters occurring in shared spaces.

The frequent utilization of recreational shared spaces was quite natural for these individuals since all of them were retired senior residents enjoying a relatively leisurely life style. Their daily activities significantly determine how they got to know others and with whom they would be acquainted.95 This naturally occurring interrelation of their social and spatial interactions was evident. In general, their within-neighborhood social associations were mostly with other senior residents as well as with property management crew members (e.g. gardeners, janitors, or security guards). Just as Ms. Z (A-17), a senior resident in her 80s described,

---

95 For example, two of them (A-17 and B-02) were regular physical exercise participants. Hence their daily use of certain sites and settings in their neighborhoods inevitably promoted their interpersonal connections with their co-residents using the same spaces (A-17, B-02, and C-05) and the property management employees who conducted everyday maintenance (B-02, C-05, and C-16).
“I spend about two hours in the common areas every day. I would work out at the fitness court or walking around in the neighborhood. Sometimes I also go to the commercial plaza or the residents’ club. I often run into other senior people who are also exercising and talk to them. I get to know other seniors as I have been here for a long time... there are not many senior people. The seniors here usually stay with their son’s or daughter’s family.” (A-17: 6min-7min)

With reference to their connections with neighborhood-level social organizations, these four residents also reported something similar to those from Case Family A or B. They often interacted with their property management companies. None of them was familiar with homeowner’s councils and only resident (B-02) had some experience with the neighborhood committee as he participated in some sight-seeing tours sponsored for the seniors by the neighborhood committee.

7.2.5.3 Explaining Territorial and Quasi-Territorial Understandings (Outliers)

In many respects, the four outlying cases represented a person-environment interaction mode similar to those of the cases in Family B or Family C. However, their territorial and quasi-territorial understandings appeared to be generated quite differently.

For these residents, the territorial meanings of shared spaces were associated with their observations or experiences, their daily activities, or their interpersonal social contacts. However, their social knowledge was totally irrelevant and had no impact at all, which was never seen in the cases grouped in case families. For instance, the perceived active and passive spatial control were shaped by their observations of the property management crew’s behaviors in the neighborhoods environment (B-02 and C-16) or the perceived behaviors of other neighborhood users (A-17, B-02, and C-05). The irrelevance between their social understandings and territorial perceptions was partly due to the lack of coherent social knowledge about property’s legal ownership, social power relationship, etc. For example, one resident (Mr. X, B-02) could not figure out who legally owned the shared spaces in his
neighborhood and could not articulate an unambiguous answer to the interview question. Also, when there seemed to be a disagreement between their abstract conceptual belief and their practical spatial experiences, the latter overruled to influence territorial understandings. This was best demonstrated in the case of Ms. B (C-16). Although she believed that shared spaces were collectively owned by all homeowners, this idea had little to do with her perception of active spatial control. Actually, she thought that the property management company was entitled to actively make environmental change decisions in her neighborhood as she always saw the gardeners or other workers commissioned by the management company beautifying or customizing shared spaces.

With regard to quasi-territorial perceptions and opinions, the imagined home range perceptions and care-taking attitudes were influenced by their spatial and behavioral experiences to a very limited extent, and their perceived social cohesiveness was modified by their interpersonal interactions and their spatial behaviors. Their social understandings had no observable implications for any of their quasi-territorial interpretations about shared spaces.

As Figure 7.29 below shows, the imaged home ranges expressed by these four residents corresponded to the same minimalist Pattern A “Onion-and-Beads” diagrams, indicating that they perceived no spaces other than their dwelling units as “home-like”. In explaining such understandings, the contribution of their spatial behaviors or spatial experiences was seemingly overshadowed by some conceptual beliefs uninvestigated in my fieldwork. It looked to me that they all assumed a strict correspondence between the physical and conceptual boundary of home, and shared spaces were automatically precluded as part of home. For instance, Ms. H (C-05) said,

“My place is my home and there is no question about it. But how can I view other places as part of my home? ... In this neighborhood, there are plenty of amenities provided by the developer to the homeowners here. Hence every household here seems to have a certain share. But I cannot say these places are home-like...

96 He did imply that the property management company might own the shared spaces of the development as he often saw the property management crew making adaptations to or maintaining the shared spaces, but he was not sure.
neither do I have any intention (to make them part of my home)... “ (C-05: 20min-21min)

For the other resident (Ms. B, C-16), home was always starkly distinguished from other settings in terms of behavioral implications. “There is a major difference”, as she commented, “I can place my stuff randomly in my home, but when I am out in the neighborhood I must get in appropriate dress first…”

Likewise, the care-taking attitudes held by these residents were predominantly molded by some implicit factors not unveiled by this research. The associations with their daily behaviors or spatial cognitions in shared spaces were at best tenuous, and none of these residents ascribed their care-taking attitudes to their knowledge about their neighborhoods’ legal political settings and social conditions. Except for the case of C-05, these residents do not care about the upkeep of any within-development shared spaces (see Figure 7.30 below). Although they frequented some development amenities, they typically shared the indifference concerning the maintenance of their neighborhoods’ collective elements. One of them (Mr. X, B-02) supposed that the property management crew would always take care of everything according to his observation of their behaviors. But the exact source of their apathy toward care-taking remains unknown due to the lack of data.
Finally, these residents’ perceived neighborhood cohesiveness was almost always associated with spatial or social interactions in the developments. Three of them (A-17, B-02, and C-05) were confident that they would encounter known others in the recreational shared spaces that they often visited. The other one (C-16) reported some difficulty of identifying in others in her neighborhood as her daily activities were mostly about escorting her grandchildren back and forth to school. She did not spend much time using neighborhood amenities.

### 7.2.5.4 Brief Summary (Outliers)

In brief, the outlying cases illustrated novel patterns for deriving the residents’ territorial and quasi-territorial attitudes and senses, although their person-environment interaction modes were akin to those addressed in previous discussion. Whereas spatial experiential, behavioral, and social-interactional factors were still contributors one way or the other, the individuals’ social knowledge and perceptions turned out to be completely irrelevant. Their territorial senses (perceived spatial control in particular) solely came from their interactions with the neighborhood’s spatial or social settings. Except for neighborhood cohesion, their quasi-territorial understandings were heavily influenced by some unknown factors. These outliers implied that a sophisticated and comprehensive explanatory theory was necessary to reflect all the complexities in the generation of territorial and quasi-territorial environmental meanings pertaining to shared spaces.

### 7.3 Emergent Explanatory Theory

Through multiple rounds of case-oriented studies that scrupulously interrogated residents’ “life stories” in their gated high-rise developments, I explored the generation of
territorial and quasi-territorial understandings and found that territorially-charged environmental meanings derived from a complex, multi-modal process. These processes defied any reductionist illustration and usually portrayed a definite mechanism organizing several fixed antecedent and consequent “variables”. The resident participants of this study reported that they resided in varying types of person-environment situations and different sets of factors were associated with their territorial and quasi-territorial interpretations of shared spaces through distinct relational patterns. Yet, the pairing of typological person-environment situations and alternative explanatory models was complicated by outlying cases. Fine-grained examinations further disclosed that specific person-environment actions were influential in cultivating and framing residential territorial and quasi-territorial perceptions but their implications had limits. The following sections illustrate and compile these findings and assess the effectiveness of the situativity perspective in explaining territoriality-related environment perceptions.

7.3.1 Typology of Person-Environment Situations and Explanatory Models

The residents categorized in distinct case families derived their territorial and quasi-territorial through notably different patterns. Figure 7.31 and Table 7.5 below summarize the alternative explanatory models that I propose based on the data of these case families.
Figure 7.31: Alternative explanatory models based on different case families
Table 7.5: Cross-family comparison in terms of the explanatory accounts of territorial and quasi-territorial understandings

<table>
<thead>
<tr>
<th>Case Family</th>
<th>Territorial Understandings (TM)</th>
<th>Quasi-territorial Understandings (QTM)</th>
<th>Social interactions (SI) and social understandings (SCU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Family A</td>
<td><strong>Associated factors:</strong> predominantly social understandings (SCU)</td>
<td><strong>Associated factors:</strong> situated spatial experiences (SSE), spatial behaviors (SB), and social interactions (SI)</td>
<td>Weak association between spatial behaviors in shared spaces and social interactions with persons; Social understandings were somewhat connected to social interactions with neighborhood organizations</td>
</tr>
<tr>
<td></td>
<td><strong>Content:</strong> diverse territorial opinions because the associated social understandings varied greatly</td>
<td><strong>Content:</strong> home range perceptions, care-taking attitudes, and neighborhood cohesion consistently reflected low social-psychological importance of all shared spaces except for those affording circulation purposes</td>
<td></td>
</tr>
<tr>
<td>Case Family B</td>
<td><strong>Associated factors:</strong> social understandings (SCU), situated spatial experiences (SSE), and sometimes spatial/social interactions (SB/SI)</td>
<td><strong>Associated factors:</strong> situated spatial experiences (SSE), spatial behaviors (SB), and social interactions (SI)</td>
<td>Moderate association between spatial behaviors in shared spaces and social interactions with persons; Social understandings were considerably connected to social interactions with neighborhood organizations</td>
</tr>
<tr>
<td></td>
<td><strong>Content:</strong> bifurcated opinions on spatial rights due to different spatial activities and experiences; diverse spatial control perceptions</td>
<td><strong>Content:</strong> home range perceptions, care-taking attitudes, and neighborhood cohesion consistently reflected considerable importance of recreational shared spaces</td>
<td></td>
</tr>
<tr>
<td>Case Family C</td>
<td><strong>Associated factors:</strong> social understandings (SCU), situated spatial experiences (SSE), spatial/social interactions (SB/SI), and sometimes quasi-territorial understandings (QTM)</td>
<td><strong>Associated factors:</strong> situated spatial experiences (SSE), spatial behaviors (SB), social interactions (SI), and social understandings (SCU)</td>
<td>Strong association between spatial behaviors in shared spaces and social interactions with persons; Social understandings were always connected to social interactions with neighborhood organizations</td>
</tr>
<tr>
<td></td>
<td><strong>Content:</strong> bifurcated opinions on spatial rights and spatial control perceptions because of considerable variations in associated factors</td>
<td><strong>Content:</strong> home range perceptions and care-taking attitudes were bifurcated due to the impact of social understandings and some unknown factors; neighborhood cohesion still reflected the importance of recreational shared spaces</td>
<td></td>
</tr>
</tbody>
</table>

Disregarding outlying cases, the three case families discussed in this chapter represented three salient types of person-environment situations defined by distinguishable situated persons, situational environments, and modes of person-environment interactions. Table 7.6 below shows the correspondence between case families and person-environment...
situation types. As it implies, situational environments were essentially multiple-faceted and always interrelated with the corresponding situated persons. Residents as situated persons were categorized by different modes of person-environment interactions and thus could not be conveniently defined by combining a few absolute demographic criteria. The distinct modes of person-environment interactions that arguably differentiated different case families can be detected and confirmed through the frequency of recreational shared spaces (see Figure 7.32 below).

Table 7.6: Typological person-environment situations corresponding to different case families

<table>
<thead>
<tr>
<th>Case Family A</th>
<th>Groups of situated persons</th>
<th>Types of situational environments</th>
<th>Modes of person-environment interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1: Usually hectic</td>
<td>Type 1: Spatial elements:</td>
<td>Mode 1: Spatial behaviors: traversing</td>
</tr>
<tr>
<td></td>
<td>professionals exonerated</td>
<td>interior circulation spaces such</td>
<td>various shared spaces when leaving and</td>
</tr>
<tr>
<td></td>
<td>from child-caring or other</td>
<td>as hallways and elevators, parking</td>
<td>returning home on a daily basis</td>
</tr>
<tr>
<td></td>
<td>family responsibilities</td>
<td>lots or garages, streets and</td>
<td>Social interactions: minimal interpersonal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pathways, and few neighborhood</td>
<td>contacts and limited engagement with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>amenities. Social elements</td>
<td>neighborhood social organizations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(neighborhood-scale): very undeveloped interpersonal network</td>
<td></td>
</tr>
<tr>
<td>Case Family B</td>
<td>Group 2: Diverse group</td>
<td>Type 2: Spatial elements:</td>
<td>Mode 2: Spatial behaviors: diverse</td>
</tr>
<tr>
<td></td>
<td>containing some family</td>
<td>both circulation spaces and</td>
<td>recreational activities in both indoor</td>
</tr>
<tr>
<td></td>
<td>care-takers in their</td>
<td>recreational shared spaces that</td>
<td>and outdoor shared spaces Social</td>
</tr>
<tr>
<td></td>
<td>families and habitual</td>
<td>afforded “task activities”</td>
<td>interactions: moderate level of</td>
</tr>
<tr>
<td></td>
<td>users of neighborhood</td>
<td>Social elements (neighborhood-scale):</td>
<td>interpersonal contacts and limited</td>
</tr>
<tr>
<td></td>
<td>amenities</td>
<td>moderately developed interpersonal network</td>
<td>transactions with neighborhood social</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mode 2: Social interactions:</td>
<td>organizations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>moderate level of interpersonal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>contacts and transactions with</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>neighborhood social organizations</td>
<td></td>
</tr>
<tr>
<td>Case Family C</td>
<td>Group 3: Mostly were</td>
<td>Type 3: Spatial elements:</td>
<td>Mode 3: Spatial behaviors: Frequently</td>
</tr>
<tr>
<td></td>
<td>residents with leisure</td>
<td>predominantly recreational</td>
<td>taking part in recreational activities</td>
</tr>
<tr>
<td></td>
<td>time acting as family</td>
<td>shared spaces Social elements</td>
<td>in neighborhood amenities alone or</td>
</tr>
<tr>
<td></td>
<td>caretakers or habitual</td>
<td>(neighborhood-scale): extensive</td>
<td>together with pets or little children</td>
</tr>
<tr>
<td></td>
<td>users of neighborhood</td>
<td>and strong interpersonal network</td>
<td>Social interactions: abundant</td>
</tr>
<tr>
<td></td>
<td>amenities</td>
<td>and familiar neighborhood-level</td>
<td>interpersonal contacts and transactions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>social organizations</td>
<td>with neighborhood social organizations</td>
</tr>
</tbody>
</table>
Figure 7.32: The incidence of using recreational shared spaces for those grouped in the three case families

### 7.3.2 The Significance of Person-Environment Interactions

This research was theoretically grounded within the situativity paradigm of environmental cognition, which draws on both Gibson’s ecological psychology about affordances and situation semantics pioneered by Jon Barwise and John Perry. Situation
semantics assumed that, “meaning does not reside in the head or in some mysterious realm but in the interaction of real, living things and their actual environment” (Barwise, 1989, p. 51) and thus oriented research to focus upon “agent-situation interactions” (Greeno, 1994).

The data analyses demonstrated that investigating the intricately interconnected personal, spatial, social, and cognitive factors through the systematic units of ecological person-environment situations was applicable and effective for studying territoriality-related environmental understandings of the residents of Shanghai’s high-rise gated developments. Moreover, I discovered that the residents’ interactions with their neighborhood environments may underpin how they derived territorial and quasi-territorial opinions regarding shared spaces and also specifically informed or shaped the content of these territorially-charged environment meanings. Yet, the effect of person-environment interactions always came with necessary qualifications. To critically evaluate the relevance of person-environment interactions to territorial and quasi-territorial understandings as exposed by this study, I reached the following propositions.

- In the big picture, residents’ substantial person-environment interactions in terms of both spatial and social transactions with their residential environments largely predicted the generative patterns by which they conjured up territorial and quasi-territorial meanings of shared spaces. Except for the outlying, negative cases, those who displayed different modes of person-environment interactions were usually found in the same case families where territoriality-related understandings were derived through similar networks of contributing factors.

- Within the case families featuring varied person-environment interaction modes, spatial and social level person-environment interactions may directly influence some territorial and quasi-territorial senses and attitudes. Yet, such associations were more often observed in the cases from Case Family B and C rather than those from Case Family A. Also, person-environment interactions as directly associated factors may not always be the major ones in shaping certain territorial or quasi-territorial understandings. In some cases, social
understandings or some unknown socio-psychological processes may be the more dominant contributors in lieu of person-environment interactions.

- Within each case family, spatial and social forms of person-environment interactions may also indirectly impact territorial and quasi-territorial meanings through the intervening factors of non-territorial environmental understandings, namely situated spatial experiences or social understandings. But this was more so for the cases of Case Family B and C than those from Case Family A. Moreover, there were cases where the exact source of social understandings seemed to be irrelevant to social level person-environmental interactions.

To sum up, the significance of person-environment interactions to territorial and quasi-territorial meanings assigned to shared spaces was conditional and dynamic rather than deterministic and absolute. Table 7.7 below recapitulates both the strengths and limitations of predicting residents’ territorially-charged environmental understandings.
Table 7.7: The strengths and limitations of predicting residents’ territorial and quasi-territorial senses through their person-environment interactions with their neighborhood environments

<table>
<thead>
<tr>
<th>Formative patterns of territorial and quasi-territorial meanings</th>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>General person-environment interaction modes divided case families and predicted the relational networks that linked territorial and quasi-territorial understandings with various cognitive, behavioral, and social-interactional factors</td>
<td>Not effective for outlying cases</td>
</tr>
<tr>
<td><strong>Limitations</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct contribution toward territorial and quasi-territorial meanings</th>
<th>For territorial understandings</th>
<th>No direct contribution to territorial understandings for all cases in Family A and some cases in Family B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial behaviors in shared spaces directly informed access control attitudes and behavioral rules (Family B and C) and perceived spatial control (mostly Family C); Social interactions with property development companies influenced the senses of spatial control (mostly Family C).</td>
<td>No direct contribution to territorial understandings for all cases in Family A and some cases in Family B</td>
<td></td>
</tr>
<tr>
<td>For quasi-territorial understandings</td>
<td>In some cases, the contribution of person-environmental interactions was not as influential as other factors</td>
<td></td>
</tr>
<tr>
<td>Spatial behaviors and social contacts with other environmental users in shared spaces contributed to the residents’ home range perceptions, care-taking attitudes, and perceived social cohesiveness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect contribution through non-territorial environmental meanings</th>
<th>For territorial understandings</th>
<th>No indirect contribution through situated spatial experiences to territorial understandings for all cases in Family A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observations in shared spaces and spatial feature perceptions shaped spatial control and spatial rights (Family B and C); social knowledge regarding legal ownership and social power relationship impacted perceived spatial control</td>
<td>No indirect contribution through situated spatial experiences to territorial understandings for all cases in Family A</td>
<td></td>
</tr>
<tr>
<td>For quasi-territorial understandings</td>
<td>No indirect contribution through social understandings to quasi-territorial understandings for all cases in Family A and B</td>
<td></td>
</tr>
<tr>
<td>Perceived spatial features and observations in shared spaces contributed to home range perceptions, care-taking attitudes, and perceived social cohesiveness; social knowledge regarding legal ownership influenced home range perceptions and care-taking attitudes (case Family C)</td>
<td>The exact source of social understandings seemed to be irrelevant to social interactions for some cases in Family A</td>
<td></td>
</tr>
</tbody>
</table>

7.4 Conclusion

This chapter illuminates that, at the neighborhood scale, the mutual relationship between the residents of high-rise gated developments and the socio-spatial environmental elements around them established multi-dimensional person-environment situations. These situations substantially related the residents as situated persons to their situational environments that constituted their everyday lifespaces through characteristic social and spatial person-environment interactions. This chapter also elucidates that as the mode of person-environment interactions and the encompassing person-environment situations varied
from one to the other, residents were most likely to derive their territorial and quasi-territorial interpretations in alternative ways that mobilized different repertoire of conceptual, experiential, behavioral, and social-interactional factors. This chapter also posits that in several respects, person-environment interactions were important to help understand residents’ territorial and quasi-territorial attitudes and opinions about shared spaces, but their relevance has both strengths and limitations. The effectiveness of the situativity perspective of environmental cognition in explaining territoriality-related environmental understandings was at least partially demonstrated.

