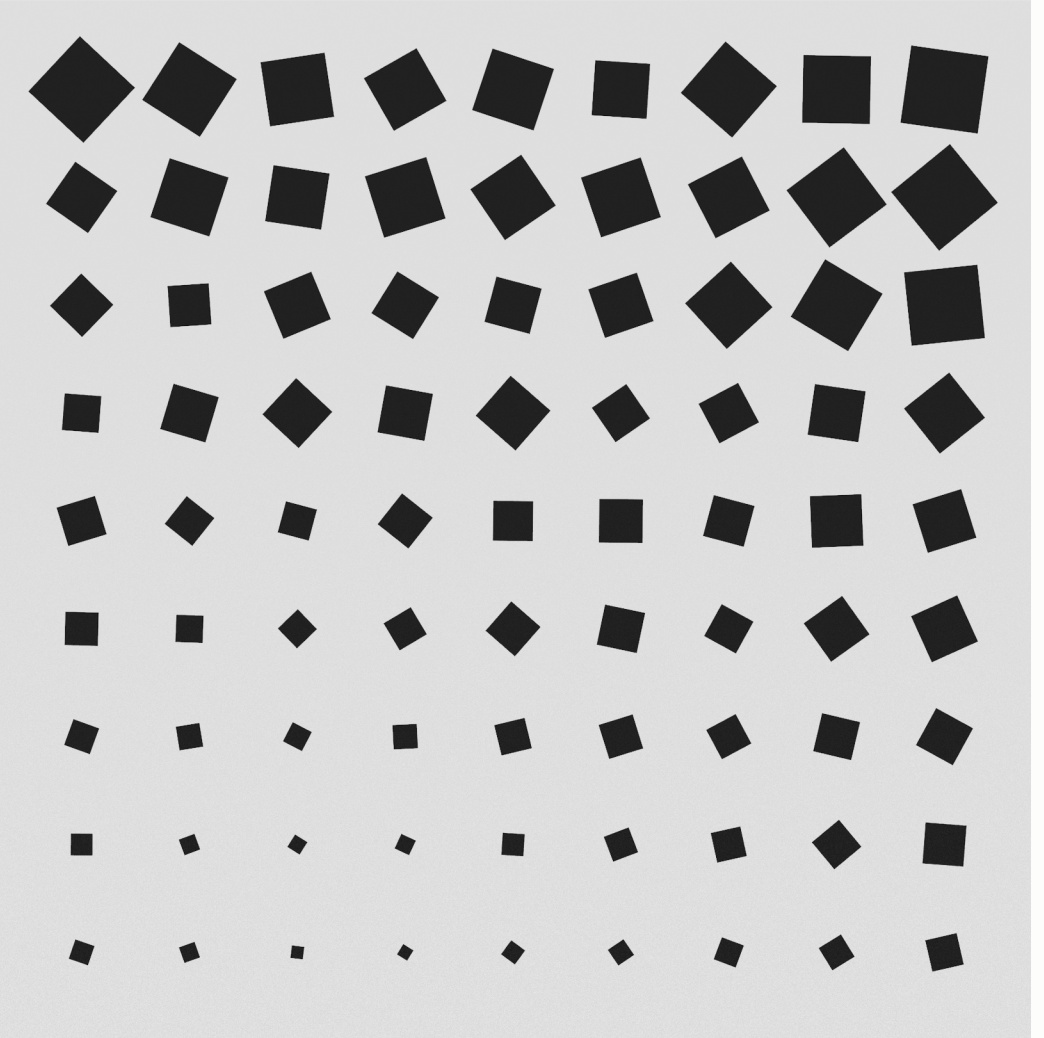


CHANGE-TRANSFORMATION AND CRITIQUE OF URBAN SPACES

URBAN SPACES: TYPOLOGY, MEDIA, ART AND NEW PERSPECTIVES



ARCHITECTURAL SCIENCES

EDITORS

PROF.DR.SONAY ÇEVİK

PROF.DR.ÖNER DEMİREL

ASST.PROF.DR.HAVVA ÖZDOĞAN



LIVRE DE LYON
2023

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**Change-Transformation And Critique of Urban Spaces Urban Spaces:
Typology, Media, Art and New Perspectives**

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PREFACE

DEAR SCIENTISTS,

*They love cities, urban spaces, and living cities/
urban spaces...*



We have brought this book, which we have edited and designed for a long time, to life with your academic contributions and support. The books studied under the main title of “**Change-Transformation and Critique of Urban Spaces**”; urban spaces were discussed in the expansion and the scopes were prepared about the subject.

