THE CATALYSING ROLE OF INTERFACES, IN THE ONGOING CREATION OF SPACE AT DIFFERENT URBAN SCALES

A THESIS SUBMITTED TO THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES OF MIDDLE EAST TECHNICAL UNIVERSITY

BY

HAZAL ATAK AKBULUT

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN CITY AND REGIONAL PLANNING

FEBRUARY 2024
Approval of the thesis:

THE CATALYSING ROLE OF TRANSITIONAL ZONES/ INTERFACES, IN THE ONGOING CREATION OF SPACE AT DIFFERENT URBAN SCALES

submitted by HAZAL ATAK AKBULUT in partial fulfillment of the requirements for the degree of Doctor of Philosophy in City and Regional Planning, Middle East Technical University by,

Prof. Dr. Halil Kalıççilar
Dean, Graduate School of Natural and Applied Sciences

Prof. Dr. Emine Yetișkul Şenbil
Head of the Department, City and Regional Planning

Prof. Dr. Anlı Ataöv Demirkan
Supervisor, City and Regional Planning, METU

Assoc. Prof. Dr. Pınar Aykaç Leidholm
Co-Supervisor, Architecture, METU

Examinining Committee Members:

Prof. Dr. Melih Pınarçioğlu
City and Regional Planning, METU

Prof. Dr. Anlı Ataöv Demirkan
City and Regional Planning, METU

Assoc. Prof. Dr. Ela Alanyalı Aral
Architecture, METU

Prof. Dr. Saime Özçürümez
Sociology, Başkent University

Assoc. Prof. Dr. Deniz Altay Kaya
City and Regional Planning, Çankaya University

Date: 12.02.2024
I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name Last name : Hazal Atak Akbulut

Signature :
ABSTRACT

THE CATALYSING ROLE OF INTERFACES, IN THE ONGOING CREATION OF SPACE AT DIFFERENT URBAN SCALES

Atak Akbulut, Hazal
Doctor of Philosophy, City and Regional Planning
Supervisor: Prof. Dr. Anlı Ataöv Demirkan
Co-Supervisor: Assoc. Prof. Dr. Pınar Aykaç Leidholm

February 2024, 431 pages

The pursuit of rigid order and control in urban planning has led to the fragmentation of urban areas and the deterioration of the interrelation among system components that interact in an integrated way. By prioritizing piecemeal interventions, zoning practices and legislation, relationships between constituting parts of the city are rigorously segregated. The erosion of cohesion among the constituent elements of an urban environment leads to the loss of meaning for these individual components and their collective existence. The city also has become detached from its meanings and semantic context which is resulted in reduction of people's spheres of influence in urban spaces.

Consistent with this framework, this study approaches transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Interfaces stimulate creative relationships between urban elements, which in turn trigger the emergence of new socio-spatial processes and complex system dynamics.

Elaborative analysis of this study, uncover the complex relationalities of physical, affective, social structural and behavioral aspects of interfaces. Interface researches
in the study reveal the way in which these different aspects evolve in relation to one another, their emergence, and their synchronized movement, hence the inherent dynamism of interfaces.

The study's findings reveal the way of establishment of an integrated relationship among various parts of the urban area. The results additionally indicate that interface characteristics have a significant impact on enhancing the interactive relationship between individuals and the urban environment. Qualified interfaces facilitate fluidity and strong connections between disparate places. These interfaces not only foster interactive relationships between individuals and their surroundings, but also enhance and broaden the interaction among individuals within urban environments. In this way, they play a role in the development of the social pattern, leading to the establishment of a self-organizing structure. These achievements constitute a stage in the conservation of the dynamic structures of urban areas, in the reestablishment of the spheres of influence that individuals lost within the city, and in the recovery of the semantic content that will enrich urban life.

Keywords: Urban Interfaces, Complex Relationalities, Social Interaction, Self-Organization, Dynamism
ÖZ

ARAYÜZ-ARABİRİMLERİN, FARKLI KENTSEL ÖLÇEKLERDEKİ MEKANIN SÜREGELEN YARATIMINDA TETİKLEYİCİ ROLÜ

Atak Akbulut, Hazal Doktora, Bölge Planlama, Şehir ve Bölge Planlama
Tez Yöneticisi: Prof. Dr. Anlı Ataöv Demirkan
Ortak Tez Yöneticisi: Doç. Dr. Pınar Aykaç Leidholm

Şubat 2024, 431 sayfa


Bu çerçevede, bu çalışma geçiş bölgelerini/arayüzleri, kentin kurucu parçaları arasındaki ilişkileri canlandırmak ve kentsel dokunun anlamlı bütünlüğünü korumak için yaratıcı fırsatlar sunan bir kaynak olarak ele almaktadır. Arayüzler, kentsel unsurlar arasındaki yaratıcı ilişkileri teşvik ederek yeni sosyo-mekânsal süreçlerin ve karmaşık sistem dinamiklerinin ortaya çıkmasını tetikler.
Bu çalışmanın ayrıntılı analizleri, arayüzlerin fiziksel, duygusal, sosyal yapısal ve davranışsal yönlerinin karmaşık ilişkiselliğini ve bu ilişkilerin ne tür sosyo-mekansal süreçler ürettiğini ortaya çıkarmaktadır. Çalışmadaki arayüz araştırmaları, bu farklı değişkenlerin birbirleriyle ilişkili olarak nasıl geliştiğini, ortaya çıkışlarını ve senkronize hareketlerini, dolayısıyla arayüzlerin doğasında var olan dinamizmi ortaya koymaktadır.

Ortaya konulan bulgular, kentsel mekanın farklı fiziksel etmenleri arasında nasıl bütünleşik bir ilişki kurulabileceğini ortaya koymaktadır. Çalışmanın bulguları, aynı zamanda, kentsel çevresi ve insan arasındaki etkileşimli ilişkinin güçlenmesinde, arayüz etmenlerinin önemli bir rol oynadığını göstermektedir. İki farklı alan arasında yumuşak bir akış ve güçlü ilişkiler sağlayan nitelikli arayüzler, insan ve çevre arasındaki etkileşimli ilişkiye sağlamakla birlikte, kentsel mekani kullanılarak insanların kendi aralarındaki etkileşimini de yoğunlaştırarak yaygınlaştırmaktadır. Bu şekilde, sosyal dokunuşun kendi kendine örgütlemesi yapısı oluşturulacak şekilde evrilmesine de katkı yapmaktadır. Bu kazanımlar, kentsel alanların dinamik yapılarını koruyabilmeleri, insanların kent içinde kaybettilerini etki alanlarını tekrar kazanmaları ve kent yaşamını zengin kilacak anlamsal içeriğe tekrar kavuşulmasında bir aşama oluşturacaktır.

Anahtar Kelimeler: Kentsel Arayüzler, Karmaşık İlişkiselliğler, Sosyal Etkileşim, Kendi Kendine Örgütlenme, Dinamizm
To my beloved mother Fatma Doğru
ACKNOWLEDGMENTS

Following this long journey that significantly changed my perspective on life, I am aware of that I am no longer where I started. As I begin on a new phase in my life's journey, I am delighted to have accomplished this research process that has enhanced my resilience and calmness, nearly maturing me. However, there are certain individuals whose presence was vital to my success.

First of all, my valued advisor, Professor Dr. Anlı Ataöv Demirkan... I continued on my journey, driven by the unwavering confidence she bestowed upon me during the entire study. I am grateful for her unique perspective and foresight, as well as her benevolence and compassion, which lighted the way for me at a time when I believed I was lost. I wish to collaborate on numerous beautiful works in the future.

I wish to extend sincere thanks to my second advisor, Assoc. Prof. Dr. Pınar Aykaç Leidholm, for her guidance and support, which went beyond the role of a mere instructor, and for her large academic contributions. I would want to express my special thanks to Assoc. Prof. Dr. Ela Alanyalı Aral for her valuable assistance and kindness in guiding me with my study. I also would like my sincere thanks to the jury members dear Prof. Dr. Melih Pınarçioğlu, Prof. Dr. Saime Özçürümez and Assoc. Prof. Dr. Deniz Altay Kaya for their enlightening comments and suggestions.

I express my gratitude to the participants who generously dedicated their time and shared opinions throughout the in-depth interviews, as their insights were of tremendous assistance to this research.

Furthermore, I would like to extend my sincere appreciation to Başak Zeka and Can Golgelioğlu for their indispensable help throughout the phases of investigation and analysis. I express my gratitude to my dear friend, Yıldız Ağaya Çağan, for her benevolent friendship and support during the entirety of this dissertation's effort.
Last but not least, my dear family has been my greatest support, enabling me to accomplish my research. First and foremost, I cannot express how grateful I am to my wonderful husband Ahmet Akbulut for his patience, sacrifice and unconditional love. With his intelligent thinking and broad perspective, he has always served as my greatest mentor and support. Without him, I would not have been able to accomplish this research. I am deeply grateful to my other greatest support, my beloved mother Fatma Doğru for her unwavering encouragement throughout my life and in the pursuit of this research. Many appreciations to my beloved sister Ceren Atak Yıldız, her husband Sezer Yıldız, my mother-in-law Gürcan Akbulut, and father-in-law Yusuf Akbulut who have always been there for me, for their unwavering support throughout my life. Finally, my little boys, Yusuf Uras Akbulut and Ömer Toprak Akbulut, play a significant role in this study by sacrificing the time that I designate for them. Thank you so much. I love you all very much!
# TABLE OF CONTENTS

ABSTRACT ......................................................................................................................... V

ÖZ ................................................................................................................................... VII

ACKNOWLEDGMENTS ................................................................................................. X

TABLE OF CONTENTS ................................................................................................. XII

LIST OF TABLES ........................................................................................................ XVII

LIST OF FIGURES ...................................................................................................... XVIII

INTRODUCTION .............................................................................................................. 1

1.1 Problem Statement and Aim of The Study ........................................................... 2

1.2 Research Questions ............................................................................................. 5

1.3 Research Structure ............................................................................................. 8

THEORETICAL FRAMEWORK ..................................................................................... 13

2.1 CITIES - COMPLEX ADAPTIVE SYSTEMS...................................................... 13

2.1.1 How Do Complex Adaptive Systems Operate? ........................................ 13

2.1.2 What Are The System Dynamics? ............................................................... 16

2.2 INTERFACES AS OPPORTUNITIES TO STIMULATE COMPLEX SYSTEM DYNAMICS ......................................................................................... 20

2.2.1 Multiscale Structure of Interfaces ................................................................. 21

2.2.2 Public/Private Interfaces ............................................................................. 31

2.3 THEORETICAL CONSTRUCT OF THE STUDY ............................................ 74
RESEARCH METHODOLOGY .................................................................................. 83
3.1 Problem Definition .................................................................................. 83
3.2 Structure of the Research .................................................................... 85
3.3 Rationale of The Selected Site ............................................................ 87
3.4 Research Questions .............................................................................. 96
3.5 Research Approach ............................................................................. 98
3.5.1 Phase I: Descriptive Research ....................................................... 101
3.5.2 Phase II: Exploratory Research ...................................................... 111
3.5.3 Phase III: Comparative Analysis .................................................. 120
FINDINGS AND DISCUSSION .......................................................................... 123
4.1 REGION A - The Physical Structure of Interfaces At Three Different Scales 130
4.1.1 Building Sections/Facades .............................................................. 131
4.1.2 Transition between building and the street .................................... 146
4.1.3 Street ........................................................................................... 163
4.1.4 Overlapping areas of all parameters at different scales .............. 173
4.2 REGION A – The Social, Structural and Behavioral Characteristics of Interfaces and Socio-Spatial Processes Generated By Their Interplay .......... 183
4.2.1 Social Parameters ......................................................................... 188
4.2.2 Structural Interface Parameters ................................................... 194
4.2.3 Behavioral Interface Parameters .................................................. 197
4.3 REGION B - The physical structure of interfaces at three different scales
203
4.3.1 Building Sections/Facades...............................................................204
4.3.2 Transition Between Building and The Street ..............................218
4.3.3 Street..........................................................................................235
4.3.4 Overlapping areas of all parameters at different scales..............251
4.4 REGION B - The Social, Structural and Behavioral Characteristics of
Interfaces and Socio-Spatial Processes Generated By Their Interplay .......257
4.4.1 Social Parameters ........................................................................262
4.4.2 Structural Interface Parameters ....................................................264
4.4.3 Behavioral Interface Parameters....................................................267
4.5 REGION C - The physical structure of interfaces at three different scales
269
4.5.1 Building Sections/Facades...............................................................269
4.5.2 Transitions between building and the street ...............................289
4.5.3 Street..........................................................................................303
4.5.4 Overlapping areas of all parameters at different scales..............316
4.6 REGION C - The Social, Structural and Behavioral Characteristics of
Interfaces and Socio-Spatial Processes Generated By Their Interplay .......321
4.6.1 Social Parameters ........................................................................326
4.6.2 Structural Interface Parameters ....................................................328
4.6.3 Behavioral Interface Parameters....................................................329
4.7 How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C? ................................................................. 332

4.8 How does the physical and social structure of interfaces differ among several interview points within the same sub-region? .......................... 336

CONCLUSION ......................................................................................................355

5.1 Integrated Approach into Planning and Design Practice ............... 356

5.2 Prominent Variables of Interfaces which Build Complex Relationalities 358

5.3 Semantic, Symbolic and Functional Content of Urban Pattern .......... 364

5.4 The Continuity of Tangible and Intangible Elements in Historic Urban Sites 366

5.5 A Foundation Approach in order to Preserve The Dynamic Character of Historic Urban Sites................................................................. 369

5.6 Preserving The Dynamic Character and Enhancing The Adaptive Capabilities of The Study Area.......................................................... 373

REFERENCES ......................................................................................................379

APPENDICES ......................................................................................................385

CURRICULUM VITAE .........................................................................................431
LIST OF TABLES

TABLES

Table 3.1 Structure of The Research ................................................................. 99
Table 3.2 Physical Variables At The Scale of Facade ....................................... 104
Table 3.3 Physical Variables At The Scale of Transition ............................... 107
Table 3.4 Physical Variables At The Scale of Street ....................................... 110
Table 3.5 Issues Explored in Phase II ............................................................. 113
Table 3.6 In-depth Interview Questions ......................................................... 114
Table 3.7 Profiles of Sample Group ............................................................... 118
Table 4.1 Characteristics of Interfaces in Region A at the Scale of Facade ...... 132
Table 4.2 Characteristics of Interfaces in Region A at the Scale of Transition Between Building and The Street ......................................................... 147
Table 4.3 Characteristics of Interfaces in Region A at the Scale of Street .... 163
Table 4.4 Characteristics of Interfaces in Region B at the Scale of Facade ..... 204
Table 4.5 Characteristics of Interfaces in Region B at the Scale of Transition Between Building and The Street ......................................................... 219
Table 4.6 Characteristics of Interfaces in Region B at the Scale of Street .... 236
Table 4.7 Characteristics of Interfaces in Region C at the Scale of Facade ..... 269
Table 4.8 Characteristics of Interfaces in Region C at the Scale of Transition Between Building and The Street ......................................................... 289
Table 4.9 Characteristics of Interfaces in Region C at the Scale of Street .... 304
Table 4.10 Affective Parameters Expressed By The Interviewees in Region A ... 340
Table 4.11 Social Parameters Expressed By The Interviewees in Region A ...... 341
Table 4.12 Structural Parameters Expressed By The Interviewees in Region A .. 342
Table 4.13 Behavioral Parameters Expressed By The Interviewees in Region A 342
Table 4.14 Affective Parameters Expressed By The Interviewees in Region B ... 346
Table 4.15 Social Parameters Expressed By The Interviewees in Region B ...... 346
Table 4.16 Structural Parameters Expressed By The Interviewees in Region B .. 347
LIST OF FIGURES

FIGURES

Figure 2.1 Concept Schema of Transitional Zones At Different Scales .......... 23
Figure 2.2 Activities on Facade ........................................................................ 38
Figure 2.3 Samuel Paley Park, New York .......................................................... 42
Figure 2.4 Hard-edged Street ............................................................................. 45
Figure 2.5 Soft-edged Street ............................................................................. 45
Figure 2.6 Opportunities For Staying in Front Of Houses ................................... 47
Figure 2.7 Semiprivate Front Yard .................................................................... 47
Figure 2.8 Terrace in Front of The Rowhouse .................................................. 48
Figure 2.9 Resting Space Directly in Front of The Multistory Dwellings .......... 48
Figure 2.10 Scale & Rhythm ............................................................................. 50
Figure 2.11 Transparency .................................................................................. 51
Figure 2.12 Activity ............................................................................................ 51
Figure 2.13 Variety ............................................................................................. 52
Figure 2.14 Design Quality ................................................................................ 53
Figure 2.15 Gehl’s Five Distinct Typologies of Facades ....................................... 54
Figure 2.16 Impermeable/Blank ......................................................................... 56
Figure 2.17 Direct/Opaque ................................................................................ 57
Figure 2.18 Direct/Transparent ......................................................................... 57
Figure 2.19 Pedestrian Setback ......................................................................... 58
Figure 2.20 Car Setback .................................................................................... 58
Figure 2.21 Kamalipour’s scheme of interfaces types ......................................... 60
Figure 2.22 Kamalipour’s Six Primary Types of Interfaces ................................... 61
Figure 2.23 Elements to be Preserved and Enhanced in Historic Urban Sites .... 70
Figure 2.24 Complex Structure of Interfaces ..................................................... 75
Figure 2.25 Complex Structure of Building-Street Interfaces ............................. 75
Figure 2.26 Concept Scheme of The Complex Structure of Interfaces ............... 80
Figure 2.27 List of Parameters at Different Aspects ........................................... 81
Figure 4.20 The Use of Buildings Region A ......................................................... 159
Figure 4.21 Overlapping Maps At The Scale of Transition in Region A .......... 161
Figure 4.22 Overlapping Map of Street Parameters in Region A .................. 170
Figure 4.23 Streets in Terms of Interface Quality in Region A ....................... 171
Figure 4.24 Interface Characteristics of Streets in Region A ......................... 172
Figure 4.25 Intersection Areas in Region A ...................................................... 175
Figure 4.26 First Sub-Region in Region A ......................................................... 175
Figure 4.27 Second Sub-Region in Region A ..................................................... 177
Figure 4.28 Third Sub-Region in Region A ....................................................... 178
Figure 4.29 Fourth Sub-Region in Region A ..................................................... 180
Figure 4.30 Fifth Sub-Region in Region A ......................................................... 181
Figure 4.31 Seventh Sub-Region in Region A .................................................... 182
Figure 4.32 Perceived Variables of Interfaces in Region ................................. 185
Figure 4.33 Maintaining Adaptability in a Complex Structure ....................... 203
Figure 4.34 Facade Opening in Region B .......................................................... 206
Figure 4.35 Kalekapısı Street-1 .................................................................... 207
Figure 4.36 Kalekapısı Street-2 .................................................................... 207
Figure 4.37 Haymana Street-1 .................................................................... 208
Figure 4.38 Facade Elements within Region B ............................................... 209
Figure 4.39 Facade Elements in Region B ....................................................... 210
Figure 4.40 Ornamentation-Kale Kapısı Square ............................................. 211
Figure 4.41 Berrak Street Figure 4.42 Ornamentation-Kale Kapısı Street .... 211
Figure 4.43 Ornamentation in Region B ........................................................... 213
Figure 4.44 Ornamentation of Kale Kapısı Street-3 ....................................... 214
Figure 4.45 Ornamentation of Devodiran Street .......................................... 214
Figure 4.46 Ornamentation of Berrak Street .................................................. 215
Figure 4.47 Overlapped Physical Maps Of Facade Openings, Ornaments And Facade Elements in Region B ................................................................. 217
Figure 4.48 Transitional Elements in Region B .............................................. 221
Figure 4.49 Transitional Elements Kale Kapısı Street ................................... 222
Figure 4.50 Transitional Elements-Square ............................................................ 223
Figure 4.51 Section View of Kale Kapısı Street .................................................. 223
Figure 4.52 Transitional Elements Kale Kapısı Street-2 ...................................... 224
Figure 4.53 Section View of Streets Narrow Secondary Streets .......................... 224
Figure 4.54 Transitions Equipped with Steps ....................................................... 225
Figure 4.55 Transitions Equipped with Stairs ....................................................... 226
Figure 4.56 Transitions Equipped with Stairs-2 ................................................... 226
Figure 4.57 Transitional Elements - Gözcü Street ............................................... 227
Figure 4.58 Transitional Elements - Kadife Street .............................................. 227
Figure 4.59 Transitions with Veranda- Kadife Street .......................................... 229
Figure 4.60 Transitions with Veranda - Kireçli Street ......................................... 229
Figure 4.61 The Uses of Buildings in Region B ................................................... 231
Figure 4.62 Overlapping Map At The Scale of Transitions in Region B ............. 233
Figure 4.63 Yayçeken Street ................................................................................. 238
Figure 4.64 Ayçekin Street .................................................................................... 238
Figure 4.65 Berrak Street ...................................................................................... 238
Figure 4.66 Kale Kapısı Street ............................................................................. 239
Figure 4.67 Kireçli Street ..................................................................................... 239
Figure 4.68 Kale Street ......................................................................................... 239
Figure 4.69 Berrak Street ..................................................................................... 240
Figure 4.70 Barış Street ....................................................................................... 240
Figure 4.71 Devodiran Street .............................................................................. 241
Figure 4.72 Zones of Pedestrian Activity in Region B ......................................... 242
Figure 4.73 Areas of Pedestrian Activity-1 .......................................................... 243
Figure 4.74 Areas of Pedestrian Activity-2 .......................................................... 243
Figure 4.75 Staircases of Several Streets in Region B ........................................ 244
Figure 4.76 Castle Walls ...................................................................................... 245
Figure 4.77 Courtyard Walls .............................................................................. 246
Figure 4.78 Urban Walls-2 ................................................................................. 246
Figure 4.79 Overlapping Map of Street Parameters in Region B ......................... 247
Figure 4.80 Streets in Terms of Interface Quality in Region B ............................ 248
Figure 4.110 Section View of Streets Featuring Pedestrian Areas ....................... 294
Figure 4.111 Transitional Elements-2................................................................. 294
Figure 4.112 Transitional Elements-3 Figure 4.113 Transitional Elements-4................................................................. 295
Figure 4.114 Transitional Elements-Sultan Alaaddin Mosque......................... 295
Figure 4.115 Section View of Streets with Courtyards ...................................... 297
Figure 4.116 Transition-Alitaşi Street ............................................................... 298
Figure 4.117 Transition-Gençkapı Street........................................................... 298
Figure 4.118 Transition-Sultan Alaaddin Mosque........................................... 298
Figure 4.119 Transitions with Verandas ......................................................... 298
Figure 4.120 Direct Transitions ....................................................................... 299
Figure 4.121 The Uses of Buildings in Region C ............................................. 300
Figure 4.122 Overlapping Physical Maps of Transitional Elements in Region C 302
Figure 4.123 Narrow Streets Generating Sense of Confinement .................... 306
Figure 4.124 Streets lack of facade elements Figure 4.125 Streets with facade elements ........................................................................................................... 306
Figure 4.126 Alitaşi Street Figure 4.127 Duyan Street Figure 4.128 Kağın Street .................................................................................................................. 307
Figure 4.129 Başkale Street ............................................................................. 308
Figure 4.130 Gençkapı Street ......................................................................... 308
Figure 4.131 Kurt Street ................................................................................ 308
Figure 4.132 Kurt Street-2 .............................................................................. 309
Figure 4.133 Alitaşi Street-4 .......................................................................... 309
Figure 4.134 Duyan Street-2 ......................................................................... 309
Figure 4.135 Qualified Elements -1 ................................................................. 310
Figure 4.136 Qualified Elements -2 ................................................................ 310
Figure 4.137 Qualified Elements -3 ................................................................. 311
Figure 4.138 Urban Walls - 1.......................................................................... 312
Figure 4.139 Urban Walls - 2.......................................................................... 312
Figure 4.140 Streets in Terms of Interface Quality in Region C ...................... 314
CHAPTER 1

INTRODUCTION

“The unique function of man is to live in close, creative touch with chaos, and thereby experience the birth of order” (Hans Hoffman, quoted in Pondy, 2005)

As Hans Hoffman pointed out in this nice statement, for all ecological systems, including the human, chaos is not a problem to be avoided but a source of different possibilities. Goldsen (quoted in Pondy, 2005) states that change and paradox are not anomalies to be corrected, but are inherent in the nature of open systems.

Chaotic systems, rather than preserving their long-term equilibrium, are easily triggered by even the tiniest touch and thereafter establish new equilibria through various patterns of movement (Gökmen, 2009). According to chaos theory, achieving a stable state is inherently impossible. Nevertheless, Goldsen argues that existing institutions continue to rely on the fallacy of attaining a stable state.

Planning approaches, which have been in existence since eras of modernity, are also a discipline that seeks to provide order in order to maintain stable state. According to Tekeli (2009), chaos theory suggests that the long-term trajectory of society is uncertain. Tekeli argues that societies exhibit unpredictable occurrences. These systems (cities) can organize themselves (self-organizing). This renders it pointless for planning purposes to attempt to strict control from the beginning on the type of development that will occur in the long term. In this case, planning becomes a matter of trying to preserve a certain order and comply with the outcome that will emerge while preserving this order. The approach employed by Tekeli yields the subsequent outcome: Attempting to reduct the complex structure of cities for the sake of preserving a certain order and maintaining a stable state results in limiting the potential options that arise from the internal dynamics of the complex structure itself.
1.1 Problem Statement and Aim of The Study

Due to the impacts of the aforementioned advancements in chaos theory on social sciences, cities are now considered as complex adaptive systems, in which several institutions, practices, and motivations interact jointly. However, the strategies employed in urban planning to maintain order in order to perpetuate the steady state, which have been in place since eras of modernity, actually disrupt the complex structure of the city, which is formed by the interactions of numerous diverse elements. These strategies also restrict the potential and opportunities for development that arise from the inherent dynamics of the system.

Pondy (2005), argues that organizations as open systems foul their environmental nests either by following a control system strategy and deliberately killing variety in the environment. Pondy's approach for organization theory is equally relevant to planning practices. The pursuit of rigid order and control in urban planning has led to the fragmentation of urban areas and the deterioration of the interrelation among system components that interact in an integrated way. By prioritizing piecemeal interventions, zoning practices and legislation, and the construction of high-speed arteries, relationships between constituting parts of the city are rigorously segregated. The erosion of cohesion among the constituent elements of an urban environment leads to the loss of meaning for these individual components and their collective existence. Keskinok (2011) conceptualizes this process as the urban and social stratification, as well as the disintegration of the public sphere. He states that: “That kind of a structuring which does not create common spaces between urban parts and regions would not develop publicness expected from urbanization. Urban environments that are composed by arbitrarily coming together of segregated parts which are shaped by singular development decisions are the sources of a series of urban problems.” According to Köknar (2001), this is a lack of content within the city which has reduced people's spheres of influence in urban spaces.

The city also has become detached from its meanings and semantic context. The city embodies multiple meanings and interconnections that enhance the interactive
relationship between humans and the urban environment. Gölgelioğlu (2021) states that the conscious and unconscious assemblages of moments, events, affects, memories unveil the complex relationalities in places. Urban environments are filled with different flavors, sensations, and visual experiences. Nevertheless, the process of uniforming buildings and separating various functions for the sake of order ultimately results in the impoverishment of urban space. Jacobs is among those that express disapproval towards the practice of standardizing building facades and separating diverse functions. She states that; “…this kind of homogenization and simplification have important costs over the prosperity of urban life.” (Jacobs, quoted in Perrone, 2018)

Consistent with this framework, this study approaches transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Enhancing the interconnections between the many components of the urban pattern plays an essential role in preserving the internal complexity of the city. Interfaces stimulate creative relationships between urban elements, which in turn trigger the emergence of new socio-spatial processes and complex system dynamics.

Interfaces are the areas where the complex structure of the city can be read most effectively. This study conceptualizes interfaces as permeable borders (between impermeable boundaries) or porous edges where diverse groups engage in interactions (Sennett, 2018). Interfaces provide fertile environments for the creation of interactive and experienced knowledge. Frequent interactions between diverse groups and intense interactions in several areas foster the emergence of knowledge, leading to spontaneous activities and self-organized practices. The development of these processes engenders the capacity for these places to undergo continuous change and transformation, adapting new circumstances. The ongoing becoming and transformation in a given area maintains its dynamism and enhances the ability to respond when confronted with an unpredictable disturbance.
Various scales of the built environment ranging from fringe to building, encompass distinct forms of interfaces that express both distinctive and common characteristics. Existing urban areas possess the most complex structure that enables dynamic interfaces and fosters the possibility for ongoing change and transformation, in compared to newly established settlements. Because these areas involve the emergence of new components as a result of the time accommodating the exchange across existing components. Historic urban sites involves further complexity owing to these areas’ multilayered structure incorporating both different segments of time and intertwined physical, cultural and social elements.

Understanding the complex structure that makes these areas of interfaces dynamic will contribute to overcoming fragmented approaches that do not consider the urban system as a whole in design and planning practice. Furthermore, shedding light on the significance of the semantic content that enriches urban life but often goes overlooked in the fast-paced flow of life, and incorporating these aspects into the framework of design and planning practice, will be insightful for planners and designers.

The significance of this framework has grown in conservation areas. As stated previously, historic urban areas are even more complex due to the fact that they are comprised of numerous intertwined layers which cover many periods and incorporate numerous physical, cultural, and social elements. To ensure the continuity of the dynamic structure of these areas, it is necessary to preserve them as a multilayered, complex structure that takes into consideration their physical, social, and cultural components. Preserving the dynamic structure of conservation areas will enable these areas to more effectively adapt to contemporary conditions. *Coherent development and harmonious adaptation of historic sites to contemporary life* are also emphasized in *The Valletta Principles for the Safeguarding and Management of Historic Cities*, in order to effectively protection, conservation, enhancement and management of these areas (ICOMOS, 2011). An examination of the interface features of a conservation area will contribute to understanding of the interconnectedness (continuity) of the tangible and intangible (social, cultural, and
physical) components that comprise its identity, as well as the relationships among these components and the multilayered structure that provides the area's spirit.

In line with this framework, the objective of this study is to comprehend the complex system of interfaces that render these spaces dynamic, in order to attain the final goals of (i) proposing an integrated approach (a comprehensive methodology) that replaces fragmented approaches and effectively addresses the integrity of urban systems in planning and design practice; (ii) enhancing the depth of the existing body of knowledge by uncovering several unexplored factors and correlations in the current literature on interfaces; (iii) ensuring that the semantic content, which enriches urban life and facilitates human interaction with urban space, regains significance in design and planning practice; (iv) introducing a distinct viewpoint to studies in conservation by improving understanding of the continuity of physical, cultural, and social (tangible/intangible) elements that constitute the character of conservation areas, the interrelationships between these elements, and the multilayered structure that gives the area its spirit; (v) establishing a foundation for the conservation approach to preserve the continuous dynamic characteristics of conservation areas and their adaptation to present-day conditions.

The aim is to analyze the physical and social elements of interfaces, the affective elements attached to these areas, and relationalities between these diverse attributes. This analysis seeks to uncover how the aforementioned variables contribute to a complex structure and how this structure triggers processes such as dynamism, self-organization, and adaptability. Revealing these relationships and processes will additionally contribute to design and planning approaches and practices.

1.2 Research Questions

Interfaces encompass both physical, social and affective aspects, requiring an examination of their physical, social and affective properties. Furthermore, there are
associations between these varied attributes of interfaces, and the socio-spatial processes that are produced as a result of their interaction.

A review of existing literature uncovers a second concern regarding interfaces, which is that various scales of the built environment encompass distinct forms of interfaces that express both distinctive and common characteristics. Gaining insight into the similarities and differences of them at various scales would provide a more comprehensive understanding of the causal relationships between interfaces and the urban environment. Interfaces of different scales are created by transitions between many layers of places, such as transitions between buildings and streets, transitions between public and private areas, transitions between inner city and periphery, and transitions between urban and rural areas. Aforementioned that, existing urban areas are the places where the complex structure that makes interfaces dynamic and creates the potential for continuous change and transformation is most concentrated. Accordingly, an inner city district was selected as the study area. Thus, this study focuses primarily on the interfaces between buildings and streets, as well as the interfaces between the public and private spaces. These areas will be more closely examined and investigated in the study area. The constituent elements of these scales include buildings, spaces between buildings, and streets. In order to investigate the transitions between building/street and public/private, it is crucial to consider the individual attributes of the constituent elements as well as the interrelationships among these elements. The physical and social characteristics of buildings and the street and the socio-spatial processes generated by the interrelations reveal that interfaces would have to be examined under three different scales including (i) building sections/facade, (ii) transition between building and the street and (iii) the street. Accordingly, the study poses the following question as the main research question:

**MRQ:** How transitional zones/interfaces function as complex processes at different scales in inner city districts considering their specific conditions and characteristics?
To answer the main research question, it becomes necessary to reveal the physical and social attributes of interfaces, the associations between these attributes, and the socio-spatial processes that are activated by the behaviors of interfaces. Thus, the study investigates two sub-research questions to uncover how interface qualities contribute to the complex character of such places, and play the role of catalyzing the sustainability of their liveliness. The sub-research questions are as follows:

**SRQ1:** What are the physical and social structure of interfaces at three different scales?

**SRQ2:** What are the behaviors of these physical and social elements and socio-spatial processes generated by their interplay?

The third research questions arise from the study area's structure, which necessitates examining an extensive area at several scales. Initial site investigations revealed that the area exhibits a diverse and varied structure, with a noticeable regional segregation, particularly in terms of physical characteristics. Therefore, in order to conduct elaborate examinations in three different Regions, the study area was divided into three distinct regions with distinctive features. (A, B and C) The division of sub-regions within the study area facilitates the execution of comparative analysis, enabling an extensive evaluation of interfaces and the deduction of major conclusions regarding the established processes and interrelationships between physical and social characteristics. Within these aspects, the third research question is formulated:

**SRQ3:** How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C?

This phase involves conducting another comparative analysis to compare and evaluate data collected from several interview sites within the same sub-region. The data obtained on affective, social, structural, and behavioral aspects from several interview locations are analyzed to see if there are disparities or similarities in the evaluations of respondents across multiple interview points within the same region.
1.3 Research Structure

This study approaches transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Interfaces are the areas where the complex structure of the city can be read most effectively.

Comprehending the complex system of interfaces that render these spaces dynamic, will contribute to preventing the fragmentary approaches employed in design and planning practice that fail to address the system's integrity. Simultaneously, it will enlighten planners and designers regarding the semantic contents that enrich urban life, assign importance to design and planning practice, and incorporate them into these studies' framework. An analysis of the interface characteristics of a conservation area will contribute to knowledge regarding conservation approaches by improving comprehension of the interconnectedness (continuity) of the tangible and intangible (social, cultural, and physical) components that comprise its identity, as well as the relationships among these components and the multilayered structure that provides the area's spirit.

By examining the physical and social components of interfaces, as well as the affective aspects associated with these areas, and the relationships between these various attributes, the goal is to uncover how these factors contribute to a complex structure and how this structure initiates processes such as dynamism, self-organization, and adaptability. The framework of the research is based on this objective.

Chapter 2 introduces the theoretical framework of the study under several sections. In the first section (2.1.), we examined how cities are approached as complex adaptive systems, the structural features that constitute this complex system, and the dynamics that are influential, through a literature review. Section 2.2.1. focuses on conducting a comprehensive literature review to examine the characteristics of interfaces at different scales. The conceptual diagram (Figure-2.1) defines four distinct scales, each characterized by unique social and physical attributes, as well
as socio-spatial processes. Figure 2.1 illustrates the correlation between the characteristics of interfaces and the processes they generate, which are in line with the dynamics of complex systems. Section 2.2.2 thoroughly examines all aspects of public/private interfaces. It aims to examine the problem definitions proposed by scholars, the potential functions of interfaces, and the many typologies of interfaces provided by different scholars. These many typologies provide the foundation of the physical and social variables that are analyzed in this study.

The study area possesses distinctive characteristics since it is a historic urban site that has been formally designated as a "urban renewal area". In section 2.2.3, we examined the tangible and intangible factors that are utilized to analyze the physical and social attributes of historical sites when implementing a conservation strategy. This allows us to understand the physical and social structure of the research area in relation to interfaces. The objective is to look at conservation approaches from a distinctive perspective by analyzing the convergence and divergence between the approaches of interface and conservation literatures towards an inner city historical site.

The third section (2.3.) of chapter two introduces the theoretical construct of the study, which outlines how the relevant literature is examined and applied for the purpose of conducting site analysis. The study presents a structural framework (Figure-2.23) which is designed to illustrate the different physical, social, affective, structural, and behavioral aspects of interfaces at three specific scales. The research questions and variables to be examined are developed from this structural framework.

**Chapter 3** describes the methodological approach employed in the study. In section 3.1, a concise problem definition is presented and the objective of the research is stated. The second section (3.2.) presents the rationale to selecting the site, by providing a description of the area's dynamics in connection to the interfaces. The subsequent sections also provide an explanation of the strategies used to define sub-regions. The third section (3.3.) aligns the multiple groupings of parameters at
different scales using the structural framework (Figure-2.23) of the study. In Chapter-3, two distinct research stages are conducted to reveal the physical and social parameters of interfaces described in the structural schema (Figure-3.1). Section 3.4 involves the submission of the research questions.

The fifth section (3.5.) includes the research approach, reasoning for the variables, methods for data gathering and data analysis, in-depth interview questions, and sample strategies. In order to address the initial sub-research question, we examine the physical and social components of interfaces through (i) descriptive and (ii) exploratory research approaches, respectively. In the initial stage, on-site observations are conducted to gather data on the physical attributes of facades, transitions between buildings and street, and streets within the study area. The second stage of the investigation is carrying out in-depth interviews with inhabitants of the area of study to reveal the social structure of interfaces. The third stage of the research involves conducting a comparative analysis of three sub-regions within the study area. This analysis will focus on examining the physical and social data collected through inspections on site and in-depth interviews. This phase also involves a comparative analysis of diversified interview locations within the same region. The purpose is to identify whether there are any similarities or differences in the perceptions of interviewees about physical and social features of these locations.

Chapter-4 provides the findings of the analysis carried out to address four subordinate research questions. SRQ-1 and SRQ-2 are requested for each of the three sub-regions in the study area, namely A, B, and C. The analysis carried out employing these two SRQs is presented respectively for each of the sub-regions. In section 4.1, provide an extensive investigation of each physical parameter of interfaces within Region A at three distinct scales: (i) building sections/facade, (ii) transition between building and the street, and (iii) the street itself. The second part of section 4.1 exhibits physical maps that display overlapping of all parameters at various scales. This technique identifies the specific regions where interfaces are highly developed within this area. The physical properties of these intersection areas are evaluated. Section 4.2, present an analysis and discussion of the social, structural,
and behavioral factors of Region A through the assessment of in-depth interviews. The analysis in this section employs an exploratory approach to uncover the underlying dynamics of social structure and grasp the complexities caused by interrelations between social and physical elements.

Sections 4.3, 4.4, 4.5, and 4.6 provide comprehensive analyses and evaluations for Regions B and C using the same approach as outlined earlier for Region A. Section 4.7 submit a comparative analysis of three sub-regions within the research area. This analysis focus on the physical and social data gathered through site observations and in-depth interviews. Section 4.8 submit a comparative analysis that examines the social perspectives of interviewees in varied interview settings within the same region.
CHAPTER 2

THEORETICAL FRAMEWORK

2.1 CITIES - COMPLEX ADAPTIVE SYSTEMS

By the beginning of the 21st century, significant advancements in physics have opened up possibilities for many perspectives in the social sciences. These advancements include theorems related to probability, uncertainty, and chaos, that pose difficulties in the ability to accurately forecast the future of society. The chaos theory uncovers that it is difficult to forecast the future condition of a society in a long term, even if it has an order itself. Societies have unpredictable orders. Moreover, urban systems are self-organizing (Tekeli, 2009). In the light of these theoretical developments, scholars in planning also begin to be inspired by theories of chaos and complexity. Cities are increasingly recognized and approached as complex adaptive systems, where several institutions, practices, and motivations interact jointly.

2.1.1 How Do Complex Adaptive Systems Operate?

Planners in developing an enhanced understanding of urban dynamics and related uncertainties, find inspiration in the world of complexity. Complexity theory focuses on the development of phenomena and challenges the Newtonian view of the world, which relies on reductionism, determinism, and predictability. These phenomena are commonly characterized as systems or networks in which the components exhibit a certain level of independence and so behave autonomously, while also engaging in numerous direct and indirect connections. (Rauws, 2017)

Rauws (2017) draws a general framework about the issue of complexity:

“Complex phenomena are dynamic, nonlinear – a small change can have a big effect and vice versa – and include interdependencies across various
aggregation levels. This implies that they evolve without central coordination and are very difficult to predict and fully manage.”

They are open systems, exchanging information and energy with their environment. For this reason, they are sensitive to changes in this environment and respond by adapting their configuration. Cities also express this behaviour, responding to various contextual changes, such as demographic pressures, economic trends and technological innovations (Portugali 2007).

Complex systems, as observed and theorized in the field of life sciences, are open to change, have ability to adapt and transformative in character. These characteristics increase the resilience capacity of a system when faced with an unpredictable disturbance.

In line with these developments in the conceptualization of the world, scholars in planning search ways for benefiting from chaos and inherent complexity of the city rather than avoiding and suppressing them for the sake of order as being done by the holistic interventions of modernism. This approach finds a fine expression in this quotation from Pondy: “The unique function of man is to live in close, creative touch with chaos, and thereby experience the birth of order” (Pondy, 2005). In relation to this aspect, Pondy references to the quotation of Goldsten (1975) that: “Change and paradox are not anomalies to be corrected, but the very nature of open systems. Learning systems accept these principles as axioms, rejecting the ‘myth of the stable state’. Our current institutions still base themselves on that myth and it is their compulsive insistence on trying to achieve it that leads to many dysfunctions and ultimate breakdown.”

Rauws (2017) defines three reasons why a complexity perspective can contribute to planning including (i) interdependent drivers for change, (ii) transformation of urban configurations as ongoing processes, (iii) the need for strengthening the adaptive capacity of cities.
(i) A complexity perspective directs our focus towards the numerous, *interconnected factors that drive change* at different levels and influence the paths of development. Certain drivers are a direct outcome of planning interventions, while others arise outside the scope of planners' control. Planners must possess the ability to effectively handle *both foreseen and unforeseen change*. (Rauws, 2017)

(ii) From a complexity standpoint, urban areas are perceived as dynamic spaces that are constantly influenced and transformed by both internal and external factors, *always on their way to ‘become’*. In order to comprehensively consider these dynamics while planning interventions, planners must have a comprehensive grasp of the situational complexities associated with planning difficulties. This encompasses the notion that the objectives to be achieved and the individuals with whom to establish agreement are *contingent upon the specific time and location of a planning matter*. (Rauws, 2017)

(iii) Given the belief in the ongoing, multilayered, and situation-specific nature of change, a complexity viewpoint emphasizes the need for planners to prioritize the enhancement of cities and neighborhoods' *adaptive ability*. This would facilitate the effective functioning of urban areas in various situations, allowing them to adapt to both foreseen and unforeseen possibilities and risks. (Rauws, 2017)

Rauws (2017) argue that To enhance cities' adaptability, the initial and essential measure is to shift the planning emphasis towards shaping and creating circumstances that determine the course of growth. This is an *adaptive approach* to planning that provides a broad framework for urban transformation without specifying a specific future spatial-functional arrangement or arrangement of actor relationships. It facilitates the emergence of development frameworks for the *spontaneous and unplanned ways* in which cities and neighborhoods adapt and evolve in response to changes occurring at different societal levels.
2.1.2 What Are The System Dynamics?

2.1.2.1 Diversity

Pondy defines the nature and behavior of open system in organizational theory and emphasize on the significance of diversity in open systems. By an ‘open system’, it is meant that the organization is influenced by the environment, or must take the environment into account, or can interact with the environment. A high variety environment is a necessity to an open system, not a problem, nor even a mere opportunity. Pondy states that “An open system maintains its internal differentiation (resists uniformity) by “sucking orderliness from its environment”.

The preservation of the differential structure of an open system is accurately achieved through the throughput of nonuniformity. An open system requires a certain amount of complexity in order to sustain itself, and this complexity can only be maintained if there is a continuous flow of resources from a diverse environment. The organization must possess a high level of complexity to effectively handle an enormous variety of environmental factors. Another possible interpretation is that an organization lacks the ability to sustain internal complexity unless the presence of environmental diversity. (Pondy, 2005)

2.1.2.2 Self-Organization

By identifying cities as Complex Adaptive Systems, the focus is on the interconnectedness of changes occurring at different levels, including both planned changes launched by public planners and 'unplanned' changes. Therefore, it is considered that the ability of planners to predict and control the development path of a city is restricted. Developments arise partially by autonomous implies independent of planners, and the manner in which a city's path evolves is regarded as contingent on its place and time. Self-organization is a fundamental idea in complexity theory that helps in comprehending the potentially independent nature of changes. Self-organization processes can lead to a structural transformation of a system, such as a
neighborhood, arising from many local initiatives without the need for central coordination. (Rauws, 2017)

Rauws (2011) defines the process of self-organization that interactions within the system lead to the spontaneous emergence of a coherent spatial or organisational structure without outside coordination. In referencing to Heylighen, Rauws (2011) argue that in a situation like this, it is not possible for any individual actor to maintain sole control over the process of development- the catalysts for change arise from the interactions between various actors or agents. From this standpoint, the enhancement of interaction at several levels arises from diverse encounters, and a variety of actors/groups serve as stimulating events for self-organized practices.

Portugali (2007) also highlights the role of urban agents in self-organized planning processes. In Portugali's view, cities are dually complex systems composed of material components (simple systems) and human components such as urban agents (complex systems): “It is the urban agents that by means of their interaction among themselves, with the city's material components and with the environment transform the artifact city into the complex artificial system city”. The city is formed by the interactive actions of its agents. Once it is formed, it then influences the behavior of its agents in a circular cause-and-effect relationship (Perrone, 2018).

Perrone (2018) argues that, ordinary people's knowledge makes it possible for spontaneous and collective practices to emerge, and for a complex urban system to regenerate itself. This interactive and experiential knowledge which is defined in some literature as ordinary people’s knowledge was highlighted in Jacobs street level approach as a triggering force. Perrone defines this issue as such:

“Jacobs implicitly argues that the city emerges through countless horizontal, and sometimes, simultaneous contacts’. In the process of city-making, the interdependence among urban agents (voluntary and involuntary) nurtures the complex urban system through knowledge exchanges in many spontaneous practices, driven by ordinary people’s sense of usefulness.”
Jacobs emphasizes the importance of a self-organizing complex order that arises from trust and respect for diversity at the street level. Trust and respect are essential prerequisites for the functioning of the city as a self-sustaining, self-regulating, emerging complex order. (Perrone, 2018)

Perrone (2018) references to Hardin's street level epistemology which is also a theory on the knowledge of ordinary people. Street level epistemology prioritizes on the ‘knower’, rather than the ‘known’. The idea attributes meaning to the various types of interaction and interconnectedness that arise from the collective knowledge of society, resulting in self-organized individual or collective actions. The key point of his assertion rests on the idea that our understanding is contingent upon the understanding of others. The urban streets fosters a complex network of interactions, where individuals constantly acquire, share, and generate information from each other. This procedure necessitates the presence of social trust. (Perrone, 2018)

Perrone (2018) states that, according to Hardin's theory of knowledge, the term 'street-level' refers to the street being a realm characterized by trust and collective action. This discussion directly relates to Jacobs's use of the concept of trust. Indeed, all of Jacobs's assertions relate to the notion of interpersonal trust at the street level. This trust takes time and requires multiple opportunities to be built. Examples of this include: ensuring safety on sidewalks and the importance of a particular level of interaction on the street, factors that contribute to diversity and concentration, ‘eyes on the street’ belonging to the natural proprietors of the street, and the public character of the area. Jacobs asserts that trust in a city street is gradually built via numerous small interactions that occur on public sidewalks. The primary concern is not maintaining communication with the neighbors, but rather ensuring interaction on the street. (Perrone, 2018)

### 2.1.2.3 Spontaneity and Flexibility

Cozzolino (2018) expresses that the term spontaneous originates from the Latin word spontanēus, which signifies acting voluntarily or without external influence (of one’s
free will). The term "spontaneous" refers to intentional actions carried out by self-governing and purposeful individuals, such as landowners, developers, and householders. Spontaneity is inherently beneficial at the individual level as it enables individuals to pursue their own objectives using their knowledge and creativity, while also exploring novel ideas and behaviors. Furthermore, via continuous processes of trial and error, society can attain advantages that lead to a level of progress and innovation. (Cozzolino, 2018)

Cozzolino (2018) references to Jane Jacobs contending that the city is a complex system with emergent characteristics that arise from localized processes of self-organization. She argues that excessive planning, control, and top-down design of a city restricts the potential for spontaneous adjustments and improvements, which are often driven by the dispersed knowledge of ordinary people. (Cozzolino, 2018)

Cozzolino (2018) examines the relationship between planning control and the amount of flexible space available for spontaneous acts and the development of emerging socio-spatial arrangements. The central argument is that the flexible space for spontaneity and the emergence of new arrangements in a space is not simply determined by its physical dimensions, but rather primarily influenced by the manner in which planning regulations are written and implemented. The level of spontaneity and flexibility varies based on several social and physical factors.

Cozzolino (2018) asserts that the planning regulations, rather than the actual design of the space, are the primary determinant for the adaptation of the physical space. The extent of the flexible space is primarily influenced by the rules that control the behaviors of agents inside that area. Highly-designed environments at some point may host a high degree of flexible space for the evolution of emergent configurations. While the physical layout of cities is an important factor, it is ultimately open to modification and future adjustments and adaptations, regardless of its size or level of detail. In contrast, rules have the potential to entirely restrict the flexible space for spontaneous actions and the gradual development of emergent configurations.
Cozzolino (2018) referenced Jacob’s contends that lively environments are more likely to develop when the arrangements of neighborhoods enable frequent and intense spontaneous interactions, and when the physical surroundings may be gradually modified and improved while preserving their current and fundamental patterns. Such configurations arise organically over a period of time, undergo continuous adjustments, and cannot be planned or built as a comprehensive top-down settlement development. (Cozzolino, 2018)

The crucial function of spontaneity and flexibility in urban affairs lies in their capacity to foster innovation, facilitate the use of localized knowledge, and need continuous adaptation and enhancement of the built environment (Cozzolino, 2018). Cozzolino argues that it is not possible to control the city in order to achieve or maintain specific social and spatial arrangements as we wish or prefer. We need to establish rules that promote adaptability and ensure that current socio-spatial arrangements can be adapted in the future. Put simply, rules and regulations do not address the overall physical results or provide specific details about functions or locations. Rules should not dictate predetermined states of circumstances, but rather allow for a diverse range of alternatives in an ongoing process of gradual change.

2.2 INTERFACES AS OPPORTUNITIES TO STIMULATE COMPLEX SYSTEM DYNAMICS

This study approach transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Enhancing the interconnections between the many components of the urban pattern plays an essential role in preserving the internal complexity of the city. Interfaces stimulate creative relationships between urban elements, which, in turn, trigger the emergence of new socio-spatial processes and complex system dynamics.
2.2.1 Multiscale Structure of Interfaces

A review of existing literature uncovers a concern regarding interfaces, which is that various scales of the built environment encompass distinct forms of interfaces that express both distinctive and common characteristics. Gaining insight into the similarities and differences of them at various scales would provide a more comprehensive understanding of the causal relationships between interfaces and the urban environment. Interfaces of different scales are created by transitions between many layers of places, such as transitions between buildings and streets, transitions between public and private areas, transitions between inner city and periphery, and transitions between urban and rural areas.
Figure 2.1 Concept Schema of Transitional Zones At Different Scales
Through the literature review, we identified four distinct scales for interfaces that are relevant to the aims and objectives of our study. The distinct elements that are significant on each scale, including social and physical characteristics, socio-spatial processes, and the complex dynamics of the system, are outlined in the conceptual diagram depicted above. (Figure-2.1) The conceptual diagram illustrates the presence of some physical and social elements that exhibit similarities across various scales. *Permeability, porosity, multi-functionality, multi-sensoriness, connectivity, accessibility, openness to diversity and change, and flexibility* are some of the concepts or terms that are stated as defining their physical characteristics. These zones are often described as having social characteristics such as *dynamism, synergy, tension, interaction, commercial and social exchange, face-to-face interactions, chance encounters, and social diversity*.

These physical and social characteristics bring out a structure that is different from predetermined, controlled areas over the city and region. In literature, transitionary zones/interfaces are defined as places of ongoing becoming and transformation as the meaning of the term “transition” refers to. They are open to adaptation and change, rather than overly-prescriptive built forms and policies that attempt to preserve particular configurations. These are dynamic zones which have an ongoing and rapidly changing pattern. They are open to external influence and consisting of temporary structures and relationships that co-evolve over time. These areas have a non-linear relationship between their constituting elements. Lack of central coordination and prescriptive policies on development of these areas enhances self-organizing processes which leads to emergent socio-spatial configurations.

Emergent configurations enable social interaction and the self-coordination of systems; on the other, they structure the character and peculiarities of specific places. Their evolution is open-ended (i.e., unpredictable and uncertain), but path-dependent. (Cozzolino, 2018) Complex systems or complex adaptive systems create self-organizing or emergent patterns through multi-directional feedback processes. (Desouza, Flanery, 2013) Feedback refers to the ability of a system to create its own information loop. It is needed a system capable of adaptation to feedback types of
self-correction (Brow, 1969). Information loop creates interactive and experiential knowledge which would be generated by social interaction. As mentioned in the introduction part, transitional zones/interfaces serve to the flow of material and information by dense social interaction and created exchange of knowledge in this way. This clarifies self-organizing processes and emergent socio-spatial configurations in these areas.

These features increase the level of complexity in transitionary areas which not only cause difficulty in handling there but also create diversified opportunities in the ongoing creation of space.

Although there are four various scales of interfaces that are initially highlighted in the theoretical framework, this study mainly focuses on the interfaces between buildings and streets, as well as the interfaces between public and private places. For this reason, after a brief summary of the literature on inner-city-periphery and urban-rural interfaces, the literature on the other two scales that the study focuses on, building-street and public-private interfaces, will be examined in detail.

### 2.2.1.1 Inner City-Periphery Interfaces

These areas, which can be identified as the neighborhoods on the fringe of the inner city (the “zone in transition” identified by Burgess (1928), have specific physical and social characteristics that have an effect upon site selection of some critical activities and fields of industry such as creative industries. Stevens (2015) argue that creative industries seem to cluster in neighborhoods on the fringe of the inner city, “an interstitial area in the throes of change from residence to business and industry” which is home to a “mobile and mixed population of youth and old age, aspiring and defeated individuals, pleasure-seeking Bohemians and hardworking students . . . and radical freethinkers”. In this direction, diversity in social groups hence urban agents based on criterions such as age and profession would be handled as an important variable for discussing these kinds of interfaces.
Density is another variable which is linked to urban morphologies of these areas. W Dovey and Wood (2015) discusses diversity as an incubator of creative activity. Because diversity stimulates a social process by arousing a spillover of ‘tacit knowledge’ that relied on face-to-face contact. The spillover of knowledge and densified contact, bring the issue of two different agglomerative effects—density and network effects. Density shortens the distances and increases the ease of face-to-face meetings and the frequency of ad hoc encounters in public space. The network effect relates to the way the value of each node in a network increases with the number of nodes in the network. Both density and network effects are argued to be particularly important in creative industries and knowledge-based economies because of the crucial central role of innovation and flows of ideas.

Dovey and Wood states that, creative industries are most likely to be co-located in districts which combine high levels of social, functional and formal diversity. Additionally, creative industries are most likely to thrive in vibrant urban street life where random, face-to-face encounter with other creative people is a normal state of everyday life. For such encounter to be random the district cannot be organized in cul-de-sacs; for such encounter to be face-to-face it must be walkable, and to be walkable it must be dense enough to contain the entire cluster of everyday amenities within walkable distances. (Dovey and Wood, 2015) Walkability between everyday amenities would be assumed as another variable which increases social interaction and arouses the social processes of knowledge exchange.

The transitional zone on the fringe of the inner city has a number of distinctive physical characteristics, being “typified by mixed land use, aging structures, general instability, and change, and by a wide range in type and quality of functions”. This type of urban physical environment would seem to potentially have an important role in creative activity (Stevens, 2015).

Dovey and Wood (2015) suggest that it is the “mix of mixes”—particular combinations of urban forms, land uses, activities and socioeconomic profiles—that create vital creative clusters; “What appears to matter is not only the mix of
ingredients, but also synergies between different types of mix and lateral connections between particular ingredients. Just as agglomeration economics relies on spillover effects, both within and between industries, so creative clustering relies on connections and spillovers between morphological, functional and socio-economic diversities.” Part of the stimulus of these milieux also appears to come from the tension, dynamism and almost inevitable changes that accompany these differences: a certain necessary “level of anarchy” (Stevens, 2015)

Mentioning the distinctive characteristics of creative clusters on transitional zones, Dovey and Wood (2015) emphasizes on the diversified interface types different from homogeneity in the inner city. They states that these sites have a highly variegated mix of interface types, including high proportions of blank walls (laneways, post-industrial building types), pedestrian setbacks (row housing) and direct shopfronts. This interface morphology is quite unlike either a central city or a suburb, each of which is likely to be much more homogenous. And also, they found that there exists a relatively high level of adaptation between interface types, particularly as those originally related to industrial production become adapted to commercial, residential and exchange functions.

Stevens (2015) states that, several of the authors advocate for flexibility and freedom, and openness to diversity and change, rather than overly-prescriptive built forms and policies that attempt to preserve particular configurations of creative activity. A key lesson seems to be that creative milieux are constituted as continuing accumulations and transformations of people, building types and symbols over time. These features of inner city-periphery interfaces indicates that these areas have the ability to adapt and transform. They abide by complex processes with their inherent dynamism, high levels of information exchange and physical, functional and social diversities. Vibrant street life, density of chance encounters and synergies emerged from these processes also create opportunities for self-organized practices.
2.2.1.2 Urban-Rural Interfaces

In literature, an emerging integration of urban and rural areas is stated which is associated with urban expansion. However, these kinds of spatial integration creates a threat for sustainability of ecosystem services to a certain level rather than an opportunity (low-density urban expansion and substantial nature of landscape modification are accounted for very serious ecological problems including deforestation, overpopulation, topsoil degradation, and erosion). Nevertheless, interfaces between urban and rural areas are defined in literature to have socio-spatial characteristics such as, diversity, variety, multi-functionality, dynamism, tension, uncertainty and non-linearity which are approached in this study as drivers of complex processes and emergent ability to transform, adapt and co-evolve in the complex systems.