To further unravel the complex formation of residential territorial and quasi-territorial experiences and perceptions, I moved on to probe the different types of situational environments and examine the role of physical spaces in their organization and functioning, especially that of the built environment. This is undoubtedly a concern of architects and planners as the conceaver and facilitator of environmental changes. The in-depth discussion of spatiality with relevance to the perceptions and evaluations of shared spaces is presented in the next Chapter.
CHAPTER 8. SIGNIFICANCE OF PHYSICAL SPACE

This study extracts and categorizes a particular set of conceptual and symbolic meanings associated with the shared spaces in Shanghai’s high-rise gated developments. Moreover, it probes the underlying process whereby such meanings are produced and maintained. Its research perspective is unquestionably a microscopic one as it traces the formative process of territorial meanings down to the individual level. It does not draw global and superficial parallels between these environmental meanings and the grand, multidimensional human-made structures (such as culture or economy) that define and are mutually defined by the functioning, organization, and transformation of human societies. Instead, it delves into the everyday human practice that generates, maintains, and exploits these meanings and asks the ultimate question of “what is going on there”. As complex interrelations that bridge assorted data in individual cases were unearthed and aggregated, multiple salient relational patterns were identified. In these patterns, individual residents’ territorial and quasi-territorial understandings were embedded in and spun out of complicated networks of personal, social, spatial, behavioral, experiential, and conceptual factors. Sorting and condensing these patterns into several significant models, this research posits a multi-modal explanatory theory that associates territorial and quasi-territorial meanings of shared spaces with different types of person-environment situations and modes of person-environment interactions.

Yet, one important question remains unaddressed. What role does “physical space” play in the intriguing, multifaceted landscape where territorial and quasi-territorial meanings are cultivated? Moreover, if there is any confirmable association linking physical space to territoriality-related environmental understandings, how might they be influenced by designed space introduced by urban planning and architectural design?

The first step in answering these questions is to clarify what is meant by the term “physical space” as it is employed in this research, and define its conceptual relationship with “situational environment”. Once these clarifications have been made, the specific implications of physical space will be examined with reference to the emergent explanatory theory developed through this research.
8.1 Locating Physical Space in the Landscape of Situativity Theory

Conceptual ambiguity surrounds terms such as “physical space” or “physical environment” because they are used both in common parlance and in stricter disciplinary senses. Design practitioners employ the term physical environment to refer generally to the non-social material basis of our surroundings (Lang, 1987c). The physical environment is composed of various physical entities such as rivers, mountains, plants, roads, buildings, and furniture, all of which exist in a three-dimensional geographical context. Physical space, in design-related literature, is specifically defined as the void volume geometrically defined or bounded by a formal mass that is physically existent and tangible (Ching, 2007). Despite their alternative observation emphases (physical attributes versus void volumes), physical environment and physical space actually illustrate the two sides of the same coin since space-occupying entities and void volumes are conceptually defined as being interdependent. In many texts pertaining to environment-behavior and design, the two concepts are inextricably interwoven as their operational definitions significantly overlap each other. Space is usually recognized as a constitutive element of the physical environment (Ahrentzen, 2002) while the term physical space is often employed to designate the physical environment as a whole (D. L. Lawrence & Low, 1990). Therefore, the physical environment can be analyzed in terms of its spatial organization, as in the theories of “Pattern Language” (Alexander, Ishikawa, & Silverstein, 1977) and “Space Syntax” (Hillier & Hanson, 1984), and physical space with regard to physical environmental properties, as in “Defensible Space” (Newman, 1972).

In essence, the conflation between the concepts of physical space and physical environment in literature reflects more than their definitional connection, it also implies their common philosophical underpinnings. Both concepts arguably endorse the Cartesian/Newtonian absolute view of space, the origin of which traces back to the thoughts of Kant who maintained that space may exist for its own sake independent of matter (1899). With reference to such a presupposed spatial framework that is absolute and “objective”, physical space or physical environment in any specific configuration can be exhaustively measured and described, in the language of physics and mathematics, through a range of explicit variables such as area, distance, direction, spatiality connectivity, materiality, color, and texture.
Moreover, physical space or physical environment merely represents an undergirding platform devoid of the things, processes, human behaviors and cognition that they may accommodate. Therefore, unless they are physically modified (as reflected by the changes in objective spatial or physical variables), physical space and environment are always constant and external to human actions and perception. Attributed meanings deriving from personal interpretation, social relations, or socio-cultural processes do not alter the objective nature of space and environment. Neither would human activities have any impact if they produce no tangible physical outcomes.

In fields outside of design, however, the concepts of physical space or physical environment are less often used. Traditionally in geography, sociology and anthropology, physical space and environment are conceived and studied in tandem with social, behavioral, or experiential processes or elements through the introduction of composite concepts such as “social space” (Buttimer, 1969; Lefebvre, 1991) or “landscape” (Appleton, 1996; Cosgrove & Daniels, 1988; Jackson, 1984), which generally reject the unitary and autonomous status given to the spatiality and physics of human environment. Physical space or environment is usually conceived as constitutive aspects rather than as a self-contained category. In light of such conceptual understandings, space is viewed as “relative” (Harvey, 1969, 1973) and “relational” (Harvey, 1996) instead of absolute. Space can be created and defined by human conception, action and interaction. In recent decades, the movement toward viewing space as a relative and multifaceted human construction has been even more evident in geography, sociology, and anthropology, as is demonstrated in the use of the term “landscape” rather than “space” and a migration of the focus of research from “space” to “place”. (Hirsch, 1995).

The trend toward relational and multidimensional conceptions of space or environment in other disciplines does have considerable influences in the design fields thanks to the numerous intellectual works on ecological psychology, architectural phenomenology, and architectural anthropology. Concepts such as “behavioral settings” (Barker, 1968; A. W. Wicker, 1987), “place” (Canter, 1977; Relph, 1976), “lifeworld” (Seamon, 1979) and “cultural landscape” (Rapoport, 1992) are gaining popularity among research-oriented designers and scholars. Over
time, many architectural researchers have realized the limitations of conceptually detaching the physical environment from human factors and aspects in research, especially in the studies inquiring environment-behavior relations.

Nevertheless, the notion of physical space or physical environment still appeals to many designers and planners. It remains a common strategy to isolate physical space as if it transcends concrete social, behavioral and cognitive contexts where it may be produced and situated, such that the independent physical space and its effective, behavioral or even social functions can be distinguished and scrutinized. Design practitioners’ continued focus on physical space, especially architectural space or the built environment, is no mystery given that their work is predominantly about proposing schemes of spatial arrangement and physical configuration to inform actual building activities. Theoretical explorations constructed using conceptual classifications that single out spatial and physical dimensions, therefore, offer unparalleled value to designers for the implementation of spatial definition and organization. Form and space absolutely delineated by a limited number of objective variables, or what Louis Kahn termed as “the measurable”, are naturally the central concern for most architects and urban planners since they can be directly translated and actualized in everyday design practice.

The system of conceptual definition and classification employed in the present research is designed to reconcile the inherent requirements of academic research and the designers’ practical concerns as much as possible.

As illustrated in Chapter Two and Three, I have reserved the term environment to refer to a multi-dimensional entity that contains physical, behavioral, and social components that are considered external to the active perceiving agent(s) that it surrounds. I have also distinguished the concept of “situational environment” from “permanent environment”. The former has been defined as the individual-specific, contingent assemblage of environmental elements that are substantially bonded to a particular interacting and perceiving human agent (i.e., “situated person”) in an integral ecological system (i.e., “person-environment situation”), while the latter is a constant environmental setting that is identified by a uninvolved, detached perspective and considered universal to everyone in a given temporal-spatial context.
On the other hand, I still recognize the relevance of the concept of physical space. In this study, it was not treated as a self-contained entity. Instead, it merely represented the spatial and physical facets of multi-dimensional permanent or situational environments. As the explanatory accounts yielded by this research were essentially hinged around the concept of situational environment, I decided that examining the role of physical space in residential territorial experience regarding shard spaces must be through the elaboration of its embeddedness in the various significant “situational environments” that emerged in my data analysis.

The attention to “physical space” allows the discussion of some objective spatial measures. However, the physical portion of the social-physical environment can never be isolated from the encompassing environmental settings. While some conventional architectural researchers might abstract and reduce space to a few absolute variables disengaged with other environmental constituents, I have tried to uncover the contextuality and relativity of space and to explore the distinct roles of the same architectural or planning features (in absolute spatial terms) that contribute to compose a multitude of holistic, overarching situational environments and person-environment situations. The discussion particularly concerns several important spatial attributes (e.g., master layout, size, physical design features), but these were never interpreted and analyzed in isolation.

8.2 Physical Spaces as Contextualized in Situational Environments

The diverse social and behavioral interactions linking the residents in Shanghai’s high-rise gated developments and their neighborhood environments indicated three major types of person-environment situations that, to a significant extent, explained their territorial and quasi-territorial understandings. These person-environment situations subsumed and denoted three different configurations of situational environments, namely three typologically different compositions of environmental factors that were indispensable for different resident groups to perform their day-to-day behaviors or social actions in their neighborhoods.

The following discussion will address the relevance of physical space as embedded in different configurational type of situational environments, the concrete manifestations of
which were found in all the three field research sites with varied physical settings, spatial layouts, urban contexts, and social demographic characteristics. The research disclosed that the variations in physical space across the three sites translated into nuanced differences in concrete situational environments and into the systems of person-environment situations underpinning changes in residents’ territorial and quasi-territorial understandings about shared spaces.

8.2.1 “Type 1” Situational Environments

The first configurational type of situation environments is the one taken relative to the residents from case Family A. Figure 8.1 below offers a visualization of the group of individuals, categories of physical spatial elements, and social behavioral level person-environment interactions that define the encompassing person-environment situations shared by the cases in Family A. The social and spatial elements composing this type of situational environment included predominant interior or exterior shared spaces mostly used for pedestrian/vehicle traffic, parking, or viewing from a distance, minor neighborhood amenities, and limited neighborhood-level interpersonal social networks.
Figure 8.1: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with Case Family A

Given the explanatory model matching the data from Case Family A (see Figure 8.2 below), the physical and spatial settings as part of the characteristic situational environments had little influence over the territorial meanings of shared spaces. However, they had some discernible implications for quasi-territorial meanings through the intermediating factor of spatial behaviors. Additionally, the residents’ situated spatial experiences were linked to the physical spaces through spatial behaviors.
8.2.1.1 Spatial Experiences (“Type 1” Situational Environments)

The implications of physical spaces upon situated spatial experiences were most obviously reflected in the participating residents’ spatial memories of their neighborhoods according to their verbal and graphic descriptions. In general, the residents associated with this type of situational environment could not accurately recall the overall layouts and spatial features of their gated developments because their situational environments only accounted for a fraction of the entire housing compound due to their polarized spatial behavioral forms (mostly traversing or viewing) and short daily duration of stay in their neighborhoods. However, the spatial layout and physical settings of Ruihong New Town II (Site A) seemed to be better remembered than those of Shanghai Luchen (Site C) and Dahua Qingshuiwan (Site B).

Figure 8.3 below shows that the residents from Site B and Site C typically expressed a vague memory about the physical spaces father away from their private homes. In their sketch maps of their gated developments, these “remote” areas were illustrated with fewer details and often appeared to be significantly distorted in proportion. Yet, the ones living in Site A among this category of residents rarely exhibited this pattern. This divergence may be related to the distinction in land areas and in structural complexity of space, given that Site C is almost
four times as large as Site A and contains more visually distinct individual spaces. In addition, Site A was developed by multiple phases. The difference in neighborhood street layout may be another contributing factor. Streets or walkways were the most important spatial components of this situational environment type. The circular pedestrian street with short branches that Site A features probably helped the residents there to comprehend the overall spatial configuration more easily than the tree-like street systems with long, hierarchical branches that were found in Site B and C.

![Image of Site A and Site C plans with red stars indicating homes](image)

**Figure 8.3:** Analysis of sketch maps by the cases of A-13 (left) and C-02 (right) showing the difference in spatial memories probably resulting from the variation in physical settings between two developments

Note: red stars indicate the location of the interviewee’s homes in the developments’ master plans and the corresponding sketch maps; both residents indicated that they had never illustrated a sketch map from memory before. The lower images are participant-created sketch maps and the upper ones are based on published maps.
8.2.1.2 **Territorial Understandings ("Type 1" Situational Environments)**

Regarding territorial meanings attributed to shared spaces, varying spatial and physical settings appeared to be irrelevant, because the residents’ perceptions of active and passive spatial control as well as their attitudes regarding access control and behavioral rules in shared spaces were not even tenuously affected by the factor of physical space. The judicial or social relational meanings of shared spaces in the residents’ imaginations were the sole source of their territorial understandings, and no factors involving physical spaces came into play.\(^97\)

8.2.1.3 **Quasi-Territorial Understandings ("Type 1" Situational Environments)**

The residents’ quasi-territorial understandings, on the other hand, did imply the significance of physical space to some extent. As the explanatory model corresponding to this type of situational environments shows, the residents’ imagined home ranges and care-taking attitudes were shaped by experiential or spatial behavioral factors, therefore indirectly affected by the spatiality of their developments.

The influence of physical space was first demonstrated by the fact that the imagined home ranges reported by the residents from Dahua Qingshuiwan (Site B) and Shanghai Luchen (Site C) included some information that was commonly absent in the data yielded by the residents from Ruihong New Town II (Site A). The “Onion-and-Beads” diagrams pertinent to these residents divulged that only those from Site B and Site C recognized one or more “subareas” of the development as the salient components of the “psycho-geography” of their home range perceptions (see Figure 8.4 below). This difference reflected the varying size and spatial organization of the three research sites. The housing estates of Site B and C are spatially more extensive and feature hierarchical spatial structures, while Site A is many times smaller and characterized by a unitary spatial configuration. Interview results suggested that large tracts of land or open spaces that were demarcated and named by developers (e.g., “the Phase One area” of Dahua Qingshuiwan for case B-03 and “courtyard Haitangyuan” of Shanghai

---

\(^{97}\) For example, one resident from Dahua Qingshuiwan (B-19) made mention of the riverside promenade in his neighborhood that led him to feel ambivalent about if non-residents should be granted the privilege of accessing the gated area of the development, his reasoning was preconditioned by the legal definition of the promenade in his understanding (“this riverside walkway might be a public path”) instead of its physical settings.
Luchen for case C-01, see Figure 8.5 below) or contingently recognized through the residents’ behavioral transactions (e.g., “the most commonly walked around area” (B-15)) could be identified as the particular subareas for which the residents conjured up weak or strong “home-like” meanings. A large and structurally complex residential development is more likely to contain such subareas that are conceived to be psychologically distinguishable from other open shared spaces.

Figure 8.4: “Onion-and-Beads” diagrams of imagined home ranges reflected that sub-neighborhood areas were only considered relevant by the ones from Site B and C

Figure 8.5: Subareas predefined by developers at the three research sites
The influence of physical space upon the residents’ care-taking attitudes was also traceable. The specific spatial settings that the residents cared about were different as the actual shared spaces varied from one site to the other. Predefined subareas were considered worthy of caring by a couple of residents (B-03 and C-01) given the availability of such spaces in Site B and C. Also, Site B and C as larger developments featuring more visually distinguishable spaces and amenities (e.g. ponds, promenades, children’s play yards, courtyard spaces, etc.), seemed to promote residents’ recognition and investment of care-taking meanings. The “Onion-and-Beads” diagrams of care-taking attitudes showed that those from these two sites generally expressed caring attitudes about more components of within-development shared spaces than the ones from Site A did. Except for case A-09, who was a practicing landscape architect, the residents from Site A mentioned less than two neighborhood amenities when explaining their care-taking attitudes (see Figure 8.6 below).

![Figure 8.6: “Onion-and-Beads” diagrams of care-taking attitudes reflected that generally more items of within-development shared spaces were reported by the ones from Site B and C](image)

In sum, spatial settings as substituent components of “Type 1” situational environments had little to do with residential territorial understandings of shared spaces in their high-rise gated developments. But physical space did have an observable impact upon the residents’ quasi-territorial attitudes in terms of their home-range perception and care-taking attitudes. The significant spatial factors include the site area, spatial organization (master layout), and availability of neighborhood amenities or facilities.
8.2.2 “Type 2” Situational Environments

Type 2 situation environments were bonded with the residents from case Family B to define a distinct genre of person-environment situations as Figure 8.7 below illustrates. This type of situational environments contained a rich template of spatial components including interior and exterior shared spaces that afforded both recreational and circulation spatial usages.

Neighborhood entertainment venues such as clubhouses, open landscaped areas, and children’s play yards were important to the residents linked with this type of situational environments. Some of them also carried out necessary social interactions with others at certain common locations in their neighborhoods. According to the explanatory model of residential territoriality and quasi-territoriality applicable for cases of Family B, the enhanced involvement of physical space in these residents’ everyday spatial behaviors and interpersonal transactions in the neighborhood translated to a greater influence of spatial factor over the residents’ territorial and quasi-territorial understandings regarding shared spaces. Figure 8.8 below depicts the pattern where the spatial factor maintains tenuous connection with territorial meanings through situated spatial experiences or spatial behaviors. Also, physical space can modify quasi-territorial meanings through the intervening factors of situated spatial experiences, spatial behaviors, and social interactions. After all, the residents’ spatial experiences play a critical intermediating role to substantiate the indirect association between physical space and territorial as well as quasi-territorial understandings.
Figure 8.7: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with case Family B
8.2.2.1 **Spatial Experiences (“Type 2” Situational Environments)**

Given the residents’ spatial activities in their neighborhoods, residential spatial experiences unmistakably reflected the contribution of spatial settings. The sketch maps created by the residents to reflect their spatial memories about their gated housing compounds demonstrated the implications of spatiality upon spatial experiences. Despite the noticeable impact of individuality in sketch mapping ability, the significance of physical space was evidenced in two aspects. First, different neighborhood open spaces were selected by the residents as the primary elements that helped to organize their spatial memories. Because of the residents’ longer duration and higher frequency of usage, within-development shared spaces were mentioned or graphically documented with greater detail than they were in the cases of “Type 1” situational environments. Yet, the distinct spatial settings of the three research sites apparently prompted residents to recall different physical spaces as the most legible and the most memorable features when interviewed about their spatial cognitions.