As it is known, urban spaces constitute the main building blocks of cities; to the city, its citizens/city dwellers, and its visitors; They are places where they face all/multiple dimensions of spatial formation, including their formal structures, functions, the memory values they carry and present, the ongoing values they hold/display, the effective institutions and actors that play a role in their formation and survival, strategies and tools, that is, policies.

Urban spaces are and will continue to experience changes and transformations depending on many different factors and presentations from the past to the present and the future. Understanding and explaining these changes and transformations can bring significant benefits in gaining important and effective visionary views to realize ideal or near-ideal formations for today and the future.

In this context, it is aimed to study in the context of the detailed themes given below in the book chapters where all the qualities reflected in urban spaces are examined in a versatile way.

elements, sizes...

- Current meanings of urban spaces; definitions, formations, types,
- Urban spaces/street-square-courtyard: their location in the city, their organizational presentation within the city as a whole, their effective functions, general and detailed formations...
- Urban spaces and typology
- Urban spaces and media
- Urban spaces and policies
- Urban spaces and supporting elements-quality/artistic touches; green, water, material-texture-color, sculpture, urban furniture, lighting...

- Urban spaces and their users/residents; uses, contributions and perception-evaluations...

- Urban spaces and identity
- Urban spaces and urban design competitions

The prepared book chapters were programmed with the view that they should be included in two books, depending on their titles and concentration, and the book fictions were realized in this context. Books on the main subject of “Change-Transformation and Critique of Urban Spaces” prepared for publication under the following titles:

URBAN SPACES: TYPOLOGY, MEDIA, ART and NEW PERSPECTIVES
URBAN SPACES: POLICIES and IDENTITY

In the preparation of these books, first of all, Prof. who carried out the editorial work with me. Dr. Öner DEMİREL, Dr. Lecturer Havva ÖZDOĞAN I would like to thank its and the “Livre de Lyon” Publishing House, which carried out the publication, and most importantly, the valuable chapter authors and our referee board who supported us with the book chapters they prepared with their professional-academic perspectives. I sincerely hope that these books, prepared under the main title “Change-Transformation and Critique of Urban Spaces”, will meet with readers and provide versatile benefits in producing new perspectives on behalf of science and academia.

Love and respect



Prof. Dr. Sonay ÇEVİK
Chief Editor

MSc. Architect
KTU Faculty of Architecture, Department of Architecture
Trabzon-Türkiye

- *Books to be published by the “Livre de Lyon” publishing house (the indexes in which they are scanned have contents and competencies covering academic applications) are suitable for Associate Professorship Application Criteria and Academic Incentive Applications.*

EDITORS CV

Prof. Dr. Sonay ÇEVİK, (MSc.) Architect
*KTU Faculty of Architecture, Department of
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Trabzon-Türkiye*

She graduated from KTU Department of Architecture in 1981. She started her academic life as a research assistant at the same university in 1982 and continued as a Professor Doctor at the same university from June 2000 to June 2011.

Between June 2011 and March 2013, She continued her educational, administrative activities, and scientific studies as a founding faculty member - department head, and vice-rector of Avrasya University Department of Architecture.

She has been continuing her academic studies as a lecturer at the Department of Architecture at Karadeniz Technical University since June 2013. While she continued her administrative duties as dean at Karadeniz Technical University Faculty of Fine Arts in March 2014, she also served as acting head of the Painting, Sculpture, and Photography Departments. Her term as GSF Dean ended in July 2020.

Between 1987 and 1989, she continued her doctoral studies at Berlin TU in Germany as a DAAD scholarship-invitee. Subsequently, she conducted research and gave lectures and conferences as an invited scholarship guest lecturer at Stuttgart University Urbanization Institute, Vienna Technical University and Hafen City Hamburg University many times. Joint Studies: Project, Workshop, Conference, Book, Exhibition, etc. are ongoing. Joint studies with these institutions and other University-Research institutions continue for both Education and Research purposes. In their continuity, she will continue her studies at HFT Stuttgart as an invited guest lecturer within the scope of the sabbatical for a year starting from September 2023.

Joint works initiated as short projects in 2019; within the scope of design, exhibition and workshops in HFT Stuttgart, Germany in March 2019; It was then held at Trabzon-Turkey-KTU in October 2019, and then at Aristotle University of Thessaloniki/Greece in October 2022. These joint studies will continue as agreed between the three universities in HFT Stuttgart Germany in October 2023.