Rauws and Roo (2011) defines these areas as dynamic zones where new spatial functions and land-use types arise through interaction between urban and rural elements. They state that, often the peri-urban area is under strong urban influence, firstly, because many services and public utilities there are provided by the city nearby, and secondly, because of the significant socio-economic and cultural effect of the in-flowing urban population. Because of a high level of migration, the peri-urban social composition is diverse and changes over time. In this respect, diversity of social structure and volatility in population are important variables which would be handled for understanding characteristics of these areas. Moreover, land occupancy has an ongoing and rapidly changing pattern, in which consumption and production activities compete for land. Property speculation is common and illegal building activities are not unknown. As a result of these dynamic characteristics, peri-urban areas are often fluid by nature. They can be regarded as a heterogeneous mosaic of ecological, agricultural, and urban functions whose composition is continuously changing. Diversity of land uses and instability in the composition of different functions would be assumed as other variables which would uncover the level of dynamism of these areas.
Simon (2008) defines the emerging process of these transitional areas as such: “..rapid and spatially polarized urbanization under neoliberal conditions has created often wide and persistent, if dynamic, transition zones that combine various rural and urban conditions. Moreover, their importance for the cities that they surround in absorbing urban migrants, as sources of food and other resources and as key areas for the disposal of urban wastes was increasingly appreciated.” Simon suggests that, fringe or PUI (peri-urban areas of interfaces) areas should be treated as integral elements of urban systems (i.e., as extensions of cities) in both functional and planning terms, because they and their environments are integral to the growth and operation of growing cities. Accordingly, their integration into urban planning systems would facilitate holistic and systems-oriented planning.

These areas have a very heterogeneous social and spatial characteristics and this creates a dynamic mixture of functions and land uses. And, there are so many political, social and economic drivers leading to generation of these areas. Corollary these factors increase the level of complexity in urban-rural interfaces. Rauws and Roo (2011) emphasizes on the issue of complexity in these areas. They also conceptualises peri-urban areas as dynamic rather than predefined. They define peri-urban as a complex adaptive system, open to external influence and consisting of temporary structures and relationships that co-evolve over time.

Rauws and Roo (2011) try to understand the ongoing processes of change in peri-urban areas, and particularly to conceptualise the paths of change through both time and space; “Developments are conceptualised in terms of discontinuous and sometimes unforeseen change, rather than smooth progression, that arises out of the interaction between contextual and local (merely case-specific) processes. Interactions among their constituent elements are non-linear and their properties non-additive”, meaning that there is often no one-to-one relationship between cause and effect. This results in a high degree of uncertainty or “remote causality” which prevents us from forecasting an indisputable end state.”
In peri-urban areas, where development is induced by a dynamic mix of urban and rural processes, change rarely has a single cause. Instead, structural change can be seen as an evolutionary process with contextual conditions playing a major role. Since peri-urban areas are often institutionally fragmented and lack central coordination on development, better insights may be gained if these developments are seen as (partly) self-organising. (Rauws and Roo, 2011)

To analyse the peri-urban area as a space that evolves through *path-dependent* and *contextual* changes, as well as processes of *self-organisation*, means that it is important to discuss time. Developments that result from self-organising processes and contextual interferences progress *uncertainly and in a non-linear fashion*. A process of *continuous reorganisation*, also referred to as *co-evolution*, takes place, with the consequence of future developments in these areas being rather unpredictable. Regarding these characteristics, it is felt that peri-urban development cannot be managed solely by traditional comprehensive approaches with a focus on command and control, or by strategies that build on collaborative and communicative planning approaches. Therefore, alternative strategies, derived from a non-linear perspective, could be developed by incorporating the concept of transition. (Rauws and Roo, 2011)

2.2.2 Public/Private Interfaces

The main problem addressed by studies that examine urban interfaces at the scale of public space is the inability of buildings and urban space, and therefore private and public space, to form a continuous whole, and the fragmentation of urban parts. There are many different factors that create this situation. The most important of these are the breakdown of the relationship and interaction between public and private space and the separation of urban parts from each other through planning policies, legislation and practices.
2.2.2.1 Disruption of The Dialogue Between Private And Public Space

One of the issues emphasized is that buildings that grow in scale turn in on themselves and cease to interact with the urban space. Gehl (2006) states that the larger the scale of buildings, the more closed and self-absorbed they become. Instead of open, versatile, interesting and safe cities, there are closed and self-absorbed buildings. According to Gehl, the buildings must learn to make meaningful conversation with city spaces and the people in them;

“Buildings and city spaces must be seen and treated as a unified being that breathes as one.” (Gehl, 2006)

The issue lies in integrating large-scale structures into urban environments where people still maintains a small stature and slow pace. The disparity between "quick" and "slow" architecture, as well as between large and small scales, is currently a source of considerable confusion. (Gehl, 2006)

The diminished interaction between buildings and urban space also diminishes the efficiency of public space. Dizman (2015) asserts that (referring to Bacon) inner spaces serve as an extension and completion of the street's experiences, while simultaneously influencing on the external environment, shaping the character and structure of the exterior space. The energy of interior spaces overflows into the exterior, animating the space of the city. Due to the process of internalization and buildings neglecting their obligations towards the urban environment, a private space is formed that lacks interaction with the public. Dizman (2015) argues that internalized public areas do not inherently manifest their own public character.

Köknar (2001), another author who talks about the effects of internalization, in other words, detachment from the outside, which is a way of life brought about by the modern understanding of life, states that as a result of this situation, people's spheres of influence in urban spaces are reduced. Thus, outdoor spaces no longer have the effect of bringing people together. This is actually a lack of content within the city, and people feel this lack of content.
According to Köknar (2001), the change in the scale of buildings has also affected life in the city. As the lives inside the buildings become more important and their size increases, leading to miscommunication. A building that has no contribution to its surroundings has no benefit for the city. It only thinks about its location, it becomes a self-centered, selfish system. The sameness of purposes and therefore images in such places leads to a lack of experience. Spaces of this kind are insufficient to ensure the vital activity on the street. Another formation brought about by inward-oriented life preferences is large shopping malls. These large shopping malls are hygienic, detached and segregated spaces that are removed from the outside life or make people feel that way. These centers, where economic and commercial purposes come to the fore, greatly affect street and avenue life. They destroy the richness of street life and force it inside. (Köknar, 2001)

Hertzberger highlights the alienation resulting from the distinction between public and private space. He discusses the desirable effects of private uses in public spaces on individual and societal life through the concept of in-betweenness.

Özer (2022) describes Hertzberger's perspective on the separation between public and private spaces, highlighting the emergence of an innovative possibility in the in-between realm. Hertzberger discusses the polarization between "public" and "private," similar to the distinction between "collective" and "individual," which leads to alienation. The polarization between these notions can be diminished by utilizing the in-between realm. Hertzberger proposes the concept of an in-between space that can soften the clear boundary between the public and the private. He emphasizes the need to establish intermediary spaces that are accessible to both private and public entities, where it is mutually acceptable for each side to make use of them. Hertzberger views public and private areas not as complete opposites but as spaces with varying spatial features. An location can be considered semi-private or semi-public based on factors such as its accessibility, users, and user's responsibilities. When individuals have the chance to use the parts of the public space for their good, the public character of that location might be altered either temporarily or permanently. (Özer, 2022)
Hertzberger explains the emergence of intermediary spaces as follows:

“Using elementary principles of spatial organization it is possible to introduce a great many gradations of seclusion and openness. The degree of seclusion, like the degree of openness, must be very carefully dosed, so that the conditions are created for a great variety of contacts ranging from ignoring those around you to wanting to be together, so that people can, in spatial terms anyway, place themselves vis à vis others as they choose. Also the individuality of all must of course be respected as much as possible, and we must indeed see to it that the constructed environment never imposes social contact, but at the same time we must never impose the absence of social contact either. The architect is not only a builder of walls, he is also and equally a builder of openings that offer views. Both – walls and openings – are crucial.” (Hertzberger 1991/2001, 206, referenced in Özer, 2022)

Alanyalı Aral (2003) is another scholar who examines alienation resulting from the separation of different aspects of everyday life. She asserts that compartmentalization in everyday life has been identified as a fundamental cause of alienation in the post-industrial era. Revitalizing the public space can be achieved by restoring daily routines and reconnecting elements that have been divided by contemporary lifestyle patterns.

Alanyalı Aral (2003) discusses the concept of porosity as an instrument that helps to supply re-unification of everyday life. Aral suggests that porosity can enhance the public realm by enabling the movement from private to public spaces, transitioning from intimate groups to the urban space of the modern city, and being visible to strangers. Porosity serves as a means for individuals to deal with the temper of the modern city.

2.2.2.2 Segregation of Urban Parts Through Policies and Legislations

Furthermore, the connection between buildings and public spaces has not only become weaker, but the relationship between different urban areas at a larger scale has also vanished. The accelerated pace of life and the growing population density in urban areas have necessitated the construction of efficient transportation networks.
Nevertheless, these arteries divide cities into various parts. Trancik elucidates the manner in which this disrupts the interconnectedness among urban parts;

“Streets and alleys are replaced by arteries and lose their social meaning and ability to be multi-purpose spaces. Neighborhoods and districts are no longer interactive, they are isolated places. As a result, the need for mobilization and order leads to a neglect of the richness and plurality of urban public life.”
(Trancik, quoted in Köknar, 2001)

Trancik argues that mobilization and communication have lost their cultural and humanitarian objectives and have instead become dominant. Additionally, the emergence of a new way of life, where people no longer need to walk, has diminished the usefulness of pedestrian paths and sidewalks. Nevertheless, these places serve as the interfaces through which individuals engage in direct engagement with the city.
(Köknar, 2001)

Köknar (2011) argues that the division of functional zones in the city hinders the continuity of urban life and hampers the interaction between different sections of life. Work life, particularly in enormous buildings, becomes isolated from the outside world. In the time spent in other segregated areas of the city, people is left in the middle of a mechanism that revolves only around hisself.

All these factors prevent urban parts from becoming a continuous whole. Aydemir (2018) states that this situation will affect the social structure and that the disconnected and non-continuous urban space network creates open spaces that are socially incompatible with urban culture and identity, and in parallel, it reduces the common areas of use that improve the social structure.

Zoning practices and legislation in Turkey do not contribute to the improvement of urban space; instead, they promote fragmentation and undermine the quality of interfaces. According to Bala (2006), there is a tendency in Turkey of dividing urban land into small plots. This construction approach establishes an entire urban settlement and prevents against the integration of horizontal and vertical elements of
urban interfaces into a harmonious and unified whole. In Turkey, it is standard to individually identify plots and assess each plot separately. This understanding does not seem to encourage possibilities other than the juxtaposition of buildings. The issue is problematic not only in terms of the arrangement of buildings in urban areas, but also in terms of how they connect horizontally and vertically. On one hand, there is a lack of integration between individual parcels due to the desire to have distinct facades. On the other hand, there is a problem with the repetitive use of a single building type in mass production. (Bala, 2006)

According to Özaydın, the approach to interfaces in our country's urban planning legislation is not based on a holistic design concept, but rather on the combination of individual architectural facades. The distances between buildings that are determined without being associated with the height of the structures and the criterion of sunlight exposure result in the fragmentation of urban outdoor spaces into non-functional and unhealthy areas. (Özaydın, 1993)

According to Özaydın (1993), the scale of implementation urban plans is insufficient. However, in conservation practices, it is beneficial to include urban design scales and techniques in legislation, along with documents that determine the detailed texture characteristics and explain the third dimension. The inclusion of visual and physical characteristics in research on the preparation of conservation plans allows for the reflexion of regional character of the specific conservation area. The physical characteristics included in studies of conservation are: perceptibility, urban images, landscape points, silhouettes, and panoramic view; environmental features are: courtyard, garden walls, projecting elements, railings, private gardens, trees, street furniture.

Perrone (2018) argues that Jacobs attributes the loss of vitality in urban life to the aforementioned factors. The "animated alleys" refer to the ever-evolving connection between the physical infrastructure and digital systems of a city. The street is abundant with a variety of flavors, sensations, and visual experiences. Essentially, Jacobs credits the street as the key factor in the true potential of urban life and warns
against the danger of the city becoming poorer if the streets were to lose their original purpose and all become main arteries for communication. She also criticizes the homogenizing of building facades and separating different uses, as proposed by large-scale planning interventions. (Perrone, 2018)

2.2.2.3 Interfaces As a Source of Creative Opportunity

Interfaces provide a creative opportunity to facilitate a dialogue between buildings and urban spaces, encouraging social interaction and enhancing the meaningful content of the urban environment against the breakdown of the relationship and interaction between public and private spaces, and the separation of urban areas.

2.2.2.3.1 Generating a Dialogue Between Building and Urban Space/Ground Floor Facades)

Gehl et. al. (2006) emphasizes on the challenge of incorporating large buildings with small ones and closing the gap between ‘quick’ and ‘slow’ architecture. In this respect, he underscores the role of ground floor facades to provide an important link between these scales and between buildings and people. For public space and buildings to be treated as a whole, the ground floor facades must have a special and welcoming design which would generate opportunity on attaining open, versatile, interesting and safe cities.

“The ground floor is where building and town meet, where we urbanites have our close encounters with buildings, where we can touch and be touched by them.” (Gehl et. al., 2006)

Therefore, he asserts that it is crucial to design the ground floor facades to serve multiple purposes, depending on the intended use of the building and its environment, in order for the building to establish a stronger relationship with the street or public space. Gehl array the purposes that ground floor have to serve in Figure-2.2.
Figure 2.2 Activities on Facade

(a) Chatting by; (b) Entering and leaving; (c) Walking alongside; (d) Standing alongside; (e) Taking a break by; (f) Standing in doorways; (g) Shopping next to; (h) Interacting with; (i) Looking at displays in; (j) Sitting on; (k) Sitting next to; (l) Looking in and out of. (Gehl et. al., 2006)
Gehl et. al. (2006) emphasizes on two behavioural factors strengthening the importance of the facades (or the issue of edge) such as; 1- The edge effect refers to people’s preference for staying at the edges of space, where their presence is more discreet and they command a particularly good view of the space. 2- The support effect, which refers to the human preference for standing or sitting at a fixed point – a niche, a corner, a column or something else that provides definition as well as psychological and practical physical support.

Gehl et. al. (2006) states the role of edges and transition zones between buildings and city spaces to serve a wide variety of potential activities that link the functions inside the building with street life in general: recreation, play, seating, standing, exhibitions, trade, banking, smoking breaks and so on.

### 2.2.2.3.2 Stimulating Social Interaction

The existing literature approach public/private interface as a transitional zone central to social encounters, commercial and social exchange, and reflected in slogans such as “eyes on the street” and “active edges”. It argues that public/private interfaces have the capacity to construct different identities and enable or constrain street-life intensity (Kamalipour, 2016; Dovey and Wood, 2015).

Kamalipour considers the issue from the angle of public space and states that liveliness of urban space is closely related to the ways in which the surrounding urban edges of that space work which load a critical role to an interface design in activating the edges of public open spaces. The publicly accessible thresholds provide sensory information, such as smells and sounds, while the socio-spatial borders between the interior and exterior are loose and unclear. According to the paper, social activities like communication and optional activities like recreation frequently occur in proximity to porous urban interfaces. (Kamalipour, 2016). In this respect, the author emphasize on the key role of urban interfaces in enabling the different forms of social and economic exchange.
Dovey and Wood (2015) define the public/private interface as a socio-spatial assemblage where different forms of connections serve to facilitate the generation, production, and reproduction of ideas, goods, services, and identities. Dovey and Wood argue that the interface serves as an essential place for the transition between private and public identities. It is where friends and customers are greeted and farewelled. Additionally, the interface is where identities are shaped, (the entry foyer, front door, and front garden). It is also where goods are exhibited and exchanged (shop window). Furthermore, the interface facilitates social interactions in spaces like the front porch and outdoor dining areas. Lastly, it establishes a sense of safety through physical boundaries and passive surveillance.

Dovey and Wood (2015) defines public-private interfaces as: “Like a double-faced Janus, the Roman god of doors and gates, the interface is essentially double, separating and connecting levels of a socio-spatial hierarchy – part/whole, individual/collective, self/society. The interface is where we both welcome and exclude strangers (Iveson 2006); where we negotiate both “publicity” and “privacy”, exposure to the public gaze and retreat from it.”

Aydemir and Akdemir (2018) specify the functions of the streets which they consider as an interface, including providing access and connectivity, offering efficiency and service, serving as an air flow corridor, constructing public life for residents, creating a prerequisite for a healthy lifestyle by promoting walkability, maintaining the balance between built and open spaces in the city, assisting in the formation of the city view and urban identity, and strengthening social interaction while preserving societal perception. Streets and sidewalks, squares, and other public spaces should be considered as multifunctional areas that enable social interaction, economic activities, and cultural experiences within a wide range of people. These spaces should be designed and managed in a way that supports cultural diversity and promotes human development. (Aydemir ve Akdemir 2018)

Erdoğan and Birol (2021) state that interfaces constitute the social fabric of the city. According to Erdoğan and Birol, interfaces establish spatial interaction systems
between humans, buildings, and streets to facilitate movement in urban life. In this sense, the spatial pattern created between the interior and exterior regulates the fluidity between private and public spaces. This system of relations, which starts from the houses, which are a complementary part of the urban anatomy by hosting private life, progresses to the public space, the street, and forms the social fabric of the city.

### 2.2.2.3.3 Forming Interactions with Urban Environments Through Sensory Stimulation and Established Meanings

In his study, Köknar (2001) assigns several semantic and symbolic values to the interface. Köknar states that people seek out “close-by” places on the streets. These are defined and close places, such as an entrance, a low wall, or under trees. Small cavities formed between buildings also participate in life, either by being in them or only visually. In these surroundings, one finds calmness and communication becomes easier with the mental serenity provided by what is different.

Köknar (2001) states that,

> “Transition spaces are not specifically 'inside' and 'outside'. Neither does the person who is there. This space is not private or public. This removes a lot of inconvenience; not being inside or outside, not being in a private or public place, makes for an easier experience.”

These areas are spaces of opportunity for people. In the constant movement of the city, people sometimes find the opportunity to pause, sometimes to think, sometimes to get away from the situations they are in. But in each case, they experience transitions between life and the city, even if unconsciously. These spaces easily accept people and offer them a 'space of life and influence'. At the same time, they are the intersection points where lives, situations and borders intersect. (Köknar, 2001)
Köknar (2001) discusses urban voids, which he refers to as *urban niches*, as an example of an interface. The "empty" that are left to people in the continuity of a very intense life are used for recreational purposes, for socialization. Samuel Paley Park in New York City (Figure-2.3) serves as an example of urban niches that provide opportunities for contemplating away from the noise of the city, pausing and thinking.

![Figure 2.3 Samuel Paley Park, New York](https://en.wikipedia.org/wiki/Paley_Park)

*(Source: https://en.wikipedia.org/wiki/Paley_Park)*

*Urban walls* are also examples of quality interfaces. Urban walls and urban niches are spaces that can accommodate a wide range of activities at different times. In fact, they undergo significant changes, their perceptions change, and they can metamorphose even in day/night, weekday/weekend, summer/winter. A top of a wall where you can sit quietly in the morning, rest, read the newspaper, can become a stall for a seller in the afternoon and a stage for a street musician in the evening. The hollows of a building's facade, which you only see naked when you walk by in the morning, turn into an exhibition space with the paintings of an artist in the evening.
A front garden that is scorching hot during the day turns into a livable space in the cool of the evening. A courtyard where a few people stop and rest during the week turns into a socializing center with the influx of people who come at the weekend. An alley garden that becomes bare in winter comes alive in summer, providing shade and coolness, keeping that emptiness alive. They allow for different functions and have different characters. (Kökñar, 2001)

Kökñar has reached findings that relate the types of urban interfaces, which she states offer the opportunity to pause, think and get away, to some sensory factors. In his spatial interface research in Beyoğlu, the sensory relations that the interviewees established with the interface areas are described as follows;

- The bottoms of building walls on the streets, where people take shelter, benefit from their shade, and can be chosen as a stage,
- Gateways, both internally and externally, close to crowded life, visible but able to give a sense of disconnect,
- Hidden courtyards, breakpoints, escape spots, to feel the time slower,
- Surprising, welcoming, but untouchable gardens, to breathe at that point, to relax,
- The stairs, the streets, the stairways, as a place to spend time together, to dwell together, and to meet,
- Niches around crowded but small squares, to disappear in the crowd, to watch, to observe, to be observed,
- The front door and the niches of the garden doors are for relaxing, laying down, waiting, making music, etc. (Kökñar, 2001)

These findings are important to demonstrate the sensory and meaningful relationships that interfaces create in those who use these spaces, thus revealing their contribution to urban life.

Dizman (2015), referring to Perinçek, points out that transitionary spaces, which have functional and symbolic roles, are necessary in order not to lose the identity of
the spaces to which they connect. Qualitative interfaces establish a symbiotic relationship between internal and external. Symbiosis allows two elements to remain opposite while creating a dynamic relationship between them. A relationship between two opposite elements can be achieved by having a spatial distance (a neutral zone) or a temporal distance (rest time) between them. (Kurokawa, quoted in Dizman, 2015). The neutral region expressed here refers to an interface that is neither private nor public, neither internal nor external.

2.2.2.4 Typologies Developed on Public/Private Interfaces

The previously mentioned aspects demonstrate that urban interfaces have significant effects on improving the relationship between buildings and streets, as well as fostering interaction between individuals and urban spaces, hence promoting social engagement among people. Urban interfaces that are well-developed enable the smooth integration of buildings and spaces inside the city, enhancing urban life by creating lively focal points. To establish well-developed interfaces, it is imperative to thoroughly examine the physical attributes of the interfaces to figure out the primary aspects that contribute to their qualification. To examine the physical structure of interfaces, researchers have categorized interfaces in numerous studies and generated distinct typologies and models.

2.2.2.4.1 Front Facades

(i) Front Facades of Houses Within Residential Areas

Gehl (1980) approaches front facades of houses as an instrument to enhance social attractiveness and generate engagement with street activities/street life. In his book *Life Between Buildings*, looking from the perspective of generated activity pattern, he classifies buildings edges that faces the street as *hard edges* and *soft edges*. Hard edged street is suitable only for brief comings and goings. In soft edged street three times more activities take place in the course of a normal day than on the hard edged street. (Figure-2.4., 2.5.)
Gehl (1980) emphasizes on a series of physical factors enhancing outdoor activities in front of houses and increasing the use of exterior spaces including easy access to the outdoors, low buildings (scale), good resting areas in front of houses, places to
sit at the entrance door, semi private front yards. According to Gehl, these factors contribute to an unusually vivid and multifaceted street life. However, poor detailing and weak indoor/ outdoor connections greatly reduce the use of exterior spaces in many multistory housing areas.

In referencing to the scale of building, Gehl (1980) states that around low residential buildings with direct access to the outdoors, events in and around the dwelling have entirely different opportunities for “flowing” in and out. In contrast to the situation in multistory buildings, there is no need for people to make many decisions and preparations to go out.

Suitable places for outdoor stays, the bench next to the entrance door, protected from rain and wind, with a good view of the street, is a modest but very obvious way to support life between buildings. (Figure-2.6.) Life between buildings can be supported further if opportunities for staying outdoors are offered in the form of a semiprivate front yard placed in the transitional zone between the dwelling and the access street. (Figure-2.7.) Of the activities observed on the public side of the houses, 69 percent of all conversations, 76 percent of all passive outdoor activities (standing or sitting), and 58 percent of all active outdoor activities (people doing something – for example, gardening) took place on porches, in front yards, or over the fences between the front yards and the sidewalk. The low fences at the street side provide clear delineation of the semiprivate zones toward the street, as well as good places to stand for an easy glance up or down the street, or for a chat with neighbors. However, the length of the front yard, hence the distance of the house to the street is important in engaging with the activity on the street. The distance to the street should not be too great in order to permit contact between the area near the house and events happening on the street. (Gehl, 1980)
The bench at the entrance door, the front yard with a little terrace in front of the rowhouse (Figure-2.8.), and the resting space directly in front of the stairways in multistory dwellings (Figure 2.9.) are important design elements that are softening the edge and contribute to creating the high quality of these residential building projects. (Gehl, 1980)
Gehl (1980) underscores the role of resting or staying places in front of the houses in the development of unplanned, spontaneous activities. It is important that events
are allowed to flow in and out of houses. And it is important that places for resting as well as opportunities for being engaged in an activity are present, directly in front of the house. In this way, small, *improvised events* have reasonable chances for development. From the multitude of small events bigger ones may grow.

(ii) **Ground Floor Facades Within Central Districts**

Gehl classifies interfaces of houses in residential areas as being hard and soft edges in order to the level of engagement with street activities. However, in core districts, the size of buildings increases and the pace of activity intensifies. Nevertheless, the importance of buildings in engaging with public spaces remains unchanged, but becoming more challenging. Gehl (2006) underscore this aspect with his words:

> “While it is true that buildings and urban units have become increasingly larger, people continue to be small, slow, and on the lookout for good sensory experiences.”

In this manner, Gehl et.al. (2006) approach ground floor facades as an opportunity for generating a dialogue between building (whether it is larger or smaller) and the city space. Gehl et.al. defines five primary variables in order to estimate the effectiveness of ground floor facades/interfaces in enhancing attractiveness of building fronts and generating street life vitality. These primary variables are scale & rhythm, transparency, activity, variety and design quality;

**Scale & Rhythm:** Small units provide a wide range of experiences and a *large number of doors many points of exchange* between inside and outside. (Figure-2.10.) Pedestrians experience the urban scene at maximum 5 km/h, with plenty of time to enjoy the surroundings. A scale of 5 km/h is compact and rich in sensory experiences. (Gehl et.al.,2006)

Along the facades of the city, it is best if pedestrians meet interesting and varied experiences as they pass by. Moving at 5 km an hour, they have time to take in everything around them. Visual contact is close up and personal for pedestrians on city sidewalks. Thus the rhythm of the opportunities offered is crucial to the richness
of the pedestrian experience: the number of doors, windows, niches, columns, shop windows, display details, signs and decorations is significant. (Gehl et.al.,2006)

Figure 2.10 Scale & Rhythm
(Source, Gehl et.al.,2006)

**Transparency**: Transparency (permeability) allows visual contact between inside and outside increases the street space as well as opportunities for interaction with buildings. (Figure-2.11.) Facade transparency is defined in part by glassed areas vs closed areas, and in part by the opportunity to look into the ground floor area, as well as the integration of activities on the ground floor with the street space. Gehl, et. al. (2006) indicates that the more units per 100 m, the greater the transparency, the more niches and details in the facade design, then the more activities on the sidewalks in front of the facades. Lifeless, closed facades pacify while open and interesting facades activate urban users. It is desirable to be able to see out of buildings – and preferably into them – so that the activities inside the buildings and outside in public space are connected visually and thus can enrich and inspire each other. (Gehl et.al.,2006)
**Activity:** A wealth of sensory impressions (look, listen, smell, touch) and shopping opportunities increase interactive relationship. (Figure 2.12.) Design projects have to establish ground-floor functions that invite the public (shops, cafes, restaurants and other active components). Walking becomes even more appealing if the details and displays along the way are carefully crafted, and if there are things to smell and touch so that all the senses are engaged at some point. Pedestrians move slower in front of the city’s active facades, more people stop, and several of the city’s other activities take place on the friendlier more populated street segments. The number of stops and other activities is seven times greater in front of active rather than passive facades (Gehl et.al.,2006)
**Variety (physical and functional):** The more irregular the facade, the more it invites and supports activities. If the ground floors are interesting and varied, the urban environment is inviting and enriching. (Figure-2.13.) If the ground floors are closed or lacking in detail, the urban experience is correspondingly flat and impersonal. Pedestrian traffic is 13% slower along the interesting facade sections. People hurry by the uninteresting or closed facades, but slow down in front of the more eye-catching and open facades.

City space became almost inherently intense and inviting due to the short distance between experiences and great functional variety. The outcome of functional variety is many units, many points of exchange between outside and inside and a wealth of many different events and experiences. The activity patterns in front of varied facades with many doors, visual contact between outside and inside and various functions are far more varied, less direct and often spontaneous. Even activities such as conversations, waiting for someone or talking on cell phones took place more often in front of these types of facades.

![Figure 2.13 Variety](image)

(Source: Gehl et.al.,2006)

**Design quality:** Good materials and fine details are an attraction for people strolling through the city.(Figure-2.14.) Attractive ground level facades offer texture, good materials and carefully crafted details. Gehl et al. primarily point out vertical rhythms on facade that makes the walk for a pedestrian more interesting and eye-catching.
Gehl et. al. (2006) underscores that facades may not be smooth but devoid of detail. Doorsteps, edges to sit or on stand next to, benches, neches and columns enrich sensory impression and create opportunities for stopping and staying. Moreover, they emphasized on the continuous facade view stating that unbroken facades (no gaps in the row of facades) and keeping the facade in line with the other facades on the street is effective in generating living city streets.

Gehl developed a more comprehensive classification as diversifying interfaces along a continuum from “soft” (social, permeable, active) to “hard” (antisocial, impermeable, dead) based on social attraction. He incorporates such variables as scale& rhythm, transparency, activity, variety and design quality to produce a five-part façade typology that ranges from A (active, small grain, good details) to E (passive, large grain, no details). (Figure-2.15.) This typology is design-driven and geared primarily to attractiveness and social outcomes such as street-life vitality and safety. (Dovey and Wood, 2015) Gehl et. al. (2006) determines the primary aspects have to be considered in defining policies about facade design as to make sure that ground floor facades appeal to pedestrians and contribute to the city’s versatility and security with good lighting and level of activity. (Note: Source of figures below is Gehl et. al., 2006)
Figure 2.15 Gehl’s Five Distinct Typologies of Facades
(Source: Gehl et. al. 2006)
2.2.2.4.2 Boundaries Between Public and Private Properties

Dovey and Wood (2015) developed a typology of public/private interfaces based on the criteria of accessibility, transparency, directness, and access mode as listed below;

**Accessibility (Accessible/inaccessible):** This variable describes the degree to which the public/private interface is permeable or porous as a pedestrian entry to private property. Access establishes the interface activity or lack thereof; it enables pedestrian flow across the interface. This is the zero-degree variable that defines the interface as an entrance or not. Where there is no portal through which to pass, no door on which to knock nor bell to press, there is a form of social blankness. Such blank interfaces lack vitality, identity and safety, although they do have other capacities.

**Directness (Direct/setback):** Directness of the transition between public and private spaces is determined whether the primary entry into private space is directly on the legal boundary or set back from it behind a semi-private space of private ownership. Directness is a property whereby the interface is congruent with the property boundary and therefore adjacent to potential pedestrian flows; one enters/exits private space with little ceremony. The setback creates an interstitial space between public and private; it establishes distance through a doubling of boundaries. Crossing a setback, one is initiated into the private realm without necessarily feeling that one is in the private realm.

**Transparency (Opaque/transparent):** Transparency is determined whether one can see clearly into the private space from public space and vice versa. Transparency is important because it extends the public gaze from the street into private space, enabling commercial and social exchange. Gazes are exchanged between interior and exterior; products are projected into the public realm through window displays. By contrast, opacity removes any sense of ambiguity from boundary conditions.
Access (Car/pedestrian): Access is determined whether the primary mode of access is by car or foot. This variable is significant in understanding the ways in which public/private interfaces are transformed by the car-based city. Car access disconnects access from, and cuts across, pedestrian flows. The car/pedestrian variable aligns with the public/private axis to some degree, in the sense that the car is a bubble of privacy within public space. Drivers are “in traffic” (rarely aware that they are traffic), while pedestrians are “in the street”. The car can be a means to bypass the public pedestrian network.

Dovey and Wood (2015) suggest five primary type of interfaces by incorporating such variables as accessibility, transparency, directness and access including (a) impermeable/blank, (b) direct/opaque, (c) direct/transparent, (d) pedestrian setback and (e) car setback.

A- IMPERMEABLE/BLANK

Figure 2.16 Impermeable/Blank

(Dovey and Wood, 2015)

This is the kind of interface that is widely regarded as inactive, not contributing to street life, and in some locations as a threat to public safety. (Figure-2.16) Blank interfaces include blank walls, fencing or landscaping on the public/private boundary, without transparency or pedestrian entry. This is the kind of interface produced by large-lot development and on the sides and rear interfaces of many properties. It is common for industrial and commercial functions. Rear pedestrian entries are in this category unless they are identified with street numbers or signs. Typical examples would include the exterior of warehouses, malls, car parks and
“big box” retailers. Some impermeable interfaces have garage doors or car entries directly on the street, where only vehicles cross the boundary. While this may be a gate or void, it is not a pedestrian entry and is socially blank. Other impermeable interfaces are transparent, with private space clearly visible from public space but without access. Typical examples include showrooms and transparent fencing. (Dovey and Wood, 2015)

B- DIRECT/OPAQUE

![Figure 2.17 Direct/Opaque](Source:Dovey and Wood, 2015)

Direct interfaces are those where pedestrians enter directly into private space from the street, without an interstitial zone of semi-private space. The “direct/opaque” type (Figure-2.17) is common for residential apartments, industry and office, where *little social or commercial exchange takes place at the entrance.* (Dovey and Wood, 2015)

C- DIRECT/TRANSPARENT

![Figure 2.18 Direct/Transparent](Dovey and Wood, 2015)
The “direct/transparent” type (Figure-2.18) incorporates a direct visual link into private space and tends to dominate shopping strips that rely on a direct/transparent display for passing trade. Such an interface may or may not be used for commercial functions and is rare for industry and residential. (Dovey and Wood, 2015)

**D-PEDESTRIAN SETBACK**

Figure 2.19 Pedestrian Setback
(Source: Dovey and Wood, 2015)

Setback interfaces are where access to private space entails first negotiating a zone of semi-private space before crossing a deeper interface into fully private space. The pedestrian/setback type (Figure-2.19) is where the entry is set back from the legal boundary, behind a *mediating pedestrian space*. This is the category that prevails in suburbia, where the *interstitial zone mediates social encounter and represents social identities*. (Dovey and Wood, 2015)

**E-CAR SETBACK**

Figure 2.20 Car Setback
(Source: Dovey and Wood, 2015)
What we have termed the car/setback type (Figure-2.20) is where the setback space is a car park and pedestrian flows are separated from the entrance by parking space. (Dovey and Wood, 2015)

Kamalipour (2016) develops an interface typology of public/private interfaces within informal settlements based on two key variables of connectivity and proximity;

**Connectivity (impermeable/accessible/porous):** This variable refers to the degree to which a private territory is connected to the public space. Connectivity varies from an “impermeable” interface, which is entirely disconnected from the public space to a “porous” interface, which is highly connected to the public space. An “accessible” interface is an in-between condition where a private space is only connected to the public space through a point of entry. (Kamalipour, 2016)

**Proximity (adjacent/distant):** This variable refers to the extent to which a private territory is close to the public space. Proximity varies from an “adjacent” interface, which is directly attached to the public space, to a “distant” interface, which is relatively detached from the public space by means of either a setback or a setfront. It indicates the degree to which a range of different activities and loose parts can be accommodated within a semi-private threshold. (Kamalipour, 2016)

Kamalipour (2016) suggests six primary types of interfaces (Figure-2.21) including (a)impermeable/adjacent, (b)impermeable/distant, (c)accessible/adjacent, (d)accessible/distant, (e)porous/adjacent and (f)porous/ distant. (Figure-2.22.)
Figure 2.21 Kamalipour’s scheme of interfaces types
(Source: Kamalipour, 2016)

<table>
<thead>
<tr>
<th></th>
<th>Impermeable</th>
<th>Accessible</th>
<th>Porous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjacent</td>
<td>Adjacent</td>
<td>Adjacent</td>
<td>Adjacent</td>
</tr>
<tr>
<td></td>
<td>Impermeable</td>
<td>Accessible</td>
<td>Porous</td>
</tr>
<tr>
<td>Distant</td>
<td>Distant</td>
<td>Distant</td>
<td>Distant</td>
</tr>
</tbody>
</table>

**A: IMPERMEABLE/ADJACENT**

The impermeable/adjacent type refers to the blank walls or impermeable interfaces that are attached to the public space. While the impermeable interfaces do not often contribute to the public space, they incorporate the capacity for accommodating some temporal activities and loose parts.

**B: IMPERMEABLE/DISTANT**

The impermeable/distant type of interfaces includes a blank wall or an impermeable interface with a setback from the public space. This setback can also be appropriated to accommodate a range of loose parts and activities in informal settlements.

A: The *impermeable/adjacent* type refers to the blank walls or impermeable interfaces that are attached to the public space. While the impermeable interfaces do not often contribute to the public space, they incorporate the capacity for accommodating some temporal activities and loose parts in

B: The *impermeable/distant* type of interfaces includes a blank wall or an impermeable interface with a setback from the public space. This setback can also be appropriated to accommodate a range of loose parts and activities in informal settlements.
C: The accessible/adjacent type is a common pattern in most of the mono-functional parts of the informal buildings that are often merely accessible from the public space through an entrance. There is no physical distance between private and public spaces.

D: The accessible/distant type refers to those urban interfaces that are connected to the public space through a setback and entrance. This setback condition provides a semi-private space for storing construction materials, furniture, and other loose parts in informal settlements.

E: The adjacent/porous type refers to a condition where inside and outside are directly and highly connected to each other to facilitate the flows of people, goods, and products between public and private spaces. This type is often recognisable with a mix of uses including residential and retail.

F: The distant/porous type refers to a highly connected interface that has a setback from the public space. Since this type is fairly common in the areas with a mix of residential and retail, it provides an in-between space that can be appropriated for extending shopfronts.

Figure 2.22 Kamalipour’s Six Primary Types of Interfaces
(Source: Kamalipour, 2016)
This section introduces three distinct classifications and typologies of urban interfaces, which have been developed from various viewpoints. Gehl et. al. (2006) constructs interfaces on the ground floor facades of buildings through the building-street relationship. According to him, the ground floor facades have a significant potential to enhance the liveliness of urban areas and integration into the social life on the street. He assesses the activities taking place on the ground floor of the buildings, the level of transparency in the building's facades, physical and functional diversity, and the quality of design as significant factors that contribute to the interaction between the building and the street. Permeability is commonly described in relation to transparency.

Dovey and Kamalipour, however, have categorized by examining the interface issue in terms of physical connections. Dovey and Kamalipour's analysis diverges from Gehl's in terms of scale. While Gehl primarily examined the relationship between buildings and the street, Dovey and Kamalipour specifically examined property borders. Their attention was directed towards the interfaces that mark the boundary between private property and public space. Hence, their evaluations do not encompass characteristics such as physical diversity and design quality. The interfaces were classified according to the physical connect and proximity between private property and public space. Permeability is evaluated based on the degree of physical accessibility, rather than transparency.

While the characteristics and dimensions of the interface may vary in these literatures, the typologies generated differentiate between interfaces that facilitate social exchange and enable the flows between private and public spaces, and those that do not.

2.2.2.5 Physical and Social Attributes of Interfaces

The aforementioned scholars addressed the issue of interface within a comprehensive structure and developed typologies that can serve as a basis for design and planning. Furthermore, there are additional studies that examine various features of urban
interfaces and reveal the physical and social effects produced by these features of interfaces.

Bala (2006) distinguishes urban interfaces as horizontal and vertical components that play the role of interaction-transition in the cross-section of city-building, interior-external, private-public. Horizontal components include exterior spaces, including the positioning of buildings in relation to each other, the composition of buildings and the volume between buildings. The vertical component, on the other hand, is the flexible and fluid environments formed by the collection of architectural facade sequences that delimit the exterior spaces.

**Horizontal Components:** Bala (2006) describes some variables related to the positioning of buildings in relation to each other and the volumes between buildings, which he calls horizontal components, that will make the interfaces at these scales qualified. In a qualified interface, the ratio of the height of the buildings to the distance between buildings should be close to 1 and 1. A ratio below 1 causes a feeling of confinement and fear of closure, while a ratio above 1 causes loss of spatial effect and lack of definition.

In a quality interface, the series of spaces perceived while moving should be presented to the observer in continuity and hierarchical order as they move from one to the other. In hierarchical arrangements, the space should be positioned in such a way that it is oriented towards a wider opening, ensuring continuity of transitions from public to private, open to closed, inside to outside. The transition from public to private should be made through semi-private and semi-public spaces, and *sharp and hard transitions should be avoided.* (Bala, 2006)

**Vertical Components:** Façades, which form the boundary of buildings with external spaces, emerge as the vertical component of "interface" in the space between buildings. The identity of the facades of buildings is primarily given by the *openings* that symbolically and functionally establish the connection between inside and outside. Apart from openings, façade elements such as *brackets, columns, niches, niches, overhangs, balconies, porches, entrances, thresholds, showcases, glass*
windows, solar panels, billboards/carriers, eaves are sometimes used as structural strength and sometimes as rhythmic elements on the façade and determine the vertical component of the interface. For a qualified interface, the vertical component should utilize architectural details that reduce the scale to the pedestrian scale, such as the divisions, recesses and projections of the building units, elevation changes with descents and ascents on the walls of the building walls, and the use of eaves, columns and arcades. (Bala, 2006)

Bala (2006) draws attention to the importance of the use of buildings facing the street in increasing the vitality of social life on the street and creating a sense of security. Bala references to Jacobs argument that in order to reinforce the sense of safety, the buildings at the interface should be directed towards the public with their living facades. Uses such as workplaces, banks, offices, garages and warehouses without storefronts should not be placed on spaces open to public use. Functions of buildings that interrupt pedestrian activities such as parking lot entrances should not be directed to spaces such as urban squares, streets and avenues. Instead, solutions that revitalize urban interfaces such as shops, restaurants and entertainment activities should be proposed at the ground floor level. The shop windows should be sufficiently illuminated even outside the working hours of the shops. This image encourages window-watching and wandering and prevents the interfaces from being deserted outside of working hours. The exterior windows, projections, balconies and entrances of the series of buildings that make up the street space are the right details that enable the formation of social relations and are solutions that revitalize the interface.

Özaydın (1993) also addresses the issue at the scale of urban pattern, emphasizing the importance of continuity in urban space and the role of urban interfaces in providing continuity. According to Özaydın, all spaces within the city are perceived by people by passing from one to another in a certain sequence. The impact of a space on an individual depends on the quality of the spaces that precede and follow it. The phenomenon of interface as a spatial sequence creates a continuity effect while moving the observer through the urban system and also determines a direction.
Apart from continuity, another element Özyaydın emphasizes is gatherability. He mentions the phenomenon of an interface where urban activities can take place and where social life can be revitalized and mutual relations can be established by the gathering of urban residents. As a third factor, it addresses the readability. The urban appearance is formed by the clarity and lucidity that enable the recognition of urban elements and their placement in a harmonious pattern, while the concept of interface plays a significant role in readability.

In his study examining the interface phenomenon in historic urban sites, Özyaydın (1993) mentions some potential areas created by the historic traditional fabric. One of these is dead-end streets (Rıftaioğlu, 2012). Born as a result of privacy, low mobility and irregular division of building islands, dead-end streets offer a rich appearance with local variations, create semi-public spaces, and are the symbol of Anatolian cities with their material, size and function. Another phenomenon encountered among urban exterior spaces is public spaces that arise from the intersection of several streets and the open spaces of public buildings (mosque, madrasah or külliye courtyards) where some social functions take place. According to Özyaydın, although such spaces do not fall under the category of organized squares, they are a unique interpretation of our traditional architecture as a space where square functions are met.

In their study, Aydemir and Akdemir (2018) examined the contributions of streets to urban life, which they saw as communication spaces and cultural-social transition areas in metropolitan cities. They shed light on the interface issue by at the scale of street and urban fabric. They emphasize the importance of dividing the urban pattern into small building blocks in terms of human scale and urban perception, stating that the streets, that facilitate this division create new meaningful places within the city with their interfaces, and urban niches. Songülen (2012) also touch upon the significance of the scale by referencing to Carmona et al. (2003) that smaller blocks promote ‘pedestrian permeability and social use of space. It is stated that “urban vitality, permeability, visual interest and legibility” are some of the reasons why the small blocks could be preferred.
Starting with the architectural facades that define the outdoor space, the windows and openings on the front facades of buildings, along with the building materials, textures, eaves, canopies, indentations, and projections, as well as the boundary elements such as doors, fences, verandas, walls, seating elements, and greenery, all contribute to the integrity of the urban landscape and support the proportional relationship between the structure and the space. The recesses and protrusions on the façade enhance the legibility of the building façade. The window openings in the building façade on active pedestrian streets, along with the indentations and protrusions, are corners that bring vitality to the economy by facilitating shopping, purchasing, product promotion, and customer-merchant dialogue. (Aydemir and Akdemir, 2018)

Furthermore, the necessary elements for designing interfaces integrated with a building are listed as human scale, permeability, transparency, and diversity. The compatibility of the building with the human scale facilitates the experience of the space for individuals, while its transparency provides opportunities for observation and perception, allowing for social interactions and enhancing the interaction between indoor and outdoor spaces. Additionally, the diversity of building interfaces enhances the visual richness and visibility of the area in terms of structural features, attracting pedestrian interest and contributing to economic vitality. (Aydemir and Akdemir, 2018) Bala and Üstüntaş (2014) are also emphasizing on variety by stating that instead of monotonous façades of buildings that repeat one after another, variety that provides a richness of experience with components like rhythm, difference and surprise elements is preferred.

Street-level floors provide opportunities for people to meet, gather, wait, observe, and engage in social communication. Particularly in areas designated for public activities—including squares, streets, and sidewalks; shopping districts; and sidewalk cafes that accommodate consumption functions including dining, drinking, and shopping—these structures function as façade interfaces that reflect the street's identity and rhythm. The irregular interconnections of streets provide an opportunity in creating public spaces. Street furniture contributes to the creation of interstitial
spaces/interfaces that maintain the human scale in the context of relationship between solid and void. (Aydemir ve Akdemir, 2018)

Erdoğan and Birol (2021) evaluated interfaces in the context of residential uses and examined how the characteristics of facades and building entrances affect the quality of interfaces;

**Building entrances** should support the interaction between inside and outside, they should also be able to turn into a resting point for the city dweller and offer the user the opportunity to interact more with their surroundings by having different functions. The characteristics that define the entrance space in the urban scale are the commercial use of the ground floor, the entrance being made at a different level from the street, and the definition of the apartment entrance door by covering it with a canopy, differentiating the floor covering, or setting it back from the building itself. (Erdoğan ve Birol, 2021)

The characteristics that define **the facade** include the preference for a projection balcony, windows with low sills, and a transparency ratio of over 50%. It is stated that the design decision of wide windows, low sills, and cantilevered balconies in the fronts acts as a mediator between the inside and exterior by ensuring visual, auditory, and physical permeability.

Another study that examines interfaces at **urban and building scales** and reveals the physical and sensory effects created by different interface elements is Aydemir’s study of *Yavaş Kent Hareketi Üzerinden Yaşanabilir Aramekan/Arayüz Geliştirmede Bir Model Önerisi* (2018).

The study indicates that the inclusion of boundary elements such as gates, fences, and walls, as well as the addition of features like courtyards, verandas, canopies, and arcades, enhances the spatial appeal by introducing movement, diversity, and visual richness to the architectural entrances. The inclusion of elements such as projections, bay windows, balconies, setbacks, horizontal-vertical movements, and heights in pedestrian spaces reflects the human scale and establishes a proportional relationship.
between the building and the urban space. It especially helps pedestrians to read the space and feel safe and comfortable. The windows and openings on the building facades, balconies, texture and color of the building materials, protrusions, eaves, canopies, shades, awnings, etc. are also elements that contribute to the rhythm and visual impact of the space. The massing and surface configuration (protrusion, indentation, niche, column, etc.) in the interface provide a three-dimensional effect on the building surface, creating a sense of depth and facilitating mobility in pedestrian spaces. (Aydemir, 2018)

At an urban scale, it is expected that the height of buildings and the ratio of distance between buildings to their height should be close to 1:1 in a high-quality urban interface. When the ratio is below 1, it gives the impression of being confined, while when it is above 1, it leads to the disappearance of the urban space effect, perceptual difficulty, and a decrease in the reliability of the space.

2.2.2.6 Elements of Urban Form in Historical Urban Sites

The study area has distinctive characteristics in that it is a historic urban site which has been designated as an "urban renewal area". This aspect of the study area offers potential to enhance research by incorporating various elements that are special to historic places. Aforementioned that, historic urban sites involve further complexity owing to these areas’ structure incorporating both different periods of urban settlements and intertwined physical, cultural and social elements. In order to improve our research on interfaces, it is crucial to examine the components of urban form in a historical urban site that has been utilized in conservation approaches. From another perspective, it can be argued that analyzing the interface features of a conservation area helps us comprehend the interdependence of its tangible and intangible elements (such as social, cultural, and physical aspects) that form its identity. This analysis also reveals the relationships between these elements and the multilayered structure that gives the area its spirit.
The Valletta Principles for the Safeguarding and Management of Historic Cities (Icomos, Paris 2011), offer a clear overview of the principles and strategies pertaining to the management of historical sites, encompassing both the tangible and intangible elements that contribute to the unique character of these places. The Valetta Principles were adopted by the 17th ICOMOS General Assembly (2011), for the safeguarding and management of historic cities. Principles and strategies are suggested for use in all interventions inside historic towns and urban areas. These principles and strategies aim to safeguard the values of historic towns and their surroundings, while also ensuring their integration into the contemporary social, cultural, and economic context.

Safeguarding has been identified as one of the main objectives that determine the approach to historic cities. The safeguarding of historic towns and urban areas, and their surroundings, includes the necessary procedures for their protection, conservation, enhancement and management as well as for their coherent development and their harmonious adaptation to contemporary life. (Icomos 2011, Valetta Principles for the Safeguarding and Management of Historic Cities)

Spirit of Place constitutes a significant concept in the literature of conservation which is shaped by physical, cultural and social attributes of historic areas. Spirit of place is defined as the tangible and intangible, the physical and the spiritual elements that give the area its specific identity, meaning, emotion and mystery. It is defined in the document of Icomos 2011, Valetta Principles for the Safeguarding and Management of Historic Cities that “The spirit creates the space and at the same time the space constructs and structures this spirit.”

Historic towns and urban areas are made up of tangible and intangible elements. (Figure-2.23) The tangible elements include, in addition to the urban structure, architectural elements, the landscapes within and around the town, archaeological remains, panoramas, skylines, view-lines and landmark sites. Intangible elements include activities, symbolic and historic functions, cultural practices, traditions, memories, and cultural references that constitute the substance of their historic
In Historic Cities

**IMPORTANT TO ENHANCE**

**TANGIBLE ELEMENTS**

- Architectural Elements
  - Form and Appearance of the Building
  - Structure, Volume, Style, Scale, Material, Texture, Detail, Decoration, Colour

- Landscape within and around the Town Archaeological Remains
- Panoramas, Skylines, View – Lines and Landmark Sites
- Urban Patterns as Defined by the Street Grid, the Lots, the Green Spaces
- Relationship between Buildings & Green and Open Spaces
- The Relationship between the Site in its Totality, its Constituent Parts, the Context of the Site, (Continuity of Urban Fabric)
- Relationship between the Town or Urban Area and its Surrounding Setting, Both Natural and Manmade

**INTANGIBLE ELEMENTS**

- Symbolic & Historic Functions
- Cultural Practices - Narratives, Festivals, Commemorations, Rituals
- Traditions & Memories
- Traditional Knowledge
- Cultural References
- Activities & Use
- Knowledge & Language
- Social Fabric
- Cultural Diversity
- Economic Diversity
- Interactive Communication

---

Figure 2.23 Elements to be Preserved and Enhanced in Historic Urban Sites

(Developed using the Icomos, 2011 document of Valetta Principles for the Safeguarding and Management of Historic Cities)

In the document of the *Icomos 2011, Valetta Principles for the Safeguarding and Management of Historic Cities*, it is stated that historic towns and urban areas are physical formations that show the evolution of a society and its cultural identity. They are an integral part of a broader natural or man-made context and the two must be considered inseparable. (Icomos, 2011)

In the UNESCO Conference Document of *Recommendation on The Historic Urban Landscape* (2011), a landscape approach is suggested for identifying, conserving and managing historic areas within their broader urban contexts, by considering the interrelationships of their physical forms, their spatial organization and connection,
their natural features and settings, and their social, cultural and economic values. It is emphasized that the historic urban landscape approach focuses on conserving the human environment's quality, improving the productive and sustainable utilization of urban spaces, acknowledging their dynamic character, and encouraging social and functional variety.

Social diversity is also mentioned in the document of Icomos 2011, Valetta Principles for the Safeguarding and Management of Historic Cities as a regarded principle that retention of the traditional cultural and economic diversity of each place is essential, especially when it is characteristic of the place.

In addition to the emphasis on cultural diversity, importance of social capacity is also highlighted in Québec Declaration on The Preservation of The Spirit of Place (Quebec, 2008). It emphasizes that spirit of place is transmitted essentially by people. The preservation, utilization, and improvement of the spirit of a place are best achieved through engaging and involving the concerned communities in interactive communication. Communication is defined as the most effective way of preserving the spirit of place alive.

Settling and preserving continuity of urban fabric is another important principle which is highlighted in the document of Icomos (Icomos, 2011, Valetta Principles for the Safeguarding and Management of Historic Cities). In defining the principles related to introducing of contemporary architecture, it is required that, the new architectural design should aim to prevent the adverse consequences of significant or excessive differences and of fragmentation and interruptions in the continuity of the urban fabric and space. Emphasis should be placed on maintaining a continuity of composition that does not negatively impact the current architecture, while also allowing for thoughtful innovation that captures the spirit of the place.

ICOMOS 2011 (Valetta Principles for the Safeguarding and Management of Historic Cities) determined several physical, social and cultural elements are to be preserved including:
- Urban patterns as defined by the street grid, the lots, the green spaces and the relationships between buildings and green and open spaces;
- The form and appearance, interior and exterior, of buildings as defined by their structure, volume, style, scale, materials, colour and decoration;
- The relationship between the town or urban area and its surrounding setting, both natural and manmade;
- The various functions that the town or urban area has acquired over time;
- Cultural traditions, traditional techniques, spirit of place and everything that contributes to the identity of a place;
- The relationships between the site in its totality, its constituent parts, the context of the site, and the parts that make up this context;
- Social fabric, cultural diversity.

It is stated in the *The Burra Charter: Understanding and Assessing Cultural Significance* (Icomos, 2013) that cultural significance is embodied in the place in its fabric, setting, use, associations and meanings. It may exist in: objects at the place or associated with it; in other places that have some relationship to the place; and in the activities and traditional and customary practices that may occur at the place or that are dependent on the place. In *UNESCO Conference Document of Recommendation on The Historic Urban Landscape* (2011), it is stated that, research should target the complex layering of urban settlements, in order to identify values and understand their meaning for the communities.

*The Burra Charter: Understanding and Assessing Cultural Significance* highlights that a place should be considered in its wider physical, social or spiritual context. It should not be assessed in isolation. (Icomos, 2013)

Within the framework provided, aforementioned review demonstrates that there are certain common variables and approaches between the fields of conservation and interface studies. The preservation of historical places requires the safeguarding of tangible elements such as the form and appearance of the building including structure, scale and decoration. This also includes maintaining the relationships
between buildings and spaces, ensuring continuity of the urban fabric, and preserving the organization of the lots and street grid. Nevertheless, these physical characteristics also hold great importance in the field of interface literature because to their impact on the maintenance of well-developed interfaces. Interface literature primarily examines the relationship between physical features and social, affective, and structural attributes, as well as the behavioral processes that result from their interaction.

Diversity, dynamism, and adaptability are important structural and behavioral parameters in the literature of interfaces. These factors are also complex system dynamics that generate reciprocal relationships with inherent complexity of these areas. Conservation approaches emphasize the significance of these dynamics to protect the values of historic towns and the surroundings. The conservation literature emphasizes the importance of integration into the contemporary social, cultural, and economic context. It also highlights the need for harmonious adaptation to contemporary life and integration with the broader urban context. Additionally, it recognizes the dynamic nature of historical sites and encourages the promotion of social and functional diversity in defining the principles and strategies for their preservation and management. Interface literature establishes a framework for maintaining these dynamics by strengthening the relationship between varied attributes of interfaces.

It is evident that, the variables and processes discussed in interface literature can contribute to a better understanding of the relationship between tangible and intangible elements that constitute historical urban sites, and thus enhance the comprehension of the spirit of place. Additionally, this framework can provide a foundation for integrating and adopting historical sites with contemporary conditions, which is crucial for their sustainable preservation.
2.3 THEORETICAL CONSTRUCT OF THE STUDY

In the first part (2.1.) of chapter two, we examined how cities are approached as complex adaptive systems, the structural features that constitute this complex system, and the dynamics that are influential, through a literature review. The necessity of approaching cities through complexity theory is linked to various factors. The growth of cities is shaped by interdependent factors that drive change at multiple levels. Certain changes have been expected, while others are unexpected, posing a challenge for planners to deal with. In addition, urban environments undergo a continuous process of transformation as they are constantly influenced and modified by both internal and external factors. Hence, it is imperative to enhance the adaptive capacity of cities and neighborhoods in order to efficiently deal with expected and unexpected opportunities and challenges.

In this perspective, it is crucial to explore methods of enhancing the inherent complexity of the city, as complex systems possess the capacity to undergo change, adapt, and exhibit transformative qualities. To ensure the ongoing complexity of cities, it is necessary to strengthen the dynamics of complex systems. These dynamics include the relationships between various urban components at different levels, a diverse environment, the ability to self-organize, and the characteristics of spontaneity and flexibility.