---

98 The graphic communication capabilities of the research participants varied greatly. Some were extraordinarily fluent with graphic symbols and good at mapping the things involved in their lives while others could barely draw.
In Ruihong New Town II (Site A), which features a circular master layout surrounding a central courtyard, the multi-purpose lawn space occupying the heart of the development was graphically reported by six residents there (out of the ten Site A cases grouped in case Family B) as the pivot that joins together many other collective spaces. In comparison, Dahua Qingshuiwan (Site B) and Shanghai Luchen (Site C) are characterized by more hierarchical spatial structures that comprise multiple courtyards connected by scattered pedestrian walkways. Residents’ spatial memories in these two developments, judging from the sketch maps that they produced, correspondingly indicate the important organizing and orienting function of major pathways with uniform spatial quality and extensive linear configuration (ten out of the 16 Site B and Site C cases grouped in case Family B).

Second, the sketch maps yielded by the residents associated with this type of situational environments also revealed that spatial parameters such as land area, master layouts, and building orientations could influence the accuracy of the residents’ mapping of their neighborhoods. The sketch maps concerned with Site C, which is the largest and spatially the most complex development of the three, were the most imprecise of those from any the three sites. As the relevant residents’ spatial behaviors in that development did not cover the entire gated neighborhood, their spatial memories about the less visited areas were quite shallow and murky. This can be inferred from the distorted geometries and absence of details in their sketch maps. In contrast, residents from Site A were able to fairly accurately reflect the proportions and distances between different parts of the neighborhood in their sketch maps, but they commonly had difficulty capturing the true orientations of buildings. The development’s distinctive master plan may be the cause with residential towers lining up on a circular periphery and facing different directions. Residents’ spatial perceptions of Site B were found to be relatively precise. This might result from the moderate size of the development that those grouped in case Family B were able to cover the majority of its gated area through their recurring spatial behaviors in the neighborhood. A simple orthogonal layout with most buildings regularly oriented to the south-north direction might also help to improve the residents’ spatial memories. Figure 8.9 below illuminates the spatial characteristics of Site B and Site C and the implications of spatial factors as reflected in the varying accuracy of sketch maps.
8.2.2.2 Territorial Understandings (“Type 2” Situational Environments)

In a circuitous manner, spatial configuration and physical conditions were remotely linked to territorial understandings of shared spaces. However, such linkages were not consistently observed in the cases pertaining “Type 2” situational environments and were really hard, if not impossible, to pin down. Spatial behaviors or spatial experiences as the
intermediating factors were not always the most important predictors of territorial meanings, instead, social cognitions and understandings were more influential in some cases.

The in-depth interview records extracted from the residents of case Family B show that seven individuals were keen users of certain neighborhood amenities (e.g. clubhouses or landscaped areas) and always performed their daily activities there. Therefore, they attended to the availability and usability of such spaces and readily noted the conditions of overcrowding⁹⁹ or poor maintenance. This further informed their senses of active or passive spatial control or attitudes toward access control. Yet, there were also a few persons (four cases) who only occasionally engaged with within-development recreational shared spaces. These people derive their territorial understandings (such as the sense of active control) about shared spaces primarily from the social understandings and beliefs they endorse. For them, the social definitions or nomenclatures of shared spaces were more significant than spatiality. There were still others (five cases) who maintained moderate behavioral ties with within-development shared spaces. They typically related their territorial opinions to some behaviors or occurrences that they observed in some shared spaces but spatial settings were usually not a significant modifying factor.

Taken together, indirect linkage between physical space and territorial understandings was there, but the effect of spatial factors upon specific territorial attitudes was extremely difficult to pin down. For this type of situational environment, the variation in the physical conditions of shared spaces seemed not able to consistently predict the difference in the territorial meanings attributed to these spaces.¹⁰⁰

---

⁹⁹ Some residents (e.g. B-18, C-15) who often took little children to places such as play yards actually welcomed more users so that children could easily find playmates. In this case, a certain degree of crowding was actually preferred.

¹⁰⁰ Between different research sites, the concentration of residential amenities in Site A due to its compact master plan might help cultivate certain territorial attitudes (such as the preference for more restrictive territorial control against non-residents), but this observation was not sufficient evidenced.
8.2.2.3 Quasi-Territorial Understandings ("Type 2" Situational Environments)

The connection of physical space with quasi-territorial understandings manifested itself in an indirect way. Yet the influence of spatial settings was much easier to identify and assess since spatial behaviors and spatial experiences were major contributors to quasi-territorial meanings including imagined home ranges, care-taking attitudes, and perceived social cohesiveness.

First, site area and neighborhood spatial organization contributed to modify residents’ quasi-territorial understandings in terms of perceived home ranges. The interview and sketch map data suggested that among the residents experiencing “Type 2” situational environments, only those from Site B and C considered sub-development areas in their imagined home ranges. The availability of large predefined subareas in these two housing estates apparently made the difference. I also noticed that persons from larger research sites assigned slightly weaker senses of “at-homeness” to the entire gated area. Among those who mentioned the whole gated development when talking about their home range perceptions, four out of seven residents from Site C and five out of six residents from Site B reported weak “home-like” meanings in comparison to three out of seven individuals from Site A. The disparity in the area of gated spaces is likely the contributor to this phenomenon.

Second, specific formal and spatial traits of shared spaces were significant in that the residents tended to consider and stress physically distinctive neighborhood locations when describing their imagined home ranges. For example, Site A features a few highly distinguishable development entrances. These characteristic entrances could explain why proportionally more individuals from this housing development recognized neighborhood entries as one of the strong indicators that defined their perceived home ranges (six out of the ten Site A cases grouped in Case Family B, see Figure 8.10 below). Two residents (A-06 and A-20) stressed an emotional moment of “arriving home” or “reaching the doorstep of my home” when they pass through the Glass Rotunda\footnote{This was the development’s sales center and now one of the major pedestrian entrances that provides a unique interior space as the transition from the outside to the inside of the enclosing walls (see also in Chapter Four).} every day. Another (A-04) developed a
psychological attachment to an entrance gate that was located adjacent to a subway station exit. She believed that it symbolized the threshold to her private “lifespace”. This tendency to mention and specifically describe particular development entrances when explaining home range perceptions were not commonly seen among the residents from the other two developments. There were only four individuals from Site B and C mentioned gates in their narrations of imagined home ranges, who either referred to the gates that marked a certain degree of home as imagined for them (C-04 and C-17) or emphasized some experiential phenomena (such the gate arm moving up and down or the change of noise levels) that occurred at development entrances (B-16 and B-20).

![Figure 8.10: The residents from Site A included the development gates as important markers of their perceived home ranges more often than those from Site B and Site C](image)

With reference to other quasi-territorial meanings, I found that the spatial settings of neighborhood amenities had a palpable influence over the specific content of care-taking attitudes. The individuals from Site A expressed less diverse caring attitudes regarding shared spaces than did those from Site B and C. The central event lawn at Site A was often noted (see Figure 8.11 below) as the most important place deserving attention and maintenance. A possible explanation is that the lawn, as the most accessible and visible neighborhood amenity, served as the visual focus and behavioral center for many residents there. It also satisfied multiple resident needs. Therefore residents cared about it for different reasons (e.g., it provided an aesthetically pleasing view or it afforded a gradual and secure surface for children
or dogs to run on). The other two research sites, on the other hand, featured multiple functionally specialized and spatially distributed amenities; hence residents’ care-taking attitudes manifested more diversity.

![Image]

**Figure 8.11:** The central event lawn was often identified as the most important object of care-taking attitudes.

Moreover, there was evidence showing that spatial factors had indirect and observable implications for perceived social cohesiveness because a considerable share of the residents inhabiting “Type 2” situational environments (15 out of 26 cases) engaged in interpersonal communications with others when conducting spatial behaviors in neighborhood recreational spaces. The availability of such spaces was thus important, especially for the young professionals in this resident group who had limited spare time to socialize with their co-residents. The research data indicated that the lack of a clubhouse in Site B seemed to make it harder for the young dwellers to develop interpersonal networks in their neighborhood.

To summarize the findings in this section, physical settings embedded in “Type 2” situational environments were indirectly linked with territorial and quasi-territorial understandings as the relevant residents explored and utilized more types of shared spaces through diverse spatial behaviors. Different spatial conditions across research sites were not
specifically reflected in the residents’ territorial beliefs and opinions because not all individuals derived territorial meanings predominantly from spatial behaviors or spatial experiences. Yet spatial factors, including land area, master layout, spatial design features, and availability of particular spaces, had confirmable impacts upon multiple quasi-territorial understandings, such as the residents’ perceptions of home range, caring attitudes, and social cohesiveness perceptions.

8.2.3 “Type 3” Situational Environments

A third type of situational environments corresponded to the residents from case Family C. These residents built up sustained behavioral and social bonds with their neighborhood environments. They frequently engaged various within-development recreational shared spaces to actualize their social and family roles. The situational environments they occupied and interacted with were framed by recreational facilities and amenities. Figure 8.12 below presents the overarching person-environment situations that subsumed personal, environmental, and person-environment interactional facets.

The explanatory model of territorial and quasi-territorial meanings pertinent to this type of situational environments (see Figure 8.13 below) reveals that the factor of physical space is firmly connected with an intricate network of interrelated personal, behavioral, environmental, and cognitive factors where territorial meanings and quasi-territorial meanings are enmeshed. Given the residents’ intensive and extensive spatial interactions with shared spaces, their territorial and quasi-territorial meanings could be traced to physical space through multiple indirect linkages. Physical and spatial conditions obviously impacted these residents’ spatial and social activities, which functioned as intermediating factors that further gave rise to various territoriality-related or non-territorial environmental understandings.
Figure 8.12: The characteristic spatial, personal, behavioral, and human interactional aspects of the type of person-environment situations associated with case Family C.
Spatial Experiences and Spatial Behaviors ("Type 3" Situational Environments)

There were plentiful empirical data demonstrating that physical space played an influential role in the spatial experiences and spatial behaviors of the residents experiencing “Type 3” situational environments.

According to verbal descriptions and sketched maps, the development amenities that these residents constantly visited and used were perceived as the most memorable elements of their neighborhoods. In general, they were quite knowledgeable about the geographical settings of the neighborhood locations they frequented. With a limited number of exceptions, their spatial memories were built upon their cognitions of these locations. As Figure 8.14 below explicates, the different planning strategies introduced in the three research sites seemed to echo the way the residents cognitively understood them. Individuals from Ruihong New Town II (Site A) relied on the central lawn and the clubhouse in proximity to organize their spatial cognition of the neighborhood, which corresponds to the spatial organization of this development with most communal spaces clustered in the center. Those from the other two researched developments used linear elements such as walkways or driveways joining different
activity centers (such as multiple children’s play yards) to organize their spatial memories. As these residents explored a major portion of their enclosed housing estates on a daily basis, they were able to effortlessly memorize and navigate their neighborhoods. The difference in land area and spatial organizational complexity between the three research sites did not significantly affect these residents’ ability to create fairly accurate mental maps.\textsuperscript{102} In fact, the distortion of sketch maps from Site C was not found to be more significant than those from Site B and Site A.

![Figure 8.14: Graphic representations of shared spaces as important neighborhood locations in sketch maps by the cases of A-14 (left) and C-06 (right) that demonstrate that different spatial organizational patterns were accurately recognized and represented by the residents experiencing “Type 3” situational environments](image)

Further interpretation of the sketch map data unearthed that differing development master layouts and building orientations most likely accounted for the nuanced variation in sketch mapping accuracy between the individuals associated with this type of situational environments. The ones from Site A had common difficulty in accurately representing the radial disposition of all the residential towers, while those from Site B and C were able to better grasp the locations and orientations of individual buildings. Despite the fact that all the residents in question were familiar with their neighborhoods, a radial layout with the spatial configurations

\textsuperscript{102} All resident mapping appeared to oversize the common spaces versus the building clusters to some extent. However, the proportions between different sub-development areas and the overall topological structure were accurately reflected for all three developments.
associated with diverse angles was more difficult for ordinary residents to recognize than was a neighborhood layout based on orthogonal system.

Physical space also conspicuously modified the residents’ spatial and social activities in their neighborhoods. Shared spaces as physical, spatial entities played indispensable role in these people’s daily person-environment transactions. The three researched developments provided assorted types of recreational shared spaces with different design considerations and intended functions. The residents’ varied spatial interactions with such spaces naturally manifested what the spaces could afford given their distinct spatial features. For example, several residents from Site A and Site C regularly patronized the indoor swimming pools located in the clubhouses, while a few from Site B took relaxing walks along the riverside promenade every day and enjoyed the pacifying breezes and waterfront views.

At a more fine-grained level, the minor spatial differences found in the same type of neighborhood amenities across research sites also translated distinct spatial activities. For example, both Site A and Site C featured a well-equipped clubhouse. Yet, the one in Site C distinctively included a well-illuminated, double height lounge space (see Figure 8.15 below) that allowed different users to mix and interact. During cold or rainy days, the lounge was often turned into a place for little children, who usually occupied the space exchanging toys and playing together. Similar spatial behaviors were not reported in Site A due to the lack of such supportive spaces.
The contribution of spatial settings to interpersonal social activities was salient. For this type of situational environment, residents’ social interactions with others (either co-residents or non-resident visitors) took place primarily within recreational shared spaces. The typology and specific design features of these spaces thus influenced the specific form and process by which these residents socialize with other people. For example, there were sets of patio furniture located in the courtyard spaces between the high-rise residential towers at Site C, providing excellent opportunities for neighbors to socialize during amicable weather conditions (see Figure 8.16 below). This form of social interactions between co-residents (as emphasized by the case of C-07, C-08, and C-10) was rarely available in the other two developments. People from Site A and B did get to know each other in some outdoor shared spaces (e.g., tennis courts, children’s play sites, etc.). Nevertheless the spatial conditions in these two sites afforded few social opportunities for them to become acquainted with their neighbors whose residences were just close by.
8.2.3.2 Territorial Understandings (“Type 3” Situational Environments)

There was evidence revealing the effect of spatial factor upon residents’ territorial understandings. Yet, the role of physical space with reference to territorial understandings was still difficult to identity for the residents linked to this type of situational environments, because of many complex processes featuring temporal, behavioral, conceptual, and spatial dimensions.

For the residents experiencing Type 3 situational environments, within-development recreational shared spaces were largely regarded as precious resources crucial for them to carry out their “everyday tasks”. Therefore, most of them related their daily behavioral routines and what they witnessed and encountered in these spaces to their territorial experiences regarding perceived spatial control, spatial rights, and behavioral rules (see also in Chapter 7). The interview data concerning the significant behavioral and experiential factors can be distilled into several aspects or themes including population density (two cases), perceived level of security (five cases), functionality and maintenance status of neighborhood amenities (six cases), other space users’ behaviors (five cases), and spatial power asymmetry (three cases).
Many of these themes involve subjective evaluations (e.g. security and functionality of amenities) or socio-behavioral dimensions (e.g. security and others’ behaviors) and cannot be readily associated with physical space. Only population density appears to be predicted by physical space, especial spatial dimension that can be significantly decided by planners or developers. Two residents from Site A (A-12 and A-16), the smallest development in total land area and open space per dwelling unit, stated or alluded to overcrowding in their reasoning against non-resident access. Residents from Site B and C, instead, usually did not deem that their neighborhoods were too dense to accept random outside visitors. In these two neighborhoods that boasted extensive space and sprawling layout, those who were averse to non-resident access often supported their position through other concerns (e.g., compromising security, damages to amenities due to overuse, and uncivil behaviors by outsiders) that could not immediately be linked to distinct spatial dimension.

Essentially, the data reported by these residents demonstrated the significance of behavioral and experiential factors for territorial meanings of shared spaces and hence implied the indirect contribution of physical spatial settings. Nevertheless, it is the specific spatial processes and behavioral ramifications, taking place in shared spaces and framed by the local social and cultural context, that ultimately accounted for specific territorial understandings. The physical basis of shared spaces, which is defined and delimited by an array of spatial parameters that architectural or planning practitioners can manipulate, could only modify a small portion of the processes or happenings underlying territorial meanings. Therefore, the specific characteristics of physical space may only impact residents’ territorial experiences and perceptions to a limited extent.

8.2.3.3 Quasi-Territorial Understandings (“Type 3” Situational Environments)

Spatial configurations and design features were also found to have less influence over quasi-territorial understandings for those experiencing Type 3 situational environments than were the cases characterized by Type I and Type II situational environments. The generation of territorial meanings about shared spaces was very complicated because of the involvement of social understandings as well as some unknown cultural, conceptual beliefs. Therefore, social
behaviors and social experiences were not always the key contributors. This in turn diminished the significance of spatial factors. Moreover, as these residents generally maintained strong and broad behavioral and social ties within their neighborhoods, the variation in spatiality did not significantly alter the nature of the behavioral processes and their social-psychological implications. These findings are specifically discussed below in terms of the relationship between physical space and residents’ home range perceptions, care-taking attitudes, and senses of neighborhood cohesiveness.

While there were still observable links between physical space and imagined home ranges, these links were dynamic and conditional. Social understandings and conceptual beliefs sometimes were more influential. As addressed in Chapter Seven, the residents associated with “Type 3” situational environments included several individuals (seven out of 20 cases) who did not perceive any neighborhood shared spaces as “home-like”. These persons were from all the three research sites despite different spatial environments (see Figure 8.17 below). Their particular home range understandings were probably engendered by some uninvestigated cultural beliefs that defied any “liberal definitions” of the home to include places not exclusively controlled and used by family members.