She has many publications and exhibitions on national and international platforms and many awards and honorable mentions in the architectural project competitions she participated in. She has founding memberships and memberships in many scientific, artistic, professional and social associations, forums and organizations. She speaks German fluently. Painting, Photography, Music and thematic trips are special interests.

Prof. Dr. Öner DEMİREL, Landscape Architect,
*T.C. Kırıkkale University Head of Department of
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He was born in Ardahan in 1964. He graduated from Ege University Faculty of Agriculture, Department of Landscape Architecture in 1985. In 1988, he completed his Master's Degree in Landscape Architecture at Ege University Institute of Science and Sciences. and in 1997, he completed his Ph.D.



in Landscape Architecture at K.T.U. Science Institute.

Between 1987 and 1992, he worked at the T.C Ministry of Forestry. Between 1992 and 2017, he served as an academician at Karadeniz Technical University. He was appointed Assistant Professor in 1998, Associate Professor in 2000 and Professor in 2007.

Between 1990-91, he received the CIHEAM Scholarship, Montpellier (France) and from 1991-92 he received the CIHEAM Scholarship and the Saragosa (Spain) Scholarship. He was granted three Belgian Government scholarships in 1994, 1996 and 2000. Ağustos Between 2001 and June 2002, he conducted research at Arizona State University. Between August 2011 and February 2012, he conducted research at Northern Arizona University with the support of the Research Abroad Project. In 2015, he was granted a 1-year TUBITAK Postdoctoral Research Fellowship (Purdue University/USA).

In addition to environmental and nature protection organizations, he also served voluntarily in non-governmental organizations and served as of various non-governmental organizations president (***President of Belediyespor Tennis Club, TEMA Provincial Representative, TMMOB Trabzon Chamber of Landscape Architects Provincial Representative, Head of Mountain Protection Platform***).

In addition to the research projects supported by Corporate organizations, TUBITAK, Universities and various research Institutions, which he has managed and completed with wide participation at home and abroad as director

and researcher, there are books and book chapters that he has edited and he also serves on the editorial board in scientific journals published at home and abroad. He has served on the scientific committees of international and national conferences, congresses and symposiums, and has published articles in indexed journals and numerous papers presented abroad and at home.

Öner Demirel has been serving as head of the Department of Landscape Architecture at The Faculty of Fine Arts, Kırıkkale University since January 2018. He speaks English and French and is married with two children.

Asst. Prof. Havva ÖZDOĞAN, (MSc.)

Architect

*Recep Tayyip Erdoğan University, Faculty of
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She was born in Trabzon. After completing her undergraduate studies at Karadeniz Technical University, Faculty of Engineering and Architecture, Department of Architecture, she pursued higher education. In 1995, she earned her master's degree and later her Ph.D. in 2002 from Karadeniz Technical University, Graduate School of Natural and Applied Sciences, Department of Architecture.

From 1992 to 2000, she worked as a Research Assistant at Karadeniz Technical University, Department of Architecture. Between 2011 and 2020, she served as an Assistant Professor at Avrasya University, Department of Architecture. Currently, she holds the position of Assistant Professor at Recep Tayyip Erdoğan University in the Department of Architecture.

Her research interests encompass building science, architectural design, environmental psychology, urban morphology, and urban design.

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CHAPTER I

PUBLIC OPEN SPACES IN BEYOĞLU IN THE 19TH CENTURY: SQUARES AND GARDENS

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1. Introduction

Until the 19th century, it was challenging to discuss the existence of adequate public open spaces in Ottoman cities. While the dynamics of public spaces, in the Western sense, did not emerge until this century, various locales such as coffee houses, courtyards, gardens, and mosque squares served as gathering areas for specific social activities within Ottoman Society. Additionally, recreational areas, groves, and cemeteries, frequently utilized by the public, also stand out as open green areas accommodating public use.

Public spaces in Ottoman cities developed within the framework of religious and social principles associated with Islam. Therefore, the courtyards of mosques and religious complexes are the most renowned public open spaces in Ottoman cities (Ercan, 2018). Cerasi (2001) mentions that the large open spaces in Ottoman towns often evolved randomly rather than being intentionally designed and lacked specific functions. Large and important cities, including Istanbul, have a hippodrome (atmeydanı). However, these squares, far from reflecting a distinctive typological feature, are open spaces with weak connections to other parts of the city. Kuban (2004) concurs that there were no intentionally designed squares in Ottoman towns, emphasizing that the urban layout, characterized by a network of dead-end streets, was influenced by the significance of family privacy

and property rights in Islamic culture. Consequently, no communal urban spaces besides a masjid or fountain were intentionally planned in the city. In contrast, squares in European cities typically possessed well-defined geometric shapes bounded by surrounding buildings.