In this study, interfaces are considered as an instrument to encourage complex system dynamics. Investigations reveal that an interface is a multifaceted and multilayered phenomena. (Figure-2.24) A review of existing literature uncovers four major scales of interfaces in urban environment including, transitions between urban and rural areas, transitions between inner city and periphery, transitions between public and private areas and transitions between buildings and streets. Each unique scale of environment produces its own interface where various variables interplay. The interface facilitates interaction between humans and the environment, with various variables coming into play at different scales. The second section (2.2.)
of chapter two delves into an extensive literature analysis to analyze the features of interfaces at various scales.

The distinct variables, which are characterized by different social and physical attributes and socio-spatial processes are defined in the conceptual map of the study (Figure-2.1). Figure 2.1 demonstrates that the attributes of interfaces and the processes they produce align with the dynamics of complex systems.

Figure 2.24 Complex Structure of Interfaces

Figure 2.25 Complex Structure of Building-Street Interfaces
This study investigates the interfaces present in inner-city areas, specifically focusing on the interfaces between public and private spaces, as well as the interfaces between buildings and streets. Each distinct environment scale creates its own interface where different variables interact. Interfaces between buildings and streets provide distinct sub-scales, such as building facade, transition between building and street, and the street itself. Human elements of interfaces are analyzed in terms of affective and social variables. The interface characteristics are analyzed in terms of structure and behavior. (Figure-2.25)

In the literature, the interfaces between private and public spaces are evaluated in terms of the inability of buildings to engage with urban space, the loss of the integrity and continuity of the city as a result of the division of the city into various parts with roads and large urban uses, and the dulling of urban life. According to the literature, interfaces are places that facilitate dialogue between buildings and urban spaces, trigger social interaction, and generate semantic and symbolic values for urban dwellers. Various typologies have been developed when examining interfaces in this context.

Gehl et.al. (2006) considers ground floor facades as interfaces that can enable buildings to establish meaningful dialogues with urban space. Gehl et.al. (2006) outlines five key variables, namely *scale & rhythm, transparency, activity, variety, and design quality*, that are used to assess the efficiency of ground floor facades/interfaces in *enhancing the attractiveness of building fronts and fostering a vibrant street life*. Gehl categorizes facades into a five-part typology based on various factors, including social attractiveness. This typology goes from A (active, small grain, good details) to E (passive, large grain, no details). Gehl approach places emphasis on the *design and physical quality of urban space*.

Dovey, Wood, and Kamalipour, however, examine the subject of interfaces through investigating physical connections between public spaces and private property boundaries. Their ratings do not encompass physical diversity and design quality. Dovey and Wood (2015) evaluated interfaces by considering the factors of
accessibility, transparency, directness, and access mode. While, Kamalipour (2016) constructed an interface typology by focusing on two main factors: connectedness and proximity. Their approach to the interfaces emphasizes the physical connection and proximity between private property and public space.

In addition to the aforementioned typologies of public-private and building-street interfaces that have been generated, the literature also contains a number of studies that examine the physical and social components of urban interfaces.

The theoretical construct of this study is settled on three aspects including (i) the framework provided by the literature, (ii) the adopted approach to interfaces in this study and (iii) the dynamics of the study area.

(i) According to the relevant literature, interfaces consist of both physical and social elements, necessitating an analysis of their physical and social characteristics. Moreover, there exist associations between the physical and social characteristics of interfaces, and the socio-spatial processes that arise from their interaction.

A review of existing literature uncovers a second concern regarding interfaces, which is that various scales of the built environment encompass distinct forms of interfaces that express both distinctive and common characteristics. Gaining insight into the similarities and differences of them at various scales would provide a more comprehensive understanding of the causal relationships between interfaces and the urban environment. Interfaces of different scales are created by transitions between many layers of places, such as transitions between buildings and streets, transitions between public and private areas, transitions between inner city and periphery, and transitions between urban and rural areas. However, this study specifically concentrates on the interfaces between buildings and streets, as well as the interfaces between the public and private spaces. The constituent elements of these scales include buildings, spaces between buildings, and streets. Analyzing a specific scale of interfaces, it is crucial to consider the individual attributes of the constituent elements as well as the interrelationships among these elements. The physical and social characteristics of buildings and the street and the socio-spatial processes
generated by the interrelations reveal that interfaces would have to be examined under three different scales including (i) building sections/facade, (ii) transition between building and the street and (iii) the street.

(ii) This study employed a comprehensive approach to interfaces, examining three distinct scales across physical, social, affective, structural, and behavioral aspects. This approach distinguishes the study from others in the literature by presenting a comprehensive view that reveals interrelationships among different aspects of the subject and highlights the complex structure of interfaces.

As previously stated, although they offer a comprehensive framework, the majority of existing typologies of interfaces (Gehl (2006); Dovey and Wood (2015); Kamalipour (2016)) are primarily based on physical features and physical relationships with urban space. The other researches discussed in the previous section analyzes both the physical and social components of interfaces. However, they do not present these features in an interrelated way.

This study categorizes the features discussed in the interface literature into three scales and five distinctive headings: physical, social, affective, structural, and behavioral. Furthermore, these distinctive characteristics at various scales are interconnected to demonstrate the complex processes that occur in interface areas.

The second concern in this aspect is that this study approach interfaces as permeable borders where different groups interact. For this reason, we have created a framework based on variables that will strengthen the role of interfaces as interaction areas in urban spaces. The literature has identified the variables of facades that enhance the building's interaction with the street and contribute to the vibrancy of street life. These standards served as the foundation for our parameters on the scale of façade and building-to-street transitions.

Given that the literature defines the street as an interface through which people interact with the city, we have regarded the street as a distinct scale of analysis. In the study, we have incorporated the parameters that will enhance the liveliness of the
street and its function in facilitating interaction. Jacobs and Hardin highlight the significance of street-level engagement and contend that this heightened degree of interaction enhances the capacity for self-organization by fostering interactive and experienced knowledge and facilitate complex urban system to regenerate itself.

(iii) The dynamics of the study area is another crucial factor in establishing the theoretical construct of the study. The majority of the study area has served as a center for commerce and a primary hub for traditional crafts for centuries until recent decades. While, predominantly evolved into a touristic area at the present time, a number of crafts are still continued to be practiced. Moreover, during the recent years, an educated artist group are settled in the area which set up a network and practice information exchange with the traditional craftsmen. The area appears to exhibit a social framework characterized by interpersonal interaction and reciprocal social exchanges. The existing potentials offered by the study area were utilized as an opportunity to examine the social variables of interfaces, which played a significant role in the importance of social parameters in theoretical construct.

The current potentials offered by the study area were evaluated as an opportunity to examine the social variables of interfaces, contributing to the importance of social parameters in theoretical construct.

In line with these aspects, a structural schema (Figure-2.26) is created to illustrate the distinct physical and social parameters of interfaces at three specific scales: (i) building sections/facade, (ii) the transition between building and the street, and (iii) the street itself.
Figure 2.26 Concept Scheme of The Complex Structure of Interfaces

Figure 2.26 illustrates the structural arrangement of physical, social, affective, structural, and behavioral parameters of interfaces at three distinct scales: the facade, the transition between the building and the street, and the street itself. It also depicts the interconnections between these parameters, which give rise to behavioral parameters that exhibit characteristics similar to those found in complex systems. Put simply, Graphic 1 illustrates the variations in physical and human/social as well as behavioral factors across different scales, and the resulting processes that arise.
from their interplay. Figure-2.27 illustrates that certain characteristics converge while others diverge at varying scales from a broader viewpoint. This figure illustrates the overall nature of the three separate scales and the key variables that are common to all scales including interaction, density, perceivability, interest, attractiveness, human scale and variety.

<table>
<thead>
<tr>
<th>ENVIRONMENTAL ASPECTS</th>
<th>HUMAN ASPECTS</th>
<th>INTERFACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL PARAMETERS</td>
<td>SOCIAL PARAMETERS</td>
<td>AFFECTIVE PARAMETERS</td>
</tr>
<tr>
<td><strong>Openings</strong></td>
<td>Interaction/Social Exchange</td>
<td>Interaction Social Exchange</td>
</tr>
<tr>
<td>Doors, Windows,</td>
<td>Spontaneous Activity Pattern</td>
<td>Spontaneous Activity Pattern</td>
</tr>
<tr>
<td>Windows,</td>
<td>Self-organized Practices</td>
<td>Self-organized Practices</td>
</tr>
<tr>
<td><strong>Facade Elements</strong></td>
<td>Density</td>
<td>Density</td>
</tr>
<tr>
<td>Projection, Balcony,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canopy,</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facade Ornaments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brackets, cornice posts,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber frame, pavement</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scale of Buildings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low, high, small-scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Transitional Elements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canopy, path, arcade,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elements To Promote Pedestrian Use On Facade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slopes, perimeter planting,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projections above entrances,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bay windows above entrances,</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Type Of Transition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground level, garden,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Courtyard wall,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden wall,</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Use Of The Building</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commerce on ground floor,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional variety,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Landscape Elements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plants, trees, garden,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall,</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unification of Facades</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncontinuous,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The proportion of building heights to street width</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Areas Facilitating Pedestrian Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Qualified Elements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fountains, stairs,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ornamental trees,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Wall/Urban Niche</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network permeability,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.27 List of Parameters at Different Aspects
CHAPTER 3

RESEARCH METHODOLOGY

3.1 Problem Definition

Due to the impacts of the advancements (adopted theorems related to probability, uncertainty, and chaos, that pose difficulties in the ability to accurately forecast the future of society) on social sciences in chaos theory include, cities are now considered as complex adaptive systems, in which several institutions, practices, and motivations interact jointly.

Nevertheless, current planning policies and strategies, including overly-prescriptive built forms, policies that attempt to preserve particular configurations and the prioritization of piecemeal interventions result in break-downs of relationships between urban elements by the fragmentation and loss of meaningful cohesion within the urban environment. Relationships between constituting parts of the city are rigorously segregated through several approaches on development of cities. The disintegration of cohesion within the urban environment results in the erasure of meaning for these individual components and their collective existence.

Furthermore, the enforcement of rigid built forms through zoning regulations and design guidelines not only obstructs the natural development of the built environment but also diminishes liveliness in urban existence. Jane Jacobs was one of the first to criticize the modernist approach, emphasizing the importance of differences:

“ Constraining different functions in specific places and disconnecting them, is the product of the desire of city planners to avoid complexity and chaos of multi-functional urban space. However, this kind of homogenization and simplification have important costs over the prosperity of urban life.” (Jacobs, quoted in Perrone, 2018)
Based on the theories of complex-adaptive systems, separating the components from each other results in the isolation of certain causal relationships. This isolation has an adverse effect on the complexity and adaptive capacity of the system. Consistent with this concept, this study views transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Enhancing the interconnections between the many components of the urban pattern plays an essential role in preserving the internal complexity of the city. Interfaces stimulate creative relationships between urban elements, which in turn trigger the emergence of new socio-spatial processes and complex system dynamics.

Interfaces serve to the flow of material and information. These areas have the capacity of acting as conveyors of information which is crucial for maintaining dynamism and adaptability of the system. This study conceptualizes interfaces as permeable borders (between impermeable boundaries) or porous edges where diverse groups engage in interactions (Sennett, 2018). Interfaces provide fertile environments for the creation of interactive and experienced knowledge. The knowledge that arises from diverse contacts and interactions in different areas promotes self-organization activities.

Various scales of the built environment ranging from fringe to building, encompass distinct forms of interfaces that express both distinctive and common characteristics. Existing urban areas possess the most complex structure that enables dynamic interfaces and fosters the possibility for ongoing change and transformation, in compared to newly established settlements. Because these areas involve the emergence of new components as a result of the time accommodating the exchange across existing components. Historic urban sites involve further complexity owing to these areas’ multilayered structure incorporating both different segments of time and intertwined physical, cultural and social elements. An examination of the interface features of a conservation area will contribute to understanding of the interconnectedness (continuity) of the tangible and intangible (social, cultural, and
physical) components that comprise its identity, as well as the relationships among these components and the multilayered structure that provides the area's spirit.

In line with this framework, the objective of this study is to comprehend the complex system of interfaces that render these spaces dynamic, in order to attain the final goals of (i) proposing an integrated approach (a comprehensive methodology) that replaces fragmented approaches and effectively addresses the integrity of urban systems in planning and design practice; (ii) enhancing the depth of the existing body of knowledge by uncovering several unexplored factors and correlations in the current literature on interfaces; (iii) ensuring that the semantic content, which enriches urban life and facilitates human interaction with urban space, regains significance in design and planning practice; (iv) introducing a distinct viewpoint to studies in conservation by improving understanding of the continuity of physical, cultural, and social (tangible/ intangible) elements that constitute the character of conservation areas, the interrelationships between these elements, and the multilayered structure that gives the area its spirit; (v) establishing a foundation for the conservation approach to preserve the continuous dynamic characteristics of conservation areas and their adaptation to present-day conditions.

The aim is to analyze the physical and social elements of interfaces, the affective elements attached to these areas, and relationalities between these diverse attributes. This analysis seeks to uncover how the aforementioned variables contribute to a complex structure and how this structure triggers processes such as dynamism, self-organization, and adaptability. Revealing these relationships and processes will additionally contribute to design and planning approaches and practices.

### 3.2 Structure of the Research

Interfaces encompass both physical, social and affective aspects, requiring an examination of their physical, social and affective properties. Furthermore, there are associations between these varied attributes of interfaces, and the socio-spatial processes that are produced as a result of their interaction. A review of existing
literature uncovers a second concern regarding interfaces, which is that various scales of the built environment encompass distinct forms of interfaces that express both distinctive and common characteristics. However, related to the structure of the study area, this study examine interfaces under three different scales including (i) building sections/facade, (ii) transition between building and the street and (iii) the street.

A structural scheme (Figure-2.24) is designed to illustrate the different physical, social, affective, structural, and behavioral aspects of interfaces at three specific scales including: (i) building sections/facade, (ii) the transition between building and the street, and (iii) the street itself. It also depicts the interconnections between physical, social, affective, structural parameters which give rise to behavioral parameters that exhibit characteristics similar to those found in complex systems. Put simply, Figure-2.24 illustrates the variations in physical and human/social as well as behavioral factors across different scales, and the resulting processes that arise from their interplay. The research questions and variables to be analyzed are derived from the structural schema of interfaces.
3.3 Rationale of The Selected Site

The Ankara Castle and the surroundings have been chosen as the subject of the case study. The area is bounded by Ulucanlar street to the south, Kapıdağ Yokuşu and Bedesten Sokak to the west, and Castle walls to the north. (Figure-3.1)
The Castle and its environs constitute the oldest habitation in the city center of Ankara. The construction of the city's outside walls and citadel walls were in the latter half of the 7th century, specifically during the Byzantine era. Ankara maintained its function as a border town for a duration of nearly one millennium until it was ultimately conquered by the Ottoman Empire. Since the 14th century, the town has predominantly functioned as a trading hub, owing to its advantageous location along one of the two major trade routes that link the west to the east, as well as the south to the east. During From 1300 to the early 1900s, during the time of the Ottoman Empire, a part of the region functioned as a center for commercial activities. Concurrently with developments made during the Ottoman era, it is evident that the majority of the current architectural structures in the region are remnants of the Ottoman period. (Şahin, 1995; Tokat, 2017; Yavuz, 2000)

The involvement of Ahi's in the economic structure of the town is emphasized by related sources, particularly through the trade and artisans' associations. According to Şahin (1995), the Ahi organization has played a significant role in the urbanization of Anatolia by establishing the fundamental structures of the Ottoman city across various domains, including agriculture, craftsmanship, and organization. Through the implementation of new production techniques and the adoption of local regulations, they have successfully regained control over the town's economy, which was formerly dominated by the residents. The Ahi organization exerted control over both economic activity and cultural affairs, operating independently from the Ottoman centralized system. (Şahin, 1995; Yavuz, 2000)

In essence, a certain part of the region has functioned as a center for commerce for many centuries, a role it has retained until recent decades. The area was also a primary hub for traditional crafts (such as coppersmithing, knifemaking, potterymaking, blacksmithing, kaftan making, tin plating, soap making, painting [nak Yapı], basket weaving, felt making and quilting) providing not only essential necessities for the local population but also intricate handmade goods that supported the economic prosperity of the surrounding region. Prior to the establishment of the Turkish Republic in 1923, the Castle area remained the center of the city, where
craftsmen produced goods to meet the daily requirements of the local population. Nevertheless, the initiation of industrialization and the subsequent socio-economic transformations led to a certain level of economic inefficiency for traditional craftsmen. In addition, as a result of socio-economic developments, the city center has steadily moved towards the South-Kızılay Region, leading to a detrimental impact on the economic viability of the area. (Tokat, 2017)

Presently, the Ankara Castle has predominantly evolved into a touristic area, renowned for its historical and cultural significance. Nevertheless, a number of craftmanship still continues to be in practice while adapting themselves to current conditions. Furthermore, in multiple art studios located throughout the Castle, artists are actively involved in the creation of ceramics, glasswork, and paintings. In addition, ateliers offer craft classes specifically designed for amateur learners. These different craft practices, their products and materials are available within a walking distance in the Castle area. Local craftsmen continue their existence highly dependent upon this craft network which has been formed through the peculiar social, cultural, economic, historic and spatial context of the place. (Tokat, 2017)

The process of transformation demonstrates that the diminished trading ability has been partially revived via the assistance of various networks, connections, synergies, and information exchange between long-standing residents who hold previous positions and educated and social newcomers. This process is not initiated by any institutional interventions or legislation. Highly motivated by personal initiatives and the social and cultural capabilities of the local community. Furthermore, it should be noted that interactions within the system result in the spontaneous formation of a cohesive spatial or organizational structure without any external coordination. According to this argument, these processes would be regarded as self-organized activities.

The social structure is composed of a variety of distinct groups. Due to the socio-economic changes and mobility throughout the city, Ankara Castle lost most of its older population. Following the rapid economic decline of the area has contributed
to an increase in the number of immigrants and low-income families, now residing as tenants. The selection of museum sites, such as Erimtan and Rahmi Koç, along with restoration initiatives and improved tourism amenities, has catalyzed the attraction of certain intellectual groups to the area. This, in turn, has resulted in both tension and synergy.

The continuous changes and transformations enhance the level of dynamism on the site. From this perspective, the attributes of the site, such as adaptability, potential for self-organization, diversity, tension, dynamism, synergy, interaction, and knowledge exchange, align with the concepts discussed in the literature on interfaces. The site's socio-economic and physical characteristics provide significant opportunities for studying interfaces at various scales. These include its location on a transition zone between residential areas at the periphery and commercial areas at the center of the city, its small grain sized/densed and functionally mix-used structure, its incorporation of diverse types of interfaces, its walkability, and its vibrant street life.

Another feature that differentiates the study area is that it contains many registered buildings that embody the cultural heritage of Ankara city. According to the 1986 map of archaeological and urban sites (Figure-3.2), the residential area, which is the inner citadel part of the study area, is located within the boundaries of the "Citadel Area". While, the southern part of the study area, known as the Hanlar Region, is located within the boundaries of the "2nd Degree Urban Site". The Ulus Historic City Center, which encompasses the study area, was designated as a "Renewal Area" in 2005 by the Decree of the Council of Ministers (Figure-3.3). The current boundaries of the Urban Conservation and Renewal Areas can be observed in Figure-3.4, where our study region is delineated on the map.

This distinctive character of the study area reveals some dynamics specific to there that have to be considered through conducting the research. The various dynamics present in the site pose obstacles for conducting research, as the historical characteristics of the site can impact the differentiation of interrelations between
interface variables and the resulting socio-spatial processes. However, it also presents an opportunity to derive precise and undefined outcomes by incorporating various elements unique to the subject area. Furthermore, there are chances to provide outcomes that would contribute to the approaches of conservation/regeneration in the study region. In order to get these results, the examination of both physical and social attributes of interfaces is conducted to determine if there are any common parameters and connections with the existing conservation literature. The study also investigates the interconnected factors and processes between the results of interface research and the inherent variables derived from the historical pattern of the region and conservation approaches conducted within the study area.
Figure 3.2 Boundaries of Urban Site, Archaeological Sites, Renewal Area and Conservation Plan, 2008

(Source: Koçyiğit, 2018)
Figure 3.3 Boundaries of the Renewal Area and the Renewal Master Plan, 2005
(Source: Koçyiğit, 2018)
Figure 3.4 Positioning of Study Area Within the Boundaries of Urban Renewal Area
(Source of Map: Ankara Büyükşehir Belediyesi Kültür ve Tabiat Varlıkları Dairesi Başkanlığı, 2015)
(i) **Definition of Sub-Regions**

Site observations indicate that the studied region has a heterogeneous structure rather than a uniform pattern. Within the research area, three distinct regions have been identified and named as Region A, B, and C. (Figure 3.5.) In existing studies, the three distinct regions are commonly denoted as the *Inner Citadel* (Region C), *The Outer Citadel* (Region B), and the *Hanlar Region* (Region A). The distinct regions are physically segregated by castle walls, and access to the next zone is facilitated through gateways located on these walls. From this perspective, it is assessed that castle walls function as a barrier or an impermeable boundary that restricts interaction between these separate zones and leads to the emergence of distinctive dynamics in each of them.

Figure 3.5 Sub-Regions in The Study Area
Each of these separate sub-regions possesses distinctive characteristics and behaviors. Region A is primarily used for commercial purposes, while Region B has a mixed-use structure. In contrast, the majority of structures in Region C are residential in type. The usage difference also contributes to the distinction of the facades of the buildings and the transitions between buildings and streets, so altering the physical characteristics of the interfaces between these areas. The various physical attributes of these districts result in diverse social dynamics. Various actors, interactions, and collaborations exist, resulting in varying interplay between variables. The differentiation of sub-regions within the study area enables the conduct of comparison analysis, which allows for a detailed evaluation of interfaces and the deduction of significant conclusions regarding the created processes and interrelations between physical and social characteristics.

Based on the conceptual map of the study (Figure-2.26), the study's primary objective is to uncover the physical and social pattern of interfaces in three specific Regions on the site (Region A, B, and C) at three different scales: (i) the facade, (ii) the transition between the building and the street, and (iii) the street itself. Furthermore, the study seeks to uncover behavioral factors and socio-spatial processes that arise from the interactions between physical and social elements. In order to achieve this objective, three distinct regions are assessed individually by addressing research questions to each of the sub-regions respectively.

### 3.4 Research Questions

The research is being conducted in an urban district inside the city that has a distinctive historical characteristic. Hence, comprehending the complex structure that renders these interface areas dynamic would enhance design, planning, and conservation approaches and practices. The Main Research Question is established based on this rationale:
MRQ: How transitional zones/interfaces function as complex processes (entities?) at different scales in inner city districts considering their specific conditions and characteristics?

To answer the main research question, it becomes necessary to reveal the physical, social, affective and structural attributes of interfaces, the associations between these attributes, and the socio-spatial processes that are activated by the behaviors of interfaces. Thus, the study investigates two sub-research questions to uncover how interface qualities contribute to the complex character of such places and play the role of catalyzing the sustainability of their liveliness. The sub-research questions are as follows:

SRQ1: What are the physical and social structure of interfaces at three different scales?

SRQ2: What are the behaviors of these physical and social elements and socio spatial processes generated by their interplay?

Initial site investigations revealed that the area exhibits a diverse and varied structure, with a noticeable regional segregation, particularly in terms of physical characteristics. Thus, in order to account for this, the study area was divided into three distinct regions with distinctive features. (A, B and C) The division of sub-regions within the study area facilitates the execution of comparative analysis, enabling an extensive evaluation of interfaces and the deduction of major conclusions regarding the established processes and interrelationships between physical and social characteristics. Within these aspects, the third research question is formulated:

SRQ3: How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C?
3.5 Research Approach

The interface is a complex entity that encompasses both physical and social aspects. This requires an analysis of both its physical and social attributes. However, the difficulty in studying interfaces arises from their inherent complexity, which stems from their capacity to establish associations between physical and social components. This is how they strengthen the relationship between urban parts and create a meaningful unity. This structure of interfaces requires them to be analyzed with a holistic approach that values the relationalities. In pursuit of this, the study adopts an interpretive approach.

Interpretive research is a qualitative research approach that seeks to understand and interpret the complex, subjective nature of human experiences, behaviors, and social phenomena. Interpretive research takes a holistic view, considering the interconnectedness of various elements within a social setting. It recognizes that social phenomena cannot be fully understood by isolating variables but instead must be examined in their entirety. This holistic perspective allows researchers to explore the intricate relationships between different factors and their impact on individuals and groups.
<table>
<thead>
<tr>
<th><strong>SUB-RESEARCH QUESTIONS</strong></th>
<th><strong>RESEARCH APPROACH</strong></th>
<th><strong>PARAMETERS</strong></th>
<th><strong>SAMPLE</strong></th>
<th><strong>DATA GATHERING</strong></th>
<th><strong>DATA ANALYSING</strong></th>
</tr>
</thead>
</table>
| 1. What are the physical and social structure of interfaces at three different scales? | Descriptive Approach | Physical Parameters on (i) Facade, (ii) Building/Street Transition and (iii) Street | Buildings and Streets within Sub-Region A, B and C | Site Survey | • Data processing on QGIS  
• Mapping |
| Exploratory Approach | Social Parameters (Interaction, Vitality, Self-organized practices, Spontaneous Activities) | Respondents of The Study Area | In-depth Interview | • Transcribing  
• Coding (Based on Figure 2.23)  
• Mapping (Structural scheme) |
| 2. What are the behaviors of these physical and social elements and socio spatial processes generated by their interplay? | Exploratory Approach | Affective Parameters  
Structural Parameters  
Behavioral Parameters | Respondents of The Study Area | In-depth Interview | • Transcribing  
• Coding (Based on Figure 2.23)  
• Mapping (Structural scheme) |
| 3. How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C? | Exploratory Approach | Physical Parameters  
Affective Parameters  
Structural Parameters  
Behavioral Parameters | Buildings, Streets  
Respondents of The Study Area | Site Survey  
In-depth Interview | • Coding (Comparative)  
• Mapping (Structural scheme) |
Although the study highlights the value of holistic view and thus the significance of interrelationalities, the analytical tools allow the assessment of the parts. Thus, this study takes the component-based assessment as a point of departure and intends to extract the intricate dynamics and becoming of complex processes due to the interrelationalities between components through time in reference to social experiences of place inhabitants. Respectively, first, the analytical stance starts with uncovering the social and spatial variables that contribute to these processes. This phase intends to answer the first sub-research question (What are the physical and
social structure of interfaces at three different scales?) in pursuit of a descriptive research approach. Second, it continues with investigating the structure and behavior of interfaces as perceived and experienced by place inhabitants. This phase intends to answer the second sub-research question (What are the behaviors of these physical and social elements and socio-spatial processes generated by their interplay?) in pursuit of an exploratory research approach. (Table-3.1, Figure-3.6)

3.5.1 Phase I: Descriptive Research

The initial research phase involves conducting observations on the study area to uncover the physical structure of interfaces at three different scales: (i) the facade, (ii) the transition between the building and the street, and (iii) the street itself. For the purpose of systematically and objectively documenting the physical parameters of the studied region, investigation is conducted by using descriptive methods.

Descriptive research methods are designed to systematically and objectively depict the features of a particular subject or phenomenon without manipulating variables. The primary goal is to provide a detailed account that aids in understanding and characterizing the observed elements. Descriptive research methods are observational, allowing researchers to capture the richness and complexity of real-world situations.

During this phase, data on the physical characteristics of facades, transitional zones, and streets in the research region are collected by on-site observations. Approximately 500 buildings and several streets in three distinct districts were surveyed. The physical parameters of these structures and streets were recorded in an excell table," which were created based on the structural schema (Graphic-1) of the study. The Q-Gis platform (Graphic-3) is used to process the physical data and create maps of physical attributes. Maps displaying physical attributes offer a comprehensive representation of the physical properties of interfaces in the study region, providing both quantitative and qualitative data.
(i) Research Structure of Phase-I

This part provides a rationale for the physical variables that were examined in the initial phase of the research, as well as the methodologies used for data collecting and analysis.

The aforementioned components of building-street and public-private interfaces consist of buildings, spaces between buildings, and streets. Consequently, the examination of the interfaces between buildings and streets, as well as the ones between public and private spaces, is carried out at three specific scales: (i) facade, (ii) the transitional areas between buildings and streets, and (iii) the streets themselves.

Building Sections/Facade

The essential elements of a facade consist of (i) openings (such as windows, doors, and showcases), (ii) ornamentation (including window frames, brackets, colonnades, arches, etc.), and (iii) supplementary facade elements (such as projections, balconies, niches, porches, canopies, doorsteps, fences, etc.) that make up physical variables at the facade scale. (Table-3.2.)

Literature suggests that there are certain associations between these distinct physical variables and particular social, affective, and structural variables, which in turn lead to various socio-spatial processes. The Openings variable is evaluated based on both the quantity and dimensions of the doors and windows. In interface studies, both the quantity and dimensions of openings are vital factors in determining the effectiveness of the transition between a building and the street. Increased door and window number facilitates more opportunities for exchange between the inside and outside, hence improving physical permeability. Furthermore, spacious openings enhance the transparency of the building's exterior, so promoting visual permeability. (Gehl,2006; Erdoğan and Birol,2021) This facilitates visual contact between the interior and exterior, hence enhancing options for engagement with the building. Both the number and dimensions of openings increase the level of
permeability, enabling the interface to serve as a permeable border where various groups are able to interact. In the study, building facades are classified into three categories based on their openings: (i) facades with numerous large sized openings, (ii) facades with a moderate number and size of openings, and (iii) facades with a limited number of small-sized openings.

The facade elements establish a rhythmic pattern, both vertically and horizontally, on the facades. The literature review demonstrates that these factors play a role in establishing a proportional relation between buildings and urban space. They facilitate the incorporation of human scale into the development of pedestrian areas, aiding pedestrians in their perception of the space and enhancing their sense of safety and comfort. The inclusion of both horizontal and vertical facade elements, along with a diverse range of materials, colors, and patterns, evoke visual interest, people’s attention, and thus leads to a higher usage rate. (Gehl, 1980; Gehl et al., 2006; Bala, 2006) Certain architectural features, such as balconies and low windowsills, enhance visual and audial permeability, facilitating intermediation between the inside and the outside. (Erdoğan and Birol, 2021) The primary facade elements of buildings in the study area include projections, bay windows, and balconies. The presence of projections, bay windows, and balconies in the buildings within the research region is assessed to determine the variable of facade elements.

The diverse range of materials, colors, and patterns on facades evoke visual interest capture people's attention, and consequently enhance the utilization density. This issue necessitates the consideration of ornamental elements when examining interfaces at the scale of a facade. As a result of the street rehabilitation project, numerous buildings in the study area have been renovated with similar ornamental elements. These elements include timber window and door frames, horizontal timber moldings on the second level, and timber corner posts. Buildings that have these ornamental elements on their facades are classified as having a moderate amount of ornamentation. Only a small number of structures that display a wide range of ornamental elements, such as brackets, arches, pediments, spolia, and columns, are
categorized as having the greatest amount of ornamentation. Other buildings are
categorized as having limited ornamentation.

Table 3.2 Physical Variables At The Scale of Facade

<table>
<thead>
<tr>
<th>SCALE</th>
<th>PARAMETER</th>
<th>UNIT</th>
<th>TYPE OF DATA INSERTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Sections/Facade</td>
<td>Openings</td>
<td>Window, Door</td>
<td>Text Data/many (numerous large sized openings)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Text Data/moderate (moderate number and size of openings)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Text Data/few (few number and small sized openings)</td>
</tr>
<tr>
<td></td>
<td>Facade Elements</td>
<td>Projection</td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Balcony</td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Canopy</td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td>Ornaments</td>
<td>Brackets, corner posts, window door frames, pediments, arches, spolias</td>
<td>Text Data/high (high level of ornamentation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Text Data/moderate (moderate level of ornamentation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Text Data/low (moderate level of ornamentation)</td>
</tr>
</tbody>
</table>

**Transition Between Building and The Street**

The investigation focuses on five primary variables when examining the transition
between a building and the street: (i) transitional elements, (ii) elements facilitating
pedestrian activity on facade, (iii) the type of transition between the building and the
street, (iv) lot-line wall, and (v) use of the building. (Table-3.3.)

The transition between the building and the street forms a different scale of interface
that serves to both separate and connect the public and private domains. Nevertheless, we regard interfaces as borders that maintain the continuity between
different spaces. (i) Transitional elements facilitate the smooth transition between the interior and exterior, or between private and public spaces, in order to maintain continuity. The use of significant border/transitional elements such as a canopy, porch, arcade, doorstep, steps, and niches effectively promote the fluidity between the internal and outside spaces, hence improving the overall quality of the interface. (Gehl, 1980; Gehl et. al., 2006; Bala, 2006, Aydemir, 2018)

Two behavioral factors that have been identified in the literature are the edge effect and the support effect. (Gehl et. al., 2006) The edge effect refers to people’s preference for staying at the edges of space, where their presence is more discreet and they command a particularly good view of the space. The support effect, which refers to the human preference for standing or sitting at a fixed point – a niche, a corner, a column or something else that provides definition as well as psychological and practical physical support. Consequently, any element that can generate these results is categorized as (ii) elements that promote pedestrian activity on the facade. Elements such as stages, platforms, seating places, projections, bay windows above entrances, terraces above entrances, and fountains on the facade are all regarded to be features that promote pedestrian activity, along with the transitional elements mentioned before. By increasing the vitality level at that specific location and generating an activity node, these factors enhance the effectiveness of the interface. Furthermore, these components enhance the visual richness, diversity, and attractiveness.

The quality of interfaces is greatly affected by (iii) the type of transition between the building and the street, which is a crucial physical parameter. The classification of transition quality in literature is based on four factors: accessibility (whether it is accessible or inaccessible), directness (whether it is direct or setback), transparency (whether it is opaque or transparent), and orientation towards pedestrians or cars. (Dovey and Wood, 2015; Kamalipour, 2016) There are no inaccessible transitions inside the research region that act as an impermeable barrier. The study area facilitates both direct and setback transitions. Directness can be achieved by either proceeding directly to the street or sidewalk, or by using steps or a platform. Hence,
directness can be categorized into two distinct groups: directness and leveling. Setback transitions consist of either courtyards or gardens, which offer two separate types of transitions between buildings and the street. Eventually, the investigation focuses on dividing buildings into four categories, including (1) direct, (2) leveling, (3) garden, and (4) courtyard transitions, in order to determine the type of transition between the building and the street.

The investigation focuses on determining whether the transition exhibits characteristics of opacity or transparency using the variable (iv) lot-line wall. Buildings with lot-line walls can be classed into two categories: those that have a smooth transition with permeable, low-height garden walls, and those that have a hard transition with high-height opaque courtyard walls. In literature, streets are categorized into two types: those that exhibit sociable, active, and permeable soft transition zones, and those that display antisocial, impermeable, lifeless, and hard transition zones. According to Bala (2006), a hard transition is described as a plane that separates the public and private domains. However, when the interface between public and private is made up of arranging semi-private areas, it creates a soft transition. Hence, transitions that lack transitional elements or ones that encourage pedestrian activity on the facade are classified as possessing a hard transition.

(v) The examination of the building's use is the fifth variable, as it has a direct impact on the behavior and quality of interfaces. There are two particular issues related to this matter. The first aspect pertains to the (1) use of the ground level of buildings for commercial activities. The inclusion of commercial establishments on the ground floor, such as retail stores, cafes, and restaurants, enhances the degree of interaction and social exchange. These usages facilitate the seamless integration of activity within the street space. The street space becomes vibrant and inviting. These interactive interfaces offer a wide range of sensory experiences (visual, audial, olfactory, tactile) that would activate urban users. (Gehl, 2006; Erdoğan and Birol, 2021)
The second aspect pertains to (2) the functional variety, particularly the coexistence of many functions in close proximity. According to the research, when the variety of facades increases in terms of their physical and functional characteristics, the behavior patterns in front of them become more varied, less straightforward, and often unplanned (spontaneous). Human diversity arises from a multitude of activity patterns, leading to a wide range of activities with different people, rhythms, and synergies. (Gehl, 2006)

Table 3.3 Physical Variables At The Scale of Transition

<table>
<thead>
<tr>
<th>SCALE</th>
<th>PARAMETER</th>
<th>UNIT</th>
<th>TYPE OF DATA INSERTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transitional Elements</td>
<td>Canopy, porch, arcade, doorstep, stairs, and niches</td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td>Elements Facilitating Pedestrian Activity on Facade</td>
<td>Stages, platforms, seating areas, Projections above entrances, bay windows above entrances, terraces above entrances, fountains</td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td>Type of transition between the building and the street</td>
<td>Direct Transition</td>
<td></td>
<td>Text Data – (Direct/courtyard/garden/leveling)</td>
</tr>
<tr>
<td></td>
<td>Leveled Transition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transition with garden</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transition with courtyard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-line wall</td>
<td>Courtyard Wall</td>
<td></td>
<td>Text Data – (hard/soft/none)</td>
</tr>
<tr>
<td></td>
<td>Garden Wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of the Building</td>
<td>Resident, retail, mosque, hotel, administration etc.</td>
<td></td>
<td>Text Data – (Resident, retail, mosque, hotel, administration..)</td>
</tr>
</tbody>
</table>
A physical analysis of the street scale is carried out based on six distinct parameters, which include: (i) unification of facade, (ii) the proportion of building heights to street width, (iii) areas facilitating of pedestrian activity, (iv) qualified elements, (v) urban niches and urban walls and (vi) network permeability. (Table-3.4)

The arrangement of buildings in respect to each other is a horizontal aspect of the interfaces viewed at the street level, which is a parameter studied under the title of (i) unification of facades. The literature states that the unification of facades aims to integrate buildings with each other and maintain the continuity of the street layout. A continuous facade view enhances the visibility and comprehensibility of the street layout. (Bala, 2006; Özaydın, 1993) Accordingly, the streets in the study region are categorized into three groups based on their ability to provide a continuous view of building facades: those that offer a fully continuous view, those that offer a partially continuous view, and those that do not offer a continuous view.

(ii) The proportion of building heights to street width is another parameter affecting the efficiency of interfaces. According to literature, streets which have a height-to-length ratio greater than one, create a feeling of confinement. However, spaces with a height-to-length ratio smaller than one provide challenges in perceiving the space and diminish the feeling of safety. In a well-developed interface, the height-to-length ratio must be approximately equal to one. (Özaydın, 1993)

Another parameter to consider at the street level is the presence of (iii) areas that promote pedestrian activity. Areas facilitating pedestrian activity consist of open spaces created by widening streets in specific locations, gaps between buildings, and purposefully constructed open spaces. Facilitating pedestrian activity leads to an increase in pedestrian density, which in turn promotes interaction and social exchange. The research area is analyzed to determine the prevalence of areas facilitating pedestrian activity on each street, with the aim of examining the physical characteristics of interfaces.
Literature emphasizes the importance of street furniture, urban landscape elements, and trees in maintaining a sense of human scale. The study site features multiple structures that successfully maintain the human scale and perceptibility of the region, while also providing physical diversity and appealing aesthetics. (Aydemir and Akdemir, 2018) The elements that contribute to diversity, visual interest, and attractiveness in the area are categorized as the variable (iv) Qualified elements. The physical map includes symbols for stairs, fountains, urban landscape components, urban furniture, and tombs to indicate their intensity and position.

(v) The investigation of Urban Niches and Urban Walls focuses on examining the physical characteristics of interfaces. Literature emphasizes the significance of urban niches and urban walls in improving the efficiency of interfaces. (Köknar, 2001) These spaces are defined by the convergence and interaction of diverse lives and situations. Urban walls and niches provide a range of possibilities for different activities at different times. The continual changes of functions throughout time provide interfaces with flexibility and dynamism. The mapping of urban walls and niches involves categorizing them into two types: hard walls, which are tall and opaque, and soft walls, which are shorter and permeable.

Another parameter analyzed at the street level is (vi) Network permeability pertains to the capacity of a street to facilitate the movement of people or vehicles. Within the designated region of study, the assessment of network permeability focuses primarily on the movement of pedestrians rather than vehicles. Permeability is essential for enabling human interaction in this investigation. When evaluating the network permeability, it is essential to verify that the street has adequate width to accommodate a large number of pedestrians. Furthermore, it is crucial to have numerous connections, and these connections should possess a pedestrian density that is capable of supporting the movement of pedestrians along the street. Each street within the study region is evaluated based on its level of network permeability, which can be classified as high, medium, or low.
### Table 3.4 Physical Variables At The Scale of Street

<table>
<thead>
<tr>
<th>SCALE</th>
<th>PARAMETER</th>
<th>UNIT</th>
<th>TYPE OF DATA INSERTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Street</td>
<td>Unification of facade</td>
<td>Continuous, Halfly continuous, Uncontinuous</td>
<td>Text Data – (Continuous/halfly continuous/uncontinuous)</td>
</tr>
<tr>
<td></td>
<td>The proportion of building heights to street width</td>
<td></td>
<td>Text Data – (one/smaller than one/greater than one)</td>
</tr>
<tr>
<td></td>
<td>Areas facilitating pedestrian activity</td>
<td></td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td>Qualified elements</td>
<td>Stairs, fountains, urban landscape elements, urban furnitures and tombs</td>
<td>Text Data – (Stairs/fountains/urban landscape elements/urban furnitures/tombs /none)</td>
</tr>
<tr>
<td></td>
<td>Urban Walls</td>
<td></td>
<td>Text Data – (exist(hard-soft)/none)</td>
</tr>
<tr>
<td></td>
<td>Urban Niches</td>
<td></td>
<td>Text Data – (exist/none)</td>
</tr>
<tr>
<td></td>
<td>Network Permeability</td>
<td></td>
<td>Text Data – (high/medium/low)</td>
</tr>
</tbody>
</table>

(i) **Data Analysis**

Physical parameters of three distinct scales including facades, transitional areas and streets are inserted on Q-GIS program (Table-3.2.,3.3.,3.4.). The program processes the inserted data to produce physical maps that represent different parameters. The inclusion of parameters allows for the operation of both quantitative and qualitative analysis by offering both visual and numerical data. Thus, it would be possible to conduct a elaborative analysis of each physical parameter at the specific scale.
Qualitative analysis is enhanced by evaluating visual data displayed on physical maps that represent different parameters. Physical maps display specific areas that exhibit a high concentration and variety of analyzed variables, providing well-developed interfaces. Simultaneously, certain locations emerge as prominent due to their specific physical characteristics of interfaces. Such analyses facilitate the ability to compare and make inferences about the relationships between interfaces and the urban environment.

Quantitative data allows for assessment throughout the entire region, which facilitates the creation of comprehensive inferences. The percentages of physical parameters provide a means to describe the overall physical characteristics of interfaces in a certain region, taking into account both the quantity and intensity of these parameters.

### 3.5.2 Phase II: Exploratory Research

The second phase of the research involves a conduct of in-depth interviews with inhabitants of the study area to uncover the social structure of interfaces. A total of nineteen participants were questioned regarding fifteen specific questions that aimed to investigate affective, social, structural, and behavioral factors outlined in the conceptual map of the study (Figure-2.26). The use of social data enabled the identification of interface structures at different scales: (i) the facade, (ii) the transition between the building and the street, and (iii) the street itself. Additionally, it revealed socio-spatial processes and the prevalence of complex system dynamics resulting from the interaction between physical and social factors within specific sub-regions.

An exploratory research is conducted in order to reveal the underlying dynamics of social structure and grasp the complexities caused by interrelations between social and physical elements. Exploratory research embraces a worldview that acknowledges the dynamic and context-dependent nature of social realities. Social phenomena are often multifaceted and context-dependent. Exploratory research
allows researchers to unpack the intricacies of these phenomena, offering a nuanced understanding that may be overlooked in more structured research approaches.

Within the domain of exploratory research, in-depth interviews are recognized as an effective and versatile method for gathering abundant qualitative data. By providing insight into the personal experiences of individuals, it allows for the exploration of intangible meanings and relationships related to the notion, which may not be apparent from the observations of researchers themselves. Hence, the research incorporates on-site observations and in-depth interviews as a means of data collection.

(i) Research Structure of Phase-II

This section outlines the development of in-depth interview questions, the rationale for selecting a certain sample group, and the methodologies used for data analysis. This phase aimed to uncover the social characteristics of interfaces (Second half of SRQ1) as experienced by respondents, focusing on three distinct scales: building facades, the transition between buildings and the street, and the street itself. Furthermore, this phase investigates the structural and behavioral parameters and how they relate with physical characteristics, as well as the resulting socio-spatial parameters (SRQ2) in the entire region, as reported by the respondents.

The study's conceptual map (Figure-2.26) illustrates the differentiation of physical, human/social, and behavioral factors across different scales and the processes that are initiated through their interaction. This phase examines the parameters and processes in the research area, with the goal of understanding the social aspects of interfaces at a certain scale. This is done by analyzing the perspectives of interviewees about designated physical variables and their relationship with other parameters. Ultimately, the phase aims to address four specific questions (Table-3.5);
Table 3.5 Issues Explored in Phase II

(i) Which physical parameters/elements of interfaces that are defined in the literature are perceived by the residents?

(ii) Are there different (not defined in the literature) physical parameters/elements of interfaces perceived by the residents special to selected site?

(iii) Do the residents underscore relations between parameters as defined in the literature?

(iii) Do the residents underscore different relations special to selected site?

Within this framework, a set of in-depth interview questions are developed to address the aforementioned four specific questions. Fifteen questions are devised (Table-3.6) to capture site-specific affective, social, structural, and behavioral variables based on the perspectives of residents, which also shed light on their experiences in the physical and social environment. During this phase, the objective is to comprehensively examine the social structure by investigating both the obvious and intangible perceptions and meanings. To do this, the inquiries are designed to be open-ended. Open-ended questions are used to gather more comprehensive data and investigate undefined relationships.
<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERCEIVABILITY</td>
<td>Q1. What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area? Why?</td>
</tr>
<tr>
<td>VISUAL INTEREST</td>
<td>Q2. How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area? With which features?</td>
</tr>
<tr>
<td>ATTRACTIVENESS</td>
<td>Q3. How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you? (social, spatial, affective)</td>
</tr>
<tr>
<td>OTHER AFFECTS</td>
<td>Q4. What other feeling(s) does this area leave in you? What is it about this area that gives you this feeling(s)?</td>
</tr>
<tr>
<td>HUMAN SCALE</td>
<td>Q5. How equal (unrepressed) do you feel when you think about yourself in relation to the environment? How much repression does the physical environment put on you?; (ii) What is it about this place that gives you this feeling? (social, spatial, affective)</td>
</tr>
<tr>
<td>VARIETY</td>
<td>Q6. How diversified do you think this area is?; (ii) What makes this area diversified? (social, spatial, affective)</td>
</tr>
<tr>
<td>VITALITY</td>
<td>Q7. How vital do you find this place?; (ii) What makes this place vibrant? (social, spatial, affective)</td>
</tr>
<tr>
<td>DENSITY</td>
<td>Q8. How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space? (social, spatial, affective)</td>
</tr>
<tr>
<td>OPENNESS</td>
<td>Q9. How open do you find this place?; (ii) What makes this place open?</td>
</tr>
</tbody>
</table>
### Table-3.6 (Continued)

<table>
<thead>
<tr>
<th><strong>BEHAVIORAL INTERFACE PARAMETERS</strong></th>
<th><strong>Q10.</strong> How much social/physical change/transformation has occurred in the area over time?; (ii) What are the driving forces behind this change?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FLEXIBILITY</strong></td>
<td><strong>Q11.</strong> How much flexibility (non-resistance) does the field exhibit in response to changes?; (ii) Which characteristics provide flexibility or resistance?</td>
</tr>
<tr>
<td><strong>ADAPTIBILITY</strong></td>
<td><strong>Q12.</strong> How well does the field adapt to changing conditions?; (ii) In which areas can the area adapt, with which characteristics? What kind of needs can it respond to?</td>
</tr>
<tr>
<td><strong>SOCIAL PARAMETERS</strong></td>
<td><strong>Q13.</strong> Are there unexpected/spontaneous activities in this area?; (ii) What kind of activities are taking place? When does these activities happen?</td>
</tr>
<tr>
<td><strong>SPONTANEOUS ACTIVITY PATTERN</strong></td>
<td><strong>Q14.</strong> To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure? (ii) What kind of self-forming structures are there?</td>
</tr>
<tr>
<td><strong>SELF-ORGANIZED PRACTICES</strong></td>
<td><strong>Q15.</strong> To what extent do you interact with the inhabitants of the area? To what extent do you share information with other artisans/craftsmen? How open do you think the area is to interaction?; (ii) With which features of this area, is this interaction triggered, organized, and implemented?</td>
</tr>
</tbody>
</table>

### Sampling Strategy

Phase I provide intersection areas that exhibit a high concentration and variety of analyzed variables, providing well-developed interfaces. The second phase of the study built upon these findings. The study assumes that high-quality interface areas generate relationalities with some social and affective parameters and trigger socio-spatial processes. To uncover these relationships, it is essential to assess the socio-spatial experiences of individuals in the intersection areas. Our main strategy in
selecting the sample group was to interview individuals inhabiting in the intersecting areas identified through the physical analysis.

Within this framework, initial interviews were carried out with users in the intersecting areas. However, in the following process, *convenience sampling* method was utilized due to the inability to form the entire sample group from individuals inhabiting in the intersecting areas.

*Convenience sampling* (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study. (Saunders, M., Lewis, P. & Thornhill, A., 2012)

The initial participant selected by convenience sampling was asked to submit contact information for another participant who has lived in the area for a specific duration. The last stage of the social data collection phase transitioned to *snowball sampling*. Each respondent who are initially conducted are asked to provide the names and addresses of persons belonging to the target group.

The chain, constructed in this way, made it easier to interview respondents from various locations of the study area, whether they were within intersecting areas or outside of them. This allowed for doing a comparative analysis between various interview points in the same sub-region, as well as comparing three separate regions within the study area.

The sample group predominantly comprises tradesmen and artisans who have lived in the area for a minimum of five years. However, the fact that even users with less than ten years of residence have been experiencing this area for a longer period, offering retrospective data on the processes in the area throughout time from the interviewees' viewpoints.
The interviews are carried out in fifteen specific locations within the entire study region, which are designated with numbers from A to O. (Figure 3.7.) A total of nineteen respondents were questioned, some of them overlapped at certain locations. (Table-3.7.)

Table 3.7 Profiles of Sample Group

<table>
<thead>
<tr>
<th>GENDER</th>
<th>YEAR OF RESIDENCY</th>
<th>EMPLOYMENT PROFILE</th>
<th>FIELD OF WORK</th>
<th>REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1. Male</td>
<td>1.30+</td>
<td>1. Tradespeople</td>
<td>1.Antique Shop</td>
</tr>
<tr>
<td>B</td>
<td>2. Male</td>
<td>2.5+</td>
<td>2. Tradespeople</td>
<td>2.Souvenir Shop</td>
</tr>
<tr>
<td>C</td>
<td>3. Female</td>
<td>3.5+</td>
<td>3. Artisan/craftspeople</td>
<td>3.Handicraft (Wooden Work)</td>
</tr>
<tr>
<td></td>
<td>4. Male</td>
<td>4.30+</td>
<td>4. Manager of The Han</td>
<td>4.Han (Pilavoğu)</td>
</tr>
<tr>
<td>D</td>
<td>5. Male</td>
<td>5.5+</td>
<td>5. Tradespeople</td>
<td>5.Antique Shop</td>
</tr>
<tr>
<td></td>
<td>6. Female</td>
<td>6.20+</td>
<td>6.Artizan</td>
<td>6.Picture Gallery</td>
</tr>
<tr>
<td>E</td>
<td>7. Male</td>
<td>7.10+</td>
<td>7. Tradespeople</td>
<td>7.Souvenir Shop</td>
</tr>
<tr>
<td></td>
<td>8. Female</td>
<td>8.5+</td>
<td>8. Museum Manager</td>
<td>8.Museum (Rahmi Koç)</td>
</tr>
<tr>
<td>G</td>
<td>10. Male</td>
<td>10.5+</td>
<td>10. Archaeologist</td>
<td>10.Museum (Anadolu M.)</td>
</tr>
<tr>
<td></td>
<td>15. Male</td>
<td>15.5+</td>
<td>15.Artisan/craftspeople</td>
<td>15.Handicraft (Glass work)</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>---------</td>
<td>------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>17. Male</td>
<td>17. 10+</td>
<td>17. Imam</td>
<td>17. Sultan Alaaddin Mosque</td>
</tr>
<tr>
<td>O</td>
<td>19. Female</td>
<td>19. 20+</td>
<td>19. Resident</td>
<td></td>
</tr>
</tbody>
</table>

Table-3.7 (Continued)

**Data Analysis**

Transcribing the recorded interviews is the initial stage in assessing data obtained from in-depth interviews. This process entails the transformation of words spoken into written form. Upon transcribing the interviews, the transcribed texts are classified and labeled to determine the prominent themes, concepts, and ideas based on the predefined conceptual map (Figure-2.26) of the study. This is a coding method that categorizes all social data into multiple categories.

During the third phase, the classified data is examined using the structural scheme. Conceptual diagrams (Figure-3.8.) were created to visually represent the interviewees' perceptions, experiences, and interpretations of the social and spatial aspects of the area. These diagrams illustrate the interconnected parameters in the interviewees' experiences and highlight the variations in the collected data at different scales. By addressing the four primary questions outlined in Table-3.5, these conceptual frameworks allow us to interpret the parameters and relationships described in the literature pertaining to the study topic. Additionally, they facilitate the exploration of any undefined relationships and parameters. Simultaneously, it also demonstrates the complex structure of the study area, wherein several distinct characteristics are interconnected.
3.5.3 Phase III: Comparative Analysis

The third phase of the research involves doing a series of comparative analyses on the obtained data to uncover the similarities and differences among three sub-regions in terms of the physical, affective, social, structural, and behavioral aspects of interfaces (SRQ3). The purpose of the sub-regional comparison is to facilitate a comprehensive assessment of interfaces and draw significant conclusions about the established processes and interrelationships between physical and social characteristics.

In addition, the third phase involves a different form of comparative analysis. This part involves the comparison and evaluation of data gathered from multiple interview sites within the same sub-region. The data obtained on affective, social, structural, and behavioral aspects from several interview locations are analyzed to see if there are disparities or similarities in the evaluations of respondents across multiple
interview points within the same region. This analysis seeks to ascertain whether the variations in the physical attributes of various interview locations are indicative of differences in the social perceptions of the interviewees.

During the data analysis, the coding procedure is repeated, however this time it is done within each specific location. The parameters discussed at each interview location are organized into distinct columns within the same region. Parameters that are repeated and distinguished at various interview locations are interpreted and examined.
CHAPTER 4

FINDINGS AND DISCUSSION

Strengthening interdependencies of constituting parts of a city has a crucial role on maintaining the internal complexity of the city. This study focuses on transitionary zones/interfaces as a source of creative opportunity for stimulating relationships between constituting parts of the city. Interfaces serve to the flow of material and information. These areas have the capacity of acting as conveyors of information which is crucial for maintaining dynamism and adaptability of the system. This study sees interfaces as permeable borders (between impermeable boundaries) or porous edges where different groups interact. (Sennett, 2018) This makes interfaces fertile spaces for creating interactive and experiential knowledge. This kind of knowledge that is emerged from diversified encounters and interaction at these zones stimulates practices of self-organization.

This study aims is to analyze the physical and social elements of interfaces, the affective elements attached to these areas, and relationalities between these diverse attributes. This analysis seeks to uncover how the aforementioned variables contribute to a complex structure and how this structure triggers processes such as dynamism, self-organization, and adaptability. Revealing these relationships and processes will additionally contribute to design and planning approaches and practices.

A conceptual map (Figure-2.26) is designed to illustrate the different physical, social, affective, structural, and behavioral aspects of interfaces at three specific scales including: (i) building sections/facade, (ii) the transition between building and the street, and (iii) the street itself. It also depicts the interconnections between physical, social, affective, structural parameters which give rise to behavioral parameters that exhibit characteristics similar to those found in complex systems. Put simply, Figure-
2.26 illustrates the variations in physical and human/social as well as behavioral factors across different scales, and the resulting processes that arise from their interplay. The research questions and variables to be analyzed are derived from the structural schema of interfaces.

The research is being conducted in an urban district inside the city that has a distinctive historical characteristic. Hence, comprehending the complex structure that renders these interface areas dynamics would enhance design, planning, and conservation approaches and practices. The Main Research Question is established based on this rationale:

**MRQ:** How transitional zones/interfaces function as complex processes at different scales in inner city districts considering their specific conditions and characteristics?

To answer the main research question, it becomes necessary to reveal the physical, social, affective and structural attributes of interfaces, the associations between these attributes, and the socio-spatial processes that are activated by the behaviors of interfaces. Thus, the study investigates two sub-research questions to uncover how interface qualities contribute to the complex character of such places and play the role of catalyzing the sustainability of their liveliness. The sub-research questions are as follows:

**SRQ1:** What are the physical and social structure of interfaces at three different scales?

**SRQ2:** What are the behaviors of these physical and social elements and socio spatial processes generated by their interplay?

Initial site investigations revealed that the area exhibits a diverse and varied structure, with a noticeable regional segregation, particularly in terms of physical characteristics. Thus, in order to account for this, the study area was divided into
three distinct regions with distinctive features. (A, B and C) The division of sub-regions within the study area facilitates the execution of comparative analysis, enabling an extensive evaluation of interfaces and the deduction of major conclusions regarding the established processes and interrelationships between physical and social characteristics. Within these aspects, the third research question is formulated:

**SRQ3:** How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C?

In order to answer these questions three distinct research phases are conducted. In the first phase, data on the physical characteristics of facades, transitional zones, and streets in the research region are collected by on-site observations. Approximately 500 buildings and several streets in three distinct districts were surveyed. The physical parameters of these structures and streets were recorded in an excell table, which were created based on the conceptual map (Figure-2.26) of the study. The QGIS program is used to process the physical data and create maps of physical attributes. Maps displaying physical attributes offer a comprehensive representation of the physical properties of interfaces in the study region, providing both quantitative and qualitative data.