![Figure 8.17: Cases from all the three research sites that reported home range perception irrelevant to within-development shared spaces](image-url)
Except for these cases, the implications of space were manifested in terms of spatial configuration and land area. A few specific spatial factors that were recognized as significant in the studies of “Type 1” and “Type 2” situational environments still emerged as relevant ones. For instance, individuals from Site C, the largest development, were more likely to assign weak or ambivalent home range meanings to the entire neighborhood than those from smaller developments, suggesting the implications of the extent of gated land area. Also, residents did not recognize any sub-development area as “home-like” in Sit A, the smallest site featuring a centralized and unitary master plan, while those from the other two research sites might subdivide the entire development into specific regions that they derived some senses of “at-homeness” from. Actually, large gated neighborhoods like Site B or C had been developed through multiple phases (spanning a long period of time) and provided multiple sets of amenities in all development phases. In such developments, residents buying into a particular development phase might interact with the shared spaces in the subarea more frequently. This perhaps prompted them to feel more attached to that subarea instead of the entire gated area.

As Ms. L (C-07) from Site C, who modified her comments when asked about her imagined home range said,

“I can feel it (as if I am already home) when I enter the development. The entire neighborhood makes me feel that way... I am not talking about this place (she pointed to the Phase III area on her sketch map). I barely know anyone there. Probably I should say it is the area around our clubhouse (that makes me feel at home). The clubhouse is warm and close to me. It gives me some kind of home-like feeling because I always patronize it...” (C-07: 21min-22min)

With regard to care-taking attitudes, neighborhood-specific recreational shared spaces (e.g. central event lawn for Site A, riverside landscaped promenade for Site B, and clubhouse along with outdoor pool for Site C) were frequently mentioned and considered worthy of attention and caring. But other differences in spatial settings across different research sites seemed not to have further implications upon the residents’ care-taking attitudes.

Spatially prominent neighborhood amenities might necessarily be the focus of people’s caring concerns. This was best demonstrated by the data about the central event lawn at Site A.
As the geographical center of the neighborhood and the largest outdoor open space in the development, it was not considered the most valuable amenity (only one out of five cases noted it as the most valuable, see Figure 8.18 below) but it was one of a few important recreational spaces that functioned as vital activity centers for a range of residents. For those linked with “Type 3” situational environments, neighborhood layout features and physical settings could not reliably predict the mode of their spatial usages and behavioral patterns. Instead, data suggest that human agency and individuality may be more important. In short, the implications of spatiality upon care-taking attitudes were limited.

![Central event lawn was only one of the important neighborhood-level shared spaces in terms of care-taking attitudes](image)

Figure 8.18: The central event lawn was identified as one of the important objects of care-taking attitudes

By a similar token, physical space did not have a salient impact upon the residents’ sense of neighborhood cohesion for residents inhabiting Type 3 situational environments. Specific physical settings did influence how people socialize with others in the neighborhood, as is indicated in preceding discussion. However, these residents conducted various spatial activities in different indoor or outdoor shared spaces that facilitated their connections with their co-residents. The differences in spatial characteristics across research sites did not considerably affect these residents’ abilities to develop advanced interpersonal networks and derive a sense of being surrounded by known individuals. The absence of some particular recreational spaces (e.g. Site B lacked a clubhouse, Site C did not provide any landscaped promenades, Site A and B did not feature any courtyard spaces with patio furniture) did not fundamentally alter the nature of these residents’ social interactions and their perceptions of social cohesiveness.

In brief, this section addresses a type of situational environments whereby the associated residents enjoyed resilient and robust behavioral and perceptual bonds with within-
development recreational shared spaces. Spatial settings apparently impacted the associated residents’ cognitive experiences of the neighborhood environment and their specific spatial or social behaviors as a result of intensive person-environment transactions on a day-to-day basis. Yet physical space did not markedly influence territorial meanings about shared spaces because it only played a minor role in the complex behavioral and perceptual processes that informed territorial understandings. As to perceived quasi-territorial qualities of shared spaces, the distinct master planning settings such as spatial organization and land area across the three research sites can explain some between-site difference in residents’ imagined home ranges. However, this linkage was not dominant as social cultural beliefs also came into play and they could be the major contributors in some cases. Spatial characteristics appear not to remarkably mold care-taking attitudes or perceptions of social cohesiveness, because for those habitual users of shared spaces, different spatial conditions observed in this study did not initiate much change to the behavioral or experiential factors that directly impacted the environmental meanings of caring and social cohesion.

8.3 Conclusion

Through in-depth data mining and analysis, this chapter illuminates that in Shanghai’s high-rise gated developments, physical space (the absolute, objective entity described in terms of a series of planning or architectural properties) operates differently in terms of its implications upon territorial and quasi-territorial understandings for the residents associated with various situational environments. As the meanings and uses of physical spaces differed, the contribution of physical space to the perceptual, experiential, behavioral and social interactional processes whereby shared spaces were perceived in territoriality-related perspectives also varied. Thus, the change in physical spatial settings and different spatial characteristics of shared spaces across the three research sites was reflected, to diverse extents, in the territorial and quasi-territorial meanings attributed to shared spaces.

The variety of roles that physical space played is compiled in Table 8.1 below. A range of spatial factors are identified as potential contributors to residential territorial or quasi-
territorial understandings. The particular definitions of these spatial factors highlighted are given as follows.

- **Land area**: the total extent of the gated area of a high-rise gated development.
- **Spatial organization**: the master plan arrangement of residential buildings and shared spaces in a high-rise gated development in terms of how different spaces are articulated. Spatial organization can be analyzed in terms of multiple topological parameters such as connectivity, shapes, embeddedness, etc.
- **Availability**: the provision of different types of shared spaces to afford designers’ intended functions. Availability is independent of density.
- **Visibility**: the ease with which some shared spaces or objects can be observed by residents from different perspectives. Visibility is associated with design features and spatial organization.
- **Design features**: the formal and spatial configuration of different shared spaces. Design features are defined by materiality, geometry, and construction, and concern physical elements that are both fixed and semi-fixed.
- **Density**: the spread of shared spaces among residents, which can be measured by the square footage of shared spaces per dwelling unit or per capita. Density is independent of availability.
### Table 8.1: The different roles of space in three types of situational environments

<table>
<thead>
<tr>
<th>Situational Environments</th>
<th>The significance of space to spatial experiences and behaviors</th>
<th>The significance of space to the territorial meanings of shared spaces</th>
<th>The significance of space to the quasi-territorial meanings of shared spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type I</strong></td>
<td><strong>Land area and compositional complexity</strong> influence spatial memory. <strong>Availability</strong> slightly influences spatial behaviors</td>
<td>Space has no effect upon territorial attitudes.</td>
<td><strong>Land area and spatial organization</strong> influence home range perception. <strong>Availability</strong> and <strong>visibility</strong> influence care-taking attitudes.</td>
</tr>
<tr>
<td></td>
<td><strong>Type II</strong></td>
<td><strong>Density</strong> might be an influential factor toward access control attitudes but the supportive evidence is insufficient.</td>
<td><strong>Land area, spatial organization, and design features</strong> influence home range perception. <strong>Availability and spatial organization</strong> influence care-taking attitudes. <strong>Availability</strong> influences sense of social cohesiveness.</td>
</tr>
<tr>
<td></td>
<td><strong>Type III</strong></td>
<td><strong>Density</strong> has some influence over access control attitudes.</td>
<td><strong>Land area, spatial organization, and design features</strong> partially influence home range perception. Space does not have significant influence over care-taking attitudes and perceived social cohesiveness.</td>
</tr>
</tbody>
</table>

Overall, the relevance of physical space for territorial meanings was either very weak or influential only partially so. Most of the territorial meanings examined in this study were derived from a mixture of behavioral, social, and psychological factors. The implications of space to these were trivial. The effect of physical space was slightly easier to identify when it was part of the situational environments characterized by the most vigorous and active person-environment interactions, in which case spatial behaviors or spatial experiences markedly contributed to access control opinions. In comparison, spatial factors appeared to be more influential to residential quasi-territorial beliefs, especially imagined home ranges and care-taking attitudes. The significance of physical space was noticeable and could be elaborated in several aspects for those engaged in moderate behavioral associations with recreational shared spaces in their neighborhoods. But for the residents who were either very detached from neighborhood amenities or constantly utilized recreational shared spaces, different neighborhood spatial environments did not predict any substantial variation in quasi-territorial understandings.
While these conclusive remarks sound straightforward and definite, an overriding note of caution must be given to appropriately interpret and assess them. Here, I feel obliged to give two basic clarifications.

First, even though the spatial factors discussed in this chapter are conceptually defined as if they are universal and absolute to all contexts and human subjects, it is necessary to treat them as something always situated in different person-environment ecological systems in order to understand their relevance with territoriality-related environmental meanings. My study is exploratory in nature and I am giving no absolute benchmarks to appraise the overall effectiveness of predicting territorial and quasi-territorial meanings through physical spatial characteristics. My findings merely disclose some qualitative patterns or tendencies to shed light on the role of space in residents’ territorial experiences and perceptions.

Second, the conclusion drawn from this study that physical space does not influence territorial meanings as evidently as it modifies quasi-territorial perception requires further scrutiny due to the fact that the spatial dimensions of territoriality were not examined to the same level of detail as the spatial dimensions of quasi-territoriality in this research. The study of territorial attitudes went no further than asking about the social psychological significance of the gated areas versus the surrounding urban environments. Participating residents in each neighborhood were not asked to “map out” their territorial beliefs so as to differentiate different spaces attributed with distinct territorial meanings.

An extensive discussion of the strengths and limitations of this study as well as its relevance to design theories and practice is engaged in the next and final chapter of this dissertation.
CHAPTER 9. SYNTHESIS, EVALUATION, AND DISCUSSION

9.1 Summary of Major Findings

This dissertation concerns a special form of urban residential space that has recently emerged and is rapidly popularizing in Shanghai, the shared interior and exterior spaces in high-rise gated developments. It investigates the territorially-charged environmental meanings of these shared spaces by investigating the naturally-occurring behavioral and cognitive processes whereby person-environment transactions play out in such spaces.

The shared spaces in Shanghai’s high-rise gated developments represent a complicated and exotic social-spatial configuration (detailed in Chapter One and Chapter Four). The complex institutional background, the mismatch between social and spatial orders, and the mixed public/private attributes make the shared spaces an interesting and yet difficult type of site to study the environment’s social and psychological implications. The intent of the present study, to examine user subjectivity and individual experience, makes it an even more daunting task.

To engage multidimensional contextual factors, systematic processes, and subjective perceptions and interpretations, I employed a qualitative approach that took inspirations from the methods of grounded theory and case studies. To navigate the morass of constructs, factors, relations, and processes potentially relevant to my research interest, identify key concepts, and frame clearly defined research questions, I developed a minimal a priori theoretical framework before fieldwork (as inspired by grounded theory). This a priori theoretical framework was informed by the multidisciplinary discourses of environmental cognition and territoriality. I deployed the situativity perspective of environmental cognition to direct research design decisions because this paradigmatic theory especially promotes qualitative exploration at the individual level (it enables one to answer more “why” and “how come” questions). I expect this research perspective will gain more attention in future environmental research but currently it lacks sufficient applications and examinations. I recognized a multi-factor, cross-disciplinary conception of territoriality because theories from the two major territoriality discourses have been evolving towards a probable conceptual fusion in terms of scale of analysis, aspects or dimensions of research, and pertinent conceptual categories. Based on the situativity theory of
cognition and an updated conceptualization of territoriality, I developed an overarching conceptual framework that mobilized four key categorical concepts (situational environments, situated persons, person-environment interactions, and environmental understandings) and two central factors (territorial meanings and quasi-territorial meanings).

Guided by this conceptual framework, I delved into the residents’ territorial and quasi-territorial understandings about the shared spaces in their high-rise gated developments. The territorial and quasi-territorial understandings comprise a range of territoriality-related environmental meanings such as perceptions of spatial control, attitudes about spatial access and usage, imagination of home, senses of responsibility and caring. At its core, this dissertation focuses on the substantial content and the formative process of residential territoriality. Particular attention is paid to the role of physical space in the generation of territorial and quasi-territorial senses and attitudes.

To tackle the research questions, I conducted multi-case studies involving sixty one participating residents from three sampled high-rise gated developments in Shanghai to measure the key concepts and factors of interest. I also collected supplemental data from other sources to measure supporting concepts (e.g., permanent environments and absolute persons) to define settings contextual to the cases. All the extracted empirical indicators were sorted and grouped into multiple cases and settings according to the relevance of data to the research focus.

I conducted organized coding operations to further condense and refine the data bounded in cases that examined varieties of spatial, social, personal, and behavioral factors. I launched multiple rounds of case-oriented analyses to tackle the research questions, employing both graphic and verbal means to present research findings. Within-case studies achieved comprehensive understandings of individual cases, uncovering the overall flow or configuration linking various reported data and identifying relational networks (or “story plots”) organizing different factors. Cross-case analyses synthesized and compared individual case studies by preserving the unique configuration of each individual case and conducting case-by-case
pattern matching. Hence I identified multiple case families featuring distinct configurational patterns.

Through progressive funneling and focusing, descriptive accounts and explanatory work models were gradually drafted and elaborated in response to the investigated research questions.

First, I discovered that in high-rise gated developments, residents’ territorial opinions about the indoor and outdoor shared spaces in their neighborhoods reflected multiple themes. Synthesizing these themes through the four essential aspects of territorial understandings (active control, passive control, non-resident accessibility, and spatial usage rules), I reached the following descriptive accounts to illustrate residential territorial perceptions and attitudes revealed by this study: (1) residents were generally confident about their active or passive behavior-level control over shared spaces; (2) as individuals or groups, residents believed that their ability to exert substantive management-level influence over shared spaces was significantly challenged and compromised by property management companies in these developments; (3) there were divergent opinions about whether non-residents should be allowed to enter the gated developments and utilize shared spaces; (4) For those who leaned toward accepting non-resident access to and use of shared spaces, their expectations about visitors’ behaviors within shared spaces reflected both behavioral privileges and restrictions.

Second, I unearthed complicated patterns regarding residents’ quasi-territorial understandings of shared spaces in terms of “home-like” qualities and care-taking meanings. Exploiting diagrammatic tools, I summarized environmental meanings with reference to spatial configurations to uncover varied quasi-territorial perceptions and interpretations of shared spaces. As a result, I made a few important observations: (1) residents’ responses regarding their home imaginations and care-taking concerns about shared spaces revealed semantic meanings based on spatial differentiation; (2) shared spaces were imagined to be part of the home to varied extents with interior shared spaces and exterior spaces in proximity to private dwelling units more likely to be perceived as “home-like”; (3) residents’ care-taking attitudes divulged the assignment of both symbolic and utilitarian values to shared spaces; (4) interior
shared spaces and small-scale exterior shared space were often considered worthy of caring, and spatial proximity was an influential but not deterministic factor in predicting care-taking attitudes.

Third, the potential explanatory models illuminating the source of territorial and quasi-territorial meanings were explored and unveiled through mapping, comparing and categorizing the idiosyncratic relational networks joining different factors in individual cases. Exploiting case-oriented data analyses directed by the recognition and grouping of case families, this dissertation identified three thematic case configurations (despite a few outlying cases) that represented three alternative explanatory models whereby territorial and quasi-territorial attitudes were derived from the complex interplay of spatial, social, personal, cognitive, behavioral, and social interactional conditions. Moreover, the different case families corresponded to the different types of ecological person-environment situations. These person-environment situations subsumed several mutually defined and interdependent aspects including situational environments, situated persons, and person-environment interactions. Cases categorized in different case families exhibited dissimilar genres of person-environment interactions concerning the extensiveness and intensity of within-development spatial and social transactions. Given multiple case families characterized by distinctive person-environment situations and person-environment interactions, residential territorial and quasi-territorial meanings about shared spaces were generated from various contributing factors through distinct relational patterns.

Throughout all case families, residents’ social knowledge and understandings about the socio-political realities of their neighborhoods were constantly associated with their territorial understandings. The contribution of other factors, on the other hand, was inconsistent due to the changing person-environment interaction modes. From Case Family A to C, within-development recreational shared spaces were more and more accessed and utilized in everyday spatial and social activities. Thus person-environment interactions (in form of spatial behaviors and social activities) became more relevant to the territorial meanings and understandings. The differing effects of person-environment interactions across case families
were reflected by the seemingly intricate distribution of territorial attitudes and opinions. As Figure 9.1 below illustrates, residents’ active spatial control perceptions commonly indicated the dominance of developers’ or property management companies’ over management-related spatial rights across the three case families. Yet, a few individuals from Case Family B and C, whose active spatial control understandings were informed by person-environment interactions, often reported the themes of “behavioral freedom” or “sense of being served” based on their actual spatial or social transactions with their neighborhood environments (see Figure 9.2 below).

Figure 9.1: Distribution of active spatial control meanings in the three case families

Note: Cases represented by unfilled boxes are assigned to more than one cell.
Figure 9.2: Distribution of active spatial control meanings reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences.

Note: Cases represented by unfilled boxes are assigned to more than one cell.

Likewise, residents’ passive spatial control understandings across the three case families disclosed that those from Case Family B and C (whose person-environment interactions shaped their passive spatial control perceptions) tended to conduct active behavioral interventions against uncivil behaviors in shared spaces (see Figure 9.3 and Figure 9.4 below). In terms of residents’ beliefs about spatial rights and privileges, bifurcated opinions were reported by the residents from Case Family B and C (whose access control attitudes were based on their person-environment transactions) because of different environment interactional outcomes (see Figure 9.5 and Figure 9.6 below).

<table>
<thead>
<tr>
<th>BEING SERVED</th>
<th>FREEDOM TO USE</th>
<th>MANAGEMENT RIGHTS</th>
<th>DATA NOT AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain intended quality services from the property management company</td>
<td>Enjoy behavioral freedom to make use of various amenities</td>
<td>(1) Homeowners</td>
<td>DATA NOT AVAILABLE</td>
</tr>
<tr>
<td>(2) Developer/Property Manager</td>
<td>(3) Government</td>
<td>(4) Ambiguous</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Family A (10 cases)</th>
<th>Case Family B (26 cases)</th>
<th>Case Family C (20 cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B1 (12 cases)</td>
<td>B2 (14 cases)</td>
</tr>
<tr>
<td></td>
<td>C1 (12 cases)</td>
<td>C2 (8 cases)</td>
</tr>
<tr>
<td>A-02</td>
<td>A-05</td>
<td>B-08</td>
</tr>
<tr>
<td>B-16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-16</td>
<td>B-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-04</td>
<td>C-04</td>
</tr>
<tr>
<td></td>
<td>A-08</td>
<td>B-16</td>
</tr>
<tr>
<td></td>
<td>B-17</td>
<td>B-09</td>
</tr>
<tr>
<td></td>
<td>B-09</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C-17</td>
</tr>
<tr>
<td></td>
<td>A-21</td>
<td>C-08</td>
</tr>
<tr>
<td></td>
<td>A-15</td>
<td>B-14</td>
</tr>
<tr>
<td></td>
<td>B-13</td>
<td>C-11</td>
</tr>
</tbody>
</table>

Figure 9.3 and Figure 9.4 below.
Figure 9.3: Distribution of passive spatial control meanings in the three case families

Note: Cases represented by unfilled boxes are assigned to more than one cell.