The second phase of the research involves a conduct of in-depth interviews with inhabitants of the study area to uncover the social structure of interfaces. A total of nineteen participants were questioned regarding fifteen specific questions that aimed to investigate affective, social, structural, and behavioral factors outlined in the conceptual map (Figure-2.26). The use of social data enabled the identification of interface structures at different scales: (i) the facade, (ii) the transition between the building and the street, and (iii) the street itself. Additionally, it revealed socio-spatial processes and the prevalence of complex system dynamics resulting from the interaction between physical and social factors within specific sub-regions.
The third phase of the research involves doing a series of comparative analyses on the obtained data to uncover the similarities and differences among three sub-regions in terms of the physical, affective, social, structural, and behavioral aspects of interfaces (SRQ3). The purpose of the sub-regional comparison is to facilitate a comprehensive assessment of interfaces and draw significant conclusions about the established processes and interrelationships between physical and social characteristics. This phase involves conducting another comparative analysis to compare and evaluate data collected from several interview sites within the same sub-region. The data obtained on affective, social, structural, and behavioral aspects from several interview locations are analyzed to see if there are disparities or similarities in the evaluations of respondents across multiple interview points within the same region.

The abovementioned structure of the research aim to reveal the physical and social parameters of interfaces, associations between these parameters, and also socio-spatial processes triggered by generated behaviors of interfaces on the site of the study. However, the study area possess another distinctive character as housing many registered buildings that embody the cultural heritage of the city. The Ulus Historic City Center, which encompasses the study area, was designated as a "Renewal Area" in 2005. The distinctive character of the study area highlights specific features that are unique to that area and must be taken into account when conducting the research. The various dynamics present in the site pose obstacles for conducting research, as the historical characteristics of the site can impact the differentiation of interrelations between interface variables and the resulting socio-spatial processes. However, it also presents a possibility to deduce precise findings that are not explicitly described in the literature, owing to the incorporation of many parameters unique to the study area. Furthermore, there are chances to provide outcomes that would enhance the approaches of conservation/renovation in the study area. In order to get these results, the study also evaluates the physical and social characteristics of interfaces to determine if there are any common parameters and connections with the existing conservation literature. The parts providing the study findings also analyze the
interconnected parameters and processes between the interface research findings and the inherent factors derived from the historical pattern of the region and conservation approaches.

Based on the examination of the physical and social variables of the study area, it is clear that there are multiple variables present on the site, which have been generated by a historical pattern that is inherent to the place. The implementation of conservation and renewal approaches has significant implications for the interfaces and characteristics of the socio-spatial processes in that area. Through conducting comprehensive investigations across interfaces, we can determine these effects and generate data that can provide valuable insights for on-site conservation and renewal strategies. Assessing if the historical pattern and conservation efforts have a positive or negative impact on the overall quality of the interfaces could uncover multiple associations that may assist the current conservation approach.

**Major Characteristics of Interfaces in Three Sub-Regions (A, B, C)**

Conducting the analysis in three distinct Regions with varying physical attributes provides an opportunity to explore the subject. The interfaces in these three locations exhibit distinct physical features. An assessment of the distinction between physical interfaces in the three locations, together with the distinction between social, structural, and behavioral variables, aids in comprehending the interconnection among all interface factors.

The findings (Figure 4.1) clearly demonstrates that interfaces at the street scale exhibit a certain level of richness in both of the three sub-regions. The self-generated pedestrian zones are formed by the organic pattern and topographical structure of three Regions. These zones are characterized by the presence of qualified elements such as castle walls, staircases, or fountains, which contribute to their definition and enhancement. The interfaces of Region A at the street scale are differentiated by the
continuity and connectedness of physical elements, which contribute to its physically holistic layout.

<table>
<thead>
<tr>
<th>Region C</th>
<th>Region B</th>
<th>Region A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interface</strong></td>
<td><strong>Behavioral A.</strong></td>
<td><strong>Street</strong></td>
</tr>
<tr>
<td>Low visual and physical</td>
<td>Structural variety among buildings.</td>
<td>High physical and visual</td>
</tr>
<tr>
<td>Low locative diversity, but a</td>
<td>Low abundance of places and social exchange points.</td>
<td>Limited potential to provide</td>
</tr>
<tr>
<td>Opportunity for interaction and communication, both social and physical</td>
<td>Few opportunities for interaction.</td>
<td>Visual control and physical</td>
</tr>
<tr>
<td>Cultural and social</td>
<td>Cultural and social interaction</td>
<td>Cultural and social interaction</td>
</tr>
<tr>
<td>Diversity</td>
<td>Self-generated pedestrian</td>
<td>Self-generated pedestrian</td>
</tr>
<tr>
<td>The sense of confinement</td>
<td>Continuous pattern of streets (connectivity)</td>
<td>Continuous pattern of streets (connectivity)</td>
</tr>
<tr>
<td>Intensified Social Interaction</td>
<td>Street</td>
<td>Community and Inequality</td>
</tr>
<tr>
<td>Street</td>
<td>Community and Inequality</td>
<td>街头</td>
</tr>
<tr>
<td>Transition</td>
<td>Building Section/Facade</td>
<td></td>
</tr>
</tbody>
</table>
The characteristics of interfaces at the scales of building facades and transitions exhibit significant differentiation amongst three Regions, in contrast to the street scale. (Figure 4.1) The interfaces in Region A distinguish themselves through their provision of high visual and physical permeability, as well as their ability to provide a dynamic rhythm through the presence of multiple entries in close proximity. Likewise, interfaces at the transitional scale in Region A exhibit outstanding efficiency through smooth connections between buildings and streets, incorporating intermediary elements and providing a wealth of sensory information due to the high functional diversity.

Nevertheless, the interfaces at the scale of building sections and transitions in Region B and C lack the same degree of richness as those in Region A. This can be attributed to the limited presence of intermediary elements in transitions, the prevalence of courtyard transitions (also known as hard transitions), and the relatively low degree of functional diversity.

The variations in the physical structure of the three distinct regions are evident in the social parameters, socio-spatial processes, and behavioral patterns observed within them. These findings offer significant outcomes that confirm the relationships between the different aspects of interfaces that were proposed in the study. Region A has a social structure that is distinguished by a significant degree of social interaction in many forms. The Region offers opportunities for social exchange and interaction through proficient interfaces at three separate scales. The present study provides empirical evidence supporting the theoretical framework that posits interactive spaces as exhibiting spontaneous activity patterns and self-organizing behaviors. Specifically, the Region demonstrates the presence of a self-organizing structure.

In contrast, while Regions B and C have a certain degree of interaction, they reveal a deficiency in social behaviors characterized by cooperation and collaboration, which is also referred to as self-organizing capacity. Due to the absence of heightened social interaction among different groups within these regions.
Additionally, this finding provides confirmation for the theoretical framework employed in the study.

The subsequent sections will provide an extensive discussion of the findings and assessments, focusing on each region individually.

4.1 REGION A - The Physical Structure of Interfaces At Three Different Scales

This section analyzes the physical and social aspects of interfaces within Region A, focusing on three distinct scales: (4.1.1.) building sections/facade, (4.1.2.) transition between building and the street, and (4.1.3.) the street itself.

The various scales are initially examined by evaluating maps of physical parameters derived from processed data on QGIS. A comprehensive examination of each physical parameter at a certain scale is presented. The second half of each section displays physical maps that overlap several parameters within the specified scale. The method identifies distinct regions where interfaces are particularly qualified at this particular scale. The physical characteristics of these distinctive regions are defined by their similarities and differences.

The third part of each section focuses on evaluating the social aspects of interfaces at a certain scale. This evaluation is based on the perceptions of interviewees about physical characteristics and their association with other parameters. This section aims to answer the questions;

(i) Which physical parameters/elements of interfaces that are defined in the literature are perceived by the residents?

(ii) Are there different (not defined in the literature) physical parameters/elements of interfaces perceived by the residents special to selected site?

(iii) Do the residents underscore relations between parameters as defined in the literature?
(iii) Do the residents underscore different relations special to selected site?

This section also introduces the variables, which are produced by the inherent historical pattern and are distinct from the variables in the structural framework of the study. These outputs provide an opportunity to define values that have cultural significance specific to the area, as well as their relationships with interface variables.

After conducting a comprehensive examination of the physical and social aspects at three different scales, all the relevant parameters at different scales are overlaid on physical maps. Sub-regions are identified as areas of intersection. These sub-regions represent the locations where highly developed interfaces overlap at three different scales. The last phase (4.1.4.) of section 1.1 involves evaluating these sub-regions based on their physical attributes.

4.1.1 Building Sections/Facades

Building Sections/Facades constitute vertical elements of interfaces that directly face the street and sidewalk. They play a crucial role in defining the transition between the building and the street. The key components of a facade include (i) openings (such as window, door, showcase), (ii) ornaments (including window frames, brackets, colonnades, arches etc.), and (iii) additional facade elements (such as projections, balconies, niches, porches, canopies, doorsteps, fences and the like). By thoroughly analyzing these facade components in various buildings, this section aims to uncover the distinctive characteristics of interfaces at the scale of building sections/facades in the study area. (Table-4.1)
Table 4.1 Characteristics of Interfaces in Region A at the Scale of Facade

<table>
<thead>
<tr>
<th>REGION A</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPENINGS</td>
<td>High Physical &amp; Visual Permeability Multiple Entrances</td>
<td>Interaction Dynamic Rhythm Points of Exchange</td>
<td>Physical Permeability (Direct flow between building and the street) Visual Permeability (Spacious showcases) (Street-facing stores)</td>
<td>Sincerity Warm Relations Familiarity</td>
</tr>
<tr>
<td>FACADE ORNAMENTS</td>
<td>Limited Ornamentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FACADE ELEMENTS</td>
<td>Moderate &amp; Few Number of Facade Elements</td>
<td>Limited Physical Variety</td>
<td>Loss of Diversity</td>
<td></td>
</tr>
<tr>
<td>HUMAN SCALE</td>
<td>Low-height Buildings</td>
<td>Perceivability</td>
<td>Human Scale (Small-scaled buildings) (Flat-foot structures)</td>
<td>Feeling of Togetherness Peace Familiarity Intimacy</td>
</tr>
<tr>
<td>Interfaces Functioning Like A Permeable Border</td>
<td></td>
<td></td>
<td>Structural Diversity of Buildings</td>
<td>Interest Attractiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diversified Type and Period of Historical Buildings (Historic houses, mosques, clock towers, city walls)</td>
<td>Interest Perceivability Attractiveness Spirituality</td>
</tr>
</tbody>
</table>

This section provides a detailed examination of 187 buildings in Region A, focusing on their openings, ornamentation, and facade elements. The analysis is based on physical maps that were created using processed data in QGIS. The investigation indicates that in Region A, most of the facades have a high level of *physical and visual permeability* because of the large number and size of openings. The retail entrances are in close proximity, resulting in a *dynamic rhythm* and numerous *points of interaction*.

These data suggest that most facades exhibit the characteristics of an efficient interfaces, functioning like a *permeable border*. However, the facade elements and ornamentations on the facades of the buildings in Region A do not uniformly
increase the quality of the interfaces. Just 17% of the buildings in the Region have facades that incorporate a minimum of two different types of facade elements. Significantly, 48% of the buildings feature a limited number of ornamental elements on their facade. The conclusion may be drawn that a moderate number of facade elements and uniform ornamentations on facade leads to a limited physical diversity within the Region.

After analyzing the evaluations of residents about physical parameters, it is clear that their perceptions are mostly influenced by the types of buildings, with less emphasis placed on facade elements and ornamentations. They emphasize the wide variety of building types, especially historical structures like historic houses, mosques, clock towers, and city walls, as well as the structural aspects of these buildings, but not the facade elements. They also emphasize the reduction of variety on building facades caused by the street renovation projects. However, the structural diversity and variety of buildings types plays a vital role in stimulating inhabitants' interest and enhancing the perception and attractiveness of the surrounding area.

The presence of historical structures such as old houses, mosques, clock towers, and city walls in the region has a significant impact on various affective parameters, including interest, perceptibility, and attractiveness. These factors contribute to the increased density and social interaction in the area, resulting in a greater level of dynamism. Historical patterns play a significant effect in the development of interface qualifications. Furthermore, it suggests that these structures possess aesthetic value as a result of their features that evoke intense emotions. (Australia Icomos Burra Charter, Practice Note, 2013) Nevertheless, the execution of street renovation has been shown to lead to a decrease in interface qualifications. This is mostly due to the uniform facade covering, which results in a loss of physical diversity on facades. Physical diversity plays a crucial role in shaping interfaces that stimulate affective arousals and trigger some social processes. Incorporating physical diversity as an important factor in the analysis of conservation and renovation would aid in the preservation and harmonious development of cultural heritage sites, while yet maintaining their inherent dynamism and adaptability.
Furthermore, it is worth mentioning that historical structures, specifically mosques and tombs, have the ability to invoke a sense of spirituality in individuals. This aspect, which is not clearly defined in the literature on interfaces, is considered an intangible factor. It is crucial to note that the historical pattern produces some parameters and relationships that are not specified in the interface literature.

Another crucial aspect that supports the results of the physical analysis is the inhabitants' significant focus on permeability and its resulting emotional responses, such as sincerity and warm relationships. The social perspective uncovers certain indeterminate findings of emotional stimulations that are observed to be stimulated by the small size of the structures and their direct connection with the public space, encompassing peace, a feeling of belonging, being part of the whole, sincerity, and familiarity.

The subsequent sections include comprehensive findings of the physical and social analysis, which are briefly summarized above.

4.1.1.1 Openings

Physical assessments of openings in the Region A indicates that the majority of building sections and facades indicate the characteristics of a well-developed interface, functioning like a permeable border (Figure-4.2). 53% (98 out of 187 buildings) of the buildings in the region have facades with numerous large openings and 30% (57 out of 187 buildings) of them with moderate number and size. However, 17% (32 out of 187 buildings) of the buildings have facades featuring few number and small sized openings. Based on these analyses, it is evident that interfaces at the scale of facades offer physical and visual permeability. While a majority of the buildings house commercial establishments on the ground floor, most of them feature wide store windows and showcases. This is particularly noticeable on the primary axes of Atpazarı (Figure-4.3), Koyunpazarı and Can Street (Figure-4.4), where facades predominantly consist of big showcases. Additionally, the smaller-sized buildings along these axes, incorporate multiple entrances in close proximity,
creating a dynamic rhythm and numerous points of interaction. Despite its substantial size, Çengel Han (Figure-4.5) facilitates many points of exchange due to its small retail units with transparent facades on the ground floor. Conversely, Çukur Han also has retail units with transparent facades with limited entrances, resulting in fewer points of exchange compared to Çengel Han. In contrast, Erimtan Museum features a small number of small-sized openings. Moreover, the sole entrance is located on the narrow side of the building, away from the main street. Consequently, the facade of the building does not promote visual physical permeability.

Pirinç Street, as one of the prominent streets in Region A, shares similar features with other commercial axes on the site in terms of facade openings. The first floors of these facades predominantly consist of large showcases, fostering numerous points of exchange owing to the abundance of small retail units and, consequently, multiple entrances in close proximity. However, the building at the beginning of the Street, serving as a gallery, and the Mosque at the end of the street deviate from this pattern. However, their facades lack transparency due to their limited number of openings. This diminishes the overall visual permeability of the street.
Figure 4.2 Facade Opening in Region A
The existing literature indicates that open facades with many doors and niches and where there is high transparency activate urban users. (Gehl et al., 2006) Open facades increase visual contact, creating many points of exchange with the outside, and thus, enhancing physical and visual permeability. Additionally, when buildings possess high physical and functional variety, activity patterns in front of such facades also take numerous forms, less direct and often spontaneous. Ornaments and facade elements are also taken into consideration because they contribute to the physical variety and interface quality of the facade.
4.1.1.2 Facade elements

Facade elements create a vertical and horizontal rhythmic pattern at the scale of facades. To investigate these issues in this region, balconies, projections, bay windows and canopies were assessed as facade elements. These assessments revealed that the majority of buildings (50%, 93 out of 187) in the Region A have at least one type of facade element. Evaluating the structural characteristics and the behaviour of interface, facades have mapped according to the quantity of facade elements in different types. According to literature, facades that possess many number of facade elements generates a sense of human scale and perceivability highly relative to other facades possessing few number of facade elements. (Bala, 2006; Aydemir, 2018) The mappings of these parameters show that only 17% of all buildings (33 out of 187) have facades with at least two types of facade elements. (Figure-4.6) Some of these buildings centre around Pirinç Street (Figure-4.7). Pirinç Han indicates difference in terms of facade elements with triangular projections and arcade. Other historical buildings on the street have eye-catching facades due to their both projections, balconies and canopies. The Can, Koyunpazarı and Atpazarı streets host buildings with varying facade elements as well. But they are dispersed along the streets. Only seven buildings in the Region have three types of facade elements. These buildings are scattered along the region rather than forming a cluster. These buildings’ perceivability is high compared to the buildings in the surrounding areas. The majority of the building stock in Region A consist of uniform facade elements. But, the character of facades, including aspects like variability, visual interest, attractivity, and perceivability, is significantly influenced by the presence and design of ornaments.
Figure 4.6 Facade Elements in Region A
4.1.1.3 Ornamental Elements

After the restoration process, building facades were renovated, featuring similar ornamental elements. Most of them possess timber window and door frames, along with horizontal timber moldings adorning the second floor and timber corner posts. According to physical assessments, buildings with these ornamented features on their facades are categorized as having a medium level of ornamentation. In contrast, a select few buildings in the region boast a more diverse array of ornamental elements, including brackets, arches, pediments, spolias, and columns. These buildings are classified as having a high degree of embellishment on their facades. 10% (10 out of 187) of buildings exhibit a high level of ornamentation, while 41% (77 out of 187) display a moderate level. Notably, 48% of the buildings in Region A...
(Figure-4.8) incorporate only a limited number of ornamental elements on their facade.

Figure 4.8 Ornamental Elements in Region A
In terms of both intensity and variety of ornaments, the historical Hans and mosques in the region stand out distinctively from other buildings. Notably, buildings like Çengel Han, Çukur Han, Mahmut Paşa Bedesteni, Ahi Şerafettin Mosque (Figure-4.9) and Aslanhan Mosque represent a remarkable variety of ornamental elements and utilize a mix of materials such as brick, marble, and timber. Meanwhile, the historical buildings on Pirinç Street represent richness in their ornaments featuring timber beams, timber windowsills, decorative brackets and timber claddings on facade coverings. Additionally, a select of few buildings across the region, distinguish themselves with landscape elements incorporated into their facades and distinctively separated facade colours. The other buildings categorized as having a medium number of elements on their facades, exhibit a commonality in the use of standardized ornamental features. These include timber window and door frames, horizontal timber moldings, corner posts, and white-coated facades.
4.1.1.4 Overlapped Physical Maps of Facade Openings, Ornaments And Facade Elements

In the literature, it is emphasized that when horizontal and vertical facade elements, in conjunction with a diverse array of materials, colors, and patterns, come together, these facades tend to evoke visual interest, drawing people in and contributing to higher use density. (Gehl et al., 2006; Bala, 2006) Facades possessing these characteristics are often described as ‘interesting’ or ‘attractive’. Additionally, studies suggest that open and captivating facades engage urban users more effectively. Pedestrian traffic naturally slows down in front of such eye-catching and open facades. The increased density fosters opportunities for interaction and social exchange. Furthermore, as physical and functional variety, along with visual and physical permeability, escalate, the activity patterns in front of these facades become more diverse, less predictable, and often spontaneous. These types of facades serve as catalysts for creating enriched interfaces.

To identify areas where interfaces are particularly well-developed at the scale of facades, this section presents overlapped physical maps of facade openings, ornaments and facade elements. (Figure-4.10) This process reveals specific zones where buildings with open, engaging and easily perceivable facades converge. In all of these areas, buildings feature open facades with visual permeability being the most prominent shared characteristic. However, the levels of visual interest, attractiveness, and perceivability vary based on the intensity of ornaments and facade elements. The overlapped areas appear to host interfaces of high quality, fostering social exchange, interaction and pedestrian density, and the activation of urban users. These areas also possess the potential of generating varied and often spontaneous activity patterns. According to literature, these spontaneous encounters and activities hold the potential of initiating self-organized practices. (Rauws, 2011) Additionally, the functional diversity and transitional nature of buildings play crucial roles in stimulating these affects. Therefore, these parameters at a different scale, specifically the Transition Between Building and The Street, will provide a comprehensive understanding of the interface behavior.
Before delving into the Physical Assessments of the second scale, which focuses on the *transition between building and the street*, it is imperative to first evaluate the social aspects of interfaces at the scale of facades. This will be accompanied through in-depth interviews.
4.1.1.5 In-Depth Interviews

Upon compiling the data obtained from the in-depth interviews, it becomes evident that the primary focus of the residents’ perceptions lies at the building scale, with less emphasis on detailed facade features. Interviewees notably highlight the diverse range of building types in the area, including old houses, mosques, clock towers and city walls. They emphasize that this variety of building characteristics is a source of interest for them. This underlines the residents’ perception of diversity at the building scale. Furthermore, expressions such as ‘surprisingness’, ‘difference’, and ‘non-repetition’ further reinforce this viewpoint. The presence of structural variety is noted to be a factor that piques their interest, enhances perceptibility, and contributes to the overall attractiveness of the space. However, it is also pointed out that the restoration process has led to a standardization of buildings. While exterior elements like doors, windows, and the facade colors were initially diverse, they have since been standardized through the use of uniform exterior cladding.

Given the residents do not delve specific details about the facade elements and ornaments, it can be inferred that the perceivability of these elements in the area is relatively low for those living there. Notably, they express a higher level of perceivability towards prominent structures such as clock towers and city walls.

The residents place a particular emphasis on visual permeability when discussing the openness of facades. Additionally, they underscore the significance of physical permeability, noting that the large doors of the Han buildings and buildings without doors establish a sense of openness, connecting them to the street and inviting passerby. Furthermore, they highlight how the visual communication facilitated by showcases fosters factors such as acquaintance and warm relationships. These insights shared by the interviewees affirm that well-developed interfaces in the area affectively serve as permeable borders.

The interviews place significant emphasis on the scale of the buildings and the profound impact they have on the physical surrounding. The human scale is particularly underscored, with specific mention of the influence of small-sized
structures throughout the area. In the literature, it is noted that rarity of tall buildings enable keeping life close to the street which in effect increases street life vitality. Furthermore, the literature highlights how the human scale serves as a catalyst for factors such as attractiveness and visual interest. (Aydemir and Akdemir, 2018) Interestingly, the interviews also reveal that the human scale triggers additional affective parameters, including feelings of peace, a sense of belonging, an overall integrity, sincerity, familiarity and warmth which are not mentioned in the literature.

4.1.2 Transition between building and the street

Transition between building and the street constitutes an interface of different scale which is both separating and connecting publicity and privacy. Important border/transitional elements, including a canopy, porch, arcade, doorstep, stairs, and niches, facilitate the fluidity between the interior and exterior, thereby enhancing the quality of the interface.

Physical Analysis of this scale is conducted upon three distinct parameters including (i) Transitional Elements and Elements to Promote Pedestrian Activity on the Facade, (ii) The Type of Transition Between The Building and The Street and (iii) The Use of The Building.
Table 4.2 Characteristics of Interfaces in Region A at the Scale of Transition Between Building and The Street

<table>
<thead>
<tr>
<th>TRANSITION BETWEEN BUILDING AND THE STREET</th>
<th>REGION A</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARACTERISTICS OF INTERFACE</td>
<td></td>
<td>Diversified Array of Transitional Elem. &amp; Elements of Pedestrian Use</td>
<td>Variety Visual Richness Smooth Transition</td>
<td>Transition/Entrance of Monumental Buildings Cengel Han’s Inviting Entrance (Huge Doors, Arcades) Pilavoglou Han’s Graded Entrance Castle Gate, Doors</td>
<td>Interest Perceivability Attractiveness</td>
</tr>
<tr>
<td>TYPE OF TRANSITION</td>
<td></td>
<td>27% Direct 64% Stepped</td>
<td>Intermediation Pedestrian Activity Social Interaction Interactive Interfaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE USE OF THE BUILDING</td>
<td></td>
<td>Ground Floor Commercial Uses</td>
<td>A wealth of sensory impression Integration bet. building and street Streetscape vitality</td>
<td>Diversity of Functions (Enhance variety of products and visitor profiles)</td>
<td>Perceivability Attractiveness</td>
</tr>
<tr>
<td>Functional Diversity</td>
<td></td>
<td>User variety Varied activities with different people, rhythms and synergies Interaction, Exchange</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Upon executing a physical analysis, it is clear that the area offers *highly skilled interfaces at the scale of transitions*. (Table-4.2) Within Region A, the data shows that the majority of buildings (78%) include a variety of transitional elements and elements that promote pedestrian activity on their facades. These elements help create a *smooth transition between the interior and exterior spaces*. Furthermore, 27% (67 buildings) possess a direct access to a public street or sidewalk. Meanwhile, a majority of the buildings, specifically 64% (120 buildings), are equipped with steps, platform, or other structure that functions as an *intermediary between the public and private areas*. These elements facilitate pedestrian activity, resulting in *heightened pedestrian density and fostering opportunities for social interaction*. The generation of interactive interfaces in zone A is primarily attributed to the abundance of transitional elements. Regarding the usage in the Region, it can be evaluated that in most parts of the region, there is a smooth integration between buildings and the
streetscape. This is mainly due to the large number of commercial establishments on the ground floor, which not only offer a variety of sensory experiences but also contribute to the liveliness of the streetscape. Moreover, the region's functional diversity provides user variety, leading to diverse activities with various individuals, rhythms, and synergies.

Based on analyzed social data, it is evident that residents can perceive and find attractive the transitions of monumental structures. The monumental buildings, such as Castle Gate and the architectural features on the entrance of Çengel Han, are regarded as examples of enriched transitions that are interesting and attractive to users. These structures include elements such as arcades and large doors. The historical structures clearly arouse affective parameters of interfaces and stimulate social processes, such as increasing population density and creating opportunities for social exchange and interaction.

It is worth mentioning that some architectural elements found on the entrance of monumental buildings, contribute to enhancing the interfaces at the scale of transitions. They function as an intermediary between public and private areas, enabling a smooth transition between interior and exterior spaces. Transitional features serve the purpose of maintaining continuity by facilitating a smooth transition between interior and external spaces, or between private and public areas. The literature on cultural heritage highlights the importance of maintaining the continuity of urban fabric and the relationships between the constituent elements that form the setting of a site (Icomos, Paris 2011, Valetta Principles for the Safeguarding and Management of Historic Cities). The thorough examination of facade elements would enhance the development of understanding and assessing historical urban sites aimed at maintaining the continuity of urban pattern in these areas.

Inhabitants also perceive the diversity of functions as a good aspect that enhances the variety of products and user profiles. The results of social data validate the findings drawn from the physical analysis.
The subsequent parts contain the comprehensive findings of the physical and social analysis, which are summarized above.

4.1.2.1 Transitional Elements & Elements to Promote Pedestrian Activity on The Facade

Region A features a diverse array of transition elements that define the entrance and facilitate pedestrian activity on the facade. Out of a total of 187 structures, only 22% (41 buildings) lack these features whereas the remaining 78% (146 buildings) possess transition elements (Figure-4.11). Canopies or steps serve as defining elements for entrances in most buildings. These components define the entrance and enhance the vitality of those areas by establishing spaces that promote pedestrian activity on the facade. The elements in the region exhibit variation, contingent upon the relationship between buildings and the streets.
Figure 4.11 Transitional Elements in Region A
Figure 4.12 Koyunpazarı Street

Figure 4.13 Section View of Koyunpazarı Street
Koyunpazarı (narrow street serves as a lively commercial axis) Street (Figure-4.12) features numerous buildings possessing showcases on facades and elevated levels in front of the stores. The street (public space), commences beyond the levels. These levels have acquired a semi-public character, facilitating a smooth transition between private and public spaces. (Figure-4.13) Simultaneously, they provide a functional space for pedestrians by establishing an edge and support effect. The presence of counters in front of the stores and products shown in the showcases leads to an increase in pedestrian density, resulting in a physical diversity.

Adjacent to certain building facades on Can Street (Figure-4.14), there exist wide, semi-public spaces that can be regarded to as setback. (Figure-4.15) Nevertheless, although their large size promotes pedestrian activity, they also provide a setback effect and construct a distance between the public space and the building facade. At the end of the street, utilizing the front facade as a lounging area, without a dividing boundary wall, enhances the interface quality there.

Figure 4.14 Can Street
The presence of entry canopies on numerous buildings along At Pazarı street enhances the diversity of the area and enhances its visual interest and attractiveness. There is no distance between the buildings and the sidewalk in this location. Furthermore, the definition of entrances in specific buildings with canopies and
levels facilitates a soft transition between public and private spaces. (Figure-4.17) These aspects enhance the overall quality of the area's interfaces. However, particularly in the section of the street that faces the square, the absence of fixed transition elements between commercial units and the street hinders the creation of a soft transition effect and discourages pedestrian activity on the building's façade.

On Pirinç Street, certain buildings have direct access to the sidewalk, without any transition elements. Transition elements such as canopies, steps, and stairs are used in certain areas to promote a smoother transition. The majority of the facades lack features that establish spaces facilitating pedestrian activity.

Çengel Han, a prominent structure that overlooks the square, provides a diverse range of transition elements. The arcades on the front of the building, the canopies over the stores, and the steps at the street's edge (Figure-4.16) that have acquired a semi-public character, facilitate the transition between indoor and outdoor areas, while also introducing physical variety, visual interest, and attractiveness. The building offers enriched interfaces at the scale of transition.

Figure 4.17 Section View of Atpazari Street
4.1.2.2 The Type of Transition Between the Building and The Street

The quality of interfaces is significantly influenced by the *type of transition between the building and the street*, which is an important physical parameter. The literature classifies transition quality based on its accessibility (accessible/inaccessible), directness (direct/setback), transparency (opaque/transparent), and pedestrian/car orientation. There are no inaccessible transitions present at our study site that serve as an impermeable barrier. However, certain structures feature courtyards that effectively restrict the smooth transition between private and public spaces. These interfaces lack openness because of the opaque and high walls around the courtyard. The majority of other entries are either direct or have a connection to the street or sidewalk with few steps. There are a limited number of buildings that have enclosed gardens. As a result, in order to analyze the type of building/street transition, on-site building transitions are classified as direct, stepped, garden, or courtyard.

Interactive interfaces are generated in zone A due to the prevalence of connecting transition elements rather than separating walls. The interfaces function as permeable borders, facilitating the continuity between different spaces by ensuring the flow between public and private. A limited number of buildings in the area feature courtyards; however, the impermeability of the courtyard is mitigated by the fact that the entrances to some of these buildings are not situated from the courtyard itself, but rather directly from the facade. There are multiple buildings in which gardens serve as transitional elements. One example is the Ahi Şerafettin Mosque (Figure-4.18). The courtyard of the mosque is enclosed by high, transparent iron railings, which serves to decrease the interface's permeability. However, the mosque's entrance's proximity to the sidewalk at a distance that is visible from the street guarantees the structure's integration with the public area.
The Anatolian Civilizations Museum (Figure-4.19) also features a garden/courtyard transition. The museum is enclosed by iron railings, while the presence of thick and tall landscape features provides an opaque texture, resembling a wall. Due to the considerable distance between the railings and the main building, there is a lack of connection between the building and the street, resulting in a disruption of flow and continuity between the two the street and the building.

Out of the total of 187 buildings in the neighborhood, 27% (67 buildings) have direct passage to a public street or sidewalk. However, a larger proportion, 64% (120 buildings), have a step, platform or similar structure that serves as a mediator between the public and private spaces. Inspite of the difference in elevation, these levels do not disrupt the building's relationship with the street.
Instead, they enhance it by facilitating a smooth transition. These levels promote pedestrian activity, leading to increased pedestrian density and creating possibilities for social interaction. Nevertheless, the size of these intermediary spaces is significant. The expansive areas in front of the buildings on Can Street result in a setback of the structures, diminishing the integration of the buildings with the public space by creating a physical separation.

The transition characteristics of opacity or transparency are evaluated on buildings featuring lot-line walls. The buildings are divided into two categories, creating a smooth transition with transparent, low-height garden walls, and creating a hard transition with high-height opaque courtyard walls. Nevertheless, it should be noted that even in areas of transition that are enclosed by transparent iron railings, a more hard transition may occur, contingent upon the heights of the railings and other boundary elements employed. An illustration of this can be seen in the transition between the Anatolian Civilizations Museum and the street.

4.1.2.3 The Use of the Building

The use of the building is the third parameter that is examined, as it directly impacts the behavior and quality of interfaces. There are two concerns in this regard. First one is the usage of the ground floor of buildings for commercial purposes. The presence of commercial establishments on the ground floor, such as stores, cafes, and restaurants, enhances the level of interaction and social exchange. These usages provide the seamless integration of activity within the street space. Street space become intense and inviting. These interactive interfaces provide a wealth of sensory impressions (visual, auditory, olfactory, tactile) that would activate urban users.

The second concern refers to the functional diversity, specifically referring to the presence of many functions in close proximity. The literature suggests that as the physical and functional diversity of facades rises, the activity patterns in front of them become more diversified, less straightforward, and often spontaneous. User
variability is generated by various activity patterns, resulting in varied activities with different people, rhythms, and synergies.

Zone A comprises ground floor commercial units, including stores and cafes, as well as diverse facilities such as museums, hotels, galleries, and mosques. This zone house enriched transitions between buildings and the street (Figure-4.20). The places with the most diversity of usage are Pazarı Street, Pirinç Street, the starting and ending points of Can Street, and the vicinity of the plaza. On At Pazarı street, the cafes and restaurants have seating areas that situate beyond the buildings, effectively facilitate pedestrian activity. Moreover, it enhances the integration with the street and stimulates interest by creating a wealth of sensory impressions. Simultaneously, the galleries and antique dealers situated on this street appeal to distinct users groups, so generating a diverse range of users.

Çengel Han serves to a wide range of customers through the Rahmi Koç Museum, which attracts diverse user groups and stores on the ground floor. Similarly, Pilavoğlu Han appeals to a distinct group through its workshops and stores that sell handmade products. The cafe located within the Han generates variability of customers, as well. Koyunpazarı Street predominantly comprises retail establishments, resulting in a limited diversity in functions. Nevertheless, these commercial units provide opportunities for social exchange through the interface structure of the street stated above.
4.1.2.4 Overlapping Maps at the Scale of Transition

In order to identify the regions where interfaces are most proficient at the scale of transition, physical maps are created that overlay *transitional elements and*
elements promoting pedestrian activity on the facade, as well as building functions.

(Figure-4.21)

When all the parameters at the transition scale overlap, it is evident that the area provides highly qualified interfaces at this scale, as most of the territory is within the overlapping area. The interfaces throughout the area are well developed due to features such as functions generating pedestrian density, functional diversity, transition elements that facilitate fluidity between indoor and outdoor spaces, elements on facades that encourage pedestrian activity, direct and interactive transitions, and the absence of impermeable surfaces on transitions. These qualities are particularly prominent in specific regions.

The majority of the area provides opportunity for social exchange and interaction, particularly because of the commercial activities taking place on the ground floors. Moreover, areas with a high concentration of transitional elements can enhance visual interest and attractiveness by providing physical diversity. These elements contribute to the higher concentration of people in those regions and the diversity of individuals there, which leads to spontaneous encounters and the possibility of self-organized activities. The most critical of these locations are the vicinity of the Rahmi Koc Museum and Pilavoğlu Han, a segment of Pirinc Street, the adjacent sections of At Pazarı Street to Can Street, and the starting and ending points of Can Street.
Interfaces are evaluated at three distinct scales: the building's facade, the transition between the building and the street, and the street itself. By combining the parameters of these three scales, a comprehensive picture of the region can be obtained. While the analyses conducted at the facade and transition scales provide
insights into the nature of interfaces at these levels, the street elements and street structure also produce an influence on the overall behavior of the interface. This necessitates an examination of the street's scale as well.

Prior to proceeding the Physical Assessments of the third scale (*The Street*), an evaluation of the social aspects of interfaces at the transitional scale will be conducted through In-depth Interviews.

### 4.1.2.5 In-Depth Interviews

Upon compiling the data gathered from the *in-depth interviews*, it becomes evident that people notice the transitions between buildings and streets, even when they are referred to as entrances and exits. There is a recognition of the positive impact that the transitions have on the area's qualifications. Users report that they perceive the entrances of the expansive historical buildings in the area, as well as the entrance of the Castle, as noticeable and interesting. Different users express their assessment of the entrances of buildings like as Pirinç Han, Çengel Han, and Pilavoğlu Han. The Pilavoğlu Han is characterized by its gradual structure, which features distinct exits on each story leading to the street. While this architectural structure is recognized as engaging, the entrance itself lacks an appealing quality. As there are no doors, it is asserted that Pirinc Han is directly connected to the street. Interviewees perceive Çengel Han as an appealing building characterized by its spacious Han doors and architectural structure. Some of the monumental buildings are considered to provide highly skilled transitions that are perceived by the users.

The diversity of functions in the field is frequently highlighted. Workshops that provide handmade personal items, antique shops, and other commercial establishments are known to enhance the variety of products available. This also leads to a diversification of the visitor profile. Furthermore, it is stressed that museums and women's groups involved in production also broaden the range of user profiles. The interviewees also discuss the diverse functions and the abundance of opportunities that the field offers.
4.1.3 Street

As mentioned before, the street elements and street structure have an impact on the overall behavior of the interface.

Physical Analysis of the street scale is conducted upon five distinct parameters including (i) unification of facade, (ii) the proportion of building heights to street width, (iii) areas facilitating of pedestrian activity, (iv) qualified elements, (v) urban niches and urban walls and (vi) network permeability. (Table-4.3)

Table 4.3 Characteristics of Interfaces in Region A at the Scale of Street

<table>
<thead>
<tr>
<th>REGION A</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIFICATION OF FACADES</td>
<td>Continuous Facade View</td>
<td>Visibility &amp; Comprehensibility of Street Layout</td>
<td>The historical pattern (Scale of Region)</td>
<td>Perceivability Interest Attractiveness Spirituality Nostalgia</td>
</tr>
<tr>
<td>HL RATIO</td>
<td>Most of them are variable or near to 1.</td>
<td>Not generate sense of confinement in the majority of Region</td>
<td>The uniqueness/originality offered by the Region (Scale of Region)</td>
<td>Interest</td>
</tr>
<tr>
<td>AREAS FACILITATING PEDESTRIAN ACT</td>
<td>Generation of Open Spaces due to absence of a rigid street layout</td>
<td>Facilitate Pedestrian Activity Possibilities for Interaction</td>
<td>Multi-layered structure that embraces various periods (Scale of Region)</td>
<td>Square View of the Castle Narrow Streets</td>
</tr>
<tr>
<td>QUALIFIED ELEMENTS</td>
<td>Various Qualified Elements (Fountains, stairs, castle walls, clock tower, tombs, landscape elem.)</td>
<td>Physical Variety Perceivability Interest Attractiveness</td>
<td>Integration of the Castle with the park (Relationship between buildings and spaces)</td>
<td>Perceivability</td>
</tr>
<tr>
<td>CASTLE WALLS</td>
<td>Castle Walls</td>
<td>Diverse Activities At Various Times, Intersection of Different Lifes, User Variety, Social Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NETWORK PERMEABILITY</td>
<td>Not High (Due to Limited Width of Streets)</td>
<td>Do not posses substantial capacity to accommodate pedestrians</td>
<td>Castle Walls</td>
<td>Perceivability</td>
</tr>
</tbody>
</table>

Continuity and Integrity of Buildings, Streets and Spaces (Due to enhanced connections between buildings and streets, continuous pattern of the streets)
Most streets feature buildings that provide a continuous facade view, improving *visibility as well as comprehension of the street layout* for the majority of the area. However, this also creates a *sense of confinement* in certain streets. An important component that contributes to this impression is the ratio of building heights to street width, which exceeds one on this specific street.

The lack of rigidly defined building lots and gridded street layout has created a *flexible environment* in the area, leading to *self-generated open spaces* that encourage pedestrian activity on most of the streets in the region. These areas would foster higher levels of pedestrian activity and provide opportunities for social exchange and interaction. The area features a *diverse array of qualified elements* that enhance its physical diversity, evoke visual interest, and add to its overall attractiveness. These include fountains, staircases, castle walls, a clock tower, landscape elements and tombs. Additionally, the recesses in the castle walls can be described as both an urban wall and an urban niche. Urban walls and niches provide a range of possibilities for *different activities at different times*. Nevertheless, the network permeability of streets in the Region, except for Can Street, is low due to the narrow width of the streets, which inhibits the flow of people and the limited number of connections.

The coexistence of areas facilitating pedestrian activity and qualified elements increases the *liveliness and density* of the streets, hence promoting opportunities for social exchange and *interaction*. The prevalence of direct or gradual building-street transitions enhances the level of interaction between buildings and the street. The street layout is noticeable because the building facades in the region are adjacent to one other. The interface research found that this region exhibits *continuity and integrity* as a result of the improved connectivity between buildings and streets, as well as the continuous pattern of streets formed by the contiguous building facades. The finding holds significance when developing strategies for conservation, since the cultural heritage literature has underlined the need of maintaining the "*Continuity of urban fabric*" and preserving the "*authenticity*
and integrity of historic towns.” (Icomos, Paris 2011, Valetta Principles for the Safeguarding and Management of Historic Cities)

After examining the social data, it is clear that the interviewers are conducting comprehensive assessments regarding the Region, including, integration of the Castle with the park, the historical pattern of the Region, the uniqueness/originality offered by the Region, multi-layered structure (Altınöz, 2002; Okumuş, 2019) that embraces various periods. This also reveals the conclusion that inhabitants perceive the Region as a whole. And they interested with particularly the historical pattern which is evident by their frequent emphasis on historical pattern, originality, multi-layered structure, castle view and Castle square.

Moreover, walls which are defined in the study as “urban walls” are perceptible by the inhabitants and evoke interest and appeal. It is important to note that, castle walls as a significant monumental structure reflecting the cultural significance of the Region, is also a crucial parameter enriching interfaces at the scale of street. The recesses on castle walls have a dual purpose as both urban walls and urban niches, providing opportunity for various activities that take place at different times. These spaces enable the convergence and engagement of diverse lives and circumstances.

The subsequent parts provide the findings of the physical and social analysis, which are summarized above.

4.1.3.1 Unification of Facades

The relative positioning of buildings in relation to each other is a horizontal aspect of the interfaces observed at the street level. The literature states that the unification of facades aims to integrate buildings with each other and maintain the continuity of the street layout. The unification of facades is a physical parameter that is analyzed in this study. Due to its status as a historical city center, the bulk of structures in Region A are contiguous. Along the majority of streets, buildings create a continuous facade view, with the exception of street entrances or buildings that have been removed. The arrangement of facades in this manner enhances the visibility and
comprehensibility of the street layout. Although the continuous layout of the buildings may give a sense of closure, this effect is typically not achieved due to the buildings' small size, the close proximity of neighboring streets, and the dynamic movement caused by the facade elements of the buildings.

However, the contiguous arrangement of buildings on Hanımlar Street and Asker Street generates a sense of confinement. One significant factor contributing to this sentiment is the proportion of building heights to street width on this particular street. This leads us to another parameter at the street scale.

4.1.3.2  The Proportion of Building Heights to Street Width

According to literature, locations such as Hanımlar Sokak and Asker Sokak, which have a height-to-length ratio greater than one, create a feeling of confinement. However, spaces with a height-to-length ratio smaller than one provide challenges in perceiving the space and diminish the feeling of safety. In a well-developed interface, the height-to-length ratio must be approximately equal to one. In the streets of Kuş, Pirinç, and Karakaş, the adjacent buildings do not generate a sense of confinement because the ratio of their height to the length of the street is nearly equal to one. Despite its limited width, Koyunpazarı street often widens to provide little open spaces at the intersections with adjacent streets. Can Street and Atpazarı Street are notable for their wide dimensions, setting them apart from other streets in the area. The ratio of building height to street length is less than one in these streets. This might pose challenges in perceiving the space, but, the contiguous view of buildings in these streets mitigates this sensation to some degree.

4.1.3.3  Areas Facilitating Pedestrian Activity

Another parameter at the street scale is whether or not the street possess areas facilitating pedestrian activity. Areas facilitating pedestrian activity encompass open spaces resulting from street expansions in certain areas, gaps between buildings, and intentionally built open spaces.
The absence of rigidly defined building lots and gridded street layout has provided the area with flexibility, resulting in open spaces that facilitate pedestrian activity in several streets. The expansions, unique to the study region, has the capacity to generate liveliness on the street where they are situated. These places would provide pedestrians with the opportunity to engage in a variety of activities. These regions would foster high levels of pedestrian activity and offer possibilities for social exchange and interaction. Within the congested urban layout of the area, these open spaces would also generate viewpoint and improve the perceivability of the buildings. Thus, the site maps include the regions that would enhance the quality of the streets' interface.

It has been revealed that the majority of the streets (6 out of 8) in Region A house spaces that promote pedestrian activity. The majority of these spaces are informal openings that are exposed by the organic street layout. Some of them are located at junctions where streets intersect. Additionally, certain setbacks of buildings from the street or sidewalk can result in the creation of these spaces. Store windows are also assessed as factors that stimulate curiosity. However, their impact on producing interaction is restricted in comparison to open places.

At the start of Gözcü Street, the city walls' recessed structure creates pedestrian zones, despite the street's regular geometry. These places also experience an edge effect due to the presence of castle walls.

The expanding areas of Koyunpazarı and Kuş streets, resulting from the organic form of the streets, serve as pedestrian zones. Karakaş street serves as a designated space for sitting across its width in certain sections. The pedestrian zone at the end of Pirinç Street has been transformed into a designated space for sitting. Within Can Street, the alteration of the alignment of building facades has resulted in the establishment of pedestrian zones, which can be classified as semi-public in nature. Although Atpazarı Street lacks distinct openings due to its regular geometry, the spacious sidewalk is utilized as a designated space for sitting in certain locations.
4.1.3.4 Qualified elements

Literature highlights the significance of street furniture, urban landscape elements, and trees in retaining a human scale. The research site contains numerous structures that effectively preserve the human scale and perceptibility of the area, while also creating physical diversity, visually captivating and attractive. Interest is generated by a range of certain elements based on the historical pattern of the area. Several of them are grand in scale, such as the imposing castle walls, the clock tower, and the tombs. Certain elements, such as fountains and stairs, are rather small in size. The landscape features notable components such as large trees and canopies created by creepers. The components that contribute to physical variety, visual interest, and attractiveness in the region are classified as Qualified elements. Gözcü Street, situated opposite the city walls, and Can Street, adorned with tombs and other landscaping features, are the axes where these exceptional components are concentrated. Nonetheless, the fountains and landscape elements situated in Zone A at various points generate visual interest and attractiveness that permeates the entire region.

4.1.3.5 Urban Niches and Urban Walls

Literature focuses on the importance of urban niches and urban walls in enhancing the effectiveness of interfaces. These spaces are characterized as areas where different lives, situations overlap and interact. Urban walls and niches offer opportunities for diverse activities at various times. The continual changes of functions throughout time offer flexibility and dynamism to interfaces. The construction of such areas is made possible by the indented structure of the city walls in Zone A. The recesses in the walls form spaces that can be characterized as both an urban wall and an urban niche. The width of these places is sufficiently large to accommodate a wide range of activities. The positioning of these places along a lively axis that connects key areas in the neighborhood further enhances their
effectiveness. In addition to this, there is an urban niche situated in the interstitial space between buildings on Can Street, forming an effective area.

4.1.3.6  Network permeability

Another parameter examined at the street level is *Network permeability* refers to the ability of a street to accommodate the movement of individuals or cars. At the study site, the evaluation of network permeability concentrates on pedestrian movement rather than cars. Permeability plays a crucial role in facilitating human interaction in this study. When assessing network permeability, it is crucial to ensure that the street has sufficient width to accommodate a high pedestrian density. Additionally, it is vital to have many connections, and these connections should have a pedestrian density that can support the flow of pedestrians along the street. Due to the uninterrupted structure of the facades in area A, there is minimal permeability at various locations. Simultaneously, the limited width of the roadways constrains the number of pedestrians that can occupy them. Nevertheless, street links enhance this permeability. Regarding these parameters, the streets in zone A exhibit distinct characteristics.

Can Street is characterized by its expansive sidewalks and capacity to accommodate a high volume of pedestrians. Adjacent streets that link to Can Street support the pedestrian density. The street has wide open spaces at both ends. When considering these factors, it can be concluded that Can Sokak has a high level of network permeability.

Numerous streets establish connections to Koyunpazari Street. Nevertheless, given the limited width of Koyunpazari Street and the narrow streets through which these connections emerge, it is possible to conclude that the network permeability on this street is comparatively lower than that of Can Street. Gozcü Street and Atpazari Street, two broad axes in the vicinity, possess substantial capacity to accommodate pedestrians. Nevertheless, due to the limited number of connections that support the streets, network permeability is somewhat restricted.
4.1.3.7 Overlapping Physical Maps of Street Parameters

Upon overlapping the six aforementioned parameters on the map (Figure 4.22 and Figure-4.23), it becomes evident that the street scale interface quality of the region is quite high.

Figure 4.22 Overlapping Map of Street Parameters in Region A
Figure 4.23 Streets in Terms of Interface Quality in Region A
The majority of the streets in the region feature areas facilitating pedestrian activity and qualified elements that evoke interest. (Figure 4.24) The simultaneous presence of these elements enhances the vitality and density of the streets, thereby fostering possibilities for social exchange and interaction. The prevalence of direct or gradual building-street transitions enhances the level of interaction between buildings and the street. Due to the contiguity of the building facades in the area, the street layout is perceptible. The interaction between buildings and streets is
considered to exhibit a sense of continuity, which is sustained by numerous connections, resulting in a cohesive pattern across the entire area. Hence, one can discuss the existence of a regional system in which individual components are interconnected and collectively constitute the whole.

4.1.3.8 In-depth Interviews

Upon compiling the data gathered from the in-depth interviews, it becomes evident that castle walls are consistently identified as a prominent factor that generates interest, is easily perceptible and creates attraction. In addition to the walls, the castle entrance, which is regarded as an urban niche in the physical analysis, is also highlighted. Although narrow streets are not classified as permeable areas in the physical analysis, they do attract the attention of interviewees. Interviewees also perceive the textures of the street and the furniture found on the street. Several users express their fascination with cobblestone pavements. Nevertheless, certain users refer to historical traces and assert that the act of extracting natural stones with oxcart imprints and replacing them with cobblestones diminishes the overall quality of the area. Furthermore, it is mentioned that the square incorporates a diverse range of materials and urban furnishings, leading to a lack of compatibility.

The users' holistic perception of the area is evident through their frequent emphasis on the Castle's view, the area's historical pattern and originality, and its multi-layered structure that embraces various periods. The physical analysis determined that the entire area exhibits a comprehensive pattern, and the data collected from users supports this finding. Furthermore, the integration of the Castle within the park reinforces the findings regarding the integrity of the pattern.

4.1.4 Overlapping areas of all parameters at different scales

When the analyses of all parameters at various scales are superimposed, areas of intersection become apparent, which we shall refer to as sub-regions (Figure-4.25).
While certain areas encompass a certain territory, others are more confined, consisting of only a few buildings and their immediate surroundings.

The eight subregions are regarded as the places with the most well developed interfaces in Region A. These regions are situated at the periphery of the axes that we identified as having a high level of street-level interfaces quality. A significant portion of the area exhibits a high level of interface quality on the scale of transition. On the facade scale, however, qualified interfaces are concentrated in specific regions that correspond to the overlapping subregions.

Each of the sub-regions contains areas with building facades that are open, visually appealing and perceptible to some extent. Most of the buildings in these sub-regions feature transparent facades, which allows for visual permeability. However, because the density of ornaments and facade elements differs between regions, so do the aesthetic attraction and perception of the facades.

The (i) 1st region (Figure-4.26) exhibits the highest diversity of façade features and ornamentation among all sub-regions. Two historical Hans are situated in the region. Çengel Han provides a diverse range of façade elements, including canopies, balconies, and brickwork pedimented arches. This building additionally establishes a proficient interfaces on the transition scale, with arcades on the building's facade, canopies placed over the shop fronts, and grades adjacent to the street. Çengel Han appeals to a diverse range of users because of its museum. Additionally, the ground level shop attracts a wide range of customers. The usage of Çukur Han, both as a hotel and with the presence of a café on the ground floor, contributes to the functional diversity of the sub-region.
Figure 4.25 Intersection Areas in Region A

Figure 4.26 First Sub-Region in Region A
In the second subregion (Figure-4.27), the facade has numerous and expansive openings, particularly on the ground floors. Shop windows also enhance visual permeability. The sub-region lacks the same level of diversity in facade features and decorations compared to sub-region 1. Nevertheless, the landscape features, color scheme on the facade, and unique timber embellishments set the sub region apart from the overall area. Transition elements can serve as both steps and seats. The visual and physical linkage between the interior and exterior is strong. However, despite facilitating flow between indoor and outdoor spaces, the pedestrian areas are very limited and do not provide a spacious usage area. Cafes and shops on the ground floor foster an interactive relationship with the buildings. The store windows and counters, showcasing various products, provide a wealth of sensory impressions. Within this particular sub-region, there exists an area resulting from the expansion of the street, which might facilitate various pedestrian activities.
In the third subregion (Figure-4.28), the ground floor facades are primarily composed of shop windows. Ground levels exhibit a high level of visual
The fourth subregion, Pirinç Street (Figure-4.29), is home to another Han building. Like the second and third subregions, the first floor of facades mostly consists of large store windows. There are multiple points of exchange due to the presence of numerous small retail units, resulting in a high number of entrances in close proximity.
proximity. These retail units with store windows enhance visual permeability. Moreover, the absence of doors in the entry of the Han building enhances physical permeability by facilitating a direct transition. The visibility of the inner court of the Han from the street enhances the sense of depth. The building features a visually appealing front adorned with architectural elements, such as triangular projection. The presence of balconies, projections, and canopies on the same facade of other historical buildings suggests a display of richness in terms of facade elements. The buildings on Pirinç Street exhibit richness through their ornamentation, including timber beams, timber windowsills, ornamental brackets, and timber facade claddings. The presence of landscape elements that link the façade of buildings on both sides of the street creates a visually diverse, easily noticeable, and engaging environment. These features also preserve a human scale when viewed from the street. The height-to-length ratio of the buildings on the street is approximately one. This ratio enhances the perception of facades. However, the sole section on Pirinç Street that allows for pedestrian activity, other from the limited walkways, is the seating place at the street's terminus.
The fifth subregion is the starting point of Can Street (Figure-4.30). In this particular region, as in other regions, the facades including showcases offer visual permeability. Simultaneously, the abundance of numerous small-scale shops fosters opportunities for social exchange. Facade elements offer diversity. Buildings consist
of two main facade elements: bay windows with projections or balconies with canopies. While the façade ornamentations lack variety, the inclusion of landscape elements and brackets on buildings’ facades brings some diversity to the area. Canopies additionally give visual variability to the area and also enable flow between interior and outdoor spaces. The simultaneous presence of hotel and retail functions is an additional feature that enhances the quality of interfaces on the scale of transition.

The sixth subregion is situated in the central area of Can Street. The shop windows on the lower floors allow for visual permeability. The inclusion of architectural elements such as projections, balconies, and canopies on the facades enhances visual appeal. Nevertheless, the ornamentation lack diversity. It provides a lower level of ornamentation compared to the other five subregions. The thresholds at the entrances of buildings facilitate a smooth transition between the interior and exterior spaces. The spacious area featuring a prominent tree in its center has the ability to facilitate various activity patterns and enhance the quality of the street-scale interfaces.

The seventh subregion encompasses a section of Atpazari Street (Figure-4.31). The facades in the area establish permeable borders in terms of interfaces. The presence
of transparent facades and the compact size of the buildings foster numerous opportunities for social exchange. While the facade ornaments conform to a typical structure, the inclusion of landscape features and timber joineries on the facades creates a sense of diversity. The inclusion of features such as canopies and projections on the facades of buildings results in the creation of pedestrian zones in front of the stores. The street-side seating spaces of cafes and restaurants expanding the usable space along the building's façade. They enhance interaction with the street and evoke interest by creating a multitude of sensory impressions. Simultaneously, the galleries and antique sellers on this street appeal to many user groups, resulting in a wide range of users.

Figure 4.31 Seventh Sub-Region in Region A
4.2 REGION A – The Social, Structural and Behavioral Characteristics of Interfaces and Socio-Spatial Processes Generated By Their Interplay

The conceptual map of interfaces (Figure-2.26) illustrates the relationships between physical, social, and affective components of interfaces, which give rise to certain structural variables and trigger behavioral parameters. These parameters are also characterized by the dynamics of complex systems. These associations suggest that interfaces with well-developed physical and social parameters can activate certain structural parameters such as openness, permeability, transparency, variety, and vitality. This, in turn, promotes the generation of complex system dynamics including dynamism, flexibility, and adaptability.

In Region A, zones with well-developed interfaces at three different scales are expected to provide social exchange and interaction opportunities due to their high population density and vibrant environment. The convergence of diverse users in spontaneous encounters has the ability to create self-organized activities. According to the literature, this structure improves the dynamism, flexibility, and ability to adapt of the area. However, it is impossible to evaluate these criteria by physical examinations. The method of social assessment was utilized in this case, which involved conducting in-depth interviews. Figure-4.32 is designed to assess residents' perceptions of interface parameters and the asserted relationships between these parameters.

This section analyzes the generation of structural and behavioral parameters in the Region using the structural scheme depicted in Figure-4.32. The section examines Social Parameters (4.2.1.), Structural Parameters (4.2.2.), and Behavioral Parameters (4.2.3.) separately.
Figure 4.32 Perceived Variables of Interfaces in Region
Upon analyzing the social data gathered through in-depth interviews, we discovered that there is a further level of complexity in Region A regarding the structure of interfaces. This complexity goes beyond the structural scheme that was created to represent the interface parameters that are defined in the literature and their relationships. The physical assessments indicated that Region A exhibits a highly qualified interface pattern, varying in intensity across different locations, but encompassing the entire region. Social analyses have also demonstrated that qualified interfaces provide a complex structure, trigger numerous affective, social, structural, and behavioral aspects, and establish several interconnections among them.

This complex structure produces some social and behavioral parameters in the Region, including; (i) Intensified Social Interaction; (ii) Self-Organization Capacity; (iii) Spontaneous Activity Pattern; (iv) Dynamism; (v) Adaptibility to a Certain Degree; (vi) Flexibility to a Certain Degree.

Upon analyzing the region's change and transformation over time, it becomes evident that it undergoes phases of decline, by experiencing fractures in certain periods. However, it subsequently recovers a certain level of vitality due to the influence of many forces. That is to say, as Gökmen (2009) states when defining chaos theory, the region reaches a new equilibrium point each time with various movement patterns. Social interaction is a crucial factor that contributes to the effectiveness of this. The interaction between the old craftspeople and the emerging group of artists, which is a key component of the region, along with the networks they establish, enhance the area's ability to adapt to present circumstances. The region continues to distinguish itself with its unique design products and attracts individuals seeking specific items.

The scheme created as a result of the social analysis has revealed that the historical pattern and cultural characteristics are the primary variables that enhance the complex structure of the area. By emphasizing these characteristics, the scheme demonstrates the extent to which they generate affective stimulation and reinforce
the social structure. While cultural heritage studies suggest that numerous buildings have lost their authenticity as a result of renovations, the cultural and affective elements generated by the historical pattern remain deeply attached to the area. UNESCO Document of Recommendation on The Historic Urban Landscape underscores the preservation of authenticity and states that the implementation of knowledge and planning tools is crucial in safeguarding the integrity and authenticity of urban heritage.

Furthermore, along with the criticism on standardizing renovation interventions, inhabitants assert that historical memory is conserved. Supporting this argument, it is stated in the literature of conservation that, “…it is through interactive communication and the participation of the concerned communities that the spirit of place is most efficiently safeguarded, used and enhanced.” (Québec Declaration On The Preservation Of The Spirit Of Place, 2008) Literature of interfaces define this aspect with a similar view; “…human societies are held together by shared expectations, institutions, worldviews, ideas, technical know-how, in short by a shared culture, enacted and shaped through social networks.”(Ernston et. al., 2010)

4.2.1 Social Parameters

The interviewers were asked about the social characteristics and structural and behavioral interface parameters that form the structure of the study. The potential of the region to foster interaction and social exchange has been repeatedly noted, in line with the findings of physical assessments.

It is stated that there is familiarity, warm relations, cohesion and interaction between the residents due to the human scale of the area, the openness of the facades and the direct transitions between buildings and streets. Additionally, it is mentioned that collaboration occur frequently. Furthermore, social variables such as the surrounding neighborhood environment (sense of community) and the collective consciousness of the community are also discussed. The physical investigation determined that the entire region exhibits a comprehensive/holistic pattern. The
interviewees assert that the region possesses a neighborhood atmosphere and a collective consciousness, which indirectly indicate the social cohesion in the area. The aforementioned social capacity of the Region plays a vital role in developing complex system dynamics, such as dynamism and adaptability, which are also behavioral interface factors. Effective interfaces provide fertile grounds for creating interactive and experiential knowledge. This kind of knowledge that is emerged from diversified encounters and interaction stimulates practices of self-organization. The ability to self-organize is crucial for maintaining the dynamism and adaptability of the system.

However, upon reviewing the literature of cultural heritage, it becomes evident that social capacity play a crucial role on transmitting the spirit of place, as well (Québec Declaration On The Preservation Of The Spirit Of Place, 2008). This is an important output indicating the facilitating role of well-developed interfaces on the conservation of cultural heritage.

In addition to the parameters that establish the framework of the study, cultural aspects are referenced. The historical pattern significantly influences the physical perception of the place, while the cultural pattern also plays a role in the social perspective. It can be inferred that the intangible cultural pattern has a role in shaping social behavior in the region. Due to the frequent mention of tradesmen culture (Ahi culture) by the respondents. They assert that there is a gathering of knowledge in the domain of tradespeople culture, and that this culture influences the development of solidarity and support among craftsmen. The beginnings of Ahiism are derived from past crafts. This culture can be considered as the underlying cause for practices like establishing business relationships with experienced craftsmen and engaging in collaborative businesses, which are regularly highlighted in the area.

The tradesmen culture is regarded as a significant outcome of social data concerning interfaces, while also reflecting a cultural reference (an intangible element) in the field of cultural heritage studies. Additionally, it holds spiritual value as it describes a spiritual essence and a belief system. Therefore, it is crucial to incorporate it into
the studies of cultural heritage in the research area, as the spiritual value serves as a criteria on assessing cultural significance in the literature of cultural heritage. *(Australia Icomos Burra Charter, Practice Note, 2013)*

The interviewees usually indicate that the distinctive cultural structure of the area has a significant impact on sensational effects such as belonging, and commitment. Although the literature has characterized certain affective parameters associated with interfaces, in-depth interviews reveal that there are more emotional parameters in the region, including belonging, commitment, place attachment (aidiyet), pride, and spirituality. The historical pattern is said to foster a feeling of belonging. Put simply, we see that factors that evoke strong emotions, such as a sense of belonging, are also connected to the physical structure of the space. The interviewees additionally assert that improper restoration practices and damaged historical structures evoke feelings of anxiety and distress in them. This demonstrates that other emotional factors are similarly interconnected with physical space.

The statement of “Every time I come here I feel that a root culture is alive. I feel proud.” describes the emotion that arises from a historical pattern.

From the perspective of cultural heritage, it is evident that the study region contains tangible features that indicate its cultural significance. These aspects are identified in the study as historical patterns. Researches on interfaces reveal that, these tangible elements bear the traces of past civilizations or reflects cultural pattern of different periods and evoke some meanings and strong emotions including spirituality, belongingness, pride. These outputs find out some associations between tangible and intangible elements and indicate their interdependence. In these terms findings of social data related to interfaces, supports the literature of cultural heritage;

“Spirit of place is defined as the tangible and intangible, the physical and the spiritual elements that give the area its specific identity, meaning, emotion and mystery. The spirit creates the space and at the same time the space constructs and structures this spirit.” *(Icomos, Paris 2011, Valetta Principles for the Safeguarding and Management of Historic Cities)* Moreover, “A place should be considered in its
wider physical, social or spiritual context. It should not be assessed in isolation.” and “The intangible heritage may be dependent upon the existence and form of the place.” (Australia Icomos Burra Charter, Practice Note, 2013) These two cultural heritage documents highlight the significance of the association between both tangible and intangible elements on a historic urban site in shaping the very spirit of the place, while also illustrating the complex structure of these areas.

The interviewees' remarks highlight that the cultural pattern is composed of distinct chronological and spatial layers. One layer is characterized by the presence of a tradesman culture, while another layer is marked by the coexistence of different civilizations, traces of various cultural influences, and remnants from different historical eras. The historical pattern reveals recognizable traces of various cultures. This aspect serves as evidence of the interdependence between cultural structure and physical structure. Simultaneously, the craftsman culture, is conserved as a historical memory due to the ongoing commercial activities in the region. Nevertheless, the interviewees also assert that the traditional crafts that contributed to the formation of craftsman culture are gradually disappearing.

“It is an integrity that reflects us and our culture in terms of its historical pattern and spiritual values.”

Upon evaluating this comment with the evidence provided by other respondents, it may be deduced that historical and cultural patterns are intricately connected. Simultaneously, when discussing cultural influences, the significance of integrity is once again underscored. Regarding this matter, we may assess that the cultural, physical, and social patterns exhibit a cohesive nature, intertwining and mutually enhancing one another, so forming a unified and interconnected structure. In this instance, it may be asserted that this region functions as a complex system where numerous components intersect and interrelate.

Furthermore, the statements, “The castle is like a city within the city.”, "It is like this place has different rules. Different from the city. Some of us call it the Kale republic.” strengthen this evaluation.
The literature of cultural heritage also underscores the importance of integrity since the “the authenticity and integrity of historic towns” is defined as an element to be preserved in the relevant literature; “The authenticity and integrity of historic towns, whose essential character is expressed by the nature and coherence of all their tangible and intangible elements,...” But it is also assessed in the related literature that; “The speed of change is a parameter to be controlled. Excessive speed of change can adversely affect the integrity of all the values of a historic town.” (Icomos, Paris 2011, Valetta Principles for the Safeguarding and Management of Historic Cities) However, the system's dynamism and adaptability are the main factors that determine its evaluation through interfaces. Imposing limitations on the process of evolution and transformation is fundamentally unattainable. Due to the interdependence of all elements in a complex system, it is crucial for these elements to evolve in harmony in order to preserve the robustness of the complex structure.

Based on the physical research, it is anticipated that proficient interfaces at three distinct scales would provide opportunities for social exchange and interaction in the area. The social pattern reported by the interviewees further supports these assumptions and demonstrates that the region is exceedingly open to interaction. Within the Conceptual Framework of the study (Figure-2.26), the issue of interaction and Social Exchange is covered as a singular parameter. However, the interviewees have provided us with various sub-parameters, including solidarity, support and guidance, friendships, cohesion, warm relationships, neighborhood environment, collective consciousness, business relations, and collaborative business activities. Based on this observation, we may conclude that the interaction in the area is characterized by a high level of intensity and complexity.

In summary, the theoretical framework of the study argues that interactive spaces would exhibit spontaneous activity patterns and self-organizing behaviors. Upon examining the sociological data provided by the interviewers, it becomes evident that there is actually a self-organizing structure present in the area.
Local business owners collaborate and coordinate a diverse range of events, including exhibitions, panels, concerts, and festivals. However, interviewees also highlight that these activities have experienced a decline in recent years, particularly following the beginning of the epidemic. Nevertheless, the absence of an organized structure that extends beyond the region is evident due to the implementation of these organizations within closely situated groupings. The Rahmi Koç and Erimtan museums actively engage in a wide range of activities and establish connections with other groups in the area due to their integration. Examples of such initiatives are the workshops organized by the Erimtan Museum for women entrepreneurs and the craftsman street event organized by the Koç Museum.

The sole organization that extends over the entire region is a fellowship organization known as the Kale Association. While certain interviewees affirm the presence of activity within this association, others contend that the association is inactive and does not engage in any activities.

Although habitants exhibit an organized structure, it is asserted that this structure is disrupted by institutions. “We requested to the...institution. We received no response.”; “We went to the municipality. They are not interested in our ideas.” “They made street and road regulations. They didn't consult us.” It is evident from the statements that institutions lack interaction with the inhabitants. Despite the users' motivation and effort to organize, it is acknowledged that tangible outcomes cannot be achieved due to the lack of institutional supporting for these efforts.

According to several respondents, spontaneous events occur in the region on occasion. For instance, it is mentioned that puppeteers occasionally arrive and present their performances, Romani children spontaneously seize a drum and commence playing while walking past, and artists engage in street performances. Nevertheless, these occurrences are sporadic and do not seem to constitute a spontaneous pattern of activity. Additionally, it is mentioned that certain merchants do not welcome such circumstances and actively attempt to prevent them. The majority of the interviewees assert that certain merchants exhibit a greater tendency
towards traditionalism or protectionism. They exhibit a resistance towards innovation and change.

The sole instance where evidence of a spontaneous activity pattern were observed is referred to in Pilavoğlu Han. “There is too much human interaction. This disrupts the plan made beforehand. There is spontaneity according to the work put in front of the shop. Arrangements can change.” ve “There is vitality. There are very spontaneous situations at the entrance.” Based on these comments, it can be inferred that spontaneous instances occur with sufficient frequency to establish a pattern. Simultaneously, spontaneity is linked to liveliness and interaction, therefore affirming the relationships within the study's conceptual framework.

4.2.2 Structural Interface Parameters

The interviewers also assessed the region based on the fundamental structural interface parameters of Openness, Permeability, and Variety, as outlined in the study.

Within the study's theoretical framework, the notion of openness is associated to physical attributes, including the physical and visual permeability of the facade through openings and transparency, the direct flow between buildings and the street, and the absence of walls that would impede the connection between buildings and streets. Nevertheless, when the participants were asked to assess the extent of openness in the area, it became evident that their understanding of this notion was more extensive and multidimensional. Interviewers associated openness to both physical and social factors. Furthermore, it is evident that individuals perceive openness on various scales, including the physical structure of the building, the surrounding neighborhood, and the integration of the neighborhood with the larger urban environment.

The majority of the interviewees in the region report that their buildings are physically accessible. As per the respondents, the openness of the buildings is ensured by various elements, including direct connection to the street without a door,
presence of spacious doors, immediate access to the street, absence of enclosed offices, and lack of tall walls. Put simply, they confirm the theoretical relationships outlined in the study by implicitly highlighting the importance of physical and visual permeability. In addition to the theoretical relationships presented in the study, they also correlate openness to social characteristics such as appealing to all groups and promoting inclusivity. As an example, the payment and security measures at the entrance of a building is considered as factors that restrict openness.

Another category of assessments related to the notion of openness is conducted at the neighborhood scale. At this particular scale, the majority of the interviewees describe the area as open, emphasizing its inclusive nature and the possibility of visiting it independently. The shops' siding along the street is stated as ensuring the area's openness. Put simply, when assessing the neighborhood scale, the focus is on physical factors like unrestricted access to the area and physical permeability, as well as social factors like the possibility of visiting area independently.

When assessing the degree of openness in regard to the area's integration with the larger urban environment, it becomes apparent that it is not perceived as open in terms of both physical and social aspects. Regarding physical factors, interviewees indicated that the transportation issue restricts the integration with the urban environment. Regarding social factors, interviewees indicated that the area is inaccessible due to poor perception. The evaluation of the relationship with the external environment also considers the creation of networks. It is emphasized that the area is not open to the outside world due to the absence of global connections.

In the literature of cultural heritage, it is assessed that “Historic towns and urban areas are spatial structures that express the evolution of a society and of its cultural identity. They are an integral part of a broader natural or man-made context and the two must be considered inseparable.” (Icomos, Paris 2011, Valetta Principles for the Safeguarding and Management of Historic Cities) Upon these assessments it is evident that, integration of the area to the urban environment is crucial for the approaches of conservation/regeneration.
We consider that the limited physical integration of the neighborhood with the urban environment could have an adverse impact on the aforementioned complex structure of the area. Open systems are able to sustain their complex structures through the extensive interconnection and exchange among the components of the system. However, disrupting the complex structure may occur if the relationship and flow of people and material between the area and its external environment are reduced.

The study recognizes that physical, usage, and social diversity are crucial factors in developing high-quality interfaces. These factors influence the behavior in that area and give rise to the development of well-defined interface parameters. Due to its ability to serve as a bounding element, variety has been regarded as a structural interface parameter. The presence of a variety of physical elements in a space contributes to its visual appeal and attractiveness. This, in turn, enhances opportunities for social exchange and interaction by making the space more vibrant and densely populated. Based on the assessments provided by the majority of the interviewees regarding diversity, it is evident that they lack a perception of the region's physical diversity. Contrary to that, it is stated that the area exhibited greater diversity prior to the implementation of restoration projects, resulting in uniform facades after the restoration. It has been asserted that the materials utilized in street improvement projects are incompatible and result in an unqualified range of variations. Based on the physical assessments, it was observed that, apart from the intersection areas identified through analysis, the facades in the area exhibit a similar appearance, characterized by uniform timber doors, window jambs, floor moldings, and corner posts. It appears that a crucial factor that would enhance the quality of the interfaces in the area has been undermined due to the restoration work.

Interviewees primarily express the diversity within the field by emphasizing social factors and usages. The area exhibits a significant diversity in both its residents and visitors. Various cultural groups migrated to the area after some of the old residents left. The presence of museums, galleries, and various commercial establishments that provide shopping opportunities in the area are the key factors contributing to the
diversity of visitor groups. The presence of multiple diverse uses in the area is highlighted as a contributing factor to the variety of visitor groups.

Another factor that is highlighted is the diversity of producer groups. Although there is still a small contingent of craftsmen specializing in traditional crafts, a more intellectual group has emerged, establishing workshops and galleries. Particularly women groups specializing in these activities arrived in the region and introduced diversity in this regard. This situation also fosters product diversity, as there are shops that specialize in handmade personal products and even offer unique items that are not available elsewhere.

According to the study's theoretical framework, the social diversity in the field has a substantial potential for interfaces. These areas facilitate diverse groups engaging in various activities, resulting in spontaneous encounters, interaction, and synergy, as stated in the literature. This synergy creates possibilities for self-organized practices.

However, the interviewees underline another situation: “Lately everywhere has become a rosary seller.”; “...There remained antiques, souvenirs and stuff like that.” “Crafts are dead.” These statements indicate that the aforementioned socio-economic diversity is also reaching a threshold. This indicates an adverse trend in the area with regards to the quality of interfaces.

The majority of interviewees assert that the level of vitality observed in the 2000s has declined. Reasons for this include the pandemic, the closure of famous restaurants that draw in a select customers, and the decrease in nighttime population. According to the evaluations of the study, it is believed that the mentioned threshold in socio-economic diversity is a significant factor in diminishing vitality.

4.2.3 Behavioral Interface Parameters

After analyzing the physical parameters in region A, it is mentioned that areas with qualified interfaces at three distinct scales are characterized by high liveliness and density, which in turn provide opportunities for social exchange and interaction.
Spontaneous encounters between diverse users have the ability to generate self-organized practices, which in turn brings dynamism, flexibility, and adaptability to the field, as stated in the literature.

The study's physical and social analyses reveal that the area contains sub-regions that possess well-developed interfaces as a result of its existing structure. Simultaneously, the region possesses numerous physical, social, and cultural attributes that possess the potential to enhance the quality of interfaces. Furthermore, an analysis has revealed that the region's physical, social, and cultural elements exhibit a holistic and interconnected pattern, mutually supporting and enhancing one another to form a unified and harmonious structure. Ultimately, it was determined that this region functions as a complex system in which multiple components intersect and interact, much like contemporary urban centers.

According to the literature, a system that maintains its complex structure also maintains and enhances its dynamic and adaptable behavior. Given the prevailing conditions, it is expected that the region will possess these capacities to a certain extent. Interviewees were surveyed regarding the dynamic, flexible, and adaptable behavior of the region.

The dynamism of the area has been examined in relation to the changes and transformations it has undergone over the years. The interviewees provided a comprehensive description of the change and transition that has occurred in the area over time, covering physical, social, and economic aspects. Nevertheless, it appears that the residents of the region perceive the changes here as both advantageous and disadvantageous.

From the evaluations of the interviewees, it is understood that there are two main factors that the physical transformation in the area comprises. One of these is the start of restoration work in the area, and the second is, in parallel, the Han buildings in bad condition are restored and turned into museums, hotels, workshops, shops, etc. The activation of these structures serves as a significant catalyst for a transformation in the broader region's usage patterns.
The restoration process is an important element of physical transformation. However, this transformation has positive and negative consequences according to users. According to the interviewees, the restorations conducted by the Municipality on the exteriors of the buildings have resulted in a decrease in the diversity of the facades.

“Altındağ Municipality made exterior cladding 8-10 years ago. They didn’t ask anyone. It is debatable whether it was good. It was more diverse before. There were different colors, windows, frames. The inside of the castle was also colorful. They made it uniform.”

“They made street and road regulations. They didn’t consult us. They are not interested in our opinions.”

It is stated that the street renovation projects involved the removal of natural stones that had traces of oxcarts on them, and they were replaced with cobblestone pavements. (“They erased the traces of history.”) Furthermore, significant attention is given to the disharmony that arose as a result of utilizing substandard urban furniture.

However, the interviewees also assert that the restoration of buildings such as Zenger Pasha Mansion, as well as Çengel Han and Çukur Han, have significantly enhanced the area's potential. However, when discussing the potential resulting from the restoration of these structures, the primary focus lies not on the physical change, but rather on the socio-economic transformation brought about by their restoration in the region.

There was a noticeable physical change in the area as a result of the restoration process. However, these actions were carried out by institutions without appropriately considering the ideas of the residents. It is reported that there was minimal physical alteration subsequently. One possible reason for the lack of significant physical changes, aside from the municipality's restoration efforts, could be the legal status of “urban renovation area” and the requirement for approval from
multiple boards for projects involving registered buildings. Consequently, it appears that the region lacks a highly dynamic structure in terms of physical transformations.

The sole location where the existence of an ongoing physical change is mentioned is Pilavoglu Han. The doors of the Han were previously closed, as reported. The commencement of the door's opening initiated a change within the Han. The upper floors utilized as rooms for singles were converted into workshops, while the lobby area at the entry undergone renovation and was repurposed as a workshop. Upon the doors' opening, the Han transformed into a transitional structure. The transformation of the Han into a transitional structure is significant for the study as it initiates a physical alteration.

The interviewees also mentioned that the intended physical alterations were not possible due to unresolved ownership structure. It was emphasized that restoration and restitution could not be conducted because the ownership structures remained unresolved.

When discussing social dimensions, it is asserted that the only situation that exhibited indications of a spontaneous activity pattern was observed at Pilavoglu Han. The study arrived at this result based on the statements; “There is too much human interaction. This disrupts the plan made beforehand. There is spontaneity according to the work put in front of the shop. Arrangements can change.” The fact that the only place with a spontaneous activity pattern is also the only place with a certain degree of physical dynamism is important for our study. It is crucial for the research that the sole location exhibiting a spontaneous activity pattern also possesses a specific level of physical dynamism.

A more dynamic framework has been defined in socio-economic terms. The region was once home to foundry workshops, blacksmiths, coppersmiths, spice vendors, and other similar crafts. Nevertheless, it is also indicated that these craftworks diminish over time. Interviewees stated that there is a limited presence of skilled artisans in the region who specialize in the complete creation of
the good. However, the small number of artisans who still work in the area only engage in the processing of pre-existing (finished products) products.

The respondents stated that the restoration work commenced in the 1990s with a cluster of structures, which included the Zenger Pasha Mansion. The area's potential to attract both local and foreign tourists grew when the houses began functioning as restaurants and some of the Han structures became active. According to reports, artists started selecting locations in the neighborhood and subsequently established pottery and painting workshops after the mid-1990s. Interviewees stated that the area's growing tourism potential is a motivating factor for artists when selecting the site.

According to the interviewees, the neighborhood has become a popular destination for both local and foreign tourists. However, its appeal has diminished to some degree due to the closing of restaurants like Zenger Pasha Mansion and Washington restaurant. However, interviewees also assert that the subsequent restoration and operation of Çengel Han and Çukur Han significantly enhanced the vibrancy of the neighborhood. They highlight that following the epidemic, the vibrancy in the area began to decline once more. In recent years, there has been a decline in the diversity of business establishments, with a particular concentration of souvenir shops in the region.

Upon evaluating the data provided by the respondents, it becomes evident that there is a continuous socio-economic change and transformation occurring in the area. This transition is initiated by both physical and economic influences. While there has been a dynamic process in the region, it is important to note that this transformation also carries certain adverse consequences.

The preceding sections assessed the cultural, physical, and social patterns in the area, determining that they exhibit an inherent unity and mutually reinforce one another, forming a cohesive and interconnected structure. The disappearance of one of the crucial components of the cultural pattern, referred to as traditional crafts, would have a significant impact on the entire interconnected structure outlined in this
context. Furthermore, the gradual conversion of the commercial establishments in the region into retail stores specializing in pre-made goods will inevitably lead to a decline in the socio-economic diversity of the area over time.

Users also assess whether the field demonstrates a flexible behavior. Users assessed the flexibility capability based on social characteristics. The arrival of subsequent artist groups is known to have brought about significant transformations in the area. However, several factors impeded the change and generated resistance. The bulk of the interviewees claim that many traditionalist or protectionist elderly shop owners exhibit a resistance to welcome innovation and change, displaying opposition.

The implementations and approaches of institutions are another factor that generates opposition and constrains change. Due to its legal status as an urban regeneration area, there is opposition from institutions for legal concerns, particularly over any alterations to the physical environment. However, what is particularly highlighted is the reluctance of institutions to engage with the residents. Interviewees complain that their demands are ignored and their suggestions are ignored. This impedes the inhabitants' self-organization attempts and diminishes the potential for achieving flexibility.

The literature asserts that dynamic and flexible systems possess adaptability. In this scenario, it is anticipated that a system with limited flexibility, such as the specific region being analyzed, will have a low ability to adapt, despite being somewhat dynamic. The respondents were asked about the field's ability to adapt to changing conditions. According to the respondents' viewpoint, the field's ability to adjust to changing conditions is inadequate. They characterize this in relation to the challenges posed by the physical circumstances of the region, including parking, heating and lighting, and transportation issues. Currently, it is evident that the corporate services provided to the field are inadequate.

Yet, when the assessment of adaptation is conducted based on the socio-economic structure of the region, a more significant outcome becomes apparent. Interviewees
indicate that the production and goods created in the workshops have the ability to modify and adjust. Based on the current pace, it can be inferred that these producer groups, which are actively involved in change, can also contribute to enhancing the area's flexibility and capacity to adapt.

As mentioned previously, it is imperative for all of the interrelated components of the system to evolve in harmony in order to maintain the strength of the complex structure. Achieving this goal is based on keeping the system adaptable. (Figure-4.33) In these terms, well-developed interfaces play a crucial role on strengthening the interdependencies between constituent parts.

Figure 4.33 Maintaining Adaptibility in a Complex Structure

4.3 REGION B - The physical structure of interfaces at three different scales

This section examine the physical and social parameters/elements of interfaces that are defined in the literature within Region B at three different scales including
(4.3.1.) building sections/facade, (4.3.2.) transition between building and the street and (4.3.3.) the street.

4.3.1 Building Sections/Facades

This section presents the physical analysis of 138 buildings within Region B in terms of openings, ornaments and facade elements based on the physical maps which are generated upon processed data on QGIS. These analysis reveal that Region B, typically feature facades that exhibit moderate number and size of openings which would be concluded that Region B has less permeable facades compared to Region A. Thus, facades within Region B have a limited potential to provide visual contact and physical as well as visual permeability. (Table-4.4)

Table 4.4 Characteristics of Interfaces in Region B at the Scale of Facade

<table>
<thead>
<tr>
<th>REGION B</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING SECTIONS/FACADE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPENINGS</td>
<td>Limited Physical &amp; Visual Permeability Moderate Number and Size of Openings)</td>
<td>Limited Potential of Visual Contact</td>
<td>Not Emphasized</td>
<td></td>
</tr>
<tr>
<td>FACADE ORNAMENTS</td>
<td>Uniform Ornamentation (58% posses moderate numb. of ornamentation)</td>
<td>Diminishes Perception of Diversity</td>
<td>Loss of Diversity after Street Renovation</td>
<td></td>
</tr>
<tr>
<td>FACADE ELEMENTS</td>
<td>Abundance of Facade Elements (60%)</td>
<td>Physical Variety Visual Interest Human Scale</td>
<td>Facade elements, forms, materials</td>
<td>Interest Perceptibility</td>
</tr>
<tr>
<td>HUMAN SCALE</td>
<td>Low-hight Buildings</td>
<td>Perceivability</td>
<td>Human Scale (Low-hight buildings enables them to have a clear view of the sky)</td>
<td>Pleasure Spaciousness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Distinctiveness of the building interiors</td>
<td>Curiosity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Historical Buildings (Historic houses, fountains)</td>
<td>Perception Attractiveness</td>
</tr>
</tbody>
</table>
However, Region B has a higher abundance of facade elements that the majority of facades (60%) in the region incorporate facade elements that prevent a monotonous view, contribute to the diversity of the area, and generate visual interest, as well as enhances human scale in the Region. In terms of ornamental elements, Region B exhibit uniformity, similar to Region A. Employing identical colors and ornamental elements across all facades in much of the area diminishes the perception of diversity.

Supporting to the physical analysis, social data indicates that facade elements are perceptible by the inhabitants and evoke their interest. Physical diversity is noted to be decreased after implementation of street rehabilitation projects. Nevertheless, the interviewers stressed the distinctiveness of the building interiors, highlighting their uniqueness and ability to arouse curiosity.

The following sections presents the elaborated outcomes of the physical and social analysis which are summarized ahead.

4.3.1.1 Openings

Based on a physical examination of openings in Region B, it is seen that the majority (65%) of the buildings (90 out of 138) have facades with a moderate quantity and size of openings. 17% of the buildings, (24 out of 138), exhibit facades characterized by a limited quantity and small sizes of openings. 13 % of the buildings in the Region, (17 out of 138), have facades that include a numerous large sized openings (Figure-4.34). Based on the quantitative data, it can be inferred that Region-B typically has facades that exhibit moderate number and size of openings. Region B has less permeable facades compared to Region A. Due to a lower percentage of commercial establishments, the proportion of facades with showcases is also smaller in Region B compared to Region A.

It is evident that buildings with numerous and large sized openings are predominantly concentrated along Kale Kapı street, which serves as the primary commercial axis of the region. Due to the transparent facades (Figure-4.35) and
multiple stores (with many entrances in close proximity), the street exhibits a
dynamic rhythm and many points of exchange. However, not all parts of the street
possess the same characteristics. At the entrance of the street, which overlooks the
open space, the facades feature large display windows. However, the facades further
down the street have smaller doors and windows. In these areas, although there is a
high level of physical permeability due to the near proximity of the doors, the visual
permeability reduces. In addition, the presence of a high courtyard wall in the middle
of the street reduces both the visual and physical permeability. (Figure-4.36)
Another area where buildings with a high number of openings are concentrated is near the intersection of Kale and Haymana Streets. (Figure-4.37) This region formerly housed various establishments primarily used for dining purposes. However, it is presently devoid of any activity. Although these structures have numerous openings, their ground floor façade lack transparency. These buildings feature one or more timber doors rather than large display windows. These factors have an impact on restricting visual and physical permeability.

In the region B, (excluding the beginning of Kalekapısı Street) even structures with numerous openings have a limited potential to provide visual contact and physical as well as visual permeability. This is because the facades of the buildings at ground level are not highly transparent. Thus, the sole location with a significant capacity for establishing points of exchange and interaction would be the initial section of Kale Kapısı street. Hence, it is not possible to assert that interfaces function as permeable borders facilitating interaction between diverse groups across the Region.
The literature emphasizes that open facades with numerous entrances, as well as great transparency, activate urban users. Due to their potential to enhance visual contact, facilitate multiple points of exchange, and promote physical and visual permeability. In other words, they facilitate interaction with buildings. Moreover, as the physical and functional diversity rises, the activity patterns in front of such facades become more diverse, less direct, and frequently spontaneous. At this stage, the ornamental elements and structural components of facades were examined and assessed through physical analysis to understand the behaviour of interfaces on the scale of facade.

4.3.1.2 Facade elements

Like Region A, the physical assessments of Region B reveal that a majority of the buildings (60%) possess at least one type of facade elements. Region B has a higher abundance of facade elements, and the influence of this factor in enhancing the quality of the interface exceeds that of the openings on the facade (Transparent facades are uncommon in the region).
Analysis reveals that 19% of the total number of buildings (26 out of 138) exhibit facades that feature minimum of two distinct types of facade elements. (Figure-4.39) These types of facades are believed to generate a feeling of human scale and perceptibility. 41% of the buildings in the region, (57 out of 138), feature single facade element. 40% of the total number of buildings (55 out of 138) do not have any facade element. Given the buildings' previous residential function, the majority of the façade elements consist of projections, bay windows, and balconies. (Figure-4.38) Region A exhibits a many numbers of canopies as a result of its extensive commercial activity, whereas few of the buildings in region B posses canopies on their facades. These eaves are not extensive, spanning the entire facade, but rather limited in size and positioned solely over the entrance of the structure. This matter will be assessed individually on the transition scale. Nevertheless, it can be determined that the majority of facades (60%) in the region incorporate facade elements that prevent a monotonous view, contribute to the diversity of the area, and generate visual interest.

Small sized buildings in the area contribute to the human-scale pedestrian environment. Facade features are an additional factor that enhances the human scale in the area and assists people in perceiving the space.

Figure 4.38 Facade Elements within Region B
It is evident that buildings with a minimum of two facade elements are clustered along Kale Kapısı Street. The facade elements of the buildings that are oriented towards the square are more readily noticeable (Figure 4.40). However, despite the presence of such buildings in the later sections of Kale Kapısı street, the facade features are not clearly noticeable due to the narrowness of the street, making it challenging to perceive the space. (Figure 4.41) While the buildings on Berrak street display a variety of facade elements, the narrowness of the street hinders the clear perception of these components. (Figure 4.42)
Figure 4.40 Ornamentation-Kale Kapısı Square

Figure 4.41 Berrak Street          Figure 4.42 Ornament.-Kale Kapısı
4.3.1.3 Ornamental Elements

Region B exhibits a resemblance to Region A, by the presence of uniform ornamental elements on its facades. The majority of them possess window and door frames made of timber, with horizontal timber moldings located at the lower level of the second story and timber posts. Buildings that include these uniform ornamental elements on their façade are classified as possessing a moderate level of ornamentation. Only a limited number of buildings in the area exhibit a greater diversity of ornamental elements, including brackets, pediments, timber shutters, beams, and woodwork inlaid railings. These buildings are assessed as structures with a high number of ornamental elements on their facades. 12% of buildings (17 out of 138), have a high number of ornamentation on their facades. %56 of buildings, (78 out of 138) possess a moderate amount of ornamentation on their facades. Only 31% of the buildings (43 out of 138) in Region B, possess limited number of ornamental elements on their facades. (Figure-4.43).
Based on the assessments of the abovementioned quantitative data, the rate of buildings lacking any ornamental elements on their facades is lower than Region A. Moreover, the prevalence of buildings with a moderate quantity of ornamentation on their facades is greater than Region A. According to the assessments, it can be concluded that ornamental features are effective in this location. Nevertheless, employing identical colors across all facades and ornamental elements in much of the area diminishes the perception of diversity.

The buildings adorned with numerous ornamentations on their facades are predominantly located on Kale Kapısı street. However, they are primarily
concentrated at the commencement (Figure-4.44) and completion (Figure-4.45) of the street. As Kale Kapısı Street's starting and finishing points are located at extended parts and junctions of other streets, the ornamental components may be perceived from a distance.

Figure 4.44 Ornamentation of Kale Kapısı Street-3

The ornamentation on many facades along Berrak Street deviate from the prevailing appearance of the region, providing a diverse range of forms, colors, and materials.

Figure 4.45 Ornamentation of Devodiran Street
(Figure-4.46) Nevertheless, the limited width of the street poses a challenge in noticing the ornamentation on building facades, particularly on the upper floors.

Figure 4.46 Ornamentation of Berrak Street

4.3.1.4 Overlapped Physical Maps Of Facade Openings, Ornaments And Facade Elements

In order to identify the specific regions where interfaces are most proficient, physical maps of *façade openings, ornamentation, and facade elements are superimposed.* (Figure-4.47) There are several regions where interfaces are particularly well-developed in terms of façade elements. When describing the overlapping areas in region A, it was noted that the predominant shared characteristic in all of these places was the visual permeability of building facades. Put simply, all buildings in every subregion had transparent facades adorned with numerous and sizable openings. Nevertheless, region B does not conform to this pattern. The buildings in overlapping
areas typically include many facade elements and a moderate to abundant amount of ornamental elements. Nevertheless, different regions exhibit differences in the degree of visual and physical permeability of their buildings' facades.

The facades in the overlapping region at the entrance to Kale kapısı street have great visual and physical permeability, mostly due to the near proximity of shop entrances and showcases. Additionally, there are several facade elements and ornamentation adorning the facades of the buildings. Nevertheless, the visual and physical permeability in the remaining intersecting areas of Kale kapısı street is diminished as a result of the smaller sizes and quantity of doors and windows at ground level. However, the facades do exhibit a wealth of ornamentations and facade elements.

There are three further sub-regions where the facades posses numerous and sizable openings. These sub-regions also possess enriched areas for facade elements and ornamentation. However, these sub-regions have a limited number of doors in close proximity, resulting in lower physical permeability. Lower physical permeability significantly decreases the quality of interfaces in these sub-regions.

The literature asserts that open and captivating façades stimulate urban users. Pedestrian flow slows down when confronted with visually captivating and transparent building facades. Higher density fosters opportunities for interaction and social exchange. The starting point of Kale Kapısı street holds the greatest potential as a sub-region that can create chances for interaction and social exchange.
Figure 4.47 Overlapped Physical Maps Of Facade Openings, Ornaments And Facade Elements in Region B

Prior to conducting the Physical Assessments of the second scale (*Transition Between Building and The Street*), an evaluation of the social aspects of interfaces at the facade scale will be undertaken through In-depth Interviews.
4.3.1.5 In-depth interviews

Upon compiling the data gathered from the in-depth interviews, it becomes evident that the interviewees place significant emphasis on the existence of old houses, specifically referring to their historical significance. Interviewees assert that these historical structures enhance the perception and attractiveness of the area.

Most of the interviewees mention the facades and facade elements of the buildings. The respondents highlight that the façade elements (bay windows etc.), forms, materials, are particularly noticeable and attract interest. During the evaluation of the comments provided by the interviewees in Zone A, it was seen that they did not mention the presence of façade elements and ornaments. Furthermore, it was observed that the users of the area had a limited ability to perceive these aspects. However, the situation in Region B, unlike Region A, indicates that the respondents are able to perceive the facades, particularly the elements of the façade. When assessing the physical data, it was noted that façade elements provide greater richness and serve as a significant factor in this region. The assertions made by the interviewees further affirm these conclusions.

Interviewees do not place emphasis on the physical diversity of buildings. Interviewees also said that diversity decreased with the implementation of restoration practices. In this instance, it may be asserted that the residents lack the perception of diverse physical structures in the area. Nevertheless, the interviewers stressed the distinctiveness of the building interiors, highlighting their uniqueness and ability to arouse curiosity.

4.3.2 Transition Between Building and The Street

Physical Analysis of this scale is conducted upon three distinct parameters including (i) transitional elements and elements to promote pedestrian activity on the facade, (ii) The Type of Transition Between The Building and The Street and (iii) The Use of The Building. (Table-4.5)
Table 4.5 Characteristics of Interfaces in Region B at the Scale of Transition Between Building and The Street

<table>
<thead>
<tr>
<th>REGION B</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSITIONAL ELEMENTS</td>
<td>Lower prevalence of buildings with trans. elements (41%) But elements exhibit diversity</td>
<td>Richness of facade elements promote pedestrian activity on facade</td>
<td>Not Emphasized</td>
<td>Not Emphasized</td>
</tr>
<tr>
<td>TYPE OF TRANSITION</td>
<td>20% Direct 34% Courtyard</td>
<td>Lower Rate of Smooth Transitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE USE OF THE BUILDING</td>
<td>Lower rate of pedestrian-intensive uses</td>
<td>Low pedestrian density</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concentration of specific uses in particular places</td>
<td>Limited User variety Limited opportunities of social exchange, interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There is no widespread pattern of well-developed interfaces At the Scale of Transition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Upon physical analysis, it is evident that Region B has a lower prevalence of buildings with transitional elements (41%) compared to Region A (78%). However, the transitional elements between buildings and streets in this zone also exhibit a diversity. Richness of facade elements strengthen the quality of interfaces at the scale of transition, as well, by serving as both an edge (edge effect) and a structural support (support effect) (*the affection of staying at the edge and structural support*) which promote pedestrian activity on the building’s fronts.

The abundance of buildings with courtyards (34%) and direct transitions lack an intermediary transitional element (20%) together decreases the rate of smooth transitions between public and private areas.
The prevalence of buildings with pedestrian-intensive uses is comparatively smaller in Region B. Moreover, the usage map of zone B indicates that certain areas have a concentration of specific uses. The concentration of specific uses in particular places rather than offering a diverse range of functions in a near proximity is considered to diminish the quality of the interface by limiting user diversity, social exchange opportunities, interaction, and synergy.

It becomes evident that there is no widespread pattern of a well-developed interface within the Region. However, there are limited locations where interfaces exhibit a higher quality that foster social exchange and interaction due to the high concentration of buildings with pedestrian-intensive uses, as well as possessing transitional elements and elements that promote pedestrian activity.

Upon examining the social data gathered on in-depth interviews, it is evident that, transitions between buildings and streets, even the entrance of the citadel are not perceptible by the inhabitants. (While there were emphasis on transitions between buildings and the street within Region A)

The following sections presents the elaborated outcomes of the physical and social analysis which are summarized ahead.

4.3.2.1 Transitional elements and elements to promote pedestrian activity on the facade

Within Region B, 41% of the total number of structures (57 out of 138) possess transitional elements. (Figure-4.48) Region B has a lower prevalence of buildings with transitional elements compared to Region A. This is because to the higher prevalence of courtyard transitions in this region compared to region A. Similarly to Zone A, the transition elements between buildings and streets in this zone also exhibit a diversity. Although the transition elements in Zone A, which are aligned on the same axis, exhibit sufficient similarities to establish a recognizable pattern, no such pattern can be observed in Zone B. Because there are variances between the transition elements of nearby structures.
Figure 4.48 Transitional Elements in Region B

Upon observing the buildings along Kale Kapisi Street and the square, it becomes evident that most of them possess transitional elements that facilitate the smooth connection between indoor and outdoor areas, or have characteristics that encourage pedestrian activity on the façade. While the majority of the connections between
buildings and streets in this region are straightforward (direct), there are certain architectural elements like projections and canopies (eaves) that enhance pedestrian activity by providing a support effect on the building's front. (Figure-4.49) These elements enhance liveliness in that place by promoting pedestrian activity and serving as an intermediary element between interior and outdoor areas. During the assessment of the façade's scale, it was noted that the façade elements in the area provide a high level of richness and enhance the overall quality of the interface. By providing a support effect, the abundance of facade elements such as projections, bay windows, and balconies increase pedestrian activity on the building's front and strengthen the quality of interfaces at the scale of transition, as well.

Transitions between internal and outside spaces in certain structures are achieved through the use of a single level or a small number of steps, ensuring a smooth connection. (Figure-4.50) These features also contribute to pedestrian activity on the building's front by serving as both an edge (edge effect) and a structural support (support effect). (Figure-4.51)
Figure 4.50 Transitional Elements-Square

Figure 4.51 Section View of Kale Kapısı Street
On Kale Kapısı street, only a limited number of structures possess straightforward transition between building and the street devoid of any transitional elements that facilitate pedestrian activity. Within the street, there exists a tall and impermeable courtyard wall, thereby severing the connection between the building and the street. (Figure-4.52)

Figure 4.52 Transitional Elements Kale Kapısı Street-2

Figure 4.53 Section View of Streets Narrow Secondary Streets
The transition elements on Ayçekin, Barış (Figure-4.54), and Yayçeken (Figure-4.55) streets, which intersect with Kale Kapısı street, also demonstrate diversity. Certain building entrances are equipped with steps, while others are equipped with stairs. (Figure-4.53) The variation in topography has resulted in varying entrance levels for the buildings. This disparity has resulted in a multitude of variations in the transitions between buildings and the street.

The topographical character of the region results in the entrances located at varying levels on different sides of the building. Due to the gradual structure, the building facades exhibit various transition elements. The entrance of Kıncırzade Mansion and Hatipoğlu Mansion is accessed via a staircase on one side, while on the other side it is accessed directly without any transitional element. (Figure-4.56)
The transitional elements on Gözcü Street exhibit resemblances among one another. Some entrances have a small number of steps and niches. Additionally, there are entrances that are delineated by canopies. (Figure-4.57) The elements contributing to pedestrian activity on the facades are restricted to a minimal number of steps and small eaves. The buildings along this axis lack facade elements such as
cantilevers, bay windows, balconies, and the like. This situation restricts the potential for pedestrian activity at building entrances by constraining the affection of staying at the edge and structural support.

Several building fronts on Kadife Street feature elevated or raised platforms that define the entrance area (Figure-4.58). These platforms function as transitional elements. Nevertheless, the enclosure of these areas with walls and fences establishes a boundary between the building facade and the public space, so diminishing its semi-public nature and reducing its suitability for pedestrian activity.
Simultaneously, the relationship between the building facade and the street is diminished as the facades are pulled back.

4.3.2.2 Type of transition between building and the street

In Region B, 34% of buildings (47 out of 138) are equipped with courtyards that are located between the buildings and the street. Put simply, 34% of the buildings had tall and opaque walls that obstruct the visual connection between the building and the street, so diminishing the smooth transition between public and private areas. The abundance of buildings with courtyards in Region B results in a diminished quality of the interfaces on the scale of transition, in comparison to Region A.

Gardens are incorporated at various locations along the building/street transitions. Buildings that have elevated or raised platforms on their front are also classified as buildings with garden transitions. Occasionally, these transitions are comprised of permeable yet tall fences. During these changes, the proximity of the building's facade and entry to the public space, as well as the visual perception of the facade, become significant. The buildings on Kadife Street suffer from a lack of strong connection and integration with the public area due to the setback of their façade. (Figure-4.59) In other transitions with gardens, the level of integration between the buildings and the street is greater due to the proximity of the building entrances to the street or sidewalk. (Figure-4.60)
Approximately 48% (67 to 138) of the structures in zone B have a direct building street transition. However, the bulk of them (60%- 40 to 67) contain an intermediary element that connects the interior and exterior, or a feature that encourages pedestrian activity on the building's frontage. Approximately 40% (27 to 67) of the direct transitions lack an intermediary transitional element. These are characterized as hard transitions between the public and private domains. Only a few buildings exhibit gradually (stepped) transitions.

Most of the transitions on Kale Kapısı and Gözcü Streets are either direct or gradual, facilitated by an intermediary element that ensures smooth transitions between buildings and street. It is concluded that the connections between buildings and streets along these two axes provide more well-developed interfaces.
4.3.2.3 Uses of the building

Region B offers amenities such as retail stores, restaurants, museums, mosques, and hotel establishments. (Figure-4.61) These are uses that can generate a high density of pedestrians in the region. Nevertheless, the prevalence of buildings with pedestrian-intensive uses is comparatively smaller in Region B. Region A encompasses ground floor commercial establishments that are distributed across the entire area. Within Region B, approximately 50% of the buildings are being utilized for the pedestrian-intensive uses, while the other 50% are either vacant or lack pedestrian-intensive functions, such as residential buildings.

The usage map of zone B indicates that certain areas have a concentration of specific uses. Specifically, workshops appear to be clustered in two specific regions within the area, although they can also be found irregularly in many other locations. In a similar manner, restaurants appear to be clustered along Berrak Street and Kadife Street. The literature suggests that having a diverse range of functions in a near proximity can bring together various user groups. This is achieved by offering a variety of activities in the region, resulting in vitality, rhythm and synergy in urban environment. The concentration of specific uses in particular areas is considered to diminish the quality of the interface by limiting user diversity, social exchange opportunities, interaction, and synergy at such locations.

The Kale Kapısı Street serves as the primary axis of Zone B, characterized by its functional diversity and lively commercial activities. The presence of various establishments such as mosques, stores, and cafes in this region fosters a diverse range of users and enhances the potential for social exchange and interaction.

The buildings on Gözcü Street accommodate a diverse range of establishments, including museums, stores, non-governmental organizations, and cafes. Nevertheless, the presence of inactive buildings contributes to the decrease in pedestrian density in the street. Additional factors that affect the behavior of the interfaces in this area, particularly at the scale of transition, are especially significant in the situation of low density. The upcoming section will examine this matter.
Figure 4.61 The Uses of Buildings in Region B
4.3.2.4 Overlapped physical maps of transitional elements/elements of pedestrian use on facade and uses of the buildings

In order to identify the specific regions where interfaces are most proficient on the scale of transition, physical maps of transitional elements/elements of pedestrian use on facade and uses of the buildings are superimposed. (Figure-4.62)

Upon observing the convergence of all transition-scale parameters, it becomes evident that there is no widespread pattern of a well-developed interface extending across the entire region. Upon analyzing the transition at the scale of transition, it becomes evident that there are certain locations where interfaces exhibit a higher quality. These districts are characterized by a high concentration of buildings with pedestrian-intensive uses, as well as possessing transitional elements and elements that promote pedestrian activity. Nevertheless, these regions also vary in terms of their interface characteristics and the behaviors engendered by these interfaces.
Figure 4.62 Overlapping Map At The Scale of Transitions in Region B

Gözteş Street accommodates a diverse range of uses including museums, stores, non-governmental organizations, and cafes, all situated in close proximity to one another. However, upon analysis of transition elements and the elements that promote to pedestrian activity on the facades, it becomes evident that they do not possess a same level of qualification. The elements that promote to pedestrian activity on the
building facades are limited to minimal staircases and small eaves. The buildings along this axis lack facade elements such as cantilevers, bay windows, balconies, and similar exterior components. This situation restricts the potential for pedestrian activity at building entrances by constraining the affection of staying at the edge and structural support.

An overlapping area has emerged on a part of Kadife Street. Nevertheless, in this particular region, certain facades are set back, and garden walls separate the buildings from the sidewalk. This situation diminishes the connectivity between the buildings and the street/sidewalk, hence diminishing the fluidity of that transition.

The Hatıpoğlu Mansion stands out as a convergence point, owing to its pedestrian intensive use as a restaurant and the transitional elements on its façade. However, as previously stated, the entrances and exits of the Han are located at different elevations due to the topographical structure of the area. The façade of the Han on Yayçeken Street lacks a well-developed interface due to the absence of any transitional element. The opposite facade provides access to Zone A. The building's considerable elevation from the street somewhat limits its integration with the street. Nevertheless, it can be visually observed from the street. The stairs serving as an entrance to the building from the street, as well as the seating places in between, are regarded as transitional elements and elements that facilitate pedestrian activity. These elements facilitate the transition from the street to the building, enabling the fluidity between interior and exterior spaces. The gradual pattern created here gives rise to a distinct interface pattern.

The places in Zone B that provide the most proficient interfaces on the scale of transition are the overlapping regions near the square and on Kale Kapısı Street. These places appeal to varied users because to the diverse range of activities they provide, and they enhance pedestrian density through the inclusion of transitional elements and elements that promote pedestrian activity. Dense areas where diverse individuals gather foster social exchange, interaction, and synergy. These social characteristics offer opportunity for self-organized practices.
Prior to conducting the Physical Assessments of the third scale (*The Street*), an evaluation of the social aspects of interfaces at the transition scale will be undertaken through In-depth Interviews.

### 4.3.2.5 In-depth interviews

The interviewees in Region A placed particular attention on the entrances of ancient and monumental buildings, such as the Castle Gate and the Hans. This demonstrated that the users perceived the transitions between buildings and streets in that zone and found them interesting. This result affirmed the finding made during the physical analysis, which indicated that Region A provides proficient interfaces on the scale of transition.

Upon examining Region B, it becomes evident that the interviewees in this region did not put emphasis on the transitions between buildings and streets. As the area lacks monumental structures featuring noticeable transitions, it is suggested that users do not perceive the transitions in this region.

The entrance to the citadel is noticeable in region A and generates curiosity. Conversely, it is neither perceived nor emphasized as a factor that generates curiosity in region B. In region B, the castle exit is accessible via a narrow axis; in contrast, in region A, it is situated on one side of a broad square. It is believed that this circumstance influences perception. The subject will therefore be examined at the scale of street.

### 4.3.3 Street

Physical Analysis of the street scale is conducted upon five distinct parameters including (i) unification of facade, (ii) the proportion of building heights to street width, (iii) areas facilitating of pedestrian activity, (iii) qualified elements, (iii) urban niches and urban walls and (iii) network permeability. (Table-4.6)
Upon physical analysis, it is evident that the uninterrupted view of the façade in various parts creates a perception of the street layout. Nevertheless, this continuous pattern generates a sense of closure in certain parts due to the ratio of building height to street width exceeding one. The streets in Region B exhibit an organic street layout that enlarges and narrows partly. The partial widening of the streets reduces the sense of confinement across the area. However, the impression of confinement is generated in certain sections of many streets within the Region. This creates challenges in recognizing the architectural elements and layout of the street, hence decreases the quality of interfaces.

Table 4.6 Characteristics of Interfaces in Region B at the Scale of Street

<table>
<thead>
<tr>
<th>REGION B</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Continuous Facade View</td>
<td>Visibility &amp; Comprehensibility of Street Layout</td>
<td>The historical pattern (Scale of Region)</td>
<td>Perceivability</td>
</tr>
<tr>
<td>H/L RATIO</td>
<td>Variable due to partly enlargement of streets</td>
<td>Not generate sense of confinement in the majority of Region</td>
<td>The uniqueness/originality offered by the Region (Scale of Region)</td>
<td>Interest</td>
</tr>
<tr>
<td>AREAS/FACTOR FACILITATING PEDESTRIAN ACTIVITY</td>
<td>Self-generated Open Spaces due to absence of a rigid street layout (organic layout of streets) Topographical structure necessitate stairs in various parts</td>
<td>Facilitate Pedestrian Activity Opportunity of Pedestrian Activity Visual diversity Attractiveness</td>
<td>Multi-layered structure that embraces various periods (Scale of Region)</td>
<td>Attractiveness</td>
</tr>
<tr>
<td>QUALIFIED ELEMENTS</td>
<td>Qualified Elements (Fountains, stairways, castle walls)</td>
<td>Physical Varieties Perceivability Interest Attractiveness Sense of Human Scale</td>
<td>Buildings close proximity and interconnected structure (Relationship between buildings and spaces)</td>
<td>Sincerity Sense of community</td>
</tr>
<tr>
<td>STREET</td>
<td>Intended Structure of Castle Walls Castle Gate Street-side walls</td>
<td>Diverse Activities At Various Times, Intersection of Different Lives, User Variety, Social interaction</td>
<td>Night lights of the sky Night Scene Bird sounds in the morning (Scene and Sound)</td>
<td>Attractiveness Perceivability</td>
</tr>
<tr>
<td>NETWORK PERMEABILITY, NICHES &amp; WALLS</td>
<td>Not High (Due to Limited Width of Streets)</td>
<td>Do not posses substantial capacity to accommodate pedestrians</td>
<td>View of the Streets Narrow Streets</td>
<td></td>
</tr>
</tbody>
</table>
Similar to Region A, the organic layout of the streets in Region B has provided the area with flexibility, resulting in self-generated open spaces that facilitate pedestrian activity. Some pedestrian zones are delineated by city walls or niches and are enhanced by certain qualified elements, including a fountain and stairs. These elements contribute to the enhancement of interface qualifications at the scale of street.

The topographical structure of the region improves the quality of the street interface, as well. The stairs that link the streets not only contribute to visual diversity and visual appeal but also provide opportunities for pedestrian activity. Qualified elements including fountains, castle walls, and stairways contribute to the creation of physical diversity, visual appeal, and attractiveness, while also providing a sense of human scale to the region. Moreover, The indented structure of the city walls in Region B facilitates the development urban niches and urban walls which permits a variety of activities to take place and enhances the area's interface quality.

With regard to network permeability, it would be noted that majority of the streets within Region B lack significant network permeability due to the limited width in certain sections restricting its ability to accommodate a high number of pedestrians.

Upon analysing the social data, there reveal a data that do not affirm the findings of physical analysis. According to physical analysis, the limited width of streets is defined as a factor diminishing quality of interfaces due to the generated feeling of confinement and decreased visibility of building facades. Nevertheless, a few of the interviewees expressed that narrow streets evoke their interest. Inhabitants put special emphasis on the scale and arrangement of buildings by stating that their close proximity and interconnected structures foster sincerity, resulting in a sense of community. They also underscored that spaciousness and the layout of the area enables them to have a clear view of the sky, which evokes a sense of pleasure in them. These statements indicate the affective arousals generated by low-hight buildings and the sense of human scale.
4.3.3.1 Unification of Facades

In Region B, similar to Region A, we observe that the majority of the buildings are adjacent to each other, even intertwined at some points. In some of the areas where there are separate buildings, courtyard walls connect them and define the street. Nevertheless, certain parts of the area lack an uninterrupted view of the building facades. This is due to the presence of demolished structures in certain areas and the sudden curving of the streets.

The uninterrupted view of the façade in various parts creates a perception of the street layout. Nevertheless, this continuous pattern generates a sense of closure in certain parts. In particular, the narrowness of the street and the absence of facade elements that generate motion on the walls lead to the closure effect produced by the continuous courtyard and building walls along Yayceken Street. (Figure-4.63) The continuous facades of certain streets along Kale Street (Figure-4.68), Aycekin Street (Figure-4.64), Berrak Street (Figure-4.65), Kale Kapısı Street (Figure-4.66), and Kirecli Street (Figure-4.67) also exhibit this effect.
The façade elements on Berrak Street creates a dynamic street pattern which is strengthened by uninterrupted view of facades. (Figure-4.69) Nevertheless, the limited width of the street also generates a sense of confinement in this location. The continuous facade view on Barış Street (Figure-4.70) creates a perceptible pattern that defines the street.
4.3.3.2 The proportion of building heights to street width

As previously stated, the uninterrupted view of the facades in the region enhances the interface qualifications by maintaining a continuous street layout in specific places. However, in other locations, it evokes a sense of confinement and closure. One factor contributing to this is the proportion of building height to street length. According to literature, areas with a height-to-length ratio greater than one create a feeling of confinement. However, spaces with a height-to-length ratio smaller than one provide difficulty with perceiving the space and diminish the feeling of safety. In a well-developed interface, the height-to-length ratio of the building must be approximately equal to one.

The streets in Region B exhibit an organic street layout that enlarges and narrows partly. In certain parts of the streets, the height-to-width ratio creates a feeling of being confined. The impression of confinement is generated in certain sections of Kireçli Street (Figure-4.67), Kale Street (Figure-4.68), and Kale Kapısı Street
(Figure-4.66) due to the ratio of building height to street width, which is greater than one. In the parts of Kireçli and Kale Streets where the buildings have been removed, as well as in certain sections of Kale Kapısı Street near the square, the ratio is less than one. This creates challenges in recognizing the space. The majority of Berrak Street (Figure-4.69), Ayçekin Street (Figure-4.64), and Yayçeken Street (Figure-4.63) have a height-to-width ratio exceeding one, resulting in a sense of closure. The majority of Barış Street (Figure-4.70) and Devodiran Street (Figure-4.71) have a building height to street width ratio that is about equal to one, resulting in a well-defined and spacious area. The architectural elements and layout of the streets can be clearly observed in these areas. The ratio of building height to street width in these locations is a characteristic that enhances the quality of interfaces.

Figure 4.71 Devodiran Street
4.3.3.3 Zones of pedestrian activity

Similar to Region A, the organic layout of the streets in Region B has provided the area with flexibility, resulting in open spaces that facilitate pedestrian activity. (Figure-4.72, Figure-4.73) These expansions would facilitate a variety of activities for pedestrians. Thus, these regions would facilitate social exchange and interaction through the generation of pedestrian density.

In contrast to interface quality at other scales, the Kale Kapısı street's regular geometry does not provide such a flexibility with regard to street layout.

Figure 4.72 Zones of Pedestrian Activity in Region B
The setback of buildings from the street or sidewalk also generates certain zones of pedestrian activity. These types of spaces are created on Kadife Street due to the setback of buildings from the sidewalk; they are further enhanced by certain qualified
elements, including a fountain and stairs. (Figure-4.74) These elements contribute to the enhancement of interface qualifications at the scale of street.