Figure 9.4: Distribution of passive spatial control meanings reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences

Note: Cases represented by unfilled boxes are assigned to more than one cell; Case A-16 only reported data concerning the management-level passive spatial control.
Figure 9.5: Distribution of spatial rights meanings (access control attitudes) in the three case families

<table>
<thead>
<tr>
<th>Case Family A (10 cases)</th>
<th>Case Family B (26 cases)</th>
<th>Case Family C (20 cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCEPT</strong> non-residents shall be allowed to enter the gated area with minimal restrictions</td>
<td><strong>PARTIALLY ACCEPT</strong> non-residents may be allowed to enter the gated area with some restrictions</td>
<td><strong>REJECT</strong> non-residents shall never be allowed to enter the gated area and there are minimal exceptions.</td>
</tr>
<tr>
<td>B1 (12 cases)</td>
<td>B2 (14 cases)</td>
<td>C1 (12 cases)</td>
</tr>
<tr>
<td>A-09</td>
<td>A-12</td>
<td>A-07</td>
</tr>
<tr>
<td>A-13</td>
<td>B-19</td>
<td>A-08</td>
</tr>
<tr>
<td>A-02</td>
<td>B-17</td>
<td>C-14</td>
</tr>
<tr>
<td>* (C-14) “Our development is not a top housing estate that should be exclusive”</td>
<td>* (A-13) &quot;If guards allow them to enter, I am fine with that”</td>
<td>B-16</td>
</tr>
<tr>
<td>A-11</td>
<td>A-04</td>
<td>A-20</td>
</tr>
<tr>
<td>* (A-15) “One shall be generous enough to share with others”</td>
<td>* (C-06) &quot;Allow random access might have unexpected outcomes&quot;</td>
<td>A-15</td>
</tr>
<tr>
<td>DATA NOT AVAILABLE</td>
<td>DATA NOT AVAILABLE</td>
<td>DATA NOT AVAILABLE</td>
</tr>
</tbody>
</table>

Figure 9.6: Distribution of spatial rights meanings (access control attitudes) reported by the cases whereby spatial or social person-environment interactions were direct or indirect contributors through spatial experiences

Quasi-territorial meanings including imagined home range and care-taking attitudes were always directly and indirectly associated with spatial and social person-environment
interactions. The varying person-environment interaction modes from Case Family A to C were well echoed by the migrating thematic patterns of home range perceptions and caring attitudes across case families (see Figure 9.7 and Figure 9.8 below). For those in Case Family C, as social understandings came into play, the residents’ home range perceptions displayed a somewhat bimodal distribution (see Figure 9.7 below).

Figure 9.7: Distribution of imagined home ranges in the three case families
Finally, this dissertation investigated the relevance of spatiality in an objective geometric sense to territorial and quasi-territorial meanings of shared spaces by analyzing physical space with regard to the embeddedness of these meanings in three types of situational environments ("Type 1", "Type 2", and "Type 3") as associated with the three case families: A, B, and C. I discovered that a series of spatial factors: land area, spatial organization, and visibility, were remotely related to territorial or quasi-territorial meanings of shared spaces. The implications of physical space upon territorial understandings were in general very weak, except that the factor of density slightly influenced access control attitudes (in a few cases pertaining “Type 2” and “Type 3” situational environments). Yet, I found that multiple spatial settings and conditions had confirmable implications related to quasi-territorial meanings, especially for the cases of “Type 2” situational environments. It seemed that physical space influences quasi-territorial understandings more for the residents who moderately engaged their neighborhoods’ recreational shared spaces in comparison with those who either were behaviorally detached from development amenities or those who intensively used such spaces.
These major findings suggest that this dissertation is able to add to existing knowledge and augment the current discourses in several disciplinary contexts, as further elucidated in the sections below.

9.2 Socio-Psychological Meanings, Environmental Cognition and Situativity Theory

The most important contribution of this research is that it empirically assesses the effectiveness of the situativity perspective in human environmental cognition. The proponents of situativity theory generally share the position that “cognitive activities should be understood primarily as interactions between agents and physical systems and with other people” (Greeno & Moore, 1993, p. 49). In other words, cognition is always situated in human-environment dynamics and it spans across the mind and the environment rather than being isolated in human brains and individuals’ subjective psychological worlds. Situativity theory considers the human being and its environment as two reciprocal aspects of one and the same irreducible system. This perspective has been shared by many environmental psychologists who maintain an “interactionalist perspective” (Golledge, 1987) of environmental cognition. Applying qualitative case-oriented data analyses and graphic means of coding and comparison, this dissertation engaged and discovered multiple ecological person-environment systems situated in Shanghai’s high-rise gated developments, where residents’ territorial and quasi-territorial understandings about their neighborhoods’ shared spaces were established and cultivated. Therefore this study advances contemporary environment-behavior relations (EBR) research concerning residential environments.

First, my research empirically demonstrates the explanatory strength of situativity theory to understand complex socio-psychological environmental meanings in residential settlements. Residential territoriality encompasses multiple social, spatial, behavioral, affective, and sentimental dimensions and the relevant environmental meanings are loaded with rich connotations. As indicated in my data analysis, the territorial and quasi-territorial opinions regarding space-sharing in high-rise gated developments cannot be satisfactorily explained by socio-spatial conditions (the environment) or residents’ individuality (the person) if these two factors are treated as independent, discrete categories. It is through a situated approach
revolving around holistic person-environment unities that residential territorial and quasi-territorial meanings can be unraveled and comprehended to a considerable extent. These person-environment situations feature two mutually defining and interdependent facets: situational environment and situated person that are bonded via person-environment interactions. It is simply impossible to separate the environment from the person interacting and perceiving it to sufficiently understand the use and meaning of the environment. Therefore, this study demonstrates the necessity and operability of the multidimensional and integral person-environment situations as an appropriate subject matter in the study of environment-behavior relations (EBR) and a promising starting point to explore the built environment’s socio-psychological implications.

Second, this dissertation reveals that specific meanings and uses of spaces are integral elements of person-environment situations that ecologically interrelate and organize multiple spatial, social, personal, cognitive, and behavioral aspects in holistic and recognizable systems. The linkage between these aspects may not be represented by a conventional causal model that comprises unidirectional links and differentiates the antecedent from the consequence. This finding echoes and enhances a critique of the conventional orientation to establish deterministic associations between spatial configurations and spatial meanings in housing studies (R. J. Lawrence, 1987; Weidemann & Anderson, 1985). Spatial, behavioral, and cognitive elements can be mutually reinforcing and interacting. Also, the socio-psychological implications of physical space are inevitably multi-modal and a sophisticated understanding of them can be facilitated by recognizing the embeddedness of physical space in different integral person-environment situations.

Overall, as an environment-behavior relations (EBR) study investigating high-density urban residential settlements, this research convincingly demonstrates and verifies the great potential for empirical application of situativity theory in environmental cognition research. The introduction of concepts such as “situational environment” and “person-environments situation” follows a path in empirical environmental research that has been less traveled so far. Beyond its scholarly contribution, this research may also inspire an awareness of human ecology in the
initiators and executors of future residential environmental change, which is elaborated in the final section of this chapter.

9.3 Territorial Functioning, Centrality, and Defensible Space Theory

This dissertation makes advances concerning several particular topics of environment-behavior research, such as territorial functioning (Ralph B. Taylor, 1988; Ralph B. Taylor & Sidney Brower, 1985), centrality continuum in the home environment (Altman, 1975; Ralph B. Taylor, 1988; Ralph B. Taylor & Sidney Brower, 1985), and defensible space theory (Newman, 1972, 1976, 1996), all of which address spatial meanings regarding the possession, identification, appropriation and control of common spaces (esp. outdoor spaces) in residential environments. These theories represent the most recent climax of residential territoriality research, the theoretical treatment and empirical investigation of which has largely been dormant recently due to several obvious conceptual and methodological predicaments (see Chapter 2). My research acknowledges and further develops the research direction heralded in these preceding studies and sheds light on some unexplored aspects. By advocating a more comprehensive situated perspective to approach territorial phenomena, this study also makes a bold attempt to regenerate the discourse of territoriality that has been conveniently eschewed by many environmental researchers and designers since the 1980s.

First of all, the present study engages and extends territorial functioning theory. Ralph Taylor almost single-handedly developed an inspiring explanatory framework that relates residential territorial perception and practices with a multitude of intrapersonal, interpersonal, social, and physical variables in neighborhood environments. His theory gives special attention to the subjective cognitive processes that mediate the neighborhood environment and residents’ territorial behaviors. His recognition of various non-spatial factors in territorial research is unquestionably insightful as is highlighted in his definition of territorial functioning below.

“Territorial functioning refers to an interlocked system of sentiments, cognitions, and behaviors that are highly place specific, socially and culturally determined and maintaining, and that represent a class of person-place transactions
concerned with the issues of setting management, maintenance, legibility, and expressiveness”. (Ralph B. Taylor, 1988, p. 6)

Nevertheless, probably overly-influenced by behavioral setting theory of Barker and associates or the common tendency in environmental psychology to privilege the significance of settings and sites, Taylor apparently overemphasizes the role of the socio-spatial environment and unnecessarily downplays the individuals’ predisposition and ability to engage the environment. Although individual parameters are listed as one of the contributors to territorial functioning, his discussion of this category is restricted to “personality”. He leaves out many important personal factors with respect to the encompassing social and spatial environment, such as life stages, physical ability, personal values, and gender differences. Moreover, Taylor introduces a unidirectional, causal model that draws a clear-cut division between the antecedent variables from the consequent ones, overlooking the potential interactive links between them (H. C. Clitheroe, 1991).

These limitations could be overcome if the important “situatedness” of territorial cognition as unearthed by my research could be incorporated. Actually, in some places Taylor’s meticulous observation and ingenious theorization have brought him very close to a situated perspective. As he states, “the impact of the physical characteristics of the work space on territorial functioning is conditioned by the social role of the individual in the setting” (p. 209). Yet, his exploration is not carried on from that point and there is no recognition of the mutuality between residing individuals and the socio-spatial environment. This is mainly due to his insistence on circumscribing the contextual scale where territorial functioning can operate to the street block and face-to-face social context that maintains minimal bonds of acquaintanceship or interaction. This dissertation extends Taylor’s single-modal linear association of contextual and territorial factors by revealing multiple person-environment interactive relations that precursor territorial and quasi-territorial understanding and identifying different “situated environments” that unify both personal and environmental facets.

In his Human Territorial Functioning, Taylor even implies that physical context of human territorial functioning is more deterministic than social aspects. For instance, he claims that “territoriality behaviors, attitudes and sentiments are highly place dependent versus predominately socially and culturally determined” (p. 87).
Second, this dissertation further elaborates the “centrality continuum” employed by Altman and Taylor to emphasize “the importance of the settings as a supportive context for daily functioning” (Ralph B. Taylor, 1988, p. 10) and to differentiate social bonds of varied strength and significance to individuals. Taylor sees it as an aspect of “person-place bonds” that may vary across places and individuals. However, Taylor stresses the agreement in the sense of centrality among people over the relative differences, and often treats salient spatial hierarchy (e.g. from household interior to immediate outdoor spaces to street block settings etc.) as a common template representing centrality. Yet my dissertation discloses that the centrality continuum could be extremely volatile and heterogeneous. It should never to be reduced to a fixed universal model aligned to certain spatial array. Instead, the centrality continuum is best understood as distinct perceptual and experiential patterns situated in multiple person-environment relationships. The diversity of idiosyncratic person-place bonds must be preserved in future human territorial research.

Third, my research also appraises defensible space theory and brings new insights into the relevant studies. Architect Oscar Newman postulated that the presence and strategic position of certain “defensible space features”, which are physical elements such as walls, fences, plant beds, etc., in a residential environment would enhance residents’ feelings about their control and possession of the area. In turn, these enhanced feelings encourage upkeep activities, facilitate neighborhood watch, and prevent crime (1972, 1976, 1996). By definition, gated neighborhoods can be viewed as a manifestation of the defensible space concept (Carvalho, George, & Anthony, 1997; Tijerino, 1998). Yet my inquiry of territorial meanings in Shanghai’s high-rise gated developments demonstrates that the linkage between physical “territorial markers” and territorial opinions is prominently inconsistent (detailed in Chapter 5). The same physical features considered important in defensible theory can be territorially interpreted diversely among the residents of the same gated developments with the effect of various modifying social, cultural, and personal factors. Since this research was practiced in a real-world environment and it involved interested residents reporting territorial meanings on the basis of their day-to-day experiences, its findings are more compelling than those historical studies employing a semi-experimental approach and graphic simulation tools (e.g. a
respondent being asked to rate pictures of abstract residential settings on a few predefined questions) (studies concerning territorial perception of defensible space include: Ham-Rowbottom, Gifford, & Shaw, 1999; MacDonald & Gifford, 1989; K. T. Shaw & Gifford, 1994). Also, my study addresses a different socio-spatial context where residents cannot freely manipulate and personalize their near-home outdoor spaces, a condition that has been less explored in precedent defensible space research. I discovered that the intuitively appealing defensible space theory is much less convincing within such a context.

In sum, defensible space theory oversimplifies the often elusive and inconsistent association between real or symbolic spatial markers and various territorial sentiments and behaviors. It overlooks interactive person-environment systems where those beliefs, attitudes, and experiences are spawned in a situated way, as has been proposed in this research. Defensible space theory can be further enhanced if multiple types of concrete person-environment relationships are recognized and examined.

9.4 Housing in China and Gated Residential Developments in Shanghai

Academic publications on China’s radical urban changes in the recent decades have been growing steadily. Many of the publications address the fast adapting urban residential environment in several major Chinese cities, including Shanghai, Beijing, and Guangzhou, that other cities in China tend to model after (e.g. Chen & Sun, 2007; Li & Wu, 2006; F. Wu, 2004; J. Wu & Zheng, 2008; Zhigang & Fulong, 2008). Yet, most of the discussion reflects the interests in macroscopic spatial form and spatial restructuring (usually at the municipal or urban district level), the major institutional and socioeconomic processes as the driving forces, the general implications for social and urban lives (e.g., population distribution and housing conditions), and the associations or intersections of these overarching dynamics (see F. Wu & Lu, 2008). Very few research initiatives have studied the everyday behavioral and cognitive ties between these newly configured residential environments and their inhabitants.

This research explores this unfamiliar territory. It looks into microscopic, individual-level socio-psychological processes where physical spatiality, institutional settings, social climate, individuality, and subjective residential experiences are complicatedly interwoven. Adding to
the existing literature that draws parallels across grand social, spatial, political, and cultural changes in China, this research uncovers wrinkles of inconsistency lurking in these macro trajectories. The high-rise gated developments in Shanghai exhibit contested relationships between conceptual, perceptual, social, and physical boundaries as perceived by individual residents. As the frenzied proliferation of these gated estates promotes a novel, high-density space-sharing pattern, residents make daily transactions with their neighborhoods’ shared spaces in varied modes and derive different patterns of territorially-charged environmental meanings.

With regard to the discourse of globalizing gated communities, the majority of the existing literature approaches gating through political, economic, geographical, and anthropological perspectives (e.g. Barton & Silverman, 1994; Blakely & Snyder, 1999; Caldeira, 2000; Low, 2003). This research expands the current survey by emphasizing spatiality and residential subjectivity. Planning and architectural researchers who are concerned with human dimensions of the built environment therefore may be inspired its findings. This dissertation also reinforces the findings of some pioneering scholarly works that actually address the topic of territoriality as to China’s gated communities in geographical or political perspectives (e.g., C.-P. Pow, 2009). It successfully illuminates residents’ territorial interpretations about gated residential compounds with greater intricacies.

9.5 Limitations of This Research

Balanced against the above mentioned merits are some limitations of this dissertation. The weaknesses of this research range from its deficiencies in research design and data collection to the transferability and utilization values of its findings.

Largely because of logistic reasons, I failed to adopt a more inclusive data collection scheme that would extract some empirical indicators necessary for more productive data analyses and more robust explanatory models. For example, spatiality of territorial meanings was not sufficiently examined in comparison to the inquiry of quasi-territorial meanings. The interview sessions conducted in the field did not induce resident participants to give detailed, space-specific territorial meanings. Neither were they instructed to use graphic means such as
sketch maps to map out their territorial attitudes as assigned to different indoor and outdoor shared spaces. Consequentially, I merely collected the data reflecting the residents’ territorial opinions about shared spaces as a singular entity as opposed to private domestic spaces and urban spaces. If the residents had been motivated to differentiate their territorial understandings by specific spaces as they did with their quasi-territorial experiences and senses, I might have discovered more unknown links between residential territoriality and the environmental, human, and behavioral factors. In this vein, the relatively isolated position of territorial meanings in all emergent explanatory models might need fine-tuning. My conclusion about the insignificant role of physical space in territorial understandings might also be revised.

Moreover, this research was conducted on a time sectional basis therefore it is extremely difficult if not impossible to assess the significance of temporal factors. It is inferable from my raw data that some residents transferred from one person-environment transaction mode to the other over time. Alternatively put, the same persons may be situated in different person-environment situations and be bonded with different types of situational-environments in different times of residency. For example, young professionals who originally disengaged with most exterior shared spaces gradually became active outdoor space users once they started to have children or pets to care for. Former pet lovers may cease to maintain regular day-to-day interactions with their neighborhoods’ landscaped areas once they stopped keeping pets and some may inevitably relocate the center of their activities to somewhere outside their residential development. The life stories yielded in a few cases did imply that once people transited from being part of one person-environment relationship to the other, the generation of their territorial and quasi-territorial understandings changed accordingly and could be meaningfully different from that of those who had never changed their person-environment interaction modes since they moved in. Had this study been a longitudinal one, it is likely some interesting person-environment scenarios featuring a temporal dimension would have surfaced during data analysis.

Lastly, this research only covered three high-rise gated developments in the core urban area of Shanghai. Although they do represent a wide range of spatial and social aspects, they all
come from the same mid-to-high category of local housing products that share many socio-economic commonalities. There are still many high-rise gated neighborhoods in Shanghai that are significantly different. Relevant examples include some clustered gated developments in the city, which come together to form an extensive gated urban district only intersected by a few public roadways. Also, there are many substandard gated estates housing low-income groups. These neighborhoods have very limited indoor and outdoor amenities. Access control and security measures are fewer there and property management companies do not provide as many services. Examining a very limited number of developments that only embody a small segment of the full spectrum, this dissertation clearly misses the opportunity of engaging varying social and spatial contexts.