In addition to contributing to the diversification and qualification of transitions at the scale of building street transitions, the topographical structure of the region improves the quality of the street interface, as well. The stairs that link the streets not only contribute to visual diversity and visual appeal but also provide opportunities for pedestrian activity. (Figure-4.75)

![Figure 4.75 Staircases of Several Streets in Region B](image)

Certain pedestrian zones are established as a result of the recessed structure of the city walls. These places also experience an edge effect due to the presence of castle walls. (Figure-4.76)
Fountains, castle walls, and stairways facilitating pedestrian activity are classified as (iii) **qualified elements**. In addition to the steps on Berrak and Barış Streets, landscape features on the square are assessed as qualified elements. These features contribute to the creation of physical diversity, visual appeal, and attractiveness, while also providing a sense of human scale to the region.

### 4.3.3.4 Urban niches and urban walls

The indented structure of the city walls in Region B facilitates the development of specific areas known as urban niches and urban walls. The spaces formed by the wall recesses are a combination of an urban niche and a wall. (Figure-4.76) The sufficient width of these areas permits a variety of activities to take place. An additional feature of one of these niches is a castle gate, which serves as a transitional point to another area and enhances the area's interface quality.

Although numerous courtyard walls are present in the region, a significant portion of them cannot be classified as urban walls because they are privately owned and lack open space (zones of pedestrian activity) around. (Figure-4.77) The walls around pedestrian spaces present opportunities for various activities. (Figure-4.78)
4.3.3.5 Network permeability

When assessing network permeability, it is crucial to consider the width of the street to ensure sufficient pedestrian density. Additionally, the street should have several connections, and these connections should have a sufficient pedestrian density that can support the street. Region B's facades exhibit a contiguous order, similar to Region A. This arrangement decreases the permeability of the street by limiting the porosity. The presence of courtyard walls between separated buildings enhances the impermeable structure there.

Despite Kale Kapısı Street having the biggest concentration of pedestrians in the area, its limited width in certain sections restricts its ability to accommodate a high number of pedestrians. There are numerous connections from the narrow streets that are unable to contribute to the pedestrian flow on the Kale Kapısı Street.

The square and a portion of Doyuran Street that extends from the square have the highest level of network permeability. The large pedestrian carrying capacity and interconnectedness of numerous streets in this area make it permeable. In contrast, the remaining streets lack significant network permeability.
4.3.3.6 Overlapping Maps At the Scale of Street

Physical Maps of the six different parameters at the scale of street are superimposed. (Figure-4.79, Figure-4.80, Figure-4.81)
Figure 4.80 Streets in Terms of Interface Quality in Region B
In certain areas of the region, the facades are arranged in an uninterrupted pattern, integrating with the walls of the courtyard, resulting in a feeling of confinement. An essential factor contributing to this is the ratio of building height to street width exceeding one. The partial widening of the streets reduces the sense of confinement across the area.

---

**Figure 4.81 Interface Characteristics of Streets in Region B**

<table>
<thead>
<tr>
<th>AREA OF PEDESTRIAN USE</th>
<th>URBAN NICHE</th>
<th>URBAN WALL</th>
<th>QUALIFIED ELEMENTS</th>
<th>BUILD HEIGHT/ STREET LENGTH</th>
<th>TYPE OF BUILD/STREET TRANSITION</th>
<th>TRANS. STRUCTURES AREAS</th>
<th>UNIFOC. OF FACADES</th>
<th>NETWORK PERMEABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Fool</td>
<td>General Soft (Direct)</td>
<td>X</td>
<td>High</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Fool</td>
<td>General Soft (Direct)</td>
<td>Castle Door/ Arcade</td>
<td>High</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Fountain</td>
<td>&gt;1</td>
<td>Continuous</td>
<td>Medium</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Landscape Elements</td>
<td>=1</td>
<td>Continuous</td>
<td>Low</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Castle Walls</td>
<td>Variable</td>
<td>Castle Door/ Arcade</td>
<td>Continuous</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Castle Walls</td>
<td>Variable</td>
<td>Castle Walls</td>
<td>Continuous</td>
</tr>
<tr>
<td>Store Windows Sales Booth</td>
<td>Wide Sidewalk</td>
<td>Open Space</td>
<td>X</td>
<td>X</td>
<td>Castle Walls</td>
<td>Variable</td>
<td>Castle Walls Stairs</td>
<td>Hall Soft (Direct)</td>
</tr>
</tbody>
</table>
The most prominent aspect of the interfaces at the street scale is the zones of pedestrian activity created by the organic street layout. These regions are delineated by city walls or niches in multiple locations and strengthened in qualifications with various qualified elements, including stairs. The staircases in the area possess the capacity to provide pedestrian zones.

4.3.3.7 In-depth interviews

During the physical investigation, it was determined that the narrowness of streets (with a height-to-length ratio more than one) is a factor diminishing quality of interfaces. This is because such streets produce a feeling of confinement and decrease the visibility of building facades. Nevertheless, a few of the interviewees expressed that narrow streets evoke their interest.

Interviewees highlight the relationship between the buildings, stating that their close proximity and interconnected structures foster sincerity, resulting in a sense of community (neighborhood environment). On one hand, they discuss the intertwined structuring. However, respondents expressed that the place provides spaciousness and the layout of the area enables them to have a clear view of the sky, which evokes a sense of pleasure in them. These statements indicate that the neighborhood does not exert pressure on interviewees in terms of the arrangement, size, and relationship between the buildings and the street.

According to the physical research, the majority of the buildings in the neighborhood provide a contiguous facade view. During the assessment of the physical data, it was noted that this aspect enhances the perception of the street layout. Consistent with this finding, the interviewees also identified the street view (streetscape) as one of the prominent features they observe in the region.

The interviewers do not mention castle walls and castle doors, which distinguishes them from Region A. As previously stated, the castle exit in region B is accessed through a narrow passage. However, in region A, it is situated on one side of a spacious square within the prominent city walls. The limited width of the
passageway through the axis of the castle gate would diminish the perception of the gate. (Figure-4.82)

![Figure 4.82 Castle Gate](image)

**4.3.4 Overlapping areas of all parameters at different scales**

When the analyses of *all parameters at various scales are superimposed*, areas of intersection become apparent, which we shall refer to as sub-regions (Figure-4.83). In contrast to Region A, there is a reduced number of overlapping areas that possess qualified interfaces across three distinct scales.
Figure 4.83 Overlapping Areas of All Parameters in Region B
(i) **1st subregion.** (Figure-4.84) This subregion contains the greatest quantity of facade openings, ornaments, and facade elements; it is, therefore, the area with the most enriched interfaces at the facade scale. The prevalence of shops with showcases and the proximity of numerous entrances together establish visual and social contact points, fostering interaction opportunities. At the transition scale, it is evident that the interfaces maintains a high level of quality. Certain storefronts feature stairways that facilitate the smooth transition from public to private areas. Direct transitions are facilitated by the support effect of eaves and balconies. Additionally, the presence of commercial establishments on the ground floors increases pedestrian density and interaction opportunities. At the street level, the sub-region is situated along an axis that features qualified elements, including fountains and pools, and possesses high network permeability. The opposing square is designed to accommodate a high volume of pedestrian traffic. Additionally, the presence of commercial establishments on the ground floors increases pedestrian density and interaction opportunities. At the street level, the sub-region is situated along an axis that features qualified elements, including fountains and pools, and possesses high network permeability.
permeability. The opposing square is designed to accommodate a high volume of pedestrian traffic.

(ii) 2nd subregion. (Figure-4.85) Ending at Kale Kapısı Street constitutes the second subregion. Due to the reduced number of facade openings compared to sub-region 1, interfaces at the facade scale are not as highly well-developed. However, the region is varied in its usages. The variety of users in this area is enhanced by the presence of hotels, cafés, tourism offices, and restaurants, among other establishments. While intermediary elements, such as steps at building-street transitions, do exist, their ability to facilitate pedestrian activity is limited. Nevertheless, the urban niches delineated by the city walls present opportunities for pedestrian activity. Due to the fact that pedestrian density increases at this intersection, network permeability is high. Additionally, its proximity to the castle's gateway enhances the transitional character of the subregion. Additionally, the sixth sub-region may be incorporated into the second sub-regiona. It creates an enriched urban niche with its seating area, landscape elements, and facade elements, and its invisibility from the street contributes to evoking a sense of surprisingness.

Figure 4.85 Second Sub-Region in Region B
(iii) **3rd sub region.** (Figure-4.86) This subregion has a greater number of ornamental and facade elements as well as facade openings. It provides well-developed interfaces at the facade scale in this regard. In contrast to sub-region 1, the quantity of doors on the ground floor is relatively limited, resulting in a partial reduction in physical permeability. Transitions are delineated by transitional elements including balconies, steps, and verandas. Despite serving as intermediaries, their impact on the establishment of zones of pedestrian activity is limited. Nevertheless, within the sub-region, there exists an open space encompassed by the city walls, which offers a zone of pedestrian activity. This space contributes to the enhancement of the subregion's street-scale interface quality. Similar to the preceding two zones, this subregion is situated in a transition zone where the city walls gradually give entry into Region A.
(iii) **4th sub region** (Figure-4.87) Sub-region 4 is a small, intersecting region. Within the region, there exists a corner building that possesses wide openings on its facade, generating visual interest through its distinct coloration and ornamentation. The openings in the facade enhance visual permeability. Nevertheless, it is not reasonable to assert that the structure itself has the capability to generate chances for social exchange. Nevertheless, this particular sub-region is notable for well-designed interfaces, particularly in terms of street layout and the transition between buildings and the street. The presence of a restaurant in the building increases the number of pedestrians in the area. The elevated platforms on the building front facilitate engagement with the public space through their low-height walls and proximity to the sidewalk.

The presence of qualified elements such as fountains and stairways in the area enhances visual appeal and improves perception. Simultaneously, there are zones of pedestrian activity situated at two distinct elevations. These are aspects that enhance the quality of the area at the street scale.

![Figure 4.87 Fourth Sub-Region in Region B](image)

(iiiii) **5th sub region** (Figure-4.88) The facade of Hatipoğlu Mansion features a moderate number of openings that are of medium size. As the building is elevated
above street level, the visual contact with the street and visual permeability are limited. The facade lacks diversity in terms of ornamentation. Nevertheless, architectural elements like projections and bay windows enhance the visual appeal.

The facade of the Han on Yayçeken Street lacks an enriched interface due to the absence of any transitional element. Nevertheless, its gradual connection with the street provides a distinct type of interface on the scale of transition. Although the rising city walls impose restrictions, the building is able to integrate into the street through the use of transitional elements like stairways and platforms. Furthermore, the part where it intersects with the street via a staircase is regarded as an urban niche, facilitating pedestrian activity.

![Figure 4.88 Fifth Sub-Region in Region B](image)

4.4 REGION B - The Social, Structural and Behavioral Characteristics of Interfaces and Socio-Spatial Processes Generated By Their Interplay

This section examine the generation of structural and behavioral parameters within the Region through the structural scheme of Figure-4.89 Social Parameters (4.4.1.), Structural Parameters (4.4.2.) and Behavioral Parameters (4.4.3.) are examined in this section respectively.
Figure 4.89 Perceived Variables of Interfaces in Region B
The interface structure in region B exhibits greater complexity compared to the structural scheme of our study, however it does not present the same level of complexity as in region A. Collectively, the physical and social findings indicates that the limited permeability of most interfaces in region B decreases the complexity of these areas.

Upon analysis of the scheme, it becomes evident that the highlighted factors that are also contributing to the formation of various associations are historical and cultural patterns, cultural and social diversity, affective arousals, and dynamism. The region also exhibits a substantial degree of social interaction in many forms. Nevertheless, it is asserted that the region lacks cooperation and collaboration, indicating the absence of a self-organized structure.

Although the region's social structure, which embraces diversity, fosters coexistence and equality, it falls short in achieving collaboration. One of the primary determinants leading to this outcome is the way of functioning and degree of social interaction that occurs.

The social data indicates that the artist group professing several art disciplines, including glassmaking, ceramics, painting, tile making, and puppetry engages in collaboration and interaction amongst themselves, but not with the broader region. The artist group has been articulated to the area as a cultural layer, but it has not been completely integrated. The tradesmen group, similarly, communicates inside their own ranks. Put simply, there is a lack of a framework in which various groups engage with one another across the entire region. The clustering of certain uses in specific locations, rather than a mixed-use structure, is one of the factors contributing to this outcome, as indicated by the physical investigation.

Rauws (2011) argue that the catalysts for change arise from the interactions between various actors or agents. The enhancement of interaction at several levels arises from diverse encounters, and a variety of actors/groups serve as stimulating events for self-organized practices. The limited diversity of contacts and interactions among
different actors and organizations hampers the ability for self-organization in the Region.

The physical and social dissociated structure of Region B hinders the ability to preserve continuity and integrity within the larger region.

4.4.1 Social Parameters

Upon evaluating the physical data, it becomes apparent that there are particular areas of overlap throughout the region. Nevertheless, the qualified interfaces in Region A encompass wider areas compared to Region B. Furthermore, these regions vary in their capacity to provide possibilities for interaction and social exchange. With the exception of sub-region 1, the capacity for social interchange, interaction, synergy, and subsequent self-organization appears to be lower compared to Region A. When conducting in-depth interviews with the users of the region, analysis of these social characteristics reveals certain conclusions that confirm the results of the physical research, while others do not.

All of the tradesmen and artists interviewed mention the space's ability to foster interaction, but under various subheadings. Several interviewees characterize the interaction with regard to the neighborhood relationship. Interviewees reported that the intertwined buildings foster close relationships, sincerity, and a sense of community (neighbourhoodness).

“I like the neighborhood atmosphere, and it's the same here. I attribute this to the intertwined structuring.”

“A small area. Life is intertwined. It's like a neighborhood.”

The human scale has a significant impact on social and affective parameters in this region, such as in Region A. According to the literature, physical and visual permeability is known to influence social characteristics like social exchange and interaction. The respondents, however, link these social parameters specifically to the concept of human scale. Within Zone A, respondents discussed the influence of
transparency and straightforward transitions between the building and the street on social factors. However, these physical factors (transparency and the type of transitions) are not specifically emphasized in this particular zone.

Interviewees underscored the fact that people who are residing in the area develop a sense of familiarity, engage in social interactions, and are able to communicate effortlessly and naturally, even with individuals from outside the neighborhood. Interviewees indicated that the historical pattern of the area influences the level of comfort experienced;

“It is a very comfortable, natural, spacious environment. The historical pattern provides that comfort.”

Interviewees said that there is a high level of familiarity among individuals, leading to frequent interaction and the establishment of a cohesive unity. Individuals from many demographics coexist in an equitable environment, however the development of collaborative and cooperative behaviors is lacking;

“Everyone knows each other here. There is the old neighborly culture. There is integrity but no unity.”

Essentially, there is an important level of interaction observed, but there is a lack of ability to self-organize. Similarly, there is no inherent or spontaneous activity pattern in the region.

It has been noted that a significant number of social parameters specified in region A are not reported by the interviewees in that region. Nevertheless, certain cultural aspects are frequently mentioned in this particular region, such as in Region A. A distinct cultural pattern in the region is characterized by the existence of diverse civilizations, past life experiences (geçmiş yaşanmışlıklar), and touching the past. According to interviewees these aspects enhance the attraction and perception of the area and evoke various emotional criteria such as peace, excitement, energy, enjoyment, and happiness;
“It is exciting to see the traces of different civilizations. Lived stories. It's like touching the past. I feel we are special when we are here.”

“That charm is in the traces of the past. The peace of the past.”

The presence of structures from various historical periods is a significant role in shaping the cultural pattern and influencing various sensory aspects. Similar to Region A, the physical and cultural aspects are intricately interconnected in Region B, as well.

4.4.2 Structural Interface Parameters

The interviewers also assessed the region based on the fundamental structural interface parameters of Openness, Permeability, and Variety, as outlined in the study.

Within the theoretical framework of the study, the notion of openness is linked to physical attributes, such as the physical and visual permeability resulting from openings and transparency in the building's facade. It also encompasses direct transitions between buildings and streets, as well as the absence of walls that would hinder the connection between buildings and streets. Similarly to Region A, the interviewees in Region B exhibited a broader and multidimensional understanding of the concept of openness when evaluating the area. Interviewers linked openness to both physical and social factors. Furthermore, it is shown that individuals perceive openness on various levels, including the building, surrounding neighborhood, and the integration of the community with the larger urban environment.

In the physical analysis of the Region, it is stated that in almost half of the buildings, the transition between the building and the street is made through the courtyard. Such buildings are considered as non-open buildings with low physical and visual permeability due to the high courtyard walls and the distance between the public and private space. In this case, it can be said that almost half of the buildings in the region
are not open. However, most of the interviewees state that their buildings are physically open. According to the interviewees, the openness of the buildings is provided by the connection of the building with the street. It is seen that they do not evaluate facade openings and transparency.

The concept of openness is also evaluated in relation to the surrounding neighborhood. At this scale, the majority of the interviewees characterize the area as open. One reason why the location is considered open is because there is no physical threshold, meaning it is physically permeable. Furthermore, the region possesses multiple distinct entrances. Nevertheless, it is explicitly mentioned that the castle gate is closed during the evenings, which has an adverse effect on its openness;

“It can be easily visited like an open air museum. There is no physical threshold.”

When assessing the degree of openness in relation to the neighborhood’s integration with the larger urban environment, interviewees regard it as being closed in terms of both physical and social aspects. Regarding physical factors, participants indicated that transportation issues hinder the region’s connectivity with urban environment. Regarding social aspects, participants indicated that the region is non-open due to negative perception.

Physical diversity enhances affective parameters such as visual interest and attractiveness in a given location, hence promoting social exchange and interaction by enhancing the vitality and density of the area. Interviewees in Region B have made statements that imply a similarity to Region A in terms of diversity. Based on the assessments of the majority of the interviewees, it is evident that they lack a perception of the diverse physical attributes that the region has to offer. In contrast, it is asserted that the region had greater variation before the implementation of restoration projects, resulting in uniform facades post-restoration.

“You don't see a diversity in terms of facades because the original texture has deteriorated.”
It appears that a crucial parameter that enhances the quality of interfaces in the area has been disabled due to the restoration works.

Interviewees primarily explain the diversity within the area by emphasizing social and cultural elements. They underscore that the neighborhood exhibits a significant diversity in terms of its population. The interviewees note the social diversity brought about by foreigners, Middle Eastern traders, and artists. Furthermore, it is underlined that individuals from very distinct cultures come together. The interviewees assert that this diversity fosters equality and coexistence.

“There is equality. Artists, pensioners, the poor, everyone lives here.”

The cultural pattern in the area has been shaped by its multilayered physical structure, as previously stated. As various merchant and craft groups have entered the region, social diversity has increased, which has been observed to generate a cultural layer and articulate the region's cultural pattern. The artists' choice of location is influenced by the cultural pattern. This statement serves to validate the previous information;

“I thought our work would suit the pattern here very well.”

The presence of several art disciplines, including glassmaking, ceramics, painting, tile making, and puppetry, has significantly influenced the socio-cultural fabric of the region.

The majority of interviewees consider that the previously higher level of vitality has diminished. They attribute the decline in popularity of the region to various factors, including the pandemic, closure of renowned restaurants that draw an affluent clients, challenges with public transportation access, environmental issues such as waste management, and inadequate lighting.
4.4.3 Behavioral Interface Parameters

Interviewees were surveyed regarding the dynamic, flexible, and adaptable behavior of the region. The respondents were queried about the dynamism aspect regarding the change and transformation that the area has experienced throughout time. The interviewees provided elaborate descriptions of the change and transformation that the area has seen over time, including physical, social, and economic aspects. Similar to Region A, users in Region B have a mixed perception of the continuous changes in the site, as both advantageous and disadvantageous.

In Region A, the primary factor influencing the change experienced by users is the restoration work conducted in the area. According to respondents, the restoration of several monumental buildings in Region A has led to a significant socio-economic development in the area. However, interviewees say that in Region B, there are minor physical and social changes that are triggered by the restoration.

Users express the good outcomes of the restoration by emphasizing that it has prevented the structures from falling into a state of decay;

“The municipality renovated and made the exterior surfaces usable and visible. Before, it looked like it was going to fall on your head when you passed by.”

Users also highlight the adverse effects of the restoration;

“The renovation is not in keeping with the original. It doesn't interest me as an architect. It's far from the original pattern.”

An additional social change that happened simultaneously with the restoration works was the departure of the region's previous occupants. This development facilitated a beneficial transformation; individuals engaged in artistic pursuits began to inhabit vacant buildings and started to run workshops. It is widely acknowledged that the artists who established workshops in this area managed to draw in different artistic groups to the the area, whereupon they engaged in interaction and provided mutual support. The respondents indicate that the number of distinct artistic disciplines is expanding, particularly those concerned with
traditional arts. A rise in the number of cultural and artistic activities is observed. These are favorable sociocultural changes.

The closing of Zenger Pasha and Washington Restaurant has led to a decline in affluent guests and a shift in the demographics of the visitor groups.

It is evident that there was no further physical development in the area following the restoration efforts, indicating a lack of dynamic physical changes in the area. Nevertheless, it is widely acknowledged that there is an ongoing process of cultural and social transformation. This transformation appears to be triggered by the physical and cultural pattern of the area.

Users also assess whether the field demonstrates a flexible behavior. Similar to region A, those interviewed in Region B highlighted that certain conservative or protectionist tradesmen are resistant to innovation and change.

Interviewees also highlight the resistance of institutions to people's requests. The respondents expressed their attempts to engage with institutions regarding the issues in the area, but they were unable to overcome the bureaucratic obstacles. Additionally, they assert that organizations like the Kale association fail to produce results through their interactions with institutions. Additionally, they assert that the region is not readily adaptable to changes, as the buildings are legally documented and modifications are dependent upon specific permissions. Upon evaluating all of these factors, it becomes evident that the area lacks a flexible structure.

The respondents were asked about the region's ability to adapt to changing conditions. Responses indicate that the interviewees perceive the field's ability to adjust to changing conditions as inadequate. This situation is characterized by the challenges posed by the physical circumstances of the neighborhood, including issues with parking, heating and lighting, and a lack of security and public transportation.
4.5 REGION C - The physical structure of interfaces at three different scales

This section examines the physical and social parameters/elements of interfaces that are defined in the literature within Region C at three different scales including (4.5.1.) building sections/facade, (4.5.2.) transition between building and the street and (4.5.3.) the street.

4.5.1 Building Sections/Facades

This section presents the physical analysis of 180 buildings within Region C in terms of openings, ornaments and facade elements based on the physical maps which are generated upon processed data on QGIS. (Table-4.7)

Table 4.7 Characteristics of Interfaces in Region C at the Scale of Facade

<table>
<thead>
<tr>
<th>REGION C</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING SECTIONS/FACADE</td>
<td>Low Permeability in Physically &amp; Visually 41% possess few and tiny Openings</td>
<td>Few opportunities for Interaction &amp; Social Exchange (not activating users)</td>
<td>Decreased Visual Permeability (Heightened courtyard walls)</td>
<td>Closure</td>
</tr>
<tr>
<td>FACADE ELEMENTS</td>
<td>Uniform Ornamentation (58% possess moderate numb. of ornamentation)</td>
<td>Low Diversity, Appeal and Attractiveness</td>
<td>Loss of Diversity after Street Renovation</td>
<td>Loss of Familiarity and Sincerity</td>
</tr>
<tr>
<td>HUMAN SCALE</td>
<td>Not offer Richness of Facade Elements (58% do not possess facade element)</td>
<td></td>
<td>Human Scale (Low-light buildings direct access to the street)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-light Buildings</td>
<td>Perceivability</td>
<td></td>
<td>Sincerity Neighbourhood Pleasure Joy of Life</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Interest Mystery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Historical Buildings (Historic houses, mosques)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Spirituality Peace Calmness</td>
</tr>
</tbody>
</table>
Physical analysis reveal that, 41% of the buildings in Region C (98 out of 180) feature facades with few and tiny openings, while, 4% of the buildings feature facades with many wide openings. The quantitative data that has been presented makes it clear that facades in Region C are less permeable in visually and physically than those in the other two Regions. Structures possessing high and opaque courtyard walls in front of them, diminishes the visual and physical permeability, reduce opportunities for interaction and restrict the creation of social exchange points because of their lower permeability. In Region C, there is not a physical pattern which activate urban users, in terms of openings on facade. In a similar manner, Region C do not offer richness in terms of facade elements evenly Region A and B since the majority (58%) of buildings in the region do not have any facade elements.

In terms of ornamental elements, although a small number of buildings in the area are particularly notable due to their unique inlaid ornamentation in various colors and diverse ornamental elements, the prevalence of similar ornamental elements on the facades of renovated buildings reduces the overall diversity, appeal, and attractiveness of the region.

Supporting the findings of physical analysis, interviewees emphasized the decreased physical diversity on facades of the buildings since the buildings are uniformly renovated after street rehabilitation projects. However, inhabitants underscore a structural variety among buildings which would be influenced by the organic pattern of the region, which is characterized by non-uniform geometry of parcels that are not precisely divided, as well as the topographic gradation. Decreased visual permeability is also stated which is the result of the elevated courtyard walls on renovation process. The presence of low-rise buildings that have direct access to the street is noted to have a significant impact on affective and social parameters, such as sincerity, neighborhood cohesion, and enjoyment and joy of life.
4.5.1.1 Openings

Analysis of openings reveal that 55% of the buildings (98 out of 180) in Region C, have facades that feature a moderate number and size of openings. Approximately 41% of the buildings (74 out of 180), have facades that are characterized by a limited number of openings, which are also small in size. Only 4 percent (8 out of 180), had a facade that featured several wide openings. (Figure-4.90) The proportion of buildings with few and small openings is significantly more than that of Regions A (17%) and B (24%). Additionally, Region C exhibits a low prevalence of structures with several wide openings. The supplied quantitative data clearly indicates that facades in Region C exhibit lower levels of permeability, both visually and physically, compared to those in the other two regions.
The limited number of buildings with numerous numbers of wide openings are scattered around the region. The structures are not concentrated in the same location to create a permeable axis or sub-region. Out of the total of eight buildings that have permeable facades, three of them are small commercial establishments (Figure-4.91), and one of these establishments is to be the fire station. The façade of these
units offer both visual and physical permeability due to their wide store windows and glass doors. While the facades of the other four buildings (Figure-4.92) may have numerous openings, they do not possess comparable physical permeability. Due to the presence of tall courtyard walls, the visual and physical connection of these buildings to the street are reduced. The lack of transparency in these courtyard walls limits the chances for interaction and hinders the establishment of social exchange points due to their limited permeability.

Figure 4.91 Alitaşi Street
Small structures accommodate a large quantity of entrances in close proximity. When buildings and streets are not separated by courtyards, several entrances create social exchange points. (Figure-4.93). In other words, the interfaces on the locations numbered on the map have a certain level of permeability, with a modest quantity and size of openings on the facades. These interfaces also function as places for social exchange, with doors located nearby. However, the general region has a scarcity of these types of interfaces.
Although social interchange places exist in certain areas, the overall region lacks transparency in facades, hindering visual contact and permeability. Thus, in Region C, there is no discernible physical configuration of openings on the facade that activate urban people.

4.5.1.2 Facade elements

Based on physical assessments, it has been determined that the majority (58%) of buildings in Region C (102 out of 180) lack any facade elements. These findings indicate a difference from Region A and B regarding their facade elements. In Region A, 32% of house buildings lack any facade components, whereas in Region B, this rate is 19%. The majority of buildings in these two locations possess at least one facade element. Region C lacks the wealth of facade elements that are present in both Region A and B.

21% of buildings (39 to 180), have facades that incorporate a minimum of two distinct facade elements. Approximately 21% of buildings (39 to 180), possess facades that consist of a single facade element. (Figure-4.94)
Region C exhibits a resemblance to Region B in terms of the types of facade elements. Given that the main usage of the area is residential, the majority of the architectural elements on the facades consist of projections, bay windows, and balconies. (Figure-4.95) Although a few of these structures are visible from the street, the majority of them remain hidden due to their location behind the courtyard walls. According to literature, facade elements contribute to the human scale of pedestrian spaces by helping pedestrians perceive and feel safe and comfortable in the place. The horizontal and vertical features of the facade provide visual interest and capture people's attention, hence enhancing the density of use. Certain facade elements, such as balconies and low windowsills, enhance visual and audial permeability, facilitating the relationship between the inside and the outside. Nevertheless, facades concealed by courtyard walls lack these particular attributes because of the tall and impenetrable nature of walls, which serves as a barrier or boundary separating the inside from the exterior.
Figure 4.94 Facade Elements in Region C
Only a limited number of buildings have canopies on their façade. The first part of the region exhibits a noticeable and distinct appearance compared to the rest of the area, particularly in terms of facade elements. (Figure-4.96) Located on one side of the street, Sultan Alaaddin Mosque features a prominent canopy and projection supported by Roman columns known as spolias. Across the street, The Hotel features a modest canopy and a triangular projection on its facade. The sub-region has a variety of facade elements that create visual interest and enhance perceptibility.
And Cafe distinguishes from other buildings in the area because to its unique character, which is evident in the varied facade elements such as projections, bay windows, balconies, and terraces. (Figure-4.97) However, due to its position on the castle gate and being enclosed by castle walls, the entirety of the building's facade is not easily visible.

Based on the physical assessments, it is clear that the region's interfaces regarding facade features are of lower quality compared to Region A and B.

**4.5.1.3 Ornamental elements**

Within Region C, certain structures have undergone renovation, while others are currently undergoing the process. Certain buildings are currently in a condition of disrepair. Buildings that have not yet undergone renovation during site investigation are classified as having a low level of ornamentation. Buildings that have already been renovated and those that are currently undergoing renovation are classified as having a moderate level of ornamentation. (Figure-4.98)
The renovated building facades exhibit identical **ornamental elements**. The facades of the buildings classified as having a moderate level of ornamentation feature timber window and door frames, as well as horizontal timber moldings adorning the second floor and timber corner posts (Figure-4.99). However, a small number of buildings in the area are particularly notable due to their unique inlaid ornamentation in various colors and diverse ornamental elements.

Figure 4.98 Ornamental Elements in Region C
The Sultan Alaaddin Mosque features a diverse range of ornamental features, such as inlaid woodwork claddings, marble columns (spolias), stone epigraphs utilized as a pediment, and various stone works. The Mosque employs a combination of materials including wood, marble, and stone. (Figure-4.100)
The And Cafe (Figure-4.101), Mosque on the Alitași Street (Figure-4.102), and And Hotel (Figure-4.103) include distinct ornamental elements including brackets, inlaid timber decorations, and stone cladding on their facades. These buildings, adorned with diverse ornamentations, exhibit a diverse range of physical variety that generate visual interest, perceptibility, and attractiveness. However, the prevalence of similar ornamental elements on the facades of other renovated buildings reduces the overall diversity, appeal, and attractiveness of the region.
4.5.1.4 Overlapped Physical Maps Of Facade Openings, Ornaments And Facade Elements

In order to identify the specific regions where interfaces are most proficient, physical maps of façade openings, ornamentation, and facade elements are superimposed. (Figure-4.104) This method identifies distinct areas where buildings with open, visually appealing, and easily perceptible facades come together. Buildings in Region A have open facades that allow for great visual permeability in selected zones. In Region B, although the facades have limited visual permeability, a notable characteristic of buildings in these zones is the presence of multiple facade elements and a moderate to high level of ornamentation. Nevertheless, the interfaces in the overlapping zones of Region C would not be evaluated as evenly well-developed because of the lower visual permeability of facades and the comparatively limited presence of ornamentation and facade elements.

Overlapping zone A (labeled in Figure-4.104) house is diversified a type of buildings that are utilized for commercial and public purposes, such as a mosque, hotel, or café. These buildings are distinguished for their diverse ornamentations and
facade elements. (Figure-4.105) Buildings exhibit a variety of ornamental elements, including brackets, spolia, stonework, and inlaid woodwork. Moreover, buildings incorporate several facade elements, including canopies, projections, bay windows, and balconies. The facades of these buildings exhibit a physical variety generated from facade elements and ornamentations, which in turn evoke visual interest, perception, and attractiveness. However, buildings in this zone have a moderate quantity and dimensions of openings. Furthermore, the most of the openings on the building exteriors are located on the second and third floors. Consequently, the ground floor of these structures lacks equal transparency compared to those with large windows, resulting in reduced visual and physical permeability in the zone.

Buildings in Zone B and C (labeled in Figure-4.104) exhibit a notable degree of transparency, characterized by numerous number of openings on their façade. (Figure-4.106) Nevertheless, the presence of courtyard walls in front of buildings reduces both the visual and physical permeability by creating an impenetrable barrier between the building and the street. In this zone, the buildings feature a multitude of facade features that are relatively high compared to the other buildings in the Region. Nevertheless, the buildings have a moderate degree of ornamentation, indicating a resemblance to other revitalized buildings in the area, hence lacking visual diversity. Upon compiling these assessments, it becomes evident that interfaces inside this zone would not arouse the same level of visual interest and attractiveness as those in zone A.
Figure 4.104 Overlapped Physical Maps Of Facade Openings, Ornaments And Facade Elements in Region C
Buildings located in Zone D (labeled in Figure-4.104) have a moderate quantity and dimensions of openings. (Figure-4.107). Facades lack significant transparency, resulting in reduced visual permeability. Nevertheless, the presence of multiple doors that directly open onto the street enhances the physical permeability. Within this area, buildings exhibit two different types of facade elements. However, the courtyard walls would obstruct the visibility of all the facade elements. Buildings
exhibit a moderate degree of ornamentation, indicating a resemblance to other renovated buildings in the area that lack visual diversity. Upon compiling these assessments, it is evident that interfaces inside this zone would not evoke the same level of interest and attractiveness as zone A.

Figure 4.107 Zone D Facade Elements

4.5.1.5 In-depth interviews

Interviewees' impressions of the physical space at the facade scale exhibit similarities with the perceptions in Region A. Like Region A, respondents specifically emphasize the wide variety of uses in the area, such as historical houses and mosques. Religious structures are commonly regarded as evoking spirituality, peace, and calmness.

Additionally, interviewees place significant emphasis on the structural variety exhibited by the buildings. Certain structures have gardens, while others provide a scenic view of the surroundings. Furthermore, some buildings contain historical
ruins, such as chapels, which inspire a sense of mystery. Interviewees highlighted the diverse range of building characteristics and structures as a significant source of fascination for them. The structural diversity of buildings is influenced by the organic pattern of the region, which is characterized by non-uniform geometry of parcels that are not precisely divided, as well as the topographic gradation.

“Each house here has a unique structure. This brings diversity.”

“Kale is full of mystery. Every house here has its own special story.”

“There used to be more visual interest. Each house had different features before.”

Nevertheless, it is noted that the restoration process has resulted in the uniformity of building facades. Interviewees attribute the standardization of structures to the loss of familiarity and sincerity. Some of the interviewees expressed displeasure with the authoritarian (top-down) approach of institutions during the renovation process. They are discussing the impact of changing living spaces without considering their ideas, which in turn altered their daily lives. Additionally, they placed significant emphasis on raising the height of the existing low garden walls to match the height of the courtyard walls throughout the restoration process. As a result, this alteration reduced their ability to see the street, thereby impacting the visual permeability.

“I don’t get the old feeling of sincerity when I enter the neighborhood. It has become uniform after the renovation. I see the same thing when I go to Hamamönü.”

“They changed what we were used to.”

“Before, the walls were not high. They were low like a garden wall. We could see people.”

Since the interviewees do not discuss the specific details of the facade elements and ornaments, it can be concluded that these elements are not easily noticeable to individuals living in the region.

The interviews emphasize the size of the buildings. The presence of low-rise buildings that have direct access to the street is noted to have a significant impact on
affective and social parameters, such as sincerity, neighborhood cohesion, and enjoyment and joy of life.

“Neighborly relations and sincerity come to mind. When you go out here, you see everyone. It's not like an apartment.”

“Such buildings give people much more pleasure than high-rise buildings. It makes you want to live.”

4.5.2 Transitions between building and the street

Physical Analysis of this scale is conducted upon three distinct parameters including (i) Transitional Elements and Elements To Promote Pedestrian Activity On The Facade, (ii) The Type of Transition Between The Building and The Street and (iii) The Use of The Building. (Table-4.8)

Table 4.8 Characteristics of Interfaces in Region C at the Scale of Transition Between Building and The Street

<table>
<thead>
<tr>
<th>REGION C</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>SOCIAL AND STRUCTURAL ASSOCIATIONS IN LITERATURE</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSITION BETWEEN BUILDING AND THE STREET</td>
<td>Buildings lack transitional elements (70% have not any transitional elements)</td>
<td>Majority of buildings do not promote pedestrian activity on facade</td>
<td>Not Emphasized</td>
<td>Not Emphasized</td>
</tr>
<tr>
<td>TYPE OF TRANSITION</td>
<td>38% Direct 32% Courtyard</td>
<td>Intensity of Hard Transitions (Impermeable and Lifeless Transitions)</td>
<td>Not Emphasized</td>
<td>Not Emphasized</td>
</tr>
<tr>
<td>THE USE OF THE BUILDING</td>
<td>Very Low rate of pedestrian-intensive uses</td>
<td>Low pedestrian density</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not indicate functional diversity</td>
<td>Limited User variety Limited opportunities of social exchange, interaction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The majority (70%) of buildings in Region C lack transitional elements and elements promoting pedestrian activity on their facades. As a result, the Region has a lower rate of soft transitions which is triggered by the widespread presence of courtyard walls that hinders a smooth connection between the inside and outside, resulting in a certain and hard transition.

However, just 30% of buildings possess transitional elements and elements that promote pedestrian activity on their facades, these elements exhibit a variety and possess a heterogeneous physical character. The diversity of transitional elements in the Region are a result of the organic and irregular layout of streets and building lots. This layout allows for flexibility and the potential for change and adaptation.

Similar to Region B, the abundance of buildings with courtyards (32%) and direct transitions lack an intermediary transitional element (38%) together decreases the rate of smooth transitions between public and private areas within Region C. Since, majority of the transitions (70%) in Region C can be classified as hard transition, interface does not produce an active zone as there are no elements that facilitate pedestrian activity. (Hard transitions create impermeable and lifeless zones, whereas soft transitions are sociable, active, and permeable zones.) Moreover, in terms of uses, Region C do not indicate functional diversity. Therefore, interfaces in this zone would not foster vitality and user diversity.

Interviewees in the Region have not any particular perceptions about transitions with the exception of courtyards. Courtyards are noted to be elevated during renovation processes which is stated to decrease their view of the street, in other words, visual permeability.

4.5.2.1 Transitional Elements and Elements to Promote Pedestrian Activity on the Facade

Based on physical assessments, it has been determined that the majority (70%) of buildings in Region C (127 to 180) lack transitional elements and elements promoting pedestrian activity on their facades. (Figure-4.108) The data clearly
shows that the rate of transitional elements and elements promoting pedestrian activity in the Region is significantly lower compared to Region A (78% of buildings possess transitional elements and elements facilitating pedestrian activity on the facade) and Region B (41% of buildings possess transitional elements and elements facilitating pedestrian activity on the facade). As a result, the Region also has a lower rate of soft transitions. The widespread presence of courtyard walls in the Region hinders a smooth connection between the inside and outside, resulting in a certain and hard transition. One other aspect that reduces the prevalence of smooth transitions is when buildings are directly connected to the street without any intermediary features that facilitate the transition between the interior and exterior.

Just 30% of buildings possess transitional elements and elements that promote pedestrian activity on their facades. There are four main types of transitional elements in the region, as determined through assessment. Given that the primary use of the area is residential, the majority of the architectural features on the facades consist of projections, bay windows, and balconies. These facade elements create pedestrian zones underneath by providing a supporting impression. The region features a multitude of transitions that are enhanced by the presence of balconies, projections, and bay windows. (Figure-4.109, Figure-4.110)

One type of transitional elements in the Region is doorsteps. Some buildings feature smooth transitions between interior and exterior spaces, achieved by the use of few steps. (Figure-4.111) These elements additionally enhance pedestrian activity on the building's exterior by creating an edge impression.

Staircases are another type of transitional elements found in the Region. Staircases are utilized for transitions in several of the buildings. (Figure-4.112) The staircases on facades serve two purposes: they create a smooth transition between internal and outdoor spaces, and they also create usable pedestrian areas underneath. Additionally, they generate a pedestrian area beneath.

At the last section of Alitaş Street, the buildings are connected to the street through an elevated platform situated in front of them. (Figure-4.113) This platform provides
sufficient space for pedestrian activity. Furthermore, there are no walls installed on this level, thereby restricting visual permeability. The transitions in this area demonstrate the features of a highly developed interface in terms of the elements that enable pedestrian activity and the unobstructed visibility.

Figure 4.108 Transitional Elements in Region C
The Sultan Alaaddin Mosque (Figure-4.114) is notable for its distinct transitions, primarily because it features a prominent canopy that is located adjacent to the sidewalk. The scale, materials, and supporting Roman columns (spolias) of the Mosque's canopy create an appealing aspect. Furthermore, positioning the canopy adjacent to the sidewalk enhances the fluidity between the building and the street.

After analyzing the data, it can be determined that Region C exhibits a variety of transitional elements on its facade and possess a heterogeneous physical character in terms of transitions. The diversity and heterogeneity in the Region are a result of the organic and irregular layout of streets and building lots. This layout allows for flexibility and the potential for change and adaptation.
Figure 4.110 Section View of Streets Featuring Pedestrian Areas

Figure 4.111 Transitional Elements-2
4.5.2.2 **Type of transition between building and the street**

Within Region C, 32% of the total number of buildings (58 out of 180) have a courtyard wall that enables a transition to the street. To clarify, 32% of the buildings possess tall and opaque walls that hinder the visual permeability of the building, so diminishing the fluidity between public and private space. (Figures -4.115) Within Region C, the prevalence of buildings with courtyards is notably more than in Region A, but comparable to that of Region B.

Six of the buildings include garden walls on the building fronts. Certain transitions are facilitated by permeable yet tall fences, while others are achieved through low-height garden walls. In these transitions, the proximity of the building's facade/entrance to the street and the perceived appearance of the facade become significant. Buildings in close proximity to the street (Figures-4.116) would be evaluated as having a higher level of integration with the street. Conversely, buildings that are farther away (Figures-4.117) are not considered integrated, regardless of the presence or absence of tall fences. The connection of Sultan Alaaddin Mosque (Figure-4.118) with the street is enhanced by the presence of two garden doors.

Two buildings in the Region have a direct street-facing entrance on one side, while the other side opens up to a garden by another entrance (Figure-4.119). Having two entrance doors not only improves the connectivity of these buildings with the street, but also boosts their physical permeability.

The majority of buildings in the region (49% - 88 to 180) have a direct entry facing the street. 22% of the direct transitions (19 out of 88) possess elements that promote pedestrian usage on the facade, such as transitional elements. On the other hand, the other 78% of the direct transitions (69 out of 88) do not have these elements, which act as intermediating features between the building and the street.(Figure-4.120) Although these specific transitions allow for greater physical permeability compared to courtyard transitions, they are not considered soft transitions due to the lack of transitional components that create fluidity between inside and outside.
The literature emphasizes that when the interface between public and private is a plane, it is referred to as a hard transition. However, when the interface between public and private is made up of ordering semi-private spaces, it creates a soft transition. Hard transitions create impermeable and lifeless zones, whereas soft transitions are sociable, active, and permeable zones.

Based on the physical assessments, most of the transitions in Region C can be classified as hard transition (70%) since they consist of 32% courtyard transitions and 38% direct transitions without any transitional elements or elements promoting pedestrian activity on the facade. Both types of transitions possess an interface between public and private spaces that resembles a plane. These interface does not produce an active zone as there are no elements that facilitate pedestrian activity.
Figure 4.116 Transition-Alitaşı Street
Figure 4.117 Transition-Gençkapı Street
Figure 4.118 Transition-Sultan Alaaddin Mosque

Figure 4.119 Transitions with Verandas
4.5.2.3 Uses of the building

Region C fails to demonstrate functional variety based on the usage map. Retail establishments, restaurants, religious buildings, and hotels that cater to pedestrians are uncommon in the Region (Figure-4.121). The region houses three mosques, six commercial and two administrative establishments, three hotels, and a fireplace. Numerous buildings are currently not in use because they are undergoing renovation and there are a lot of dilapidated buildings. Uses other than the five mentioned above are classified as residential based on their physical characteristics, which reflect the resident's character.

The sole location exhibiting a mixed-use character is the vicinity of Sultan Alaaddin Mosque. This area contains a mosque, cafe, hotel, and a commercial establishment. Thus, interfaces in this area would promote liveliness and a variety of users.
Figure 4.121 The Uses of Buildings in Region C
4.5.2.4 Overlapped physical maps of transitional elements/elements of pedestrian use on facade and uses of the buildings

In order to identify the specific regions where interfaces are most proficient on the scale of transition, physical maps of transitional elements/elements of pedestrian use on facade and uses of the buildings are superimposed. (Figure-4.122)

The vicinity of Sultan Alaaddin Mosque is distinct because it has well-developed interfaces when all parameters within the transition scale coincide. This location displays a functional variety by accommodating a mosque, hotel, retail shops, and a cafe within the same area. Furthermore, these activities cater to pedestrians and would result in a high concentration of pedestrians in the area. This location has the ability to generate pedestrian density, liveliness, and user diversity.

Buildings in this particular location have well-developed transitional elements like canopies, levelings, and staircases that provide fluidity between the interior and exterior spaces. The canopy of Sultan Alaaddin Mosque is a captivating element that attracts attention because of its noticeable size and its connection to the sidewalk.

Buildings in this area are situated near the street, enhancing their relationship with the street despite being divided by garden walls. The presence of two garden entrances enhances the relationship between Sultan Alaaddin Mosque and the street.

Hotel buildings have two doors, one going immediately to the street and the other to the garden. Having more doors in building improves its connection to the street and boosts its physical permeability.
Prior to conducting the Physical Assessments of the third scale (*The Street*), an evaluation of the social aspects of interfaces at the transition scale will be undertaken through In-depth Interviews.

### 4.5.2.5 In-depth interviews

The data from the in-depth interviews indicates that interviewers in the Region do not have specific perceptions about transitions. Interviewees highlighted the courtyard walls as the main focus while discussing transitions. Interviewees highlighted that the garden walls of their residences, which used to be modest in
height, were raised during the restoration process. This action resulted in obstructing their view and reducing visual permeability;

“Before, the walls were not high. They were low like garden walls. We could see people. They raised the walls because of the project. They imprisoned us here.”

Interviewees assert that high courtyard walls are not original features of the region but were added during the restoration phase. Yet, courtyard walls are found to create impermeable, inert, and rigid transitions when physically evaluated.

4.5.3 Street

Physical Analysis of the street scale is conducted upon five distinct parameters including (i)unification of facade, (ii) the proportion of building heights to street width, (iii) areas facilitating of pedestrian activity, (iii) qualified elements, (iii) urban niches and urban walls and (iii) network permeability. (Table-4.9)
Table 4.9 Characteristics of Interfaces in Region C at the Scale of Street

<table>
<thead>
<tr>
<th>REGION C</th>
<th>FINDINGS OF PHYSICAL ANALYSES</th>
<th>Social and structural associations in literature</th>
<th>PERCEPTIONS OF INHABITANTS</th>
<th>EMPHASIZED AFFECTIVE AROUSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STREET</td>
<td>Uninterrupted Facade View</td>
<td>Lacks Permeability Generates a Sense of Confined</td>
<td>The historical pattern (Scale of Region)</td>
<td>Perceivability Interest Spirituality Peace Calmness Belongingness</td>
</tr>
<tr>
<td></td>
<td>Variable due to partly enlargement of streets or greater than one</td>
<td>Generate sense of confinement partly</td>
<td>Openness and Spaciousness- Open view of the city) (Relationship between buildings and spaces)</td>
<td>Attractiveness Pleasure Relaxedness</td>
</tr>
<tr>
<td></td>
<td>Self-generated Open Spaces due to absence of a rigid street layout (organic layout of streets)</td>
<td>Facilitate Pedestrian Activity</td>
<td>View of the City From The Hill Site's location on a viewpoint</td>
<td>Perceivability Interest Attractiveness Happiness</td>
</tr>
<tr>
<td></td>
<td>Qualified Elements (Fountains, stairways, castle walls, spolias)</td>
<td>Physical Variety Perceivability Interest Attractiveness Sense of Human Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constituted by elevation differences, sides of staircases, castle walls</td>
<td>Diverse Activities At Various Times, Intersection of Different Lifes, User Variety, Social interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not High (Due to Limited Width of Streets)</td>
<td>Do not posses substantial capacity to accommodate pedestrians</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In certain parts of Region C, there is a continuous façade view that lacks permeability and creates a feeling of confinement throughout the region because of the narrow streets. While, enlarged spaces created by the irregular form and organic layout of streets partly, reduce the feeling of confinement.
The streets in Region C have an irregular form and organic pattern that partly expands and narrows. Several streets in the Region include expanded areas that enhance pedestrian activity. The main characteristic of the Region at the street level is the pedestrian zones. Region C encompasses several pedestrian zones, more so than Region B, although not as clearly defined. The areas have varied features due to the flexible structure created by the irregular layout of the site. Stairways, fountains, castle walls, and spolias are qualified elements which evoke interest and attractiveness but they do not demonstrate the same level of diversity as Region A and B. Several urban walls have the potential to facilitate various pedestrian activities.

Many streets in Region C are insufficiently wide to accommodate high pedestrian density. Furthermore, adjacent facades decrease the porosity and permeability of the streets. Therefore, most streets in the Region do not have significant network permeability.

Inhabitants' perceptions are influenced by the scene that the Region offers, including the view of the city from the hill, historical pattern, and the overall physical pattern of the Region. These elements evoke visual interest, enhance perception and attractiveness, and evoke sensations such as peace, calmness, belongingness, and spirituality in them.

Another frequently mentioned quality of the Region by the residents is its spaciousness, which does not align with the findings of physical study. Inhabitants prioritize spaciousness in the interaction between buildings and spaces, which enhances attractiveness and arouses some sensorial parameters like happiness and relaxation.

### 4.5.3.1 Unification of facades

Facades in Region C generally create a unified and adjacent pattern. This pattern is created by a continuous facade view formed by interconnected buildings and courtyard walls. Continuous facade view creates a feeling of confinement in the Region because of the narrowness of streets. A feeling of confinement is noticeable
in several parts of the main streets (Figure-4.123) due to the street length and the uniformity of façade.

In locations where buildings lack façade elements (Figure-4.124), the feeling of confinement is greater compared to locations with buildings that have projections, balconies, or bay windows (Figure-4.125). The presence of certain façade elements promotes a human scale, thus reducing the feeling of confinement. Enlarged spaces are created due to the irregular form and organic pattern of streets, reducing the feeling of being confined.

Figure 4.123 Narrow Streets Generating Sense of Confinement

Figure 4.124 Streets lack of façade elements

Figure 4.125 Streets with façade elements
4.5.3.2 The proportion of building heights to street width

The continuous view of the facade creates a perception of confinement within the area as a result of the narrowness of the streets. The narrowness of a street can be evaluated by examining the heights of the buildings that face the street. As previously stated, it is imperative for a well-developed interface to maintain a ratio of approximately one between the height of the building and the length of the street.

The h/l ratio in certain parts of the streets creates a feeling of confinement. At the ending of Alitaşı street (Figure 4.126), the presence of a h/l ratio less than one, along with the absence of buildings on one side of the street, poses challenges in terms of spatial perception and the identification of undefined areas. Duyan Street (Figure 4.127), shares a common characteristic of being undefined space due to the relatively low ratio of building height to street length.

Kağın Street (Figure 4.128) is the one location where the ratio of building height to street width gets close to one, providing a well-defined and spacious area. The facades and street pattern can be easily perceived in these types of streets. The characteristic enhances the quality of interfaces. Nevertheless, in most areas of the Region, the height-to-length ratio of the streets is either variable as a result of street widening and narrowing, or it exceeds one, creating a feeling of confinement.
4.5.3.3 **Zones of pedestrian activity.**

The partial expansion of streets in Region C facilitates pedestrian circulation and enables the engagement in a range of activities. A significant number of streets within the Region offer expansions that are classified as areas of pedestrian use. (Figure 4.127).

Certain areas of pedestrian use are defined by buildings and courtyard walls (Figure-4.132, 4.133, 4.134, 4.135), while others are enclosed by castle walls (Figure-4.130, 4.131). Many of these areas contain certain qualified elements that triggers the capability of generating pedestrian density. Topographical pattern of the Region is another factor that enhances qualification of these areas by providing a physical diversity.

Figure 4.129 Başkale Street  
Figure 4.130 Gençkapı Street  
Figure 4.131 Kurt Street
4.5.3.4 Qualified elements.

Region C lacks the same level of variation in qualified elements as Region A and B. Nevertheless, due to the topographical structure of the Region, there are several staircases that not only produce interest and physical diversity but also function as spaces for pedestrian usage (Figure-4.136). The Region contains multiple staircases that are either near to or in connection to castle walls, so enhancing their function of enabling transitions and evoking visual interest and attractiveness.

The Region also encompasses fountains (Figure-4.137) and spolias (Figure-4.138) of the Sultan Alaaddin Mosque.
Figure 4.135 Qualified Elements -1

Figure 4.136 Qualified Elements -2
4.5.3.5 Urban niches and urban walls

Region C, like Regions A and B, also has places that can serve as an urban wall. A part of these elements are comprised of variations in elevation, which can be attributed to the topographical structure (Figure 4.139). Certain structures are comprised of staircases that are affixed to the walls of castles (Figure 4.140). These walls exhibit characteristics of an urban wall due to their integration with a surrounding pedestrian area, facilitating increased pedestrian density. These locations facilitate the engagement of pedestrians in various activities. Certain walls are equipped with fountains, which enhance their appeal and hence promote a higher density of pedestrians.

The courtyard walls do not fall under the classification of urban walls as they are privately owned and lack adjacent open spaces facilitating pedestrian use.
Figure 4.138 Urban Walls - 1

Figure 4.139 Urban Walls - 2
4.5.3.6  Network permeability

When assessing network permeability, it is crucial to consider the width of the street to accommodate pedestrian density, the presence of several connections, and the pedestrian density of these connections to support the street. Nevertheless, the majority of the streets in Region C lack sufficient width to accommodate the high volume of pedestrians. Furthermore, adjacent facades decrease the permeability and porosity of the streets. As a result, the majority of streets in the Region exhibit low network permeability.

Duyan Street, located at the initial point of the Region, is the sole street that exhibits a notable level of network permeability. The street possesses a sufficient width to accommodate a high volume of pedestrians. Furthermore, there are several connections that provide pedestrian circulation to the street.

The median of Alitası Street exhibits a higher level of network permeability. At that juncture, the street undergoes expansion and establishes many connections, so increasing its capacity to accommodate pedestrians. Nevertheless, certain parts of the street exhibit a rather low level of network permeability. As the street expands towards its terminus, the provision of network permeability is hindered by the lack of interconnections.

4.5.3.7  Overlapping Maps At the Scale of Street

Physical Maps of the six different parameters at the scale of street are superimposed. (Figure-4.141, 4.142)
Areas of pedestrian use formed by the flexible structure of the streets are a notable characteristic of the Region. These areas are enriched by certain qualified elements, such as staircases and fountains. These areas demonstrate the attributes of a highly developed interface at the street level, as they facilitate a variety of pedestrian activities and elements that create visual appeal and attraction. Consequently, these areas promote opportunities for social exchange and interaction.
4.5.3.8 In-depth interviews

The data obtained from the in-depth interviews reveals that the interviewees did not place significant emphasis on any of the physical variable that are taken into account at the street level. However, the perceptions of the interviewees are centered around the relationship between buildings and spaces, specifically referring to the overall physical pattern of the Region.

The interviewees emphasized that the Region has physical layout characterized by openness and spaciousness. The Region's openness and spaciousness are highlighted as factors that create appeal and evoke sensations such as happiness and relaxedness;
“It's an open, cozy environment. You can go up to the castle and see everything. This place gives me happiness.”

The statements made by interviewees regarding the region's spaciousness and openness do not seem to support the physical assessments of the study. One key aspect to consider is that the Region does not generate a sense of closure on interviewees in terms of buildings relationship with the street. Furthermore, it is apparent that the interviewees establish a correlation between spaciousness and the city view provided by the Region, which can be attributed to its topographical structure. The significance of the site's positioning from a vista point, its panoramic perspective of the city from the hill, and the continually changing scenery it presents throughout the day are crucial elements that elicit interest and enhance the site's perception and attractiveness.

“We can see Ankara from a bird's eye view. It's at a vista point. It's a special place.”

“The scene is interesting. The sunset is beautiful.”

The respondents also emphasize the significance of historical patterns as a physical characteristic. In a way similar to Region A and B, inhabitants of the region prioritize the historical patterns that elicit visual interest enhance perceptibility and attractiveness, and arouse sensational attributes such as peace, calmness, belongingness, and spirituality.

4.5.4 Overlapping areas of all parameters at different scales

When the analyses of all parameters at various scales are superimposed, areas of intersection become apparent, which we shall refer to as sub-regions (Figure-4.143). The two subregions are regarded as the places with the most well developed interfaces in Region A.
Figure 4.142 Intersection Areas in Region A
(i) **1st sub region.** (Figure-4.144) The building facades exhibit a moderate number and size of openings. Nevertheless, sub-region 1 exhibits a greater abundance of facade elements in comparison to the remaining areas of the Region. The Sultan Alaaddin Mosque's notable canopy and spolias evoke visual interest and enhance perceptibility. The buildings in the sub-region exhibit a diverse range of ornamentations, including inlaid timber claddings, marble columns (spolias), stone works, and burtresses.

Sub-Region 1 exhibits well-developed interfaces at the scale of transition. The region has a diverse range of functions, since it encompasses a mosque, hotel, retail establishment, and cafe within its boundaries. The region's pedestrian-intensive
usage have the potential to create a high pedestrian density. This zone possesses the potential to generate pedestrian density, liveliness, and user diversity.

The buildings in the sub-region have well-developed interfaces that provide fluidity between the interior and exterior owing to the elements include canopies, levelings, and stairs on the front. The canopy of Sultan Alaaddin Mosque is a visually appealing feature that captures attention due to its size and connection with the sidewalk.

The buildings in this sub-region are situated in close proximity to the street, resulting in an increased level of integration with the street, despite being physically divided by garden walls. The interaction of Sultan Alaaddin Mosque with the street is enhanced by the presence of two garden doors.

In the Region, hotel buildings are equipped with two types of doors: one that directly opens to the street and the other that leads to the garden. The inclusion of two entrances in these buildings serves to enhance their connection with the street and improve their physical permeability.

The sub-region exhibits well-developed interfaces at the street level, characterized by the presence of urban walls that are integrated with areas of pedestrian usage. Qualitative elements, such as stairs, columns, and fountains, are present. Furthermore, the sub-region has a high level of network permeability due to its sufficient width, which allows for a high pedestrian density, as well as the presence of many connections that provide access to the street.
When it comes to the facade of buildings, interfaces are not considered highly qualified. They have a moderate number and size of openings, moderate level of ornamentation and predominantly featuring one type of facade element.
In terms of transitions, the sub-region exhibits a notable strength in the form of functional diversity, since it accommodates two commercial establishments and a mosque.

Sub region 2 provides enhanced interfaces at the street level due to the inclusion of pedestrian use areas and qualifying elements. Furthermore, the street expands and establishes many connections at that location, so enhancing pedestrian capacity and improving network permeability. (Figure-4.145)

4.6 REGION C - The Social, Structural and Behavioral Characteristics of Interfaces and Socio-Spatial Processes Generated By Their Interplay

This section analyzes the generation of structural and behavioral parameters in the Region using the structural scheme depicted in Figure-4.146. The section examines Social Parameters (4.6.1.), Structural Parameters (4.6.2.), and Behavioral Parameters (4.6.3.) separately.

Social, structural and behavioral parameters on Region B are evaluated through the in-depth interviews.
Figure 4.145 Perceived Variables of Interfaces in Region C
After examining the scheme, it is clear that the cultural aspects, historical pattern of the Region, affective responses generated, and the sub-categories listed under the term interaction are the most influential variables in creating the complex structure of the Region.

The subheadings encompassed by the term "interaction," such as familiarity, neighborhood, communication, cooperation, unity, and togetherness, are inherent characteristics of a small-scale neighborhood unit. Interviewees have highlighted the significance of human scale in shaping these elements. They have specifically mentioned that factors such as low-rise buildings and direct access to the street play a crucial role in stimulating social dimensions, such as sincerity, familiarity, and neighborhood cohesion.

Physical analysis indicated that majority of the buildings in the Region posses impermeable and lifeless transitions due to the intensity of courtyard transitions (32%) and direct transitions lack any transitional elements (38%). Nevertheless, the respondents assert that prior to the renovation efforts and the removal of the old residents, the streets were vibrant and characterized by stronger neighborly bonds and genuine interactions. Photographs that depict the previous condition of the area provide further evidence of this.

It reveals that the key elements that contribute to the liveliness of a neighborhood unit's streets are the human scale and the strong physical integration of buildings with the street. Put simply, physical permeability, rather than visual permeability, plays a more important role in improving the integration with the activity on the street in a residential neighbourhood. These findings confirm the first two physical factors identified by Gehl (1980) that enhance outdoor activities and increase the use of exterior spaces. These factors include easy access to the outdoors, low-scale buildings, well-designed resting areas in front of houses, seating options at the entrance door, and semi-private front yards.

Other effective factors highlighted in the scheme to generate complex structure of the Region are cultural and affective attachments of the area. Interviewees mentioned
several cultural references including place where we survive our culture, heritage, old life experiences and seeing the past which reflects their perceptions of historical pattern. It is stated that historical pattern and cultural references of the past, trigger many affective parameters such as pleasure, peace, calmness, curiosity, mystery, spirituality and belongingness. These findings indicate the connections between tangible and intangible elements and their interdependence. In other words, physical and cultural aspects are intricately interconnected in the Region C, similar to Region A and B.

Due to the residential nature of the area, it is seen that the residents attach more meaning to the space. However, a strong bond with the Region also complicates the adverse effects of renovation interventions on the residents. Residents assert that the renovation of buildings has resulted in a reduction in the diversity of physical facades, leading to the loss of familiarity and sincerity. Furthermore, it is emphasized that the utilization of a top-down strategy during the renovation process resulted in unfavorable alterations to their living spaces, thereby impacting their daily lives. It is evident that renovation processes are not approached with flexibility, but rather with a rigid stance that is resistant to considering alternative options. As a result, some beneficial aspects of the complex structure of the Region are destroyed.

4.6.1 Social Parameters

The existing literature suggests that interfaces that are well-developed have the potential to facilitate social exchange and interaction. Physical analysis of Region C revealed that, interfaces in the Region is not evenly enriched as Region A and B. This can be attributed to the limited number of intersection areas seen on the map. Unlike the other two regions, Region C posses a single sub-region featuring well-developed interfaces at three distinct scales. Nevertheless, the social data derived from in-depth interviews exhibit certain similarities with Region A and B.

Similar to the other Regions, interviewees, give an emphasis on interaction by mentioning about the term under several headings such as familiarity, neighborhood,
communication, cooperation, unity and togetherness. Interviewees place emphasis on the scale of the buildings. Low height buildings and directly connecting to the street is noted to be factors trigger social parameters, including sincerity, familiarity and neighbourhood.

It is evident that the Region generates opportunities for interaction and social exchange. However, opportunities of other social parameters including self-organization and spontaneous activity pattern is noted to be very limited. It is emphasized that, there is not an organized structure among the residents. Both the residents and tradesmen is noted to behave individually.

Upon compiling the data obtained from the in-depth interviews, it would be considered that social Pattern of the Region indicates significant commonalities with Region B.

Individuals perceptions of cultural pattern indicates commonality with Region B, as well. Interviewees stated expressions including place where we survive our culture, heritage, old life experiences, and seeing the past which reflects their perceptions of cultural pattern. It is stated that these factors evoke their interest, increase the attractiveness and perceivability of the area and trigger many affective parameters such as pleasure, peace, calmness, curiosity, mystery, spirituality and belongingness;

“It is interesting to see history. I like to visit the place where people lived a thousand years ago. I like to learn how they lived.”

“The castle is full of mystery. Every house here has its own special story.”

Interviews re-revealed that the physical and cultural pattern is intertwined in the site and the cultural pattern triggers many affective parameters.
4.6.2 Structural Interface Parameters

The interviewers were additionally asked to assess the region based on the fundamental structural interface parameters of Openness, Permeability, Variety, and Vitality.

Interviewers associated openness with both physical and social parameters in two different scales which encompassed the building itself and the level of connectivity between the neighborhood and the city (external environment).

Buildings are considered to be physically connected to the street, while visually not, primarily because of the presence of high courtyard walls. The statement below suggests that the renovation of buildings resulted in a decline in both openness and permeability.

“Before, the walls were not high. They were low like garden walls. We could see people. They raised the walls because of the project. They imprisoned us here.”

At the scale of building, mosque is evaluated as socially open due to the unrestricted entrance and inclusivity for every member of society;

“The mosque structure is open to the whole community. Everyone is free to move around and doing their prayers.”

When considering the area's connection to the city (external environment), openness is evaluated as limited in terms of both physical and social aspects. Regarding physical concerns, it has been asserted that problems with transportation diminish the level of connectivity to urban areas. In terms of socio-economic factors, it is stated that the area is closed due to poor perception. It is claimed that due to being only a tourist destination, isolated from the city life. Nominately, region is described as a self-contained system, therefore perceived as socially closed.

“It's disconnected from the city. This is more of a touristic place but the life of the city is different. It's like an open-air museum.”
The interviewees' assessments about physical diversity indicate that the facades of the buildings, which were previously characterized by a variety of colors and materials, have been uniform following the renovation of the buildings. Nevertheless, it is noted that the buildings in the region continue to maintain their diversity through variations in their structural characteristics. For instance, several buildings incorporate gardens, while others provide scenic views of the surrounding area;

“Each house here has a unique structure. This brings diversity. For example, I go to another house for the view, or people who like our garden come here.”

Region C is perceived as featuring social variety. It is mentioned that by the beginning of the restoration process, former inhabitants left the region, tenants moved in, which is resulted in coexistence of people from different cultures.

“It is a cultural mosaic where people live together.”

The majority of interviewees have expressed a reduction in vitality since the start of the renovation process, leading to the departure of former residents.

4.6.3 Behavioral Interface Parameters

The participants were asked regarding the dynamic, flexible, and adaptable character of the Region. The participants were asked regarding the dynamic factor in relation to the change and transformation that the field has experienced throughout its history. The interview participants provided an extensive description of the change and transformation witnessed in the region over a period of time, encompassing various physical, social, and economic factors. Individuals interviewed in Region C hold a perception of the ongoing transformation of the site that encompasses both positive and negative aspects.

After analyzing the data collected from the in-depth interviews, it is clear that the restoration process is the triggering factor for the transformation observed by interviewees. The social analysis reveals that Region A has had a significant socio-
economic transformation as a result of the restoration of several monumental buildings. However, Region B and C have experienced smaller physical and social changes as a consequence of the restoration process.

Interviewees highlight some favorable outcomes of physical transformation triggered by renovation of buildings, by stating that it has saved the buildings from ruin;

“When we first arrived, the streets were bad and the buildings were shabby. When we arrived, it was not a place to sit. It is a little more tidy now.”

The interviewees also emphasized certain adverse consequences associated with physical transformation, such as the standardization of facades and the implementation of unwanted structural modifications in structures;

“I don’t get the old feeling of sincerity when I enter the neighborhood. It has become uniform after the renovation. I see the same thing when I go to Hamamönü.”

“They changed what we were used to. They removed our storage space. They raised the garden walls. They narrowed our balcony. They didn’t even contact us.”

The renovation of buildings is accounted for the reduction in the physical diversity of facades, ultimately leading to the loss of familiarity and sincerity. Furthermore, it is highlighted that institutions failed to take into account the opinions of inhabitants and instead adopted a top down approach during the renovation process. Interviewees expressed dissatisfaction with the undesirable alterations in their living environments, which subsequently impacted their daily lives.

Interviewees emphasize unfavorable social consequences of the restoration process, including decrease in neighbourhood relations and social vitality in the Region due to the departure of many former residents. Following the departure of previous inhabitants, several buildings remain vacant, while some are resided by tenants, resulting in a transformation of the socio-cultural structure of the neighborhood.

“It is a cultural mosaic where people live together.”
The majority of interviewees have expressed a reduction in vitality since the start of the restoration effort, leading to the departure of old residents.

“Construction has been here for over 10 years. Before that it was very crowded. There were neighborly relations. It became vacant because of the construction. The old sincerity is gone.”

On the other hand, interviewees emphasize the favorable social impact of the renovation process, such as the reduction of negative perception among citizens about the Region and alteration in residents point of view, as well.

“Then people's and our perceptions changed. Even though before we wanted to leave a lot, now the houses seem more beautiful.”

Users also assess whether the field exhibits a flexible behavior. Interviewees highlighted that residents do not exhibit any opposition to change, particularly when it comes to the renovation of buildings by institutions. Nevertheless, as previously said, interviewees emphasize that institutions fail to take into account the demands and opinions of inhabitants during the renovation process. In other words, institutions are reported to exhibit a reluctance to engage in communication and collaboration with residents. It is apparent that the processes of renovation are not approached with flexibility, but rather with a rigid stance which is not open to consideration.

The interviewees evaluate the Region's adaptation capacity based on it's ability to conform to changing conditions. Interviewee assessments suggest that the field's ability to adjust to changing situations is perceived as limited. This limitation is characterized by the challenges arising from the physical attributes of the region, including inadequate heating and lighting, as well as a lack of security, public transportation, and retail facilities.
4.7 How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C?

The division of sub-regions within the study area facilitates the execution of comparative analysis, enabling an extensive evaluation of interfaces and the deduction of major conclusions regarding the established processes and interrelationships between physical and social characteristics. Within these aspects, the third research question is formulated:

SRQ3: How does the physical and social structure of interfaces differ among the three sub-regions A, B, and C?

Upon examining Figure 4.148, it is evident that the interfaces in three distinct regions have significant differences in permeability levels. The facades in Region A feature highly transparent permeable borders. In addition, having various entrances in close proximity generates a dynamic rhythm and multiple points of exchange. However, the presence of these features diminishes in areas B and C. The facades in region C exhibit a low level of visual permeability. However, this is also correlated with the functions of the structures in the area. The amount of commerce in region A necessitates both social and commercial exchanges. Nevertheless, the residential pattern in area C operate within a self-contained framework, similar to the traditional residents. Regarding the façade elements and ornamentation, it is evident that all three regions lack visual richness as a result of the renovation operations.

Besides, the renovations of many historical buildings have caused them to lose their originality and diverse characteristics such as colors and materials. However, the cultural and affective aspects derived from the historical pattern still hold an important attachment to the area including the three Regions. Specifically, traces of the past, which we refer to as cultural references, arise as a significant layer that links the physical and social structure. The presence of this cultural layer plays a crucial role in maintaining the complex structures of these regions.
Upon analyzing Figure 4.147 at the transition scale, it becomes evident that the transitions between buildings and streets in Region A exhibit consistently high
quality across entire region. However, in Region B, the quality of these transitions diminishes due to a decrease in transition elements and an increase in courtyard buildings. In this study, transitions in Region C are characterized as impermeable and lifeless, mostly due to the high degree of hard transitions. While there is a significant difference between three Regions in terms of quality of interfaces at the scale of transition, three of the region provides some variety regarding to transitional elements when compared with comprehensively, parcel-based designed settlements. Topography is a significant contributor to the diversity, as well. The variations in elevations, building alignments, and inside spaces distinguish the entrances of these buildings. Region A displays a clustered pattern in its transitional building characteristics, but Regions B and C do not exhibit this pattern. In contrast to the other two regions, the majority of buildings in Region A include elements on their facades that promote pedestrian activity, such as steps or platforms. These intermediary elements, situated between the public and private spaces, lead to a higher pedestrian density which in turn provide possibilities for social interaction.

At the street level (Figure-4.150), each of the three regions offers various opportunities in terms of several interface factors. The absence of strictly defined building lots and gridded street layout has allowed Regions to have flexibility, resulting in the creation of open spaces that would facilitate pedestrian activity. The majority of these pedestrian areas are enhanced by specific elements of high quality, such as fountains, staircases, and castle walls. Castle walls can also serve as urban walls and urban niches. The visible street layouts in all the Regions are a result of the uninterrupted facade view. When combined with a strong building/street interaction, this pattern fosters continuity and integrity throughout the entire region. Region A exhibits a pattern that enhances continuity of urban fabric.
Figure 4.148 Intersection Areas of Three Regions

Figure 4.149 Comparison of Street Structures in Three Regions
Figure 4.149 illustrates the overlapping of all parameters at different scales in areas of intersections. Region A houses well-developed interfaces that span the entirety of the region. Region B has fewer overlapping areas with qualified interfaces at three distinct scales compared to Region A. However, Region C only has two intersecting locations that exhibit well-developed interfaces.

The differentiation of interface physical characteristics leads to the differentiation of the social structure of the three regions, as well as the differentiation of socio-spatial processes in these regions. Put simply, there are variations in the complexities of interfaces among three sub-regions. The interfaces in Region A are very advanced and complex, as they trigger many affective, social, structural, and behavioral elements, establishing numerous associations between them.

Analysis of social dynamics, conducted through in-depth interviews, reveals that the residents of all three regions engage in various levels of interaction. But only in region A, this interaction is spread across the whole region and takes place between different social groups. Put simply, this region experiences both physical and social integration throughout its entire area. The physical interface structure of the region A proves to be efficient in this context. This results in the formation of a self-organized arrangement. Regions B and C lack the same degree of societal variety. The contact in these places arises from the communication among distinct groups within their own ranks and does not extend across an entire region. In this instance, it is incapable of generating a self-organized configuration.

4.8 How does the physical and social structure of interfaces differ among several interview points within the same sub-region?

By superimposing the physical characteristics of the regions on the map, we have identified intersection areas that provide high-quality interfaces at the scale of facade, building-to-street transition, and street.
Analyses conducted based on the physical parameters demonstrate that, although there are some differences in the physical characteristics of these intersection places, they share similarities in terms of providing high-quality interfaces.

The affective, social, structural, and behavioral interface parameters, which constitute another group of analyses, have been examined based on the data obtained from in-depth interviews conducted in the field. The data presented in the previous section has been evaluated in relation to the entire of regions A, B, and C, incorporating physical analyses. In this section, the data provided by different interview points within the same region will be compared and evaluated.

Certain points are situated within the boundaries of sub-regions, referred to as intersecting places, whereas others are situated outside of these sub-regions. Analyzing the data obtained from the interviews, the first step is to examine whether these physically similar areas also have a similar pattern in terms of affective, social, structural, and behavioral parameters that constitute the framework of the study. Furthermore, the analysis examines whether there are similarities and differences in terms of affective, social, structural, and behavioral attributes between the areas that exhibit the high quality interfaces and the others.
Figure 4.150 Intersection Areas That Provide High-Quality Interfaces in Region A
**Region A** was subjected to a physical analysis, which identified 8 sub-regions that possess well-developed interfaces. (Figure-4.151) Out of the seven places that were interviewed, four of them (A, B, C, E) are situated within these intersections, whereas the remaining three (D, F, G) are located outside the boundaries of the intersections. (Figure-4.152)

The following tables provide the perceptual, social, structural, and behavioral interface parameters expressed by the interviewees in their own spatial experiences at seven different locations (A, B, C, D, E, F, G) in region A.
When analyzing the data in Table 4.10, there appears to be no apparent differentiation between the points A, B, C, and E that fall within the intersection area, and the points D, F, and G in relation to the expressed affective parameters. It is evident that the Region has aroused interest and is found attractive by all interviewers. During most interviews, individuals often express a sense of belonging. However, there are also interview points where sensational parameters such as peace, sincerity, and spirituality are expressed. It is observed that there are similarities in the perception of space and sensory experiences created by space throughout the field, but there are also spatial experiences that differ at some points. It is noteworthy that the presence of several sensational parameters, such as pride, togetherness, curiosity, and pleasure, mentioned at certain points. However, sensational parameters like difference and surprise are mentioned at a distinct point (Pilavoğlu Han).

Table 4.10 Affective Parameters Expressed By The Interviewees in Region A

<table>
<thead>
<tr>
<th>SOCIAL VARIABLES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td>PERCEIVABILITY</td>
<td></td>
</tr>
<tr>
<td>INCREASE</td>
<td>INCREASE</td>
<td>INCREASE</td>
<td>INCREASE</td>
<td>INCREASE</td>
<td>INCREASE</td>
<td>INCREASE</td>
<td></td>
</tr>
<tr>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td>ATTRACTIVENESS</td>
<td></td>
</tr>
<tr>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td>BELONGINGNESS</td>
<td></td>
</tr>
<tr>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td>EXPERIENCE</td>
<td></td>
</tr>
<tr>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td></td>
</tr>
<tr>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td>SENSE OF HARMONY</td>
<td></td>
</tr>
<tr>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td></td>
</tr>
<tr>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td>PLEASURE</td>
<td></td>
</tr>
<tr>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td>FEELING OF CONSIDERATION</td>
<td></td>
</tr>
<tr>
<td>PRIDE</td>
<td>PRIDE</td>
<td>PRIDE</td>
<td>PRIDE</td>
<td>PRIDE</td>
<td>PRIDE</td>
<td>PRIDE</td>
<td></td>
</tr>
<tr>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td>SPIRITUALITY</td>
<td></td>
</tr>
<tr>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td>UNHAPPINESS</td>
<td></td>
</tr>
<tr>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td></td>
</tr>
<tr>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td>DISTRESSING</td>
<td></td>
</tr>
</tbody>
</table>

Social variables indicate the presence of spontaneous activities, a self-organized structure, and a significant degree of interaction and solidarity at numerous interview locations. (Table-4.11) Furthermore, warm relations, friendships and sincerity are mentioned at many points. Nevertheless, cultural aspects that are not accounted for in the study's conceptual framework are also referenced in the field. Specifically, it is asserted that the Ahi culture of tradesmen still exists as a cultural layer that enhances solidarity.
Table 4.11 Social Parameters Expressed By The Interviewees in Region A

<table>
<thead>
<tr>
<th>Internal Points</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction</td>
<td>Interaction</td>
<td>Interaction</td>
<td>Interaction</td>
<td>Interaction</td>
<td>Interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td>Cooperation</td>
<td>Cooperation</td>
<td>Cooperation Support</td>
<td>Cooperation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Cultural Structure</td>
<td>Cultural Accumulation</td>
<td>Trade,SMAN Collaboration</td>
<td>Trade,SMAN Collaboration</td>
<td>Trade,SMAN Culture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendship Familiarity Good Relations</td>
<td>Warm Relationship Sympathic</td>
<td>Sincerity</td>
<td>Hometown Like</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top-Down Implic. Of Institutions Relevance</td>
<td>Spirit Of Place</td>
<td>Working</td>
<td>Advising</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the collected data, it is evident that the interviewees' experiences of the place and the affective/sensational parameters they stated have undergone some changes. However, it is observed that the social and cultural structure they define are intertwined. It is important to highlight that points D and F have a social structure of equal complexity, even though they are not located in intersection areas. The sole distinction in Table 4.11 is in point G, which corresponds to the Museum of Anatolian Civilizations. The absence of social data at point G suggests that this place lacks interaction and organizational relationship with the region. The analysis of the physical transitions between the building and the street reveals that the museum is enclosed by tall iron railings. The dense and tall landscape elements on the railings contribute to an opaque texture. Additionally, the main building is situated at a distance from the entrance, resulting in a disconnection between the building and the street. As a consequence, the flow and continuity between these two areas are disrupted and the building's connection and integration with the public space are weakened. The building's limited physical integration into the region is believed to have a negative impact on social integration, as it hampers interaction with the area.
Upon evaluating the structural parameters in Table-4.12, it becomes evident that the interviewees' assessments of the area's diversity mostly coincide. They assess that the area provides diversity in terms of uses, products, and social structure. Upon assessing the notion of openness, it becomes evident that the respondents have different perceptions at the building scale. Specifically, they highlight that the structures located at points D and F exhibit a deficiency in openness. In the context of physical research, Pilavoglu Han located at point D and Erimtan Museum located at point F are categorized as buildings characterized by small and few openings on their facades. The vitality and density in the southern region are characterized as low at the interview points, but they are characterized as high at the interview points near the Castle Gate and the square in the northern area.

Table 4.13 Behavioral Parameters Expressed By The Interviewees in Region A
Upon analyzing Table-4.13, it becomes evident that nearly all of the respondents describe a dynamic structure as a result of shifts in usage and business lines. Nevertheless, the degree of flexibility is considered weak by certain respondents and substantial by others. Most of the respondents highlight the presence of a traditionalist worldview in the area that exhibits resistance to change. They assert that change is triggered by subsequent groups entering the field. It is important to mention that the interviewers at point B (Pirinç Han) and point D (Pilavoğlu Han), where the workshops conducted by newcomer artist groups, describe a structure that is flexible.

The interviewees attribute the actions and approaches of institutions as another factor that generates resistance and constrains change. Based on the acquired data, it is assessed that the field is progressing towards a more adaptable structure due to the influence of artist groups that entered the field at a later point in time. However, the growth of flexibility is hindered by the influence of certain conservative groups and institutional reactions. The interviewees’ responses regarding the space's ability to adapt to shifting conditions were diverse. The statement asserts that physical conditions are inherently inflexible owing to economic constraints. However, personalised production workshops are adaptable in terms of the jobs they provide. It is worth mentioning that the areas with a high level of adaptation (B, D, E) coincide with the locations where workshops and artisans specializing in personalized items are located.

**Region B**'s physical analysis has revealed the presence of 6 sub-regions that serve as intersection areas and provide more prosperous interfaces. (Figure-4.153) Interviews were performed at four distinct locations. Two of these locations (H, J) are situated within the intersection regions, while the other two (I, K) are placed beyond the boundaries of the intersection areas. (Figure-4.154)
Figure 4.152 Intersection Areas That Provide High-Quality Interfaces in Region B
Upon evaluating the data in Table 4.14, it becomes evident that sensory characteristics, such as pleasure and sincerity, are repeatedly referenced. However, other affective and sensational parameters vary, suggesting that the spatial experiences of the respondents are distinct. The interviewee at point H expresses that the historical pattern evokes feelings of comfort, naturalness, and sincerity. In contrast, the interviewee at point I describes the historical pattern as pleasurable, exciting, and stimulating curiosity. Lastly, the interviewee at point J expresses that observing the remnants of various civilizations generates excitement, a sense of uniqueness, and boosts his energy.
It is observed that the components that make up the cultural pattern stimulate numerous affective and sensational parameters. Nevertheless, certain interviewees assert that the current physical pattern of the area elicits the same sensory qualities. Point H asserts that the historical pattern fosters a sincere dialogue environment, whilst point K highlights that sincerity emerges from the intertwined arrangement of buildings. Although sincerity was referenced at various points, the concepts of equality and coexistence were solely mentioned at point K. At point I, enjoyment is linked to the historical pattern, but at point J, it is linked to the spaciousness of the place, allowing for open views of the sky and surroundings.

Table 4.15 Social Parameters Expressed By The Interviewees in Region B

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPHASIZED SOCIAL PARAMETERS</td>
<td>ASSOCIATION</td>
<td>COOPERATION</td>
<td>LACK OF COLLABORATION</td>
<td>LACK OF COORDINATION/COLLABORATION</td>
</tr>
<tr>
<td>RELAXED AND NATURAL DIALOGUE</td>
<td>FAMILIARITY</td>
<td>NEIGHBOURHOOD COLLECTIVITY</td>
<td>INTERACTION</td>
<td>ACQUAINTANCE</td>
</tr>
</tbody>
</table>
Upon evaluating Table-4.15, it becomes apparent that similar social structure has been defined both within and outside the intersection areas. The relevance of solidarity among the inhabitants is highlighted, however, it is noted that the organization is weak and lacks coordination. Although the effectiveness of the Kale Association's work is acknowledged at point H, it is also mentioned at other points that the Association has struggled to establish a cohesive and efficient organization. Furthermore, due to conflicting demands, it is asserted that they are unable to collaborate effectively. The concept of interaction capability was often referenced under different headings.

Table 4.16 Structural Parameters Expressed By The Interviewees in Region B

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPHASIZED STRUCTURAL PARAMETERS</td>
<td>VARIABLE (IN FIELD OF ART AND PRODUCERS)</td>
<td>VARIABLE (IN PHYSICAL AND SOCIAL)</td>
<td>VARIABLE (IN PHYSICAL AND FUNCTIONAL)</td>
<td>VARIABLE (IN FUNCTIONAL AND SOCIAL)</td>
</tr>
<tr>
<td>INCREASING</td>
<td>DECREASED</td>
<td>LOW VITALITY</td>
<td>DECREASED VITALITY</td>
<td></td>
</tr>
<tr>
<td>OPENNESS IS HIGH (Neighbourhood-physically permeable-unrestricted)</td>
<td>OPENNESS IS HIGH (Neighbourhood-physically permeable-several entrances to site)</td>
<td>OPENNESS IS HIGH (Neighbourhood-physically permeable-unrestricted-easy to wander around)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPENNESS IS MEDIUM (Building-Entrance is from narrow side)</td>
<td>OPENNESS IS MEDIUM (Building-entrance is controlled)</td>
<td>OPENNESS IS HIGH (Building-connected to street)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Upon evaluating the structural parameters in Table-4.16, it becomes evident that the interviewees' assessments of the diversity provided by the site differ. According to the interviewees at points I and J, the area is characterized by a variety of building elements and the coexistence of buildings from different time periods. Differently, the interviewees at points H and K highlight the area's diversity in terms of cultural diversity and the simultaneous presence of various art disciplines. The overall vitality in the area is assessed as low. When assessing the notion of openness at the scale of the neighborhood, the majority of interviewees regarded the area as open due to the absence of any physical barriers upon entering and the presence of multiple distinct
entrances. At the scale of the building, the notion of openness was assessed based on
the entrances. Despite the fact that the courtyard at point K serves as the transition
between the building and the street, the building is considered open due to its
connection to the street. As per the interviews, the buildings' openness is achieved
by the physical connection of the building with the street, and it is observed that they
do not consider the the facade openings and transparency.

Table 4.17 Behavioral Parameters Expressed By The Interviewees in Region B

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPHASIZED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEHAVIORAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARAMETERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DYNAMISM (Physically, socially)</td>
<td>DYNAMISM (Physically, socially)</td>
<td>DYNAMISM (Functionally and culturally)</td>
<td>DYNAMISM (Functionally and culturally)</td>
<td></td>
</tr>
<tr>
<td>FLEXIBILITY IS LOW</td>
<td>FLEXIBILITY IS LOW</td>
<td>FLEXIBLE IN HALF</td>
<td>FLEXIBILITY IS LOW</td>
<td></td>
</tr>
<tr>
<td>ADAPTIBILITY IS LOW</td>
<td>ADAPTIBILITY IS LOW</td>
<td>ADAPTIBILITY IS LOW</td>
<td>ADAPTIBILITY IS LOW</td>
<td></td>
</tr>
</tbody>
</table>

Upon analyzing Table-4.17, it becomes evident that the interviewees express
various drivers of change. Interviewees at locations H and I highlight the significant
transformation of the physical environment due to renovation efforts and the
subsequent impact on social structure. Differently, the individuals interviewed at
points J and K discuss the transformation resulting from the recent increase in
cultural, artistic, and commercial activities. Most interviewees perceive the area's
capacity for flexibility and adaptability as poor. The inadequate capacity for
flexibility in the Region attributed to the resistance to change exhibited by older
inhabitants of the area and the approach of institutions.

Upon the physical analysis in region C, two sub-regions with qualified interfaces
have been identified as intersecting areas. (Figure 4.155) Interviews were done at
four distinct locations. Two of these locations (L, O) are situated within the
intersection regions, while the other two (M, N) are positioned on the periphery of
the intersection areas. (Figure-4.156)
Figure 4.154 Intersection Areas That Provide High-Quality Interfaces in Region C
Upon evaluating the data in Table 4.18, it becomes evident that, similar to the other two regions, there are variations in affective and sensational characteristics at the interview points. The views of the interviewees are influenced by the historical and cultural pattern as well as the physical structure of the location, resulting in a varied spatial experience for each individual. One interviewee derives their sense of
belonging from the cultural heritage that has been established in the area over thousands of years, while another interviewee associates their sense of belonging with being the site he spent his childhood. The same historical and cultural pattern creates mystery and curiosity for other interviewees. According to one interviewee, tombs and mosques foster peace, comfort, calmness, and a sense of spirituality. One respondent expressed delight in seeing the place where people lived a thousand years ago, while another interviewee found happiness in the openness of the area and scenic vistas. Comfort is a prevalent factor that is mostly linked to the openness of the physical environment. The concept of spaciousness was briefly mentioned and linked to the size of the buildings. Additionally, it is asserted that low-rise buildings provide a sense of joy in one's living environment. According to the interviewee at point N, the presence of low-rise buildings and the direct connection between the building and the street foster neighborhood relationships and sincerity.

Table 4.18 Affective Parameters Expressed By The Interviewees in Region C

Upon evaluating Table-4.19, it becomes evident that the three interviewed areas share a comparable social structure. Like Region B, it is stressed that the residents of the area have a sense of solidarity, but there is no organized structure in place. There is an expressed pattern of interaction among the inhabitants of the region.
Additionally, the notions of neighborhood and familiarity are also expressed at three specific points. It is important to clarify that these social characteristics aren't mentioned in point M (And Cafe). Due to its positioning at the entrance to the Castle gate and being surrounded by the city walls, And Cafe has a limited physical relationship with the surrounding region. Therefore, the building's inadequate physical integration with the surrounding area hampers social integration by diminishing opportunities for interaction with the area as a whole.

Table 4.19 Social Parameters Expressed By The Interviewees in Region C

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPHASIZED SOCIAL PARAMETERS</td>
<td>NOT AN ORGANIZED STRUCTURE</td>
<td>SPONTANEOUS ACTIVITY</td>
<td>NOT AN ORGANIZED STRUCTURE</td>
<td>NOT AN ORGANIZED STRUCTURE</td>
</tr>
<tr>
<td>Interaction</td>
<td>INTERACTION</td>
<td>INTERACTION</td>
<td>INTERACTION</td>
<td>INTERACTION</td>
</tr>
<tr>
<td>Cooperation</td>
<td>COOPERATION</td>
<td>COOPERATION</td>
<td>COOPERATION</td>
<td>COOPERATION</td>
</tr>
<tr>
<td>Familiarity</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
<td>FAMILIARITY</td>
</tr>
</tbody>
</table>

Upon evaluating the structural parameters in Table-4.20, it becomes evident that, similar to Region B, the respondents' perception of the diversity provided by the area differs. One respondent highlights the diversity in the region based on the distinct structural characteristics of each building, while the other two interviewees emphasize the social diversity resulting from the coexistence of individuals from various cultural backgrounds. Their evaluations of vitality coincide, and the interviewees assert that the region exhibited a far higher degree of social vitality prior to the implementation of the renovations.

One of the interviewees, who assesses the notion of openness in relation to its association with the city, asserts that the area is detached from the urban environment, functioning solely as a tourist destination rather than a vibrant urban hub. The interviewee characterizes the area as a closed system, hence perceiving it as lacking openness. In contrast, the remaining two interviewees perceive the region as socially accessible due to its central location within the city and the frequent flow
of visitors. Put simply, the understanding of the idea of openness varies as well. At the building scale, the concept of openness was evaluated at point L (Sultan Alaaddin Mosque) in terms of inclusiveness and unrestricted access, and at points M and O in terms of connection with the public space. It was concluded that the building is open. Nevertheless, it was stressed that the courtyard walls hinder visual permeability.

Table 4.20 Structural Parameters Expressed By The Interviewees in Region C

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARIABLE (SOCIALLY)</td>
<td>LOW VARIETY</td>
<td>VARIABLE (SOCIALLY)</td>
<td>VARIABLE (BUILDINGS)</td>
<td></td>
</tr>
<tr>
<td>LOW VITALITY</td>
<td>DECREASED VITALITY</td>
<td>LOW VITALITY</td>
<td>LOW VITALITY</td>
<td></td>
</tr>
<tr>
<td>OPENNESS IS LOW (Connect to city-unrelational)</td>
<td>OPENNESS IS HIGH (Connect to city-locate on city center)</td>
<td>OPENNESS IS HIGH (Connect to city-relational-visiting place)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPENNESS IS HIGH (Building- inclusiveness-unrestricted)</td>
<td>OPENNESS IS HIGH (Building-locate on transition area)</td>
<td>OPENNESS IS MEDIUM (Building-connected to street but low visual permeability)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Upon analyzing Table-4.21, it becomes apparent that all of the interviewees perceive renovation works and the subsequent transformation of the social structure as the primary catalysts for change. While several interviewees regard this physical transformation favorably, others highlight its adverse effects, such as alterations made to their living areas without their wishes and the standardization of the buildings. Divergent viewpoints are also articulated on flexibility. The shift occurred rapidly and without any opposition from the local inhabitants. Nevertheless, it is asserted that the occupants of the buildings have specific requirements regarding the renovation, which are disregarded in the institutional approach, meaning that the institutions lacking in flexibility in the process of restoration. The interviewees assessed adaptability as the ability to adjust physical conditions to accommodate changing circumstances, and they reported that it was low.
Table 4.21 Behavioral Parameters Expressed By The Interviewees in Region C

<table>
<thead>
<tr>
<th>INTERVIEW POINTS</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPHASIZED BEHAVIORAL PARAMETERS</td>
<td>DYNAMISM (Physically, socially)</td>
<td>DYNAMISM (Physically, socially)</td>
<td>DYNAMISM (Physically, socially)</td>
<td>DYNAMISM (Physically, socially)</td>
</tr>
<tr>
<td></td>
<td>FLEXIBLE IN HALF</td>
<td>FLEXIBLE IN HALF</td>
<td>FLEXIBILITY IS HIGH</td>
<td>FLEXIBILITY IS LOW</td>
</tr>
<tr>
<td></td>
<td>ADAPTIBILITY IS LOW</td>
<td>ADAPTIBILITY IS MEDIUM</td>
<td>ADAPTIBILITY IS LOW</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 5

CONCLUSION

Investigations reveal that an interface, accommodating the transition between two distinct environments, is a multifaceted and multilayered phenomena. Each unique scale of environment produces its own interface where various variables interplay. Interfaces act as a shared barrier that facilitates flow and interaction between two environments. The flow provided by interfaces determines our spatial experience. An urban environment, a building, or a courtyard with a well-developed interface that encourages user engagement and provides diverse sensory experiences enhances the user's spatial experience. In this spatial experience, there exists a dynamic motion generated by sensory perception, relationships, and fluidity. These aspects make up the complex structure of interfaces.

In line with this framework, the aim of this study is to comprehend the complex system of interfaces that render these spaces dynamic. This study's approach and methods uncover the complexity of interfaces, leading to significant contributions in the theoretical, methodological, and practical aspects in the disciplines of planning, design, and conservation;

- Propose an integrated approach (a comprehensive methodology) that replaces fragmented approaches and effectively addresses the integrity of urban systems in planning and design practice.
- Enhance the depth of the existing body of knowledge by uncovering several unexplored factors and correlations in the current literature on interfaces.
- Ensure that the semantic content, which enriches urban life and facilitates human interaction with urban space, and thus regains significance in design and planning practice.
- Introduce a distinct viewpoint to studies in conservation by improving understanding of the continuity of physical, cultural, and social (tangible/intangible) elements that constitute the character of conservation areas, the interrelationships between these elements, and the multi-layered structure that gives the area its spirit.

- Establish a foundation for the conservation approach to preserve the continuous dynamic characteristics of conservation areas and their adaptation to present-day conditions.

This section presents the contributions of the study to various fields and the proposed approaches to maintain the dynamic character and adaptive capacity of the study area in the upcoming sections.

5.1 Integrated Approach into Planning and Design Practice

This thesis presents descriptive and exploratory research in order to reveal complex structure of interfaces at three different scales (i) building section/facade, (ii) transition between building and the street, (iii) street) in a historical urban site, through an investigation of physical, social, affective, structural and behavioral interface parameters, interrelationships between these parameters and the socio-spatial processes triggered by their interplay.

This study approaches transition zones/interfaces as a potential source of creative opportunities to stimulate relationships between constituting parts of the city and maintaining meaningful unity of the urban pattern. Enhancing the interconnections between the many components of the urban pattern plays an essential role in preserving the internal complexity of the city. Interfaces stimulate creative relationships between urban elements, which in turn trigger the emergence of new socio-spatial processes and complex system dynamics.

To comprehend the functioning of interfaces as complex processes, the study started with an analysis of how various authors discuss the variables of the system. This is
followed by a review of literature on the functioning of complex systems, the resulting behavioral patterns they exhibit, the consequent dynamics and the significance of these dynamics for urban systems. The study examined the investigations into the physical and social aspects of interfaces at different levels, their effects on urban environments, and their influence over humans. Finally, the type of data generated by interface research is investigated.

Through these assessments, it becomes evident that the variables within the different aspects of interfaces are not independent but rather intricately interconnected in a complex structure. This theoretical framework also played an essential part in shaping the research methodology, and thus, led to a *methodological contribution* to the studies investigating complex systems. Respectively, the research method of the exploratory phase is formed based on the data obtained from this conceptual schema and the relationships that emerged.

The planning and design approaches lack a comprehensive perspective and instead rely on fragmented solutions and individual parcel-based applications. These approaches break the relationship between urban components and undermine the complex structure. However, when cities are approached as complex adaptive systems, Rauws (2017) states that complex systems are dynamic and nonlinear in which a small change can have a big effect and vice versa, and include interdependencies across various aggregation levels. Therefore, *fragmentary approaches and piecemeal interventions employed in planning and design that fail to address urban systems integrity and complexity*, eventually result in unforeseen and detrimental consequences in specific areas of the system.

To ensure effective planning decisions, this study asserts that it is essential to uncover all the complex relationalities inside the area. Identifying the relationship networks can be useful in comprehending the larger context impact of the intended interventions. On the methodological side of this view, the mapping method is insufficient in providing comprehensive data to unveil the complex structure of the system. In order to understand the complex structure, it is necessary to fully
comprehend the way in which the individual components evolve in relation to one another, their emergence, and their synchronized movement. This structure exhibits dynamism rather than being static. Maps accurately depict the present physical state, but they do not capture the interconnections between different components, and movement and changeability. Social data produced through surveys and interviews cannot be effectively correlated with physical data. The methodical model created in this study can help develop strategies to assess the relationship between physical and social data, as well as uncovering the various networks that emerge from the system.

5.2 Prominent Variables of Interfaces which Build Complex Relationalities

The study of interfaces makes a theoretical contribution to the current state of literature on interfaces. Chapter 2 discusses multiple studies on interfaces that investigate different typologies and address a wide range of social and physical characteristics of interfaces. The fundamental difference of this study is in its comprehensive approach to the interfaces that develop at three different scales, encompassing the complex relationships among physical, affective, social, structural, and behavioral parameters. The developed conceptual framework allows for this.

The data obtained from the literature indicate that interfaces create complex relationalities. However, upon evaluating the data obtained from the analyses of this study, it becomes apparent that there is a further level of complexity in the study area that exceeds the structural framework established to depict the interface parameters as defined in the literature and their interconnections. The study reveals certain variables and relationships that have not been defined in the literature. The study further demonstrates that the factors of human scale, openness, and interaction, as outlined in the literature, build complex relationships and generate numerous sensory stimulations that are not accounted for in existing literature.
The human scale is theoretically associated with perceptibility, and indirectly with visual interest and attractiveness. Moreover, the existing literature emphasizes that the rarity of tall buildings enable keeping life close to the street, hence enhancing the vibrancy of street life. However, the social data obtained in this study indicates that the human scale generates many affective arousals, such as peace, pleasure, relaxation, and a sense of spaciousness. The interviewees emphasize the important connections between human scale and social factors, such as a sense of belonging and being part of the community, sincerity, familiarity, and the significance of neighbourhood.

The interviewees also express the human scale in three different categories; (i) low-hight and small-scaled buildings (scale), (ii) close proximity and intertwined structuring of buildings (the relationship between buildings), (iii) the layout of the area enabling them to have a clear view of the sky and providing spaciousness (the relationship between buildings and spaces) These findings make a contribution to the literature on interfaces by revealing the significant role of human scale, and in fact, how the human scale enhances the complex structure by interacting with many sensory and social parameters. (Figure-5.1)
Openness is another significant variable which deciphers a further level of complexity in interface areas yet not discussed adequately in theory. Within the study's theoretical framework, the notion of openness is associated to physical attributes, including the physical and visual permeability of the facade through openings and transparency, the direct flow between buildings and the street, and the absence of walls that would impede the connection between buildings and streets. Nevertheless, the participants’ assessment on openness in the area made it evident that their understanding of this notion was more extensive and multidimensional. They associate openness not only to physical but also to social factors. Furthermore, they perceive openness on various scales, including (i) the physical structure of the building, (ii) the surrounding neighborhood, and (iii) the integration of the neighborhood with the larger urban environment.

In relation to the physical structure of the building, interviewees correlate openness to social characteristics such as appealing to all groups and promoting inclusivity.
When assessing the degree of openness in regard to the area’s integration with the larger urban environment, interviewees correlate openness with physical attributes, particularly, with accessibility through public transportation. However, socially, openness is correlated with how Ankara residents perceive the area. They assert that the existing transportation system restricts the integration with the urban environment. Interviewees also indicate that the area is non-open due to poor perception. And that the relationship of the area with larger urban environment comes through networking through global connections of the locals. They further emphasize that the area is not open to the outside world due to the absence of global connections. These findings suggest that openness has a key role in shaping people's perceptions, both in terms of physical and social aspects. (Figure-5.2) Hence, while developing planning and design strategies, it is crucial to consider openness as a multidimensional and multiscale factor that enhances the internal complexity of interfaces.

![Figure 5.2 Expressed Concepts of Openness](image-url)
**Interaction** is the third characteristic that exhibits a significant level of intensity and complexity in the study area. Aforementioned that this study approaches interfaces as permeable borders where different entities *interact*. The study's theoretical framework is based on the role of interfaces as *interaction areas* in urban spaces. The variables of facades specified in the conceptual scheme improve the building's interaction with the street and contribute to the vibrancy of street life. Since the literature defines the street as an interface through which people interact with the city, we have incorporated the parameters that would improve the vibrancy of the street and its role in facilitating interaction.

*Interaction* is recognized as the *key parameter* within this framework. (Figure 5.3)

This exploratory research reveals that the study area demonstrates a social framework characterized by a high level of social interaction in many forms, and that the sub-regions differentiate from each other in this respect.

![Figure 5.3 Expressed Concepts of Interaction](image-url)
Region A experiences the highest level of interaction, which is both expansive and intensive. In Region A, the interaction between the old craftspeople and the emerging group of artists, along with the networks they establish, enhance the area's ability to adapt to present circumstances. Based on the physical research, it is anticipated that proficient interfaces at three distinct scales would provide opportunities for social exchange and interaction in the area. The social pattern reported by the interviewees further supports these assumptions and demonstrates that the region is exceedingly open to interaction. There is also a self-organizing structure present in the Region. Local business owners collaborate and coordinate a diverse range of events, including exhibitions, panels, concerts, and festivals.

Region B exhibits a substantial degree of social interaction in many forms as well. Nevertheless, the region lacks cooperation and collaboration, indicating the absence of a self-organized structure. The social findings indicate that different social groups communicate and interact inside their own ranks. It is apparent that there is a lack of a framework in which various groups engage with one another across the entire region. The clustering of certain uses in specific locations rather than a mixed-use structure, is one of the factors contributing to this outcome, as indicated in the investigation of the physical environment. However, the existing literature (e.g., Rauws, 2011) states that the enhancement of interaction at several levels arises from diverse encounters, and a variety of actors/groups serve as stimulating events for self-organized practices. The limited diversity of contacts and interactions among different actors and organizations hampers the ability for self-organization in the Region.

The urban streets foster a complex network of interactions, where individuals constantly acquire, share, and generate information from each other. This procedure necessitates the presence of social trust. Jacobs (in Perrone, 2018) remarks on the notion of interpersonal trust at the street level as an essential prerequisite for the functioning of the city as a self-sustaining, self-regulating, emerging complex order. Jacobs asserts that trust in a city street is gradually built via numerous small interactions that occur on public sidewalks. The primary concern is not maintaining
communication with the neighbors, but rather ensuring interaction on the street. (Perrone, 2018) It can be inferred that social trust is established over time through the facilitation of possibilities for interaction in streets. The foundation of the self-organized structure is in the interpersonal trust established at the street level.

As previously indicated, Region A exhibits a self-organized structure characterized by collaboration among business owners to coordinate a wide variety of activities. However, these efforts haven't gone beyond the mere organization of events. Rauws (2017) mentiones that self-organization processes can lead to a structural transformation of a system, such as a neighborhood, arising from many local initiatives without the need for central coordination. However, this is not relevant to Region A. Although the users are motivated and make efforts to organize, it is recognized that significant outcomes cannot be attained in certain fields due to the absence of institutional support for these efforts. The lack of openness and interaction between institutions and the residents of the area, as well as the implementation of top-down decisions, hinder the self-organizing efforts of the inhabitants. Nevertheless, these institutional approaches would impede the preservation of the complex structure of the Region.

Jacobs and Hardin (in Perrone, 2018) highlight the significance of street-level engagement and contend that this heightened degree of interaction enhances the capacity for self-organization by fostering interactive and experienced knowledge and facilitate complex urban system to regenerate itself. It would be concluded from these argumants that, enhancing capacity of self-organization is crucial in order to a complex system regenerate itself.

5.3 Semantic, Symbolic and Functional Content of Urban Pattern

Interfaces are attributed with various semantic and symbolic significance in literature. Köknar (2001) states that people seek out “close-by” places on the streets. In these places, one finds calmness and communication becomes easier with the
mental serenity provided by what is different. These are defined and close places, such as an entrance, a low wall, or under trees, small cavities formed by buildings, a bottom of building wall, a gateway, a stairway or courtyard. These places evoke sensations that evoke a sense of detachment, a perception of time slowing down, moments of surprise, relaxation, and a feeling of disappearing into the crowd. These locations also provide opportunity for individuals to pause, think, get away and wait. Additionally, they offer a space for people to spend time together, coexist, and socialize.

The analysis of the physical environment indicates that the interfaces in the study area offer multiple opportunities to fulfill the semantic and functional needs of individuals seeking out on the street to attain their spheres of influence in urban spaces. Within all three zones, particularly in Region A, there exist interface spaces that possess the potential to generate semantic significance, including areas such as under eaves and castle walls. The organic layout of streets, the irregular pattern of the site, and the topographical structure provide flexibility in generation various niches, walls, staircases, or uniform open spaces. Furthermore, elements such as fountains and city walls, which are integral to the historical pattern of the area, enrich the urban space with numerous semantic and symbolic values. These frequently overlooked characteristics, such as low-walls, gateways, niches, cavities, projections, stairways, and courtyards, and their generated semantic, symbolic and functional content of urban pattern must be included into the framework of design and planning practice to preserve the semantic content that enhances urban life. Comprehensive strategies and policies for planning and design should address not just the physical elements of urban patterns, but also the sensory, affective, and semantic aspects.
5.4 The Continuity of Tangible and Intangible Elements in Historic Urban Sites

Historic urban sites involve further complexity owing to these areas’ multilayered structure incorporating both different segments of time and intertwined physical, cultural and social elements. Literature of conservation emphasizes on the significance of this multi-layered structure and associations between physical, social and cultural elements on the effective preservation of historical urban sites. (Koçyiğit, 2018; Okumuş, 2019) Koçyiğit (2018) states that “Historic urban areas – which are complex entities formed by continuous interaction between physical and human environment...” Furthermore, Okumuş (2019) states that, multi-layered cultural landscapes are complex environments that are influenced by continual dynamic and complex processes involving the interplay of various elements such as physical, environmental, social, cultural, economic, administrative, political, and legal variables. These landscapes are shaped by the continuous history of human settlements. Therefore, the combination of these characteristics, together with their complex and dynamic interactions across time, plays a significant role in shaping their identity and uniqueness.

It is stated in the The Burra Charter: Understanding and Assessing Cultural Significance (Icomos, 2013) that cultural significance is embodied in the place in its fabric, setting, use, associations and meanings. Burra Charter highlights that a place should be considered in its wider physical, social or spiritual context. It should not be assessed in isolation. (Icomos, 2013) This aspect is also highlighted in UNESCO Conference Document of Recommendation on The Historic Urban Landscape (2011) that, researches should target the complex layering of urban settlements, in order to identify values and understand their meaning for the communities.

In the context of the aforementioned literature, it is evident that, in order to protect a historical site, it is necessary to comprehend and conserve these areas as multilayered, complex structure, considering its physical, social, and cultural elements (both tangible and intangible) as a whole.
According to relevant literature, to sustain the continuity of historic urban sites, conservation measures should be developed through the examination of built areas and open spaces as a whole. Each aspect defining these areas should be identified and evaluated through their values. Complex coalescence among man, nature and physical environment, under the constantly changing process by different factors should be considered. Without a deeper analysis on the components of historic cities (both built and open space) and their complex relationship, conservation measures cannot sustain the cultural significance of the area. (Koçyiğit, 2018; Okumuş, 2019)

Considering these aspects, this study introduces a methodology and a distinct viewpoint by conducting a comprehensive analysis of the complex relationalities inside a historical urban setting. The study provides both a theoretical and methodological contribution to the understanding of historic urban areas as complex entities.

After evaluating the results of the study, it is clear that the historical pattern significantly contributes to the complexity of the studied area by forming many affective, social, and cultural characteristics. The majority of these characteristics are not clearly defined in the literature, which represents a significant advancement in understanding the complex structure of interfaces. Findings indicate that the intangible cultural pattern has a role in shaping social behavior in the study area. Interviewees frequently mentioned that tradespeople culture influences the development of solidarity and support among craftsmen and also play a role on establishment of business relationships and collaborative businesses. Tradesmen culture additionally holds a spiritual value that enhance cultural significance of the study area.

The study area contains tangible features that demonstrate its cultural significance. Research on interfaces reveal that, these tangible elements bear the traces of past civilizations or reflects cultural pattern of different periods and evoke some meanings and strong emotions including spirituality, belongingness, commitment, place attachment and pride. The findings demonstrate the interdependence of
tangible and intangible elements and illustrate the way by which the spirit of place is shaped, as described in the literature; “Spirit of place is defined as the tangible and intangible, the physical and the spiritual elements that give the area its specific identity, meaning, emotion and mystery.” (Icomos 2011, Valetta Principles for the Safeguarding and Management of Historic Cities)

An important outcome of abovementioned assessments is that, while cultural heritage studies suggest that numerous buildings have lost their authenticity as a result of renovations, the cultural and affective elements generated by the historical pattern remain deeply attached to the area. In the document of Icomos 2011, *Valetta Principles for the Safeguarding and Management of Historic Cities*, it is stated that historic towns and urban areas run the risk of becoming a consumer product for mass tourism, which may result in the loss of their authenticity and heritage value. In the document, the authenticity and integrity of historic sites are sorted among the major elements to be preserved.

Residents assert this matter by claiming that the area still preserves its historical memories. It is stated in the literature of conservation that, “…it is through interactive communication and the participation of the concerned communities that the spirit of place is most efficiently safeguarded, used and enhanced.” (Québec Declaration On The Preservation of The Spirit of Place, 2008) From this standpoint, it may be argued that the social capacity of the area, which promotes interaction, collaboration, and a sense of community, in other words, social cohesiveness, plays a vital role in transmitting the spirit of the place.

The findings conclude that the cultural, physical, and social patterns exhibit a cohesive nature, intertwining and mutually enhancing one another, so forming a unified and interconnected structure. In this instance, the study asserts that the study area operates as a complex system where numerous components intersect and interrelate. (Figure-5.4)
5.5 A Foundation Approach in order to Preserve The Dynamic Character of Historic Urban Sites

17th ICOMOS General Assembly (2011) emphasized that the safeguarding of historic towns and urban areas, and their surroundings, includes the necessary procedures for their protection, conservation, enhancement and management as well as for their coherent development and their harmonious adaptation to contemporary life. The Valletta Principles for the Safeguarding and Management of Historic Cities, aim to safeguard the values of historic towns and their surroundings, while also ensuring their integration into the contemporary social, cultural, and economic context. These approaches of cultural heritage emphasize the significance of adaptation to protect the values of historic towns and the surroundings. The importance of the adaptive capacity of complex systems in maintaining their resilience is emphasized in the literature on interfaces (Rauws, 2017; Portugali, 2007).

Rauws (2017) states that complex phenomena are dynamic, nonlinear – a small change can have a big effect and vice versa – and include interdependencies across
various aggregation levels. These are open systems, exchanging information and energy with their environment. For this reason, they are sensitive to changes in this environment and respond by adapting their configuration (Portugali 2007). Complex systems, as observed and theorized in the field of life sciences, are open to change, have ability to adapt and transformative in character. These characteristics increase the resilience capacity of a system when faced with an unpredictable disturbance.

Open systems are able to sustain their complex structures through the extensive interconnection and exchange among the components of the system. However, these structures may be disrupted if the relationship and flow of people and material between the area and its external environment are reduced. In this context, the area's integration into the broader urban environment and the reciprocal relationships become crucial in preserving the dynamic and adaptable nature of the area.

The integration of the historical site into the urban environment is a crucial principle for the strategies of conservation. As Icomos 17th General Assembly states that “Historic towns and urban areas are spatial structures that express the evolution of a society and of its cultural identity. They are an integral part of a broader natural or man-made context and the two must be considered inseparable.” (Icomos, 2011)

The social research findings of the study suggest that one aspect of the concept of openness is the integration of the neighborhood into the broader urban environment. When evaluating the level of openness in relation to the area's integration with the larger urban environment, interviewees associate openness with physical accessibility through public transportation. However, they perceive the area's openness based on the perceptions of citizens and its connection to national and global networks in social terms. Based on these factors, it can be inferred that the varied and complicated characteristic of openness plays a crucial role in ensuring integration with the broader environment and therefore, improving the ability of the areas to adapt. (Figure-5.5)

Diversity is a second parameter that plays a key role in keeping the dynamic character and adaptive capabilities of an area. According to Pondy (2005) an open
system requires a certain amount of complexity in order to sustain itself, and this complexity can only be maintained if there is a continuous flow of resources from a diverse environment.

Physical diversity is examined in this study as a feature that enhances the perception of space and produces visual interest. Social diversity is a feature that fosters a vibrant environment for social interaction.

Social sciences define diversity broadly, as differences in social categories like race, ethnicity, religion, gender, sexuality, socio-economic status, nationality and citizenship, veteran and parental status, body size, ability, age and experience. (https://soc.washington.edu/diversity-statement) This study emphasizes diversity based on different backgrounds, life experiences, and viewpoints rather than ethnic, religious, or gender differences. Bringing together individuals with varied backgrounds, life experiences, and viewpoints creates a rich interaction environment by facilitating the sharing of knowledge and ideas. As stimulating events for self-organized practices, diversified encounters between a variety of actors/groups contribute to the improvement of interaction on multiple levels.

The approaches to cultural heritage also emphasize social, cultural, and functional diversity. Icomos 2011 (Paris, 2011, Valetta Principles for the Safeguarding and Management of Historic Cities) regarded the principle that retention of the traditional cultural and economic diversity of each place is essential, especially when it is characteristic of the place. Additionally, it is emphasized in the UNESCO Conference Document of Recommendation on The Historic Urban Landscape (2011) that the historic urban landscape approach focuses on conserving the human environment's quality, improving the productive and sustainable utilization of urban spaces, acknowledging their dynamic character, and encouraging social and functional variety. (Figure-5.5)
This study highlights specific variables within the framework of interfaces as catalysts for both strengthening the inherent complex structure and sustaining adaptability of urban environments. The notable dynamics encompassed in this context include continuity, integrity, dynamism, adaptation, diversity, openness, and interaction. As previously indicated in various sections of the study, cultural heritage literature also acknowledges these dynamics as crucial elements in safeguarding, preserving, improving, and managing historical towns and urban areas. (Icomos-Valetta Principles, 2011; Unesco, 2011; Québec Declaration, 2008; Icomos-Burra Charter, 2013) In addition, cultural heritage literature places significant emphasis on comprehending the complex and multi-layered characteristics of cultural landscapes, which involve the interplay of diverse physical, environmental, social, cultural, and economic components (Okumuş, 2019). This study of interfaces in a historic urban site contributes to a comprehensive understanding of the dynamics and their complex relationships within the site. It reveals the *intertwining and mutually enhancing cultural, physical, and social patterns* of the study area, *forming a unified and interconnected structure*. 