It should also be noted that high-rise gated developments are an unpopular housing form (probably only available in China and Korea) at the global level. The social, cultural, and institutional settings of the researched developments are relatively unique. These conditions suggest any attempt to successfully transfer the findings of this research to alternative urban contexts would be difficult. The explanatory model and the perspective to recognize relatively defined human and environmental aspects and their embodied cognitive and behavioral bonds may be inspiring for case studies conducted in an alternative geographical location. But the descriptive accounts regarding residential territoriality are less likely to be repeated by other research projects.

For practicing architects and planners as the executors and facilitators of residential environment changes, probably the most disappointing fact about this research is that its major findings cannot be directed translated into any prescriptive design suggestions. After all, the ultimate purpose of this study is not to contribute to any “normative theory” that motivates actions taken in design practice. As I did not extend my research beyond territoriality to address issues of residential satisfaction or housing ideal, the present study does not directly address the questions commonly of concern to designers in their everyday practice, for example, “how to plan and design a supportive high-density residential environment?” or “what would be the most user responsive residential development mode?” Its most immediate design implications
would be the enhanced awareness or sensibility about person-environment mutuality as manifested in the residential environment. By all means, incorporating the obtained knowledge about residential territoriality to a general design agenda is beyond the scope of this dissertation. This dissertation shall be best seen as an integral part and the initial stage of an overarching research discourse dealing with design and planning research questions about high-density housing. The strategies to navigate this broader research landscape are discussed in the final section. In the epilogue, I reveal the potential of this study to inspire holistic design thinking and integrated project delivery, manifesting its value as an attempt to help construct a “positive theory” for the betterment of environmental design practice.104

9.6 Future Research Directions

With both merits and limitations, this dissertation implies a few potentially valuable future research directions. Some of them are only significant for the environment-behavior (EB) and design fields, while others may generate resonance in multiple disciplines.

An immediate research direction would be a longitudinal, multi-site study that examines the relations between residential satisfaction, housing needs, territorial experiences, and spatial factors that are relevant to shared spaces in high-rise gated developments. Such a study could meticulously examine residential territoriality concerning space-sharing in high-rise gated developments through a more inclusive collection and analysis of both spatial and semantic data reported by residents. It could extend the discussion on residential territoriality to residents’ evaluation of shared spaces in terms of their values and potentials to meet residential needs of different groups of people and enhance their well-being, or environmental supportiveness (Rapoport, 1983). As highlighted in Chapter One, communal interior and exterior spaces secured behind walls but shared by large numbers of residents have been flourishing because of the sweeping trend of high-rise gated developments. A systematic assessment of these fast spreading urban residential spaces is necessary to inform the decision-makings in housing policy and building regulations. A full-fledged follow-up study would make

---

104 The distinction between “positive theory” and “normative theory” is specifically discussed in Jon Lang’s *Creative Architectural Theory* (1987b).
valuable contributions to the on-going discussion of high-density gated developments with reference to their multifaceted implications at social and individual levels. It will not only promote housing studies in China but also will be relevant to the urban research on many other developing Asian cities that are currently experiencing rapidly densification and spatial segregation or showing signs of such changes.

Secondly, there should be a more detailed and cross-disciplinary exploration of how non-spatial environmental factors influence or modify residents’ environmental understandings in general and territorial perceptions in particular. Given my personal interest and disciplinary background, this dissertation directs more attention to the spatial facets of person-environment situations. It has been recognized in this research that situational environments inhabited by different groups of people are multivariate, complicated syntheses of various physical, behavioral, social, and institutional elements, among which are factors that are not spatially bounded or defined. Interpersonal relationships in terms of affective and emotional ties are generally considered insensitive to spatial locations (e.g. mother-and-son relationship does not alter whether the two are spatially together or apart). Persons’ social networks may not be space-dependent (e.g. your connection with your friends does not necessarily require a spatial framework to maintain). Social rules, cultural beliefs, and behavioral norms apply to whoever endorses them disregarding spatial locations or physical settings (e.g. Christians are always Christians whether they are inside or outside a church). Political and institutional settings have macro scale geographical distributions, but they usually do not require a spatial basis to have impact upon those who engage them (e.g. those who are indebted are always legally responsible for their debts within a certain macro spatial scope).

With the development of telecommunication technology and increased mobility of individuals, the non-spatial factors of the environment have become more salient in the contemporary age and could be the most important precursor of people’s environmental experience in some cases (as is partly illuminated in my discussion of the residents inhabiting the “Type 1” situational environment). In this light, investigating the implications of non-spatial environmental elements upon human environmental understandings expands the focus of this
dissertation, empirically examining situativity theory in an alternative disciplinary domain concerning social psychology and human geography.

Specific future research topics in this area may include but are not limited to the following ones: (1) the territorial interpretation by the “footloose” ones who are spatially uprooted and frequently on the move; (2) the effect of cyber space (e.g. internet or other telecommunication networks) as opposed to that of physical space on human’s environmental experiences; (3) the interplay of social climate and physical environment in framing residential evaluation. Together with this research, studies like these are expected to illustrate a more holistic picture of human interpretations of the residential environment as a multi-dimensional system.

In addition to the above suggested empirical research directions, I would like to call for a theoretical exploration of the appropriate subject matter in environment-behavior (EB) research to promote an in-depth understanding of subjective environmental meanings. I believe that a transactional and situativity orientation must be further incorporated in the meta-theoretical conceptualization of environment-behavior (EB) phenomena. I also propose the concept of “reciprocal person-environment scenarios (R-PES)” as the most effective subject matter when studying humans’ environmental experience and interpretation. This concept is transactionalist as it assembles multiple interdependent elements and aspects into an integral whole that evolves along a temporal dimension. It also embodies a situativity perspective that overcomes the distinction commonly made between the internal psychological system of the perceiving agent and the external ecological environment considered independent of human subjectivity.

The transactional approach has been well promulgated since its initial introduction to the environment-behavior (EB) fields decades ago (Altman & Rogoff, 1987). Its advocacy of integral and inseparable unities (i.e. “events”) whose constituents defy discrete definition and its consideration of temporal dimension as an essential aspect of transactional unities have been reflected in many multidimensional concepts frequently introduced in environment-behavior (EB) studies as the subject matter of this field. For instance, the conceptualization of
“behavior setting” as a molar unit of naturally occurring socio-spatial environment, which was first developed by Roger Barker (1968) and later elaborated by Allan Wicker (1987; Wicker, 1992), recognizes interrelated social, spatial, temporal, and cognitive conditions in environmental studies. Amos Rapoport introduced several transactionally oriented concepts including “the cultural landscape” (1992), “environment” (1977, 1982), and “system of settings” (1990), all of which are essentially multivariate to encompass diverse spatial, social, and conceptual facets of the environment. Similar concepts such as “social space” (Buttimer, 1969) were also proposed in human geography and sociology. Widely accepted as research subject matter, theses transactionalist concepts successfully illuminate the multidimensionality and the systematic configuration of the environment that surrounds humans. They have also helped many researchers to combat “physical determinism”, the fallacious inclination that privileges physical conditions over other environmental aspects in environment-behavior (EB) research.

Despite their extensive theoretical endorsement and their great contribution in inspiring many fruitful empirical studies, these concepts, nevertheless, do not suggest a situativity perspective that acknowledges person-environment intertwinement and mutuality. Not endorsing and engaging a situativity perspective may impede a more in-depth inquiry into subjective environmental meanings. In essence, these concepts unanimously signify an organic segment of the external world that does not depend upon any specific groups of observers to exist or function. Hence, when applied to investigate environmental understandings, they unnecessarily oppose the invariant externality of the environment to the agency of perceiving individuals that actively chooses and organizes various environmental conditions and to some extent, constructs their environmental experiences. In some cases, the disengagement between individual persons as subjective actors and perceivers and the environment as an objective entity is such that collective environmental meanings (or intersubjective conceptions) tend to be “objectified” and considered a function or a quality of the external environment (Ahrentzen, 2002). Research on environmental symbolism also implies a non-situativity perspective and it stresses the potential of the environment to project symbolic meanings over the perceivers’ intention and activeness to interpret symbols (Appleyard, 1978, 1979). Rapoport’s “filtering model” of environmental perception (1977) that attempts to separate...
and discretely assess the effect of subjective and objective factors exemplifies the other transactional but non-situativity approach.

As has been partly demonstrated by this dissertation, the natural process of human environmental experience and evaluation is an orchestrated ensemble that brings the mutually defining situated persons and situational environments together, forming reciprocal person-environment unities. It is thus crucial to see environmental meanings as something contingently constructed along with the on-going person-environment transactions involving paired human and environmental aspects. In fact, the position suggesting that environmental meanings derive from the interactions between the situated subject(s) and the surroundings environment has been implied in many classic texts on people’s environmental cognition, description and evaluation. For example, David Canter asserted that people play different “environmental roles” according to their specific purposes and hence display varied “cognitive systems” when generating their environmental descriptions (1977, 1983). Kevin Lynch prudently specified the group of people who may perceive the urban spatial structure in the way he proposed (Lynch, 1960). He explained (as rephrased in a different text):

“Environmental images are the result of a two-way process between the observer and his environment. The environment suggests distinction and relation, and the observer—with great adaptability and in the light of his own purposes—selects, organizes, and endows with meaning what he sees.” (Buttimer & Seamon, 1980, p. 6)

There is much more discussion eluding to a transactionalist and situativity orientation in the literature concerning the experience of “place” in both phenomenological (for example, Bachelard, 1964; Relph, 1976) and non-phenomenological traditions (for example, Altman & Low, 1992; Canter, 1977). Such conceptualizations of environment-behavior relations (EBR) commonly underscore the relevance of human agency and intentionality in environmental experience that is often eviscerated from the irreducible human-environment system with the latter being downplayed or objectified. However, the situated quality of these understandings are not widely acknowledged and valued. Thus, their exploratory and explanatory potential have not been fully developed in the studies employing them. Terminology may also be a
problem. The term of “place” does not explicitly pronounce the confluence of the perceiver and the environment when environmental meanings are derived. Instead, it bears a strong connotation of a specific geographical location the spatial profiles of which can be accurately measured and therefore seen as something detached from any perceiver.

Based on the findings of this dissertation, I propose “reciprocal person-environment scenarios (R-PES)” as the subject matter in the research of environment-behavior relations (EBR). It directs the research focus to the intricate relativity and relationality of the interacting persons and environment that unfold along a temporal dimension where environmental experiences and interpretations are spawned and developed. It also sufficiently manifests the capacity of situativity and transactional approaches to frame and guide particular empirical studies. To fully exploit the advantage of scenario-based person-environment systems in environment-behavior (EB) research and introduce new criteria to measure and describe the relational concepts of situational environments and situated persons, we must transcend a naïve realism based on subject/object dualism. We must instill a critical realism in our research, avoiding dualist definitions of the perceiver and the environment and embracing concepts that emphasize the reciprocal ties between people and the environment (Carello, 1993; Noble, 1981; Weichhart, 1993). Although such a conceptual shift requires more theoretical examination to be justified, I believe it will be invaluable to thoroughly explore the theoretical ramifications of situativity theory and a transactional world view, and introduce more situativity-oriented concepts in environment-behavior (EB) research.
EPILOGUE

Many years later, if I successfully promulgate the concept of “Reciprocal Person-Environment Scenarios (R-PES)” in the community of environmental design research and make its unique values known to both researchers and practitioners in the design fields, I will remember the warm spring of 2005 when I worked on a master-planned housing development in Chengdu, China (see Figure EP.1 and Figure EP.2 below). Located on a contoured site of 82.37 acres, this development combines 896 low-rise attached housing units with multiple supporting amenities as well as additional retail and hospitality spaces. As the lead architect of the project, I identified two major design problems and introduced spatial design strategies accordingly. The “territorial zones” strategy subdivides the development into a series of territories to encourage residential activities in exterior common spaces. Varying in scale, spatial organization, and topography, these “territorial zones” establish a hierarchical definition of multiple semi-private and semi-public communal spaces. These hierarchically defined communal spaces were expected to enable user groups of different sizes to engage with and establish proprietary interests over the spaces. Neighborhood amenities were strategically placed at the thresholds to these “territorial zones”, demarcating neighboring zones, while at the same time linking them together. The “shared street” strategy, on the other hand, tackled the problem of “deserted roads” that besets many large housing developments in China. By attaching and merging outdoor amenities such as playgrounds and pocket parks with roads, the project endeavors to convert single use streets into community activity “hotbeds” that serve all people who use them, not just drivers of cars.
Figure EP.1: Hierarchical “territorial zones” for user groups of differing sizes

Figure EP.2: The spatial configuration of “shared street”
This residential development proposal, which was never implemented, marked the outset of my multi-year journey of architectural research that spans two continents. It was during this project that I was first fascinated by the concept of “territoriality” and by all the problems related with the use and meanings of communal spaces in large-scale housing developments. While its design procedure lasted no longer than two months, my interest persists regarding the human dimensions of residential space. My concerns endure with the ultimate values of architectural design in cultivating satisfactory residential experiences. To some extent, this dissertation was a partial self-answer to the questions I have been obsessed with while the complete answer seems still shrouded in mystery.

Yet, I have been surprised by this study, as what I have discovered eventually challenge the way I asked the original questions. All of my finding, from the complexity of person-environment systems to the highly mediated and yet uncertain role of physical space, relentlessly exposes many hidden beliefs that the concept settings of this study were peppered with. It is through this study that I see the deficiency and unproductivity of these beliefs. To progress, I must leave them behind.

Not only can my findings refresh my vision, but they can also bring change to many other stereotyped mindsets that have held sway in design fields. My study can, in the long run, inspire a strategic design approach that will spawn many fundamentally new systems of architectural forms and spaces.

Hidden Beliefs: Covering-Laws, Subject-Object Distinction, and “the Thing-in-It-Self”

Like many other architectural researchers devoted to make discoveries regarding “positive theory”, I started this study with several covert but strong beliefs about what I was looking for. In my original imagination, I would find descriptive and explanatory accounts that effectively subsume the way residents perceive and evaluate shared spaces in a territoriality-related sense. At one point, the phantom of a “covering law” loitered. I expected my research accounts to be “law-like” to help explain and predict many other phenomena of territorial understandings. I also believed that there were detectable links between physical space and subjective environmental meanings. I believed that it was possible to develop and test a
rational, self-consistent explanatory theory that “captures” these links, no matter how dynamic or complex they might be. I had no awareness that overstressing the links in between implied a strong subject-object distinction. At the core of all these beliefs is the fundamental assumption that there are always invariant structures or relationships hidden behind the flux of myriad natural occurrences, and the researchers’ mission is to dissipate the ever-changing “clouds” of phenomena to divulge and grasp “the thing-in-it-self”, or the permanent object or process underlying all superficial dynamics. These beliefs are well reflected by expressions such as “the cognitive process” or “the association between space and territorial meanings” that frequently occurred in my research proposal and initial dissertation drafts.

Defying all these initial beliefs, my research outcomes are simply mind-boggling to me. When I see all these irreducible, ecological person-environment systems where territorial and quasi-territorial perceptions were contingently cultivated and generated, I realize that assuming independent subjective and objective entities is misleading. I understand that there is no such thing as the “invariant structure” that governs the production of environmental meanings. Instead, the specific meaning-producing mechanism is constantly adapted, invented, or regenerated as perceiving agents actively engage the environment. I can discern contingent patterns and categories, but as a researcher, I can never confidently conclude that these patterns will be repeated in a different context, neither can I predict new, emergent patterns. The notion of a “covering law” is therefore a polite myth. The kingdom of person-environment situations is like a live tree, with its growing leaves and branches always taking on unpredictable, unique looks as time passes.

Underpinned by a sophisticated situativity perceptive, the concept of “Reciprocal Person-Environment Scenarios (R-PES)” appear somewhat “shallow” to those still determined to uncover abstract structures of concrete phenomena. It barely says anything more than “we should take a lot of things into consideration and see them as a whole.” It almost implies that we should readily accept “what things appear to be” and be honest with “how they naturally work”. However, this is the exactly profundity of a situativity perspective, a call for the
attention to “holistic phenomena”, which reflects many important advances in modern science and philosophy.

Holism and Relationality: Towards a Process-Relational Understanding of the World

Since the Age of Enlightenment, humanities and social sciences have been subject to the influence from natural sciences. Worldviews originated in the field of mathematics and physics have been imported, so have been philosophical understandings, conceptual frameworks, and theoretical models. Heavily influenced by both rationalist and empiricist traditions in Western thinking, the Newtonian worldview envisions a clockwork universe that can be reduced to a multiplicity of discrete, separate objects, the relationships (esp. casual connections) among which can be isolated and then captured by an abstract mathematic system (Toulmin, 1995). This worldview is so influential that it is accepted as the metaphysics of many classical scientific discourses and even a matter of common sense. However, the landscape of mathematics and physics has been significantly transformed since Isaac Newton. Mathematics after the 20th century has been characterized by chaos and fuzziness instead of “rock-hard” axioms and sufficient proofs. In modern fundamental physics, Albert Einstein’s relativity posits a relational space-time theory and challenges the absolute “container” view of time and space that is associated with classical physics and reductionist approaches. Quantum Theory travels even further to question the Newtonian presupposition of a single-ordered physical world independent of its observers. In the quantum-mechanical "Schrödinger’s cat" paradox according to the many-worlds interpretation, the observer is entangled with the observed in alternate universes and such entanglement is essential for the understanding of phenomena under investigation (Trimmer, 1980).

In response to these fundamental changes, many modern scientific philosophers embrace a relational holism and a critical realism, transcending the beliefs of a fixed, singular reality based on subject-object dualism. Henry Stapp proposed that the observer’s mind can be

---

105 For example, Kurt Godel’s two Incompleteness Theorems challenge a common and consistent logic foundation for all mathematics and put uncertainty at the heart of mathematics. Initiated by the discoveries of Alan Turing and Boris Pavlovich Belousov, Chaos Theory reveals that long term prediction of complex dynamical systems is impossible in general even though these systems are governed by known and definite mathematical equations.
considered an integral part of basic physical systems (1993). Alfred Whitehead acknowledged and described complex systems with significant interdependence and emergence that cannot be illustrated as discrete substances with definite relations (1922). Comparable philosophical stances have also been introduced in social sciences. For example, Michel Foucault posits poststructuralist understandings of “reality”, rejecting any notion of a universal, substantive “reality” and suggesting that “reality” is the contingent byproduct of “discourse”, or a set of socially constructed ways of seeing and thinking (Michel Foucault & Rabinow, 1984).

Given this on-going massive paradigmatic shift taking place across disciplinary lines, conventional research values such as universality, predictability, objectivity, subject-object dualism, and independent reality are widely questioned and critiqued. A new language of research is being constructed with concepts are frequently employed like contingency, emergence, and framing within which reference to holistic events, processes, and discourses.