Figure 5.5  Key Parameters on Dynamism and Adaptibility
5.6 Preserving The Dynamic Character and Enhancing The Adaptive Capabilities of The Study Area

The social data gathered through in-depth interviews indicates that, three of the Regions possess a certain level of dynamic character. The interviewers in fact, detail the significant changes and transformations seen in the regions in reference to in-depth discussion of specific major turning points. The causes of these ruptures indicate the predominant variables in the overall character of the regions.

The study area has undergone an ongoing change and transformation for the last several decades. (Figure-5.6) The most significant factors contributing to structural change in the area, as reported by the interviewees, include the restoration of historical mansions, important monumental buildings like Çengel Han and Çukur Han, and the establishment of workshops and galleries by specific artist groups. These factors have caused a shift and diversification in the profile of visitors to the area, enhancing its liveliness. However, the closing of establishments such as Zenger Pasha Restaurant and Washington Restaurant has led to the departure of significant visitor groups from the area. Additionally, workshops and production units have been substituted by standard and relatively cheaper souvenir shops, suggesting a decline in the socio-economic diversity of the area.

Çakır et al. (2019) also indicate this and highlight that the duration of employees in commercial units in the region varied between 5-10 years, and property ownership in the area constantly changed hands, leading to a transformation in the social fabric and user profile parallel to the physical transformation of the area. They underline that the Hanlar District and its surroundings have gradually transformed into a consumption-oriented area, but in order to preserve the spatial memory, to maintain traditional handicrafts and craft activities, and to keep the social and cultural fabric alive along with the historical texture, it is important for the conservation activities that the individuals employed in the region have long-term job stability. (Çakır et al., 2019) This case also emphasizes that, in order to preserve the dynamic structure of the area, the socio-economic continuity is of great importance.
Figure 5.6 Ongoing Change and Transformation in The Study Area
This section summarizes the current condition of those aspects that have led to substantial alterations in the area, based on the analysis offered by this study. It also proposes approaches that can be developed in this context in order to maintain the dynamic character and adaptive capacity of the study area.

The analysis of our study indicates that Han buildings continue to play a significant role in determining the socio-economic structure of the study area. The repair and repurposing of Han structures and houses have played a significant role in the socio-cultural and economic transformation of the region. (Figure-5.6) Our analysis of the interfaces' structure revealed that the entrances, exits, and façade diversity of these structures are interesting and attractive. In terms of both intensity and variety of ornaments, the historical Hans and mosques in the region stand out distinctively from other buildings. These buildings enhance the interface pattern by offering a variety of social diversity through many functions that they serve. Interviewees highlighted the openness of certain Han buildings due to its inclusiveness, appealing to different user groups as well as the structure of transitions facilitating smooth access and departure.

Another significant finding from the research is that only the Pirinç and Pilavoğlu Hans are indicated as structures with flexibility. The hans host some workshops conducted by artists who create handcrafted goods. The respondents argue that the workshops and their work are flexible and adaptable. The presence of artist groups producing in the area is a crucial aspect of the area's dynamics. While a few craftsmen continue specializing on traditional crafts, a group of educated individuals has also appeared, establishing workshops and galleries since the early 1990s. Particularly women groups specializing in these activities arrived in the region and introduced diversity in this regard. This situation also fosters product diversity, as there are shops that specialize in handmade personal products and even offer unique items that are not available elsewhere. Hosting workshops for various artist groups further elevates the Hans' significance in the study area. Furthermore, the Hans' organized structure and mutual support enable the workshops' continuity.
Çakır et al. (2019) contend that the hans had a significant role in Ankara's development as a commerce hub starting from the 16th century. Ankara is characterized by local and foreign travelers as a city abundant in independent stores, hans, and bedestens (Öztürk 1988; referenced in Çakır et al., 2009). In their study, Çakır et al. (2019) noticed that under the Ottoman urban structure, the hans were typically grouped around a major bedesten, and the Ankara Hans at the Upper Side of the Ankara Historic City Center are specifically centered around Mahmutpaşa Bedesten.

The aforementioned situation demonstrates that the Bedesten and Han structures maintain a continuity. Despite the fact that our research shows the continuity of the area's physical pattern, no such continuity is discernible in regards to these Han structures.

Çakır et al. (2019) explain this situation as follows by: "The absence of a functioning conservation plan indicates that the region's development is influenced by the needs and desires of investors and users. The approach taken in developing functionalization decisions and conservation projects for restored buildings has been building-oriented, failing to contribute to a comprehensive development in the region." In pursuit of this, the research indicates that the region's historical fabric, either being protected or requiring protection despite its inactive state, is at risk of extinction due to the spontaneous development of the area. To enhance preservation and continuity, the area must be approached with a comprehensive understanding and assessment that takes into account the function of the former trade center, with a particular emphasis on the han buildings.

Within this framework, repairing currently operational but worn-out hans like the Pilavoglu Han, and restoring dilapidated and out-of-use hans such as the Yeni and Kıbrıs Hans to their original structure and to re-functionalize them are crucial for maintaining the dynamic structure of the area. During building restorations, it is crucial that attention should be given on retaining the physical diversity of the facades to enhance the interaction qualities of the buildings. It is crucial for the
planning institutions to develop guidelines and policies fostering renovation projects while preserving the original diversity of texture, material, color, and architectural elements on the building facades.

The restoration of buildings is essential, but focusing solely on building-level interventions stands inadequate to achieve efficient conservation. The relationship between the building and the street, as well as the open spaces behind it, must be regulated to enhance the urban pattern's continuity. It is stated in the previous sections that, The Anatolian Civilization Museum's relationship with the public space/street is reduced by the thick and towering landscape elements on the railings and the main building's location far from the entrance. The building's lack of physical connection to the area is said to negatively affect social integration by impeding engagement with the surroundings. Improving the Anatolian Civilization Museum's physical integration with the surrounding area will expose the historical urban layout, where the hans were commonly clustered around a central bedesten to ensure continuity.

This study reveals that interfaces play a crucial role in ensuring the continuity in an urban quarter like the Ankara Castle area. The buildings need to be adjusted to interact with the street and their surrounds in order to improve their interface qualities, instead of being a self-contained construction. For example, Kuş Street, where Yeni Han and Kıbrıs Han are located, provides vital opportunities for generating a vibrant social interaction atmosphere due to its interface characteristics such as self-generated pedestrian zones and an urban wall that can facilitate varied pedestrian activities. Self-developed open spaces in the street would also generate viewpoint and improve the perceivability of the Han buildings. The streets physical structure can facilitate the Han's activities extending onto the street, fostering engagement with the street. Renovation of these Han buildings in connection with the Street could revitalize the street and enhance commercial activities in the Hans.
As stated in the preceding sections, interface effectiveness is significantly influenced by their degree of openness. Physical and social openness, facilitated by the renovated buildings' inclusivity to accommodate a variety of user groups, as well as the ease in entrances, are crucial for the vitality of these spaces. It is critical that the repurposed structures accommodate a variety of users and functions.

Traditional crafts, which are significant components to the region's cultural pattern, also contribute to the area's socioeconomic diversity. However, the interviewees assert that the traditional crafts contributing to the formation of craftsman culture are gradually disappearing. The disappearance of one of the salient components of the cultural pattern, referred to as traditional crafts, can have a significant impact on the entire interconnected structure outlined in this study. Furthermore, the gradual conversion of the commercial establishments in the region into retail stores specializing in pre-made goods can inevitably lead to a decline in the socio-economic diversity of the area over time. To sustain production in the area, the findings argue that it is essential to improve business partnerships between craftsmen and new artist groups creating hand-made products. Institutions should facilitate the collaboration of these groups on different platforms to promote social and knowledge exchange. Platforms can be established to promote and market the products of groups involved in different art products.

Establishing networks to facilitate the commercial integration of the area with the city, region, and global markets is another factor that can foster the socio-economic transformation and adaptation of the area. Producer groups lacking the necessary knowledge and resources to establish networks should receive support and training from institutions.

Institutions can develop incentives and policies to address these concerns and guide private sector-led transformations.
REFERENCES

Alanyalı Aral, Ela. (2003). Leftover Space as a Value and Potentiality for the Public Realm In The City, METU Architectural Faculty Doctorate Thesis of Architecture Department


Australia ICOMOS (2013). The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance


Dizman, Oğuz Kaan. (2015). Geçişlilik Kavramının Mekâna Anlamsal ve Simgesel Yansımları, Yakın Doğu University Institute of Science Department of Architecture Master’s Thesis


Ernstson Henrik; Sander E. van der Leeuw; Charles L. Redman; Douglas J. Meffert; George Davis; Christine Alfsen; Thomas Elmqvist. (2010). Urban transitions: on Urban Resilience and Human-Dominated Ecosystems, AMBIO, 39(8), 531–545.


Gölgeliöğlu, Can. (2021). Timbre of the Place: Emerging Affective Assemblages Through The Association of Place And Music, METU Architectural Faculty Doctorate Thesis of City and Regional Planning Department


Köknar, Burcu Serdar. (2001). Mekansal Arayüzlerin Kente ve Yaşama Katılımları Üzerine Bir İnceleme, İstanbul Technical University Institute of Science Master’s Thesis,

Kırkık Aydemir, Kıyımet Pınar. (2018). Yavaş Kent Hareketi Üzerinden Yaşanabilir Aramekan/Arayüz Geliştirmede Bir Model Önerisi: İstanbul Beşiktaş/Sinanpaşa Mahallesi Örneği, Bartın University Institute of Science Department of Landscape Doctorate Thesis

Özaydin, Gülşen. (1993). Kentsel Tasarım Kapsamında Tarihi Kentsel Mekanlarda Arayüzlerin Düzenlenmesine Sistemli Bir Yaklaşım, Mimar Sinan University Institute of Science Master’s Thesis,

Özer, Tuğba. (2022). From Relationlessness To Relatedness: Alienation and the In-Between Realm Revisited, METU Architectural Faculty Doctorate Thesis of Architecture Department


Quebec ICOMOS (2008). Québec Declaration on The Preservation of The Spirit of Place


Rifaioğlu, Mert Nezih. (2012). An enquiry into the definition of property rights in urban conservation: Antakya (Antioch) from 1929 title deeds and cadastral plans, METU Architectural Faculty Doctorate Thesis of Architecture Department


Songülen, Nazlı. (2012). Space Organisation In Urban Block: Interfaces Among Public, Common and Private Spaces Based On Conzen Method In Bahçelievler, METU Architectural Faculty Master Thesis of City and Regional Planning Department


University of Washington, https://soc.washington.edu/diversity-statement

APPENDICES

INTERVIEW TRANSCRIPTS

INTERVIEW POINT A

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Castle comes to my mind throughout the area and Aslanhane and Ahi Evran mosques.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

There are many people who have no knowledge about the region. Historical buildings, houses, mosques arouse interest. There is a sense of belonging.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

We still have shortcomings. We need some nice touches. For example, traffic regulation. Vehicle traffic is not required to be restricted from entering the area. I think it will reduce the interest. It's problematic to load and unload goods.

What other feeling(s) does this area leave in you?

The heart of Ankara. It is worth visiting. It is an integrity that reflects us and our culture in terms of its historical texture and spiritual values.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

I don't feel under pressure. There is commitment. There is belonging. It has such an attraction. Its unique cultural structure may be a factor. I am 53 years old and I have seen 7-8 sectors operating since my childhood. There is an accumulation. There is an Ahi culture here.
How diversified do you think this area is?; (ii) What makes this area diversified?

The diversity is limited both in terms of the profiles of the people coming and the shopkeepers. After the last ones in the food sector left, there are only antiques and souvenirs left. There is physical diversity.

How vital do you find this place?; (ii) What makes this place vibrant?

I find it insufficient. In my childhood, when there was a food sector, it was more vibrant. There has been a decrease since the beginning of the pandemic. There was a slowdown even before the pandemic. I also sensed this during my trips abroad, due to the shift of interest to other fields and economic reasons.

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

It's not a densely used place. It gets a little denser on weekends. At the present time, the business is run by those who know the place. We have an established customer portfolio. Otherwise, it would be difficult for us to sit and wait for customers.

How open do you find this place?; (ii) What makes this place open?

I don't find it very open. We work on a global scale. We are open to the outside. We are active on Instagram. But there are not many such groups in the neighborhood. This is partly because the old shopkeepers in the region are more traditional, less visionary.

How much social/physical change/ transformation has occurred in the area over time?

There has been sectoral change. The population of our childhood has changed a lot. The locals of Ankara have left. Altındağ Municipality made exterior cladding 8-10 years ago. They didn't ask anyone. It is debatable whether it was good. It was more diverse before. There were different colors, windows, frames. The inside of the castle was also colorful. They made it uniform.
How much flexibility (non-resistance) does the field exhibit in response to changes?

There are some who resist. There are also those who are open.

How well does the field adapt to changing conditions?

Very few of them can adapt. Most of the people here are traditionalists. They don't want to keep up. I tried to keep the current, progressive channels alive. On Wednesdays we do live auctions.

Are there unexpected/spontaneous activities in this area?

From time to time there are ideas, but they are not put into action.

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

We went to KUDEM, which is part of the metropolitan government. They've arranged streets. They didn't ask us. They are not interested in our ideas either. We organized very good festivals with Ankara Chamber of Commerce. In 2004 and 2015. The artisan culture is based on the tradition of Ahilik. We wanted this to be promoted in mosques. We sent a request to the General Directorate of Foundations, but we didn't get an answer. The origin of the Ahlism is leatherworking. There used to be no more debagging. There are only one or two masters left in copper processing. What the basket makers sell now is made in China. We had a textile infrastructure. But it has become obsolete. We used to have the old artisans and craftsmen here make things, but they are all gone.

To what extent do you interact with the inhabitants of the area?

There is still solidarity among the shopkeepers. My first shop was in Pirinç Han. The shop owners there have changed. The current group of shopkeepers have also adapted. The sense of ownership and belonging to the region may be the reason for this.
INTERVIEW POINT B

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

It's a historical place. The first thing that comes to mind is the historical pattern.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It arouses interest because it's historic. We love coming here. There is a sense of belonging here.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

It has a significant customer portfolio. The authenticity arouses interest. It is very different here. I love the old.

What other feeling(s) does this area leave in you?

It gives me a nostalgic feeling because I used to see these things. In the past, our minibuses to Ayaş used to leave from here. It feels good to remember the old times.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

The construction around us is low-rise. I feel no pressure.

How diversified do you think this area is?; (ii) What makes this area diversified?

There is a variety of products here. People come with a tiny piece of equipment. They can find something here that they cannot find elsewhere. There is also diversity on the street.

How vital do you find this place?; (ii) What makes this place vibrant?
After the pandemic, the old vibrancy is gone. People who come here are people who know this place. Tourists do not come here. Foreigners living in Ankara visit here. But foreigners coming by bus from outside do not come here. Local tourists visit here more. Foreigners mostly go to Anatolian Civilizations. Those who come here are antique collectors, artists, etc.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

There were many foreigners in the 2000s. Foreigners in Turkey know this place. They collect antiques and carpets. Their interest continues.

**How open do you find this place?; (ii) What makes this place open?**

It's not very connected to the city. People come by hearing about this place. Or they enter when they see the sign of Pirinç Han. It is physically connected to the street. For example, there is no door.

**How much social/physical change/transition has occurred in the area over time?**

It doesn't have a very good perception. The owner of the Han got permission from Tourism and put it into operation in the 90s. In the 80s there were coppersmiths and tinsmiths downstairs. Now there are those who do painting, handicrafts, glass restoration. There are very few artisans left. When I came, there were coppersmiths and chest makers. Then it started to turn into souvenirs. Recently, there have been rosary makers everywhere.

**How much flexibility does the field exhibit in response to changes?**

It is a place open to change.

**How well does the field adapt to changing conditions?**

We have no physical difficulties. We convey our demands to the Municipality. Our demands are met.
Are there unexpected/spontaneous activities in this area?

There's not much of that.

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

We can write in the decision book and go to the Municipality to get our work done. We have organization and good relations with other shops on the street. There is a general solidarity among the shopkeepers. For example, we close the Han on New Year's Day and celebrate New Year's among ourselves.

To what extent do you interact with the inhabitants of the area?

We have a good interaction. We have good friendships. You gradually get to know the customers. They ask if there is something for me. Auction events have increased recently. When he finishes his work, he closes and leaves. There are people who come to paint at different times of the day. The lack of working hours limitation provides flexibility for visitors.

INTERVIEW POINT C - INTERVIEWER 1

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Stray cats and dogs, children begging.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

Here we find traces of the past. But some traces have been erased. There were big natural stones here. Then they made cobblestones. There were traces of carts on those stones.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?
It's a very attractive place. But we've covered it with ashes. Someone has to shake the ashes off.

**What other feeling(s) does this area leave in you?**

Every time I come here I feel that a root culture is alive. I feel proud.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

There is no loneliness in crowds due to the small-scale structures.

**How diversified do you think this area is?; (ii) What makes this area diversified?**

Workshops, products in shops, uses are different. There is also spatial diversity. Each building was built with a different design in its time.

**How vital do you find this place?; (ii) What makes this place vibrant?**

It is not lively enough. It would be much better if it is made car-free, if it is easy to walk around. There are beggars. It is need to be rehabilitated.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

Under it’s potential.

**How open do you find this place?; (ii) What makes this place open?**

I didn't make a closed office here. When my guests come, I host them here. People passing from the street also come and have a conversation with us. It is open to communication. There is interaction.

**How much social/physical change/translation has occurred in the area over time?**

When craftsmanship lost its appeal, craftsmen left. Artists and galleries started to choose a place. Then the transformation started. There were not many crafts made
from scratch. Silversmiths started to come. This is the historic district. Artists chose to locate here because of the tourists. Museums started to change place's identity.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

There was resistance to change at first. Old shopkeepers found it incongruous when a woman opened a gallery and reacted.

**How well does the field adapt to changing conditions?**

There is adaptation to new demands. It is difficult to change quickly because it is not easy economically to change the products you have purchased at once. But change has started to accelerate.

**Are there unexpected/spontaneous activities in this area?**

A wide variety of local and foreign people visit here. One day an Indian couple came here. The bride and groom had their photos taken here. One day İlber Ortaylı came. Since I don't have an office, people who saw inside from the showcases also came and joined the conversation. For example, a very good writer, or someone you can't meet with an appointment, can come unexpectedly.

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

We organize exhibitions by organizing with galleries. We organize panels. There is a self-organizing structure. There is solidarity.

**To what extent do you interact with the inhabitants of the area?**

Open environment for communication. People socialize with each other. We guide people who are looking for a product to another shopkeepers.

**INTERVIEW POINT C – INTERVIEWER 2**

**What are the first things that you visualize in the area? (ii) What are the first things that come to your mind in the area?**
The castle is like a city within the city. There is a warm intensity created by its own inhabitants. The castle is divided into day and night. It is beautiful during the day but the silence at night creates distress. There is no security problem at night, but there is uneasiness. It has a bad perception in general. People are surprised to see people like us settled.

**How much spatial/visual interest does this space arouse in you?**; (ii) **What arouses your interest in this area?**

It is spiritually interesting. There are old mosques here. Our Ramadan is also very nice. It is very interesting from a historical point of view. Every house here has its own story. I want to visit every house. It's like this place has different rules. Different from the city. Some of us call it the Castle Republic.

**How attractive do you think the area is? (Is it pleasing to the eye?)** (ii) **What appeals to you?**

What other feeling(s) does this area leave in you?

Peace, comfort, calmness. It's very spiritual. Because it is peaceful. There are tombs, there are mosques here.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

When I used to see tall houses, I couldn't look at them. I was scared. They look like canned to me.

**How diversified do you think this area is?**; (ii) **What makes this area diversified?**

Each house here has a unique structure. This brings diversity. For example, I go to another house for the view, or people who like our garden come here. Neighborly relations are more strong. It was socially active. But it has decreased a little.
How vital do you find this place?; (ii) What makes this place vibrant?
Currently, its vitality is about 45%. But at night it drops to 10%. People who come to visit the castle don't come here much. They come for the grocery store. Very curious people come. Above is the main castle which is Akkale. The castle does not actually end here. People coming from Bentderesi side pass through here.

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

How open do you find this place?; (ii) What makes this place open?
I find it 75% connected to the city socially. Because tourists visit here. Our building is connected to the street. Before, the courtyard walls weren't so high. They were low like garden walls. We could see people.

How much social/physical change/transformation has occurred in the area over time?
Before the restoration, the area was not in a very good condition. After the restoration, the outside has become beautiful, but there are those who cannot renovate the inside. After restorations, people's and our perspective changed. Before, we wanted to leave here a lot, but now the houses are more beautiful. We cannot get the inside of the houses done. We have a heating problem. Only one room is heated. It is very costly to connect natural gas. It is very difficult for many families. There is also the perception that I will leave here anyway.

Most of the buildings are empty. There are a few Syrian families and some came after the earthquake. They have also adapted.

How much flexibility (non-resistance) does the field exhibit in response to changes?
They raised our garden walls due to the project. They imprisoned us here. They did not take our ideas into account. We went to the municipality a lot, but they didn't do what we wanted. This is our private space. They narrowed our balcony. They victimized us. They came here many times. They took measurements and left. But they didn't even talk to us.

**How well does the field adapt to changing conditions?**

I don't think the region is adapting. We have heating problems. If there is no grocery store, we have to go downtown. We cannot use public transportation. Some minibuses pass through Ulucanlar Street. There are no buses either. We have to go down to Ulus or Sihhiye. Taxis don't want to go inside either.

**Are there unexpected/spontaneous activities in this area?**

---

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

The Kale association is not active. Decision makers don't come and visit this place. They leave the place to itself. They visit the outer castle. But they don't come here.

**To what extent do you interact with the inhabitants of the area?**

It is an open space for interaction. Neighborhood relations are good. But we don't organize a meeting with the Municipality. We write to Cimer individually.

**INTERVIEW POINT D – INTERVIEWER 1**

**What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?**

Differences, surprisingness, people working together, workshops. The interiors, exists and entrances are also surprising.

**How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?**
Han doors, entrances, small-scale old buildings. Narrow streets, lights.

**How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?**

Yes, here is attractive. You feel that you are in a different place, not repeating. Structures that do not lose their originality are attractive.

**What other feeling(s) does this area leave in you?**

Sincerity, Strain: in terms of physical conditions.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

Small-scale narrow structures are favorable.

**How diversified do you think this area is?; (ii) What makes this area diversified?**

Building diversity. Museums also increase diversity. Small artisans, the fact that production is in women's groups, small-scale handmade is more diverse because it is more personal.

**How vital do you find this place?; (ii) What makes this place vibrant?**

There is lively activity during the holidays. It depends on the season. Transportation problems can affect vitality.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

The reasons for the dense use of this place are historical pattern, difference, diversity, visual interest, buildings in different uses (museums, artisans, workshops).

**How open do you find this place?; (ii) What makes this place open?**

The entrance cannot be too inviting, too open. There is not much openness. It is provided socially but not physically.
How much social/physical change/transformation has occurred in the area over time?

8 years ago, when the Han doors was closed, there were one or two carpentry workshops. Single people used the upper floors. Today it has decreased. The upper floors became workshops. There are more women initiatives. Change started with the opening of the han doors.

How much flexibility (non-resistance) does the field exhibit in response to changes?

Human choices personalize the place. There was an area like a lobby at the entrance. But when we decided to make it a workshop, the space changed quickly. Anticipated transformation can also happen quickly with municipal influence.

How well does the field adapt to changing conditions?

Physical conditions are difficult because buildings cannot be renewed. Adaptation is low. Transportation, physical conditions cannot be solved. The human profile between inside and outside of castle is incompatible. But workshops, and their work are adapting.

Are there unexpected/spontaneous activities in this area?

Spontaneity is high. There is a lot of human communication. This disrupts the plan made beforehand. Spontaneity occurs according to the work put in front of the shop. Arrangements can change. There is liveliness. There are very spontaneous situations at the entrance of the building.

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

There were people who opened workshops here through interactions with old friends. Some people started working together by influencing each other.

To what extent do you interact with the inhabitants of the area?
There is a lot of interaction. There are business relations with old craftsmen (blacksmiths/furniture makers). There is no disharmony.

**INTERVIEW POINT D – INTERVIEWER 2**

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

The commercial potential of the area makes it perceptible.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

The intricate structure of the space, its intertwinedness is interesting. When you enter through one door, you go to a completely different place. The upper corridor of the Han (Pilavoğlu) opens to the back street. The gradual structure is impressive.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

The architecture, the view, the fact that it is the biggest monolithic structure of the castle.

What other feeling(s) does this area leave in you?

Belongingness, appropriateness, peace.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

It is important that the buildings are on a human scale. This gives a sense of peace.

How diversified do you think this area is?; (ii) What makes this area diversified?

Uses, visitor profile is diverse. Finding diverse handmade products, women entrepreneurs.

How vital do you find this place?; (ii) What makes this place vibrant?
It's not lively enough. There is no development plan for the castle. I cannot undergo restoration and restitution because the property structure cannot be resolved. It does not attract enough people due to its current physical structure.

**How dense do you find this place?**; (ii) **What do you think are the reasons for the intensive use of this space?**

The density varies periodically.

**How open do you find this place?**; (ii) **What makes this place open?**

Han building is open in structure.

**How much social/physical change/ transformation has occurred in the area over time?**

The group of artists did not leave this place. They did not leave the area even in bad conditions during the infrastructure works. The old craftsmen of this place may have also influenced their choice of location. Previously, leather, mining scrap, etc. were processed. These were relocated. Local craftsmen also disappeared.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

Street rehabilitation, etc. None of them are healthy due to the lack of merit of the institutions that will ensure transformation.

**How well does the field adapt to changing conditions?**

The physical structure does not resist us. Anything can be done with small changes.

**Are there unexpected/spontaneous activities in this area?**

-----------------------------------------------------------------------------------------------------------------------------------

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**
There were pilav days specializing in Pilavoğlu. We organized concerts. It was held before the pandemic. These activities are unique to Han, but there is no interaction with people outside the Han.

To what extent do you interact with the inhabitants of the area?

There were pilav days specializing in Pilavoğlu. We organized concerts. It was held before the pandemic. These activities are unique to Han, but there is no interaction with people outside the Han.

INTERVIEW POINT E – INTERVIEWEE 1

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Touristic structure of the area. Historical structures.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It attracts attention with its buildings.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

Old buildings, museums, castle walls, artists' workshops are interesting.

What other feeling(s) does this area leave in you?

A peaceful vacation atmosphere.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

I feel no pressure. It feels equal.

How diversified do you think this area is?; (ii) What makes this area diversified?
Museums create diversity. Hans, buildings, art workshops, antique shops, traditional product shops. Physically various but in negative terms. The ankara stone at the bottom was dismantled. An incompatible material was textured. Chinese product seats were used.

**How vital do you find this place?; (ii) What makes this place vibrant?**

Lively. Museums, different uses, art workshops...But there is a lack of art and cultural events.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

It's unnecessarily dense. Peddlers are selling candy and paste, which shouldn't be.

**How open do you find this place?; (ii) What makes this place open?**

It's connected to the outside. This whole area is open. The shops facing the road provide openness. The shops are in a distance of visual contact with visitors.

**How much social/physical change/ transformation has occurred in the area over time?**

New museums opened. Design shops opened. Street rehabilitation was done. It increased density. But socially, it deteriorated. Old residents left. There is a constant transformation and it is ongoing.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

Flexible in the presence of change. There is no resistance because Ankara is small. Because there is not any other place like this in Ankara.

**How well does the field adapt to changing conditions?**

They are adapting to changing conditions. This has nothing to do with the Municipality. It is with the business owners here. The products change easily based on the demand of visitors.
Are there unexpected/spontaneous activities in this area?

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

There is the Castle Association. In some cases there has been contact with the Municipality.

To what extent do you interact with the inhabitants of the area?

We have products made by the artisans in the castle, coppersmiths and blacksmiths. We have interaction with the tradesmen in Pilavoğu Han. There are tradesmen there that we commissioned to work.

INTERVIEW POINT E – INTERVIEWEE 2

What are the first things that you visualize in the area? (ii) What are the first things that come to your mind in the area?

The gates of the castle are like landmarks. Museums, the square, there is a culture of craftsmen that has overflowed onto the streets since the past.

How much spatial/visual interest does this space arouse in you? (ii) What arouses your interest in this area?

The craftsmen's culture and historical pattern arouse interest. When I was young, there were art workshops in Pirinç Han. It was very enjoyable for me. I used to dream of having a gallery here. It had a very authentic atmosphere in the past. I remember this place as more touristic. Now there are workshops, design workshops, silver jewelry, a wide variety. Cultural heritage management is not done properly.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

The area is appealing.
What other feeling(s) does this area leave in you?

It's distressful for women at a certain hour. Before, even when there were Zenger Pasha Mansion, it was more convenient. Now there is no place to host such a foreign guest except Divan.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

I don't feel any pressure. There is already a horizontal architecture. But there is the problem that the buildings cannot be renovated by specialists.

How diversified do you think this area is?; (ii) What makes this area diversified?

Romanians make music. They live their lives in accordance with the character of this place. But refugees cannot adapt. There are new generation shopkeepers here, interesting. There are also local shopkeepers. They embrace this place and the newcomers too. There are also visitors. Regular visitors. Embassy employees, doctors of hospitals. Among the museum visitors, there are also people from the neighborhood close to the hospitals. Foreigners still come.

How vital do you find this place?; (ii) What makes this place vibrant?

If the weather's good, it's too crowded. It's a burden the area can't carry. They visit, but they don't shop. It's a useless crowd for the shopkeepers.

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

How open do you find this place?; (ii) What makes this place open?

Physically disconnected. It is not open to the city in terms of transportation. It is connected to the city, but not inclusive. It is also event-oriented. But this museum (Rahmi Koç Museum) is very open. It is the people's museum. It appeals to every
group. It's physically inviting. It has very big Han doors. That's the management policy. It's an open place.

**How much social/physical change/ transformation has occurred in the area over time?**

Physically, not much has changed. The area is still insecure. What has changed is that with the Rahmi Koç museum, there is an understanding that this place has tourism potential.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

Where there are university students, there is flexibility. Shopkeepers get used to young girls with blue hair over time. There is no difficulty communicating with shopkeepers.

**How well does the field adapt to changing conditions?**

There is individual adaptation. Everyone is looking at each other and redesigning themselves.

**Are there unexpected/spontaneous activities in this area?**

This is what happens with artists. Puppeteers suddenly start putting on a show.

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

We are doing an "artisan street" event with craftsmen. It is an area we created in the museum. In the workshops of the museum, we first go to the craftsmen here in cases related to the exhibition. If we want to give someone a gift, we get support from the tradesmen here. There were felt makers. We guided them and eventually they opened an exhibition here, which was very popular. The old tradesmen don't want to make much space for the new ones. But the future of this place is the new generation of designers and creative industries.
To what extent do you interact with the inhabitants of the area?

The new artists are also supporting each other. They cannot survive on their own. I think the difference here stems from the Ahi culture. This is not the case in other historical places.

INTERVIEW POINT F

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Castle walls, Divan Hotel, Rahmi Koç, Erimtan, Museums, surrounding structures.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It arouses a lot of interest. Because it is the oldest historical district of Ankara. The arrival of a wide variety of local and foreign tourists, buildings with different features...

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

Compared to the countries of the world, it has an average attractiveness. The difference compared to Ankara is that it has a historical pattern. It has a multi-layered structure. It has been home to many civilizations. The historical memory is still preserved. The historic function (trade) is preserved.

What other feeling(s) does this area leave in you?

At night, it's distressing. A feeling of home in the morning, a feeling of distressing in the evening. But it also evokes a more spiritual, peaceful feeling. Signs of life from different cultures inside the castle...

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?
At first I felt pressure, but I believe in the unifying power of the museum. Now I don't feel it, but when I go inside the Castle, that sense of distressing comes back. There used to be drinking places. It was a lively place at night. But now it is more unsettling. In Europe you can walk around at night. But here you can't. But I don't feel pressured due to the physical structure.

**How diversified do you think this area is?**; (ii) **What makes this area diversified?**

Socio-culturally, economically diverse. First of all, it is diversified via containing different eras. There are many women entrepreneurs. In the design section of our museum, there are works by women from Kale.

**How vital do you find this place?**; (ii) **What makes this place vibrant?**

The liveliness changes from time to time. It is very lively during the holidays. It is lively before the New Year because there are design products. Events also affect liveliness. Compared to 6 years ago, liveliness has increased. It is also related to the opening of museums. It is also related to the promotions of municipalities and small initiatives.

**How dense do you find this place?**; (ii) **What do you think are the reasons for the intensive use of this space?**

How open do you find this place?; (ii) **What makes this place open?**

I don't find Kale open to the outside world. Someone living in Çankaya, Çayyolu side can visit Kale once a year. This museum (Erimtan) tries to do inclusive activities that include everyone. But I don't find the museum physically open. This is a paid, secured archaeology museum. But Kale region is inclusive and open. You can visit it alone.

**How much social/physical change/ transformation has occurred in the area over time?**
There are more well-maintained buildings. Vacant buildings have turned into museums. It has become cleaner.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

There is resistance to change. Shopkeepers don't want those selling design products. We want here to turn into an area with weekend concerts focused on real art. But the old shopkeepers don't want that either.

**How well does the field adapt to changing conditions?**

It appeals to the tourists and visitors who come to us.

**Are there unexpected/spontaneous activities in this area?**

Spontaneous events don't happen very often.

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

We are trying to organize. I also believe in collective creativity. We held workshops with shopkeepers, especially with women. We also worked with Romanian groups inside the castle, but it was not very successful. We cannot ignore them too. There is collective consciousness.

**To what extent do you interact with the inhabitants of the area?**

There is an interaction here. The shopkeepers of the Rahmi Koç Museum sit in front of the shops and chat with each other. It's like a neighborhood. It is effective that the doors are always open. They buy things from each other. There is a culture of solidarity.

**INTERVIEW POINT G**

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?
The castle itself, early Republican architecture, castle walls.

**How much spatial/visual interest does this space arouse in you?**; (ii) **What arouses your interest in this area?**

The architecture of museum (Anadolu Medeniyetleri) arouses interest. Erimtan, Koç Museum, Atpazarı street, Koyunpazarı street arouse interest. On the one hand, normal life continues here. But this is a living historical site. It does not interfere with normal life. The integration of the castle with the park and the castle walls are interesting.

**How attractive do you think the area is?** (Is it pleasing to the eye?) (ii) **What appeals to you?**

What other feeling(s) does this area leave in you?

People used these structures a thousand years ago. I have such a feeling. There are buildings in need of maintenance that are about to be demolished. This is disturbing. There are deep cracks in the fortification walls at the entrance gate of the castle. That is also a point that needs intervention. They are disturbing.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

How diversified do you think this area is?; (ii) **What makes this area diversified?**

There is social diversity.

**How vital do you find this place?**; (ii) **What makes this place vibrant?**

Ten years ago there was a security problem. It's better than that time. It has become a visitable area after the activation of museums.
How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

It gets very dense on weekends. The area cannot handle this intensity. On the one hand there are wedding shoppers; on the other hand, there's a museum. This is a living place at the same time.

How open do you find this place?; (ii) What makes this place open?

The area's perception is still bad. That's why it's socially closed. The museum building should be open to the public. It has to be perceived that there is a museum here. It cannot be surrounded by high walls. It has to do with the museum's cultural policy. But this museum (Museum of Anatolian Civilizations) is open.

How much social/physical change/ transformation has occurred in the area over time?

When people here could not renovate the places they lived in with their own means, they evacuated. Other groups and artists started to come. Trade revived with the arrival of foreign tourists and the opening of museums. After the closure of drinking places, the area was emptied a bit. It no longer is a place that lived at night.

How much flexibility (non-resistance) does the field exhibit in response to changes?

There is resistance due to economic reasons and legislative reasons (permits, etc.) Because buildings have to enter the board before renovation.

How well does the field adapt to changing conditions?

There is a transformation through the art galleries, private museums, etc.

Are there unexpected/spontaneous activities in this area?

When Romanian children pass by on the street here, they suddenly pick up a darbuka and start playing it.
To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

To what extent do you interact with the inhabitants of the area?

The newcomers are people with an artistic identity. There are people who do antiques here just for interaction.

INTERVIEW POINT H

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Different civilizations lived here. It smells of history.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

My interest is increasing day by day. People from many different parts of the world come and see this place, interact with them, and physically the facades and bay windows of the buildings attract attention.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

It's quite attractive. Historical texture, 12th century Alaattin Mosque and fountains...

What other feeling(s) does this area leave in you?

A mystical texture. I used to have a shop in Çankaya. There is a big difference with Çankaya. You can see all kinds of people here. Dialog is more relaxed and natural. There is sincerity. They do not overwhelm you. In Çankaya it was more monotonous.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

No, I don't feel any pressure. It's natural, nothing to be nervous about.
How diversified do you think this area is?; (ii) What makes this area diversified?

It is quite diverse. It is diversifying day by day. Recently, handicraft workshops have been opening. Shops for painting, sculpture, artistic activities have opened. This has added diversity. At the same time, cooperatives have opened courses for this purpose. Especially women entrepreneurs.

How vital do you find this place?; (ii) What makes this place vibrant?

The vitality is increasing day by day. Fifteen years ago when I first came there were very few shops.

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

How open do you find this place?; (ii) What makes this place open?

The area is very comfortable and, spacious. It's an open environment. It is easy for people to come in and out, to walk around. There is no pressure on anyone. The historical pattern provides that comfort. They can visit and examine with interest and comfort. It is not guarded like a museum.

How much social/physical change/transformation has occurred in the area over time?

When we first came, it was a rundown place. There was Washington Restaurant, Zenger Pasha Mansion. Elite customers were coming. Metropolitan Municipality restored and made the exterior surfaces usable and visible. Before, it looked like it would fall on your head when you passed by. The exterior surfaces were renovated shallowly.

How much flexibility does the field exhibit in response to changes?
There is resistance to change. It comes from the old residents. The renters want to do something. But they are not allowed to do much.

**How well does the field adapt to changing conditions?**

Demand does not change much as it is predominantly from foreign tourists. Physical conditions are not a problem. Natural gas has arrived everywhere. It can be connected.

**Are there unexpected/spontaneous activities in this area?**

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

There is the Kale Association. All tradesmen are members. There are talks about the future of this place. Institutions are responding. We talked about barriers, vehicle ban etc. How shopkeepers will address customers, environmental pollution etc. are discussed. Fairs and exhibitions are organized. There is also a Whatsapp group. KUDEM is also included in the Kale association.

**To what extent do you interact with the inhabitants of the area?**

We help the residents of the area. We are like a family. Including shopkeepers and residents. We lend a hand to problems. We help those in need. Life is intertwined. It's like a neighborhood.

**INTERVIEW POINT I**

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

View of the street. Building facades. I wonder what it's like inside of the buildings.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?
It's not very interesting now for me. My eyes are used to the area.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

The historical pattern is attractive. I feel like I am in Ottoman or Roman time.

What other feeling(s) does this area leave in you?

The pleasure, excitement, happiness, curiosity of historical pattern.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

No, I don't feel any pressure. It's quiet and calm at night.

How diversified do you think this area is?; (ii) What makes this area diversified?

The form and stance of the houses are varied. Some have bay windows. There are changes in geometric shapes. Some have stone walls. There is a variety of people.

How vital do you find this place?; (ii) What makes this place vibrant?

It was very lively before the restoration. Infrastructure work started first. It took too long. It was muddy for a long time. During the restoration they closed the castle gate for three years. After that time, the number of visitors decreased. It was very popular before the restoration. Since the rents were very affordable, there were many residents. It collapsed during the pandemic.

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

Slowly it started to increase.

How open do you find this place?; (ii) What makes this place open?

The castle area is open to Ankara. It has several separate entrances. Our building is half open. The entrance is on the side.
How much social/physical change/transformation has occurred in the area over time?

Physically it has changed a lot. The facade, windows, roofs, were built. The streetscape, lighting has changed. Museums have a lot of influence. It was bad before the museums.

How much flexibility does the field exhibit in response to changes?

It cannot be flexible. Because it is a protected area. Changes can be made inside. But not on the exterior. There used to be a drinking places. Now there are none. Washington restaurant, Zenger Pasha had a lot of influence.

How well does the field adapt to changing conditions?

There is natural gas everywhere, but it is very expensive to connect it.

Are there unexpected/spontaneous activities in this area?

Sometimes the mehteran comes on Fridays. Last year someone came, played the saz and left.

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

We are members of the Kale association. They listen to the shopkeepers. But maybe they fulfill only 20% of the demands. There is no unity among the shopkeepers. Everyone demands a different thing.

To what extent do you interact with the inhabitants of the area?

Everyone knows each other here. There is the old neighborhood culture. There is integrity but no unity. There are many changes of thought. It is very different here from the Hanlar region. The status and education level of shopkeepers, everything is worse here.
INTERVIEW POINT J

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

A great history. Lived experiences.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It is exciting to see the traces of different civilizations. Stories that have been lived. It's like touching the past. I feel that we are different when we are here. If we did this service in another part of Ankara, we would only be providing food and beverage services. When we engage in conversations with the guests here, the energy rises. I feel we are in a different atmosphere.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

Attractive in every field. That attraction is in the traces of the past. The peace that the past brings. At night the street is empty, the sky has a beautiful light. In the morning, birds singing.

What other feeling(s) does this area leave in you?

Excitement, feeling the past, future, and the moment.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

I don't feel physically pressured. I feel pleasant, peaceful and good. Architectural structure, seeing the sky... I can have a good view to the scenery.

How diversified do you think this area is?; (ii) What makes this area diversified?

Diverse in terms of use. It's getting more beautiful every day. The coexistence of different eras.
How vital do you find this place?; (ii) What makes this place vibrant?

From time to time. Not lively enough. A historical line cannot be provided on the route from Ulus statue to Ankara Castle. Sidewalks and streets are broken. Garbage, bad lighting, tradesmen's disorganized and disheveled state, endless restorations, bad restorations...

How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?

How open do you find this place?; (ii) What makes this place open?

It can be easily visited like an open air museum. There is no physical threshold. There is no perception of safety. There is a perceptual threshold. Our door is open 365 days a year. People mostly enter from the garden because it is open. Our front entrance is controlled.

How much social/physical change/ transformation has occurred in the area over time?

Cultural, artistic and commercial facilities have increased within the castle. Everyone started to take care of their streets in front of their doors. Quality, vitality, liveliness and trust are increasing.

How much flexibility does the field exhibit in response to changes?

People here are open to change. They need service. They want their quality of life to improve. There is no resistance in that respect. But there is resistance from institutions.

How well does the field adapt to changing conditions?

I can't even get internet here. Adaptation is poor. Tour operators can't find a place to park. Unable to respond to current needs.

Are there unexpected/spontaneous activities in this area?
To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

There is a group of Kale volunteers. It is not a very organized structure. The main problems here are transportation, parking, security and lighting. There is no security point day and night. Since there is no lighting, guests have trouble at a certain hour. Personnel cannot be assigned for tourism promotion. Vehicles coming here should run every half hour.

To what extent do you interact with the inhabitants of the area?

We interact with everyone here. We convey our demands to the institutions. But we don't get a solution. We also do business together with other tradesmen of the area.

INTERVIEW POINT K – INTERVIEWEE 1

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Old buildings, old life experiences…

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It interests me a lot. I am interested in the fact that historic houses are very beautiful, that people lived happier in those conditions.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

The area is attractive to me. It's a feeling of nostalgia or longing for the old. The houses of the area are very attractive to me. Narrow streets, cobblestone textures...

What other feeling(s) does this area leave in you?

It's an intimate environment. Because the buildings are close to each other.
How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

I don't feel pressure. On the contrary, there is pressure where there are high-rise buildings. I feel very comfortable here. I feel sincere. I like the neighborhood atmosphere here. I attribute this to the intimate atmosphere, the intertwined construction.

How diversified do you think this area is? (ii) What makes this area diversified?

The social pattern is very diverse. Apart from those who live here, people from completely different cultures have arrived. There are people with a high level of culture. There are people who are engaged in different old arts.

I chose Kale because it is a touristic place. I thought our work would suit the pattern here better. I thought because there are many people who come here. We have the chance to show our art to many people. The buildings are not uniform either. They are various in terms of use. Some use it as a workshop, some as a restaurant, some as a hotel.

How vital do you find this place? (ii) What makes this place vibrant?

It is not very lively yet. People go up to the castle entrance and the castle walls, but they don't go down here. People need to be introduced to this place. It could be a purely cultural place, but it is not yet.

How dense do you find this place? (ii) What do you think are the reasons for the intensive use of this space?

There is not enough density.

How open do you find this place? (ii) What makes this place open?

It's not fully open yet. Kale has a bad perception for most people in Ankara. The building is connected to the street. Even if the courtyard door is closed, people who
come here know that there is a place here. There are people who come here unexpectedly. They knock on the door and ask what are you doing here?

**How much social/physical change/ transformation has occurred in the area over time?**

There has been a change in the last two or three years. People started to arrive. New events have started. Cultural activities are carried out. It was very busy. But it is of no use to us.

**How much flexibility does the field exhibit in response to changes?**

There is resistance from the old residents.

**How well does the field adapt to changing conditions?**

Actually, my workshop has natural gas. In that respect, it is open to change. But the area can't adapt outside of that. Cafes are the same everywhere. There is no such thing as keeping up with the day.

**Are there unexpected/spontaneous activities in this area?**

---

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

I am a member of the Kale association, but I am not actively involved in the association. But this association is not suitable for its purpose. Because everyone has individual demands. It is not an association that serves the whole area.

**To what extent do you interact with the inhabitants of the area?**

We have an interaction among ourselves. We combine our work with those who do handicrafts. We are designing together.

There are shops with showcases at the entrance of the castles and they bring Chinese products. However, if there is someone producing here, our products should be sold
in those shops. Because there is a product and a value here. I am a carrier of intangible cultural heritage. I cannot pass on my own craft.

INTERVIEW POINT K – INTERVIEWEE 2

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Ankara's first historical pattern.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

The restoration is not appropriate. It doesn't interest me as an architect. Because it is far from the original texture. For example, in the restoration of the castle walls, the stones have been moved.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

-----------------------------------------------------------------------------------

What other feeling(s) does this area leave in you?

For a cultured person, seeing the past leaves a good feeling. For example, there is the Aslanhane Mosque, a purely wooden structure. In the Kıncızade Mansion, there are pictures from the history of the Republic when Atatürk came there. There is the office of Turkey's first female announcer.

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?

There is no repression. There is equality. Artists, pensioners, the poor, everyone lives here.

How diversified do you think this area is?; (ii) What makes this area diversified?
There are many foreign residents. There are also Middle Easterners who come to trade here. You don't see any diversity in terms of façade because the old texture has deteriorated. But there is diversity inside the buildings.

**How vital do you find this place?**; (ii) **What makes this place vibrant?**

There is a vitality because it is Ankara's only historical pattern. But vitality is diminished. There were boutique hotels here. None of them are functioning now.

**How dense do you find this place?**; (ii) **What do you think are the reasons for the intensive use of this space?**

----------------------------------------------------------------------------------------------------

**How open do you find this place?**; (ii) **What makes this place open?**

There is no connection in terms of transportation. You can come by taxi or private car. The buildings are all connected to the street.

**How much social/physical change/ transformation has occurred in the area over time?**

The fact that art is here and the number of visitors is high influenced us to choose a place here. There are glass makers, ceramicists, painters, tile makers, puppeteers, glass mosaic, calligraphy and taship artists here. Rents have risen recently. That's why some people are leaving. It was more lively in the 80s and 90s. There was the Washington Restaurant, Zenger Pasha Restaurant. The customers of the old rug and carpet makers here are foreigners and people from Istanbul.

**How much flexibility does the field exhibit in response to changes?**

I see no resistance to change.

**How well does the field adapt to changing conditions?**

It's not that closed here. We live in GOP. But we don't feel uncomfortable coming here. We are not deprived of needs.
Are there unexpected/spontaneous activities in this area?

In the spring, the municipality organizes festivals. There is live music, events, exhibitions. Since transportation is difficult, the demand is not at the desired level. The space is also cramped.

To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

To what extent do you interact with the inhabitants of the area?

Artists here all know each other. But there is no coordinated work. There are exhibitions here too, but they don't attract as many people as the galleries on Tunus Street. The publicity may also be low.

INTERVIEW POINT L

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

Its historical pattern. A place with a thousand years of history. It's a heritage.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

We can see Ankara from a bird's eye view. It's at a vantage point. It's a special place.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

We feel a sense of belonging. We have maintained our culture and life here for years.

What other feeling(s) does this area leave in you?

How equal (unrepressed) do you feel when you think about yourself in relation to the environment?
I don't feel any pressure. You can contact the police at any time. It's not a deprived area. It's a cultural mosaic where people live together.

**How diversified do you think this area is?**; (ii) **What makes this area diversified?**

Socially, culturally, people have come from different parts of Turkey. They live intertwined. Physically, the facades are renovated. But the interiors are in bad condition. Most tenants can't afford it to renovate. The buildings looks good from the outside. But the inside is troubled.

**How vital do you find this place?**; (ii) **What makes this place vibrant?**

There is not much activity in this area. There is no event. It's left to its own state.

**How dense do you find this place?**; (ii) **What do you think are the reasons for the intensive use of this space?**

**How open do you find this place?**; (ii) **What makes this place open?**

The mosque is open to the community. Everyone is free to move around and do their worship.

**How much social/physical change/transformation has occurred in the area over time?**

I've been here 14 years. There's no problem inside. But outsiders can attack tourists. No security, cameras. Restoration has been going on here for 5-6 years. When we first arrived, the roads were bad and the buildings were in shambles. When we arrived, it was not in a way to settle down. It's a bit cleaner now.

The mosque restoration was done between 2017-2020. The ground level of the mosque was up. When it came down, the historical stones appeared.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**
When institutions decide to do some intervention, no one resists here. Those who have assets along the roadside may resist because they want higher prices.

**How well does the field adapt to changing conditions?**

They have to adapt. The institutions are not oppressive. There is no opposition. The region is suitable for change.

**Are there unexpected/spontaneous activities in this area?**

---

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

When there is a need, Kale Association reaches out to the institutions through official channels and expresses their demands. There is no self-organization among tradesmen.

**To what extent do you interact with the inhabitants of the area?**

We are constantly interacting. We negotiate with each other and find a common way out of problems. Everyone knows each other. So when anything happens, we meet and talk. There is solidarity. We know the importance of unity and solidarity. We support each other.

**INTERVIEW POINT N**

**What are the first things that you visualize in the area?**; (ii) **What are the first things that come to your mind in the area?**

Neighborhood relations and sincerity come to mind. Here, when you go out, you see everyone. It's not like an apartment. This is the biggest reason why we didn't move. When you go out, you can see everyone. It is like a squatter neighborhood. You get the same feeling in any squatter neighborhood.

**How much spatial/visual interest does this space arouse in you?**; (ii) **What arouses your interest in this area?**
There used to be more visual interest. Each house had different features. But it still has a beauty. That comes from the sense of belonging. We miss how it used to be.

**How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?**

Neighborhood relations, feeling of nostalgia, view of the city, castle, openness of the area.

**What other feeling(s) does this area leave in you?**

Neighborhood relations, a sense of belonging, a sense of nostalgia... Reminds me of my childhood.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

I don't feel any pressure. It's open, relaxed. You can go up to the castle and see everything. This place gives me happiness in terms of environmental and personal factors.

**How diversified do you think this area is?; (ii) What makes this area diversified?**

For visitors, it is a combination of historic houses and newly restored houses. There are immigrants, different cultures.

**How vital do you find this place?; (ii) What makes this place vibrant?**

These places are not very crowded even on public holidays. People coming from Ulus pass through here.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

----------------------------------------------------------------------------------------------------

**How open do you find this place?; (ii) What makes this place open?**
It's connected because it's in the city center. It is actually inside the city. There is a transportation problem, but when you walk for ten to fifteen minutes, you are already in the center. I cannot separate this Region from the rest of the Castle area.

**How much social/physical change/ transformation has occurred in the area over time?**

There has been a lot of change. Houses are being renovated. I don't get the old feeling of sincerity when I enter the neighborhood. It has become uniform after the renovation. I see the same thing when I go to Hamamönü. I see the same thing when I go to Beypazarı.

Construction has been here for over 10 years. Before that it was very crowded. There were neighborhood relations. It became empty because of the construction. The old sincerity is gone. The feeling of insecurity is decreased for tourists. But socially it was not better for the residents. The feeling of insecurity has never existed for us anyway. We could easily walk around late at night.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

There is no resistance. Everything has changed as decided in a very short time. It wouldn't have changed without the restoration. People have the idea that commerce will grow here and we won't stay here for long. The area was actually given up very quickly.

**How well does the field adapt to changing conditions?**

People adapt out of necessity. People assume that this place will turn into commercial establishments and they move out. Natural gas was installed on the main line but not to the houses.

**Are there unexpected/spontaneous activities in this area?**

Sometimes musicians play on the way home.
To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?

There is not an organized structure.

To what extent do you interact with the inhabitants of the area?

There is a lot of interaction. We know inhabitants all. There is cooperation for charity. When someone needs something, people gather. If a house is to be moved, everyone goes to help.

INTERVIEW POINT O

What are the first things that you visualize in the area?; (ii) What are the first things that come to your mind in the area?

The castle is like a city within the city. There is a warm intensity created by its own inhabitants. The castle is divided into day and night. It is beautiful during the day but the silence at night creates distress. There is no security problem at night, but there is uneasiness. It has a bad perception in general. People are surprised to see people like us settled.

How much spatial/visual interest does this space arouse in you?; (ii) What arouses your interest in this area?

It is spiritually interesting. There are old mosques here. Our Ramadan is also very nice. It is very interesting from a historical point of view. Every house here has its own story. I want to visit every house. It's like this place has different rules. Different from the city. Some of us call it the Castle Republic.

How attractive do you think the area is? (Is it pleasing to the eye?) (ii) What appeals to you?

What other feeling(s) does this area leave in you?
Peace, comfort, calmness. It's very spiritual. Because it is peaceful. There are tombs, there are mosques here.

**How equal (unrepressed) do you feel when you think about yourself in relation to the environment?**

When I used to see tall houses, I couldn't look at them. I was scared. They look like canned to me.

**How diversified do you think this area is?; (ii) What makes this area diversified?**

Each house here has a unique structure. This brings diversity. For example, I go to another house for the view, or people who like our garden come here. Neighborly relations are more strong. It was socially active. But it has decreased a little..

**How vital do you find this place?; (ii) What makes this place vibrant?**

Currently, its vitality is about 45%. But at night it drops to 10%. People who come to visit the castle don't come here much. They come for the grocery store. Very curious people come. Above is the main castle which is Akkale. The castle does not actually end here. People coming from Bentderesi side pass through here.

**How dense do you find this place?; (ii) What do you think are the reasons for the intensive use of this space?**

How open do you find this place?; (ii) What makes this place open?

I find it 75% connected to the city socially. Because tourists visit here. Our building is connected to the street. Before, the courtyard walls weren't so high. They were low like garden walls. We could see people.

**How much social/physical change/ transformation has occurred in the area over time?**
Before the restoration, the area was not in a very good condition. After the restoration, the outside has become beautiful, but there are those who cannot renovate the inside. After restorations, people's and our perspective changed. Before, we wanted to leave here a lot, but now the houses are more beautiful. We cannot get the inside of the houses done. We have a heating problem. Only one room is heated. It is very costly to connect natural gas. It is very difficult for many families. There is also the perception that I will leave here anyway.

Most of the buildings are empty. There are a few Syrian families and some came after the earthquake. They have also adapted.

**How much flexibility (non-resistance) does the field exhibit in response to changes?**

They raised our garden walls due to the project. They imprisoned us here. They did not take our ideas into account. We went to the municipality a lot, but they didn't do what we wanted. This is our private space. They narrowed our balcony. They victimized us. They came here many times. They took measurements and left. But they didn't even talk to us.

**How well does the field adapt to changing conditions?**

I don't think the region is adapting. We have heating problems. If there is no grocery store, we have to go downtown. We cannot use public transportation. Some minibuses pass through Ulucanlar Street. There are no buses either. We have to go down to Ulus or Sıhhiye. Taxis don't want to go inside either.

**Are there unexpected/spontaneous activities in this area?**

---

**To what extent are you able to take an initiative by organizing yourself? Is there a self-organizing structure?**

The Kale association is not active. Decision makers don't come and visit this place. They leave the place to itself. They visit the outer castle. But they don't come here.
To what extent do you interact with the inhabitants of the area?

It is an open space for interaction. Neighborhood relations are good. But we don't organize a meeting with the Municipality. We write to Cimer individually.
CURRICULUM VITAE

Surname, Name: Atak Akbulut, Hazal

EDUCATION

<table>
<thead>
<tr>
<th>Degree</th>
<th>Institution</th>
<th>Year of Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSc</td>
<td>METU Urban Design</td>
<td>2014</td>
</tr>
<tr>
<td>BSc</td>
<td>METU City and Regional Planning</td>
<td>2005</td>
</tr>
<tr>
<td>High School</td>
<td>Ankara Atatürk High School, Ankara</td>
<td>2000</td>
</tr>
</tbody>
</table>

WORK EXPERIENCE

<table>
<thead>
<tr>
<th>Year</th>
<th>Establishment</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-Present</td>
<td>The Ministry of Environment, Urbanization and Climate Change</td>
<td>City Planner</td>
</tr>
<tr>
<td>2012-2011</td>
<td>Sarp Villa Construction</td>
<td>Designer</td>
</tr>
<tr>
<td>2011-2009</td>
<td>RB Group</td>
<td>Designer</td>
</tr>
<tr>
<td>2008-2006</td>
<td>Merkez Contracting (Panora Mall Construction)</td>
<td>Architectural Drawing Assistant</td>
</tr>
</tbody>
</table>

FOREIGN LANGUAGES

Advanced English