As an architectural researcher, I have learned from this study that I can never discover anything new without departing from a stereotyped theoretical framework as well as all the hidden philosophical beliefs it carries. To generate productive outcomes, researchers of concrete architectural phenomena should not strive to acquire a privileged God’s eye view of some presumably objective natural systems as classical physicists aspired to. It is not appropriate to structure research findings in a binary framework of knowledge where experiential “phenomena” of everyday life are opposed to their objective, abstract “nature”. Assuming an invariant “human nature” and objectifying subjective meanings and mental processes will never help design researchers achieve a deeper understanding of person-environment relationships.

For me, the most important gain of this study is a heightened appreciation of an anti-fragmental worldview and non-compartmentalized thinking in research and design. I hope this study, together with its follow-up research endeavors, can redirect researchers’ and practitioners’ attention to the significance of human agency and intentionality.

Users, the Most Creative Part in Architectural Phenomena

Architects tend to see themselves as the sole source of creativity in any design initiative and unnecessarily neglect or downplay the capabilities of other protagonists (e.g. clients, users,
and other stake holders) to introduce new patterns and configurations of space. Architects also have long being criticized for an exceedingly self-conceited expert culture that is insensitive and irresponsive to a broader spectrum of user experiences that are essential to make meaningful places. Unfortunately, many past environment-behavior relation (EBR) studies merely worsen the situation instead of helping to rectify the problem. By drawing uncritical causal links between material spatiality and human behaviors and perceptions, these studies reinforce architects’ unrealistic and insensitive ambition to superimpose their self-interested agenda upon users. They project a false image that we can sophisticatedly cultivate or modify human behaviors and experiences through architectural design, promoting a design paradigm not fundamentally distinct from the Modernist one. What is absent here is the acknowledgment of users’ active contribution to the built environment’s behavioral and perceptual qualities. Without this understanding, environmental research cannot bring significant changes to the way architects design.

My study demonstrates that the specific purposes and meanings of a space are contingently defined through person-environment interactions situated in specific contexts, where users play a crucial role to actively bring changes to these person-environment situations. This observation is nothing new to those outside of the architecture world. Actually, many contemporary artists are cognizant that users are always the most creative part of any person-environment systems, and they “invite” users to recreate and enhance their works. For example, the design of “wallfa” (see Figure EP.3 below) as an interactive furniture piece by Jordi Canudas in 2008 evidently shows how users can significantly contribute to the fuzzy definition and flexible uses of a furniture space. It is a design whose merits cannot be sufficiently presented without including interacting users in its images.
Figure EP.3: "Wallfa" by Jordi Canudas


Note: "Wallfa" is an intriguing two sided piece of furniture that is both wall and sofa. It is made from a stretchy membrane type of material that allows the users the ability to sit on either side for simple relaxation or communicating with friends or co-workers. It offers a comfortable sitting area that becomes playful when users interact from both sides of the wall.

At the scale of architecture, the projects conducted by performance art groups such as *Improv Everywhere* (see Figure EP.4 below) demonstrates how collective human behaviors can significantly change the sense of place and create unexpected scenes, setting architects thinking about the true role of physical space in these scenes. The incidents of flash mobs also generate similar phenomena where participants’ organized social activities can create a transient person-environment situation that influences the way newcomers experience and interact with the built environment.
Alternate Nominal Systems and Contingent Categorization of Space

People are constantly involved in dynamic person-environment systems and engage the physical world in different ways. All person-environment relationships are inherently in a state of flux and instability and are considerably adapted by human intentionality. It may be simply impossible to identify and “pin down” fixed connections between specific spatial form and user experiences, even through a complex model considering a myriad of modifying and intervening factors. This poses the greatest challenge to any architectural designer who is sincerely devoted to improvement of human experiences in architectural spaces and to the creation of the constructed environment supportive of human needs. As a researcher, I am confronted with the ultimate question. How can we genuinely understand the ever-changing patterns of situated persons and situated environments and incorporate the obtained knowledge in design?
During my qualitative data collection, I could not help noticing that my research participants named and categorized spaces in alternate ways that were starkly different from mine. When explaining their territorial perceptions, they did not make distinctions between interior spaces and exterior spaces, or between functional spaces and circulations, in a way familiar to an architectural professional is familiar with. Yet, they may emphasize the difference between the places “where I can see my friends” and those “where I can be alone”, a spatial categorization system based on contingent user experiences that negate any attempt at objective spatial analysis. Obviously, users of the built environment make sense of the world through languages distinct from that of architects. Unless we can comprehend the multitude of these languages and bridge them with architectural professionalism, there is no way to fully appreciate the living patterns of person-environment interactions and respect them in design.

There are a few pioneering architects who recognized the importance of alternate spatial categorization in their practice. For example, in the project of Seattle Central Library by OMA/REX in 2004, the designers introduced a series of “platforms” that comb and re-categorize various program components to carve out activity zones labeled as “kids”, “living room”, “mixing chamber”, “reading room”, and “terraces” (See Figure EP.5 below). Together, these “platforms” reflect five typical modes of person-environment interactions that could be afforded by a public library. While they may be further translated into abstract spatial parameters such as size, opacity, and density, these spatial categories are originally defined by contingent associations of users, space, and behaviors. This design scheme manifests the significant design implications of alternate spatial categorization.
Today, architecture students are generally indoctrinated to a closed and somewhat universal spatial nominal and categorization system. Some of its vocabulary (e.g. figure-ground distinction) is inherited from a self-containing discourse of architecture. Others (e.g. building envelope, public/private spaces) are imported from the supply side or the administrative side in the production of architectural spaces. Many of these categories and terms are tainted by an influential legacy of Modernism that emphasizes rationalization of spatial division and minimization of circulation space.

Towards a New Architecture through a More Democratic Design Process

In the 1970s, Christopher Alexander proposed an insightful paradigmatic shift in both environmental epistemology and architectural design process through his pattern language (Alexander et al., 1977). Alexander’s work successfully draws designers’ and clients’ attention to the psychological and social potential of architectural spaces and sheds light on under-studied and under-served subjects in architectural theory. He was among the few who strived to
promote holistic understanding of person-environment relationship and called for a break from rational, compartmentalized thinking in design. While his theory is weakened by his occasional ambiguities and endorsement of a deterministic and authoritarian theoretical framework (Bhatt, 2010; Dovey, 1990), his intention to create a flexible, open-ended spatial definition and categorization system that can be continually updated by user inputs is ingenious, the value of which has yet to be recognized by the mainstream professional architects\textsuperscript{106}.

The study presented in this dissertation demonstrates that architects must turn to users for inspirations and share the power of inspiration with users in conceptualizing and organizing space. We need to expand the conceptual language of space with new vocabularies and expressions that are associated with real-world person-environment situations. We need to encourage our students to explore alternate approaches to order the world and to categorize its components from the perspective of users. In the design process, we shall introduce a more democratic protocol with balanced power distribution among all stakeholders. In this process, user feedback is not collected and then transformed and framed by an architectural connoisseurship, but its uniqueness is respected and preserved by architects to modify the framing of a basic spatial ordering system in design.

With great expectations, I look forward to a new architecture that is generated by a more democratic and systematic process. I expect it will be grounded upon trans-disciplinary knowledge regarding humans and the environment. I expect it will evolve current architectural theories and practices beyond a self-containing expert culture that is keen on drawing boundaries rather than expanding the territory of architecture as a discipline. Through this architecture, our future built environment will be a “hot bed” for users to generate myriad vital life patterns that its architects cannot even predict.

\textsuperscript{106} Actually, pattern language is embraced by both building contractors and do-it-yourself homeowners but often rejected in the academy (Bhatt, 2010).
REFERENCES


Brower, S. (1965). The signs we learn to read. Landscape, 15, 9-12.


Cui, G. (1998). *Shanghai Housing Development (Shanghai zhu zhai jian she zhi)*. Shanghai: Shanghai Academy of Social Sciences (Shanghai she hui ke xue chu ban she).


Regulations of Shanghai municipality on technological defense of social public security (Shanghai shi she hui gong gong an quan ji shu fan guan li ban fa) (2001).


Sun, J. (2007). *Plan Design Analysis of the High Rise Housing in Shanghai (Shanghai gao ceng zhu zhai ping mian yao su fen xi)*. (Master), Tongji University, Shanghai.


GLOSSARY

A
activity-space .................... 40, 50, 199, 201, 227, 239
at-homeness..... 49, 52, 120, 155, 156, 159, 160, 162,
164, 167, 171, 174, 291, 303

B
behavioral setting ......................... 43, 275, 322

C
care-taking attitudes....... 3, 49, 52, 70, 154, 178, 179,
180, 181, 183, 185, 186, 187, 189, 190, 191, 192,
193, 194, 195, 216, 217, 218, 233, 236, 237, 250,
254, 255, 261, 262, 263, 266, 271, 282, 284, 291,
292, 293, 302, 303, 304, 305, 307, 311, 316, 318
case configuration.... 80, 81, 112, 117, 197, 201, 209,
210, 219, 221, 239, 241, 257, 258, 312
case families...... 3, 207, 208, 223, 225, 243, 246, 257,
259, 260, 264, 265, 266, 267, 268, 269, 271, 311,
312, 313, 314, 315, 316, 317, 318
case map...... 117, 118, 119, 120, 121, 197, 198, 199,
200, 201, 202, 205, 206, 207, 208, 209, 219, 220,
240, 258
linking lines 40, 118, 119, 120, 161, 199, 214, 216,
228, 233, 247, 251
nodes 117, 118, 120, 199, 201, 202, 205, 206, 209,
219, 239, 257
case studies.. 1, 2, 31, 32, 60, 121, 204, 309, 310, 327
case-oriented analysis ......................2, 3, 82
centrality ........................................201, 321, 323
coding
beginning list of codes ....................2
codebook........................................84
relational code .. 79, 80, 81, 82, 86, 112, 113, 114,
116, 117, 121, 198, 199, 214, 216, 228, 233,
247, 248, 249, 251
thematic pattern code 79, 80, 81, 82, 84, 86, 112,
113, 114, 116, 117, 121, 124, 125, 133, 141,
147, 198, 199
verbal codes ......................................2, 86
common interest development (CID).........18
communal income ......................17, 109, 128
community service ................ 4, 8, 9, 19, 20, 21, 22
conceptual framework ... 2, 32, 34, 38, 39, 40, 41, 50,
51, 53, 55, 65, 78, 113, 201, 310, 338, 356
core urban area.......................... 5, 6, 7, 65, 95, 326
cross-case comparison .. 76, 78, 79, 80, 81, 117, 163,
199
cultural landscape ................................275, 331

D
data analysis scheme .................. 2, 75, 82
data collection scheme .... 2, 55, 65, 72, 78, 154, 325
data gathering methods
  detached recording........................60
document search...........................62, 67, 71, 72
in-depth interview. 60, 61, 69, 123, 290, 368, 372,
373, 374, 375, 376
participatory observation ..............60
sketch mapping ........ 60, 67, 156, 179, 287, 297
structured interview ....................60, 61, 62, 69
voluntary photography .......... 60, 67, 70, 212, 224
defensible space ... 178, 321, 323, 324, 352, 353, 355,
356

E
economic reform ................................18
empirical data
  detached observation records ..........58, 59, 62
documents & archives..............58
interactive observation records ........58
introspective self-reports............44, 58, 61
environment
  permanent ............................ 56, 57, 71, 72, 276, 310
situational..... 1, 3, 4, 39, 50, 52, 53, 54, 56, 62, 70,
71, 72, 113, 116, 121, 199, 201, 203, 204, 207,
210, 222, 242, 259, 266, 267, 271, 272, 273,
276, 277, 278, 279, 280, 281, 282, 284, 285,
287, 288, 289, 290, 291, 293, 294, 296, 297,
299, 300, 301, 302, 303, 304, 305, 307, 310,
312, 318, 320, 329, 332, 333
environmental cognition 1, 2, 26, 27, 34, 35, 36, 37,
38, 39, 40, 46, 48, 50, 52, 201, 268, 272, 309, 319,
320, 332
environmental understandings ... 1, 4, 44, 48, 49, 50,
52, 53, 54, 56, 61, 113, 116, 121, 147, 151, 154,
explanatory model... 32, 34, 121, 197, 219, 264, 265, 279, 280, 282, 285, 287, 294, 296, 312, 325, 327

grounded theory .... 2, 31, 32, 33, 40, 53, 60, 75, 121, 309, 348, 350, 353

homeowners’ council (HOC). 17, 22, 23, 25, 93, 102, 110, 111, 203, 213, 215, 226, 227, 245

information-processing theory............... 34, 35, 38

maintenance provident fund.......................17
methodological strategies ..............................2

neighborhood committee.. 18, 20, 21, 23, 68, 71, 93, 101, 102, 109, 111, 115, 203, 213, 227, 244, 245, 260
Neighborhood Committee............................21
New Property Deed....................................14, 17, 20

participant
 informant........................... 59, 64, 67, 71, 72, 85
 resident...59, 61, 62, 63, 64, 65, 67, 68, 69, 70, 85, 86, 93, 95, 104, 123, 126, 129, 141, 156, 159, 202, 204, 264, 325
participant recruitment ..................................63, 67
pattern language................................. 344, 345, 346, 347, 349
perceived control
 active control... 124, 125, 128, 129, 130, 132, 140, 194, 214, 230, 290, 311
 passive control 132, 133, 135, 136, 137, 140, 152, 193, 194, 230, 249, 311
perceived spatial rights
 behavioral rules...... 141, 147, 148, 149, 150, 151, 215, 231, 248, 249, 271, 282, 300
 rights of access .................................. 141, 229

person
 absolute.............................................56, 57, 71, 72, 310

situated.....1, 3, 39, 50, 52, 53, 56, 57, 70, 72, 113, 114, 116, 121, 199, 201, 202, 203, 204, 207, 210, 222, 242, 259, 266, 267, 271, 276, 310, 312, 320, 332, 333, 342

person-environment system ... 4, 201, 319, 324, 333, 336, 337, 340, 342

physical space .1, 2, 4, 25, 27, 40, 51, 52, 57, 82, 124, 209, 241, 245, 254, 272, 273, 274, 275, 276, 277, 279, 280, 282, 284, 285, 287, 290, 291, 294, 296, 300, 301, 302, 304, 305, 307, 308, 310, 318, 320, 326, 330, 336, 341

post-defined concept ..............................................32
predefined concept ................................... 2, 55, 56, 58, 72
property management company ... 18, 19, 22, 71, 91, 93, 101, 102, 109, 119, 130, 203, 227, 232, 249, 254, 261
property management fee..............................17, 143

research design ....................................... 75, 122, 309, 325, 348, 353
research sites
Research sites
  Dahua Qingshuiwan ................... 71, 101, 215, 245
  Ruihong New Town II ...................... 71, 128, 157
  Shanghai Luchen ............................. 71, 128, 215

S
shared spaces
  exterior ...  1, 3, 2, 92, 100, 108, 121, 142, 149, 152, 157, 163, 167, 168, 170, 174, 175, 176, 187, 192, 216, 224, 225, 243, 278, 285, 326
  interior ...... 2, 91, 99, 148, 149, 152, 170, 172, 176, 187, 190, 191, 224, 311
situated spatial experience ... 115, 199, 205, 209, 219, 229, 230, 248, 257, 266, 270, 271, 279, 280, 285
situation semantics .............................. 268, 356
situativity theory ...... 1, 35, 36, 37, 38, 39, 40, 52, 53, 208, 309, 319, 320, 330, 333
social cognition ...... 43, 115, 199, 205, 209, 250, 254, 257, 290
social conditions .............. 40, 48, 50, 114, 121, 203, 262
space-sharing .................. 11, 13, 194, 319, 325, 328
subjectivity .......... 32, 44, 59, 122, 123, 309, 325, 330

territorial functioning ....... 43, 50, 193, 321, 322, 355
human territoriality ...... 41, 42, 43, 44, 45, 48, 49, 124, 178, 346, 349
political-geographical territoriality. 41, 46, 47, 48, 49, 124, 141
territorially-related meanings
transactional worldview ................................ 38, 356

U
usufruct .............................................. 15

W
work-units (danwei) ..................... 9, 18, 19, 20, 21
## Research Participants

Table A.1: Resident research participants (61 in total)

<table>
<thead>
<tr>
<th>Case</th>
<th>Date of Interview</th>
<th>Interview Length (min.)</th>
<th>Gender</th>
<th>Age Group</th>
<th>Residence Length (Year)</th>
<th>Employment Status</th>
<th>Family Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-01</td>
<td>3/16/2010</td>
<td>99</td>
<td>Male</td>
<td>30s</td>
<td>6</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>A-02</td>
<td>3/17/2010</td>
<td>65</td>
<td>Male</td>
<td>30s</td>
<td>6</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>A-03</td>
<td>3/19/2010</td>
<td>60</td>
<td>Male</td>
<td>30s</td>
<td>3</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>A-04</td>
<td>3/25/2010</td>
<td>74</td>
<td>Female</td>
<td>20s</td>
<td>2</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>A-05</td>
<td>3/27/2010</td>
<td>49</td>
<td>Male</td>
<td>60s</td>
<td>4</td>
<td>Retired</td>
<td>Nuclear</td>
</tr>
<tr>
<td>A-06</td>
<td>3/28/2010</td>
<td>54</td>
<td>Male</td>
<td>20s</td>
<td>6</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>A-07</td>
<td>4/11/2010</td>
<td>54</td>
<td>Male</td>
<td>40s</td>
<td>5</td>
<td>Employed</td>
<td>Couple</td>
</tr>
</tbody>
</table>

Figure A.2: Satellite images of the 12 research sites
<table>
<thead>
<tr>
<th>Code</th>
<th>Date</th>
<th>Age</th>
<th>Gender</th>
<th>Age Group</th>
<th>Employment Status</th>
<th>Family Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-08</td>
<td>4/18/2010</td>
<td>69</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>A-09</td>
<td>4/18/2010</td>
<td>85</td>
<td>Male</td>
<td>60s</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>A-10</td>
<td>4/25/2010</td>
<td>62</td>
<td>Female</td>
<td>60s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>A-11</td>
<td>5/8/2010</td>
<td>54</td>
<td>Male</td>
<td>20s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>A-12</td>
<td>5/16/2010</td>
<td>64</td>
<td>Female</td>
<td>50s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>A-13</td>
<td>5/20/2010</td>
<td>72</td>
<td>Female</td>
<td>20s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>A-14</td>
<td>5/25/2010</td>
<td>104</td>
<td>Male</td>
<td>50s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>A-16</td>
<td>5/29/2010</td>
<td>56</td>
<td>Female</td>
<td>40s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>A-17</td>
<td>6/21/2010</td>
<td>36</td>
<td>Female</td>
<td>Above 80</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>A-18</td>
<td>6/22/2010</td>
<td>63</td>
<td>Female</td>
<td>60s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>A-19</td>
<td>6/26/2010</td>
<td>64</td>
<td>Male</td>
<td>60s</td>
<td>Retired</td>
<td>Unknown</td>
</tr>
<tr>
<td>A-20</td>
<td>7/13/2010</td>
<td>72</td>
<td>Male</td>
<td>40s</td>
<td>Self-employed</td>
<td>Unknown</td>
</tr>
<tr>
<td>A-21</td>
<td>7/19/2010</td>
<td>67</td>
<td>Female</td>
<td>50s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>B-01</td>
<td>4/7/2010</td>
<td>87</td>
<td>Female</td>
<td>40s</td>
<td>Self-employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-02</td>
<td>4/8/2010</td>
<td>42</td>
<td>Male</td>
<td>60s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>B-03</td>
<td>4/8/2010</td>
<td>56</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>B-04</td>
<td>4/9/2010</td>
<td>103</td>
<td>Female</td>
<td>60s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>B-05</td>
<td>4/9/2010</td>
<td>74</td>
<td>Female</td>
<td>40s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-06</td>
<td>4/10/2010</td>
<td>65</td>
<td>Male</td>
<td>40s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-07</td>
<td>4/10/2010</td>
<td>52</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>B-08</td>
<td>4/12/2010</td>
<td>92</td>
<td>Male</td>
<td>60s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>B-09</td>
<td>4/13/2010</td>
<td>60</td>
<td>Female</td>
<td>60s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>B-10</td>
<td>4/13/2010</td>
<td>71</td>
<td>Female</td>
<td>50s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>B-11</td>
<td>4/11/2010</td>
<td>75</td>
<td>Male</td>
<td>40s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>B-12</td>
<td>4/15/2010</td>
<td>60</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-13</td>
<td>4/19/2010</td>
<td>56</td>
<td>Female</td>
<td>50s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>B-14</td>
<td>4/22/2010</td>
<td>84</td>
<td>Male</td>
<td>60s</td>
<td>Retired</td>
<td>Empty Nesters</td>
</tr>
<tr>
<td>B-15</td>
<td>4/23/2010</td>
<td>62</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>B-16</td>
<td>4/23/2010</td>
<td>74</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-17</td>
<td>4/24/2010</td>
<td>59</td>
<td>Male</td>
<td>20s</td>
<td>Student</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-18</td>
<td>7/12/2010</td>
<td>62</td>
<td>Male</td>
<td>40s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>B-19</td>
<td>7/17/2010</td>
<td>45</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
<tr>
<td>B-20</td>
<td>7/23/2010</td>
<td>77</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>C-01</td>
<td>3/20/2010</td>
<td>108</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>C-02</td>
<td>3/25/2010</td>
<td>48</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Couple</td>
</tr>
<tr>
<td>C-03</td>
<td>3/27/2010</td>
<td>47</td>
<td>Male</td>
<td>30s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>C-04</td>
<td>3/27/2010</td>
<td>47</td>
<td>Female</td>
<td>40s</td>
<td>Employed</td>
<td>Nuclear</td>
</tr>
<tr>
<td>C-05</td>
<td>3/28/2010</td>
<td>57</td>
<td>Female</td>
<td>60s</td>
<td>Retired</td>
<td>Extended</td>
</tr>
<tr>
<td>C-06</td>
<td>4/18/2010</td>
<td>60</td>
<td>Male</td>
<td>40s</td>
<td>Employed</td>
<td>Unknown</td>
</tr>
<tr>
<td>C-07</td>
<td>4/18/2010</td>
<td>38</td>
<td>Female</td>
<td>30s</td>
<td>Employed</td>
<td>Extended</td>
</tr>
</tbody>
</table>
### Table A.2: Informant Research Participants (16 in total)

<table>
<thead>
<tr>
<th>Category</th>
<th>Date of Interview</th>
<th>Interview Length (min.)</th>
<th>Gender</th>
<th>Age Group</th>
<th>Occupation</th>
<th>Name Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>3/2/2010</td>
<td>63</td>
<td>Female</td>
<td>60s</td>
<td>Architect</td>
<td>AR-FJL</td>
</tr>
<tr>
<td>Industry</td>
<td>3/2/2010</td>
<td>65</td>
<td>Male</td>
<td>50s</td>
<td>Architect</td>
<td>AR-ZWW</td>
</tr>
<tr>
<td>Industry</td>
<td>3/2/2010</td>
<td>45</td>
<td>Male</td>
<td>50s</td>
<td>Architect</td>
<td>AR-CHN</td>
</tr>
<tr>
<td>Industry</td>
<td>2/22/2010</td>
<td>54</td>
<td>Male</td>
<td>60s</td>
<td>Architect</td>
<td>AR-XBR</td>
</tr>
<tr>
<td>Industry</td>
<td>3/4/2010</td>
<td>74</td>
<td>Male</td>
<td>50s</td>
<td>Developer</td>
<td>D-YK</td>
</tr>
<tr>
<td>Industry</td>
<td>3/23/2010</td>
<td>54</td>
<td>Male</td>
<td>40s</td>
<td>Developer</td>
<td>D-DB</td>
</tr>
<tr>
<td>Industry</td>
<td>3/5/2010</td>
<td>61</td>
<td>Male</td>
<td>40s</td>
<td>Developer</td>
<td>D-XM</td>
</tr>
<tr>
<td>Industry</td>
<td>3/28/2010</td>
<td>69</td>
<td>Male</td>
<td>30s</td>
<td>Real Estate Manager</td>
<td>RM-YJ</td>
</tr>
<tr>
<td>Industry</td>
<td>7/21/2010</td>
<td>85</td>
<td>Male</td>
<td>30s</td>
<td>Real Estate Manager</td>
<td>RM-L</td>
</tr>
<tr>
<td>Governmental</td>
<td>3/15/2010</td>
<td>62</td>
<td>Female</td>
<td>60s</td>
<td>NC Official</td>
<td>G-ZMF</td>
</tr>
<tr>
<td>Governmental</td>
<td>3/25/2010</td>
<td>46</td>
<td>Female</td>
<td>50s</td>
<td>NC Official</td>
<td>G-C</td>
</tr>
<tr>
<td>Governmental</td>
<td>3/29/2010</td>
<td>58</td>
<td>Female</td>
<td>70s</td>
<td>NC Official (Retired)</td>
<td>G-WWX</td>
</tr>
<tr>
<td>Governmental</td>
<td>4/7/2010</td>
<td>67</td>
<td>Female</td>
<td>40s</td>
<td>Police Officer</td>
<td>Employed</td>
</tr>
<tr>
<td>Governmental</td>
<td>3/14/2010</td>
<td>45</td>
<td>Male</td>
<td>50s</td>
<td>Municipality Official</td>
<td>G-WDY</td>
</tr>
<tr>
<td>Academic</td>
<td>3/19/2010</td>
<td>63</td>
<td>Male</td>
<td>40s</td>
<td>Professor</td>
<td>AC-CJH</td>
</tr>
<tr>
<td>Academic</td>
<td>4/28/2010</td>
<td>56</td>
<td>Male</td>
<td>40s</td>
<td>Professor</td>
<td>AC-LXW</td>
</tr>
</tbody>
</table>

Note: NC Official = Neighborhood Committee Official
APPENDIX B: Research Publicity and Participant Recruitment Materials

Figure B.1: Publicity flier design (3 pages)

Figure B.2: Publicity poster design (5 posters)
Figure B.3: Recruitment booklet design (11 pages)
Figure B.4: Images of fliers, booklets, and posters
APPENDIX C: Interview Protocols

**In-depth Interview Script for High-Rise Gated Community Residents**

(Rev. 5/7/2010)

*Interview Guidelines:*

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

*Predesigned Interview Questions:*

1. Question Set on **Individual Background Information (Intrapersonal Factor):**
   
   1) Where were you born? How long have you been in Shanghai?
   
   2) How many different residences have you stayed since your childhood? What were the previous ones like? How do you comment on your living in those previous residences? Please compare them to your current residence here and tell me what you opinions are.
   
   3) How many different residential neighborhoods have you stayed since your childhood? What were the previous ones like? How do you comment on your living in those previous residences? Please compare them to your current residence here and tell me what you opinions are.
   
   4) When did you move to this development? Why did you choose to stay here?
   
   5) How was this development like when you first moved in?
6) How do you comment on your living in this development in general? Have your opinions about this development every changed since you moved in? What are the aspects of this development that you like most and dislike most?

2. Question Set on Neighborhood Territorial Experiences:

7) How long do you stay within this development during your weekdays and weekends? Please take me through a typical day for you here.

8) How often do you use the neighborhood common spaces (i.e. all shared spaces between within the development’s perimeter walls, e.g. greenery, pathways, clubhouse, and other common amenities) of this development?

9) How do you use the common spaces? What are the typical activities that you take part in when you are in these spaces?

10) How are you familiar with the common spaces in general? (corresponding drawing session: please illustrate a general layout map of this neighborhood ①, and then indicate the areas that you use most and the routes you take to reach there)

11) What are the daily travel means by which you get out of and return back to the development? What is the typical route like?

12) How well do you know about the location and physical conditions of the perimeter of this neighborhood? (corresponding drawing session: please graphically indicate the location and physical conditions of the neighborhood’s perimeter in your mind)

13) What type of neighborhood perimeter “wall” do you prefer (solid wall, watted wall, shrubs, etc.)? Why? What else do you know about the security measures and devices introduced in this development? Do you think the neighborhood perimeter walls are necessary? What is their significance? What if there is no wall at the neighborhood perimeter?

14) Do you prefer the enclosed area of this neighborhood to be larger or smaller? What is the ideal size of an enclosed development? Do you think the non-
residents should be allowed to have access to this development? What is the range of behaviors that you think them can conduct inside this development?

15) Do you think the common spaces are part of the housing package you have bought (question for homeowners)? Do you think the common spaces are part of the privilege of the tenants (question for renters)? As a homeowner (yézhù), what do you think you own (question for homeowners)?

16) Who owns the common spaces in the legal sense? Who are eligible to use these spaces and modify their appearance? In practice, who do you think owns the spaces and enjoy the power to modify the physical conditions of these spaces? Whom do you prefer to own, control and manage the common spaces?

17) Besides your private dwelling unit, is there any other place in this development that makes you feel really at home and be yourself? To what extent do you think the neighborhood common spaces are the extension of your home? Where is the boundary of your home? Where is the imagined “gateway” to your home? (corresponding drawing session: please illustrate a descriptive map showing the areas that you recognize as part of your home ② )

18) How do you want the common spaces to be used? Do you prefer that some areas are used by a particular group of people (e.g. the stairway should only be used by the residents of the same unit set)?

19) How secure do you feel when you are in the common spaces (discuss with reference to daytime and night time scenarios respectively)? Would you allow your kids to play in these spaces alone? (question for parents) (corresponding drawing session: please graphically mark the areas that have different security meanings for you ③)

20) Can you identify if the users of this development’s common spaces are the residents here? (corresponding drawing session: please graphically mark the areas where you can identify the users in it ④)

21) Will you intervene if there is vandalism or graffiti happening in the neighborhood common spaces? If you won’t, who do you think should? Do you particularly
concern with the maintenance of some parts of this development? (corresponding drawing session: please graphically mark the areas where the maintenance is concerned for you, as well as the places where you may intervene the inappropriate behaviors)

3. Question Set on Social and Spatial Factors:
   22) How do you evaluate general quality of the urban environments in proximity? Are there any potential crime threats? If so, what are these threats? Do you hear about any criminal incidents occurring in the urban environments nearby?
   23) What do you know about the population living in the peripheral developments? Are you familiar with their conditions in terms of income level, education level and other social characters?
   24) How do you describe your relationship with your neighbors? How well do you know them? Do you enjoy making friends? Do you prefer to get to know more residents here?
   25) What do you know about the Neighborhood Committee, Homeowners’ Association and property managing company? How often do you contact the people there? Do you have any idea about the relations between them?
   26) Do you have any personal relationship with the guards, gardeners, and cleaners who serve this community? How do you interact with them?
   27) Do you have any sense of attachment or belonging to this neighborhood (in terms of locational attachment, ecological attachment, social belonging, and cultural affinity)? Is that kind of sense strong or not strong?

4. Question Set on Territorial Expectations and Housing Ideal
   28) What measures do you think should be taken to enhance the sense of security and belongingness of this high-rise development?
   29) Have you ever thought about modifying the neighborhood common spaces? Do you have the want or need to change them? If so, what do you prefer to change?
30) What is your residential ideal? What essential components should an ideal home place for you have?

31) Do you think private open spaces are necessary or not for an ideal home place? Do you think common open spaces are necessary or not for an ideal home place? If the options are mutually exclusive, which one would you prefer?

**Interview Script for Key Informants (Architects)**

*Interview Guidelines:*

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

*Predesigned Interview Questions:*

4. Could you briefly introduce the planning or design philosophy that you endorse and apply to your professional practice? Alternatively put, what is the nature of planning or design in your understanding?

5. How do you assess the relevance of people-environment-relation research in the planning or design practices that create or modify residential environments?

6. What is your opinion about the popularity of high-rise gated communities in China and Shanghai? Please begin your comments with five adjectives that best indicate your attitudes towards these developments.

7. Have you ever planned or designed high-rise gated communities? What are the major considerations in your planning or design procedure?
8. How do you consider the role of “common open space (e.g. greenery, pathways, and other common amenities)” in a high-rise gated development? What are the concerns in the planning or design of such space?

9. How do you think the spatial and physical features of “common open space” would influence the general residential experience of the high-rise gated neighborhood as a human settlement?

**Interview Script for Key Informants (Real Estate Developers)**

*Interview Guidelines:*

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

*Predesigned Interview Questions:*

4. Could you briefly introduce the general housing development strategy that your company applies in practice?

5. What is your opinion about the popularity of high-rise gated communities in China and Shanghai? Please begin your comments with five adjectives that best indicate your attitudes towards these developments.

6. Has your company ever developed high-rise gated communities? Why do you think they end up gated neighborhoods?
7. How do you consider the significance of “common open space (e.g. greenery, pathways, and other common amenities)” in a high-rise gated development? What are the qualities that you suppose such space should feature?

8. How do you think the spatial and physical features of “common open space” would influence the general residential experience of the high-rise gated neighborhood as a human settlement?

**Interview Script for Key Informants (Real Estate Managers)**

**Interview Guidelines:**

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

**Predesigned Interview Questions:**

4. How does your company provide security service to this gated development? What are the specific measures or rules applied to enforce gate-keeping and security patrol? Did these measures or rules undergo major adaptation in history? Why and how did the adaptation take place?

5. What are the challenges in providing security service here? How does your company cooperate with the city police and security-related governmental agencies?

6. In this development, how are the individual ownership interests, like ownership of a dwelling unit, with common ownership of shared areas or facilities, like a clubhouse, pool,
or open area, defined? How does your company serve and manage the shared areas or facilities? How is the monetary rewards yielded by the renting of shared areas managed and disposed?

7. How does your company handle the conflicts or disputes between the residents of this development? Is there any provisions regulating the residential behaviors in the exclusively owned or shared areas?

8. What is the relationship between your company and Neighborhood Committee as well as the Homeowners Association?

**Interview Script for Key Informants (Governmental Persons)**

**Interview Guidelines:**

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

**Predesigned Interview Questions:**

4. Do you have any experience work in or closely with a governmental agency (i.e. a Neighborhood Committee) to deal with the regulation of a gated development? What are the challenges of your work? What are the mentionable experiences that you got?

5. What are the basic demographic facts of the gated development you worked for (e.g. the male-female ratio, the tenure conditions, etc)?
6. Generally speaking, how do you comment on the rise and popularity of gated neighborhoods in Shanghai? What are the political implications of this major residential spatial change?

7. What are the relationship between the Homeowners Association, the real estate management company, and the Neighborhood Committee? Do you think the relationship should be further adapted or not?

8. How does your department/agency get connected with the residents in your jurisdictional area? What does your department/agency do to make use of this connection?

**Interview Script for Key Informants (Scholars in Sociology and Urban Affair)**

*Interview Guidelines:*

1. This is an in-depth interview, which by definition is a qualitative research approach that develops research relationships and rapport with participants by focusing on the participant’s experiences from their own perspective.

2. The interview process is comparable to a quasi-scripted conversation. There are an established set of questions asked by the interviewer to prompt initial, on-topic talks. But the interviewee is encouraged to extend his or her response beyond the restriction of these questions, exposing the detail and depth of the issue under discussion.

3. The interviewer should maintain a delicate balance between personal, social conversation and impersonal, professional question-answer sequences.

*Predesigned Interview Questions:*

4. Generally put, how do you comment on the radical introduction and popularity of high-rise gated developments in Shanghai? In what sense(s) do you think this particular form of development should be encouraged or not?

5. Have you ever conducted or been part of a research project involving one or more gated neighborhoods? What is the theme of the research? What are the findings?
6. What social and cultural factors do you think should be considered when researching the phenomenon of gated development? What are the possible socio-cultural implications of the rise of secured developments?

7. What are the social and legal relations between the Homeowners Association, the Neighborhood Committee and the real estate management company in a gated development? What is the role of residents as homeowners in the regulation and management of the gated neighborhoods?

8. What are the significant social, economic, cultural or political contexts that characterize the development of residential space in Shanghai?
APPENDIX D: Samples of 500 Field Pictures and Multi-Hour Video Footages

Field Pictures

Figure D.1: Compilation of pictures taken at Site A (Ruihong New Town II)

Figure D.2: Compilation of pictures taken at Site B (Dahua Qingshuiwan)
Figure D.3: Compilation of pictures taken at Site C (Shanghai Luchen)
Video Footages

Figure D.4: Entering a secure entrance at Site A (Ruihong New Town II)
Figure D.5: Tailgating at a pedestrian entrance at Site A (Ruihong New Town II)
Figure D.6: Views from a condo unit balcony at Site A (Ruihong New Town II)
Figure D.7: Views from a plaza at Site B (Dahua Qingshuiwan)
Figure D.8: Views from a within-development street at Site B (Dahua Qingshuiwan)
Figure D.9: Views by a courtyard at Site C (Shanghai Luchen)
Figure D.10: Resident activities in a plaza at Site C (Shanghai Luchen)
Figure D.11: Approaching and entering Site C (Shanghai Luchen)
APPENDIX E: All Case Maps

Figure E.1: Case maps (A-01 to A-12)
Figure E.2: Case maps (A-13 to B-03)
Figure E.4: Case maps (B-17 to C-08)
Figure E.5: Case maps (C-09 to C-20)