Although the equivalent of European piazzas did not exist in Ottoman cities, it is possible to identify small public open spaces that functioned as squares. These spaces were sometimes found beneath a pergola, on a wooden veranda, or beneath a tree in a meadow (Cerasi, 2001).

Beyoğlu neighborhood shares similar characteristics with Istanbul concerning public open spaces. This study aims¹ to uncover the spatial transformation of open and green spaces and squares in Beyoğlu during the 19th and early 20th centuries by utilizing historical maps and Geographical Information Systems (GIS). The maps used in this context include those by G. D'Ostoya (1858-1860), R. Huber (1887-1891) and Charles E. Goad (1905).

The methodology of the study comprises two stages. The first stage provides a brief literature review. In the second stage, the elements (buildings, streets, open and green areas, etc.) from historical maps, coordinated and rendered as raster data in the GIS environment, will be converted into vector data. This process will yield a dynamic dataset, enabling the analysis of change processes related to squares and gardens.

This study stands apart from previous research in terms of methodology. While examining changes in urban space, visual reproductions of the maps were insufficient; every element on the maps underwent analysis within a dynamic database in the GIS environment. Another crucial aspect distinguishing this study from similar examples is comparing results from the data set created using GIS with those from literature studies. The intention is for the results obtained through this method to illuminate the spatial transformations experienced by open and green spaces in Beyoğlu during the 19th and early 20th centuries.

2. Squares and Other Public Open Spaces in Beyoğlu

In the latter half of the 19th century, with a rapid increase in the European population residing in Beyoğlu, there arose a heightened demand for the utilization of urban space. One of the most critical demands of this Beyoğlu population was the establishment of public open and green spaces akin to those found in European cities. Consequently, the Sixth Municipality, the first

¹ This study is based on the chapter "Open and Green Space Arrangements: From Pera Vineyards to Tepebaşı Garden" of the PhD thesis, M. Ö. Kınacı, "The Effects of Natural, Socio-Economic and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century."

Municipality established in the Ottoman Empire in 1853, took the exceptional step of organizing open and green spaces.

Another significant development that underscored the need for a square in Istanbul was the Crimean War. This war, one of the most pivotal political events of the 19th century, provided compelling evidence of the dearth of squares in the Ottoman capital. British and French naval units arriving in Istanbul during this period found themselves without a suitable location for ceremonial activities. This situation expedited the creation of squares in Istanbul, mirroring those in European cities (Gülersoy, 1986).

In Western urban planning, squares are open spaces organized around religious or municipal government buildings. During the Tanzimat period (1839-1908), urban reforms were implemented, adopting the concept of creating public spaces and squares around government buildings, similar to Western cities (Ercan, 2018). In the context of Beyoğlu, this concept manifested in Şişhane Square, where the Sixth Municipality building was situated.

Karaköy Square was another square organized by the Sixth Municipality, albeit not entirely conforming to this model. While both squares served as public focal points at the intersections of essential axes, they fell short of spaces conducive to ceremonial activities. This gap was eventually filled by the open spaces in the Taksim area, though it was not until the 20th century that these areas fully evolved into squares.

2.1. Designed Square Areas

The first of these square arrangements realized in Beyoğlu is Karaköy Square, which, due to its harbor function, maintained its significance throughout the 19th century, primarily as a commercial hub (Figure 1). The second is Şişhane Square, inspired by European models.

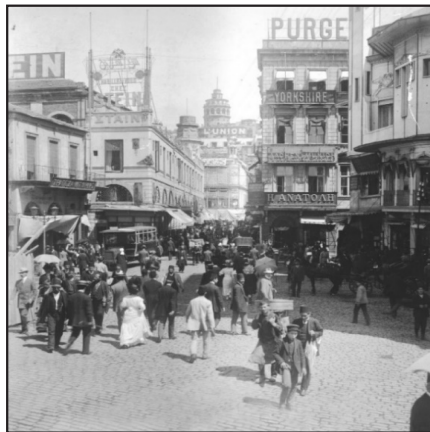


Figure 1. Karaköy Square in the 19th century (Url-1).

The trade agreements established with England and France in 1838 initiated a process that accelerated the Western-like development of Karaköy, transforming it into an international trade center. The functions that supported Karaköy's central business district appearance included Western state-owned banks, stock exchange activities, shops, wholesale trading areas, and warehouses lining the streets connected to the harbor and Karaköy Square. The rapid development led to increased population density and building construction in the neighborhood (Kafesçioğlu, 2016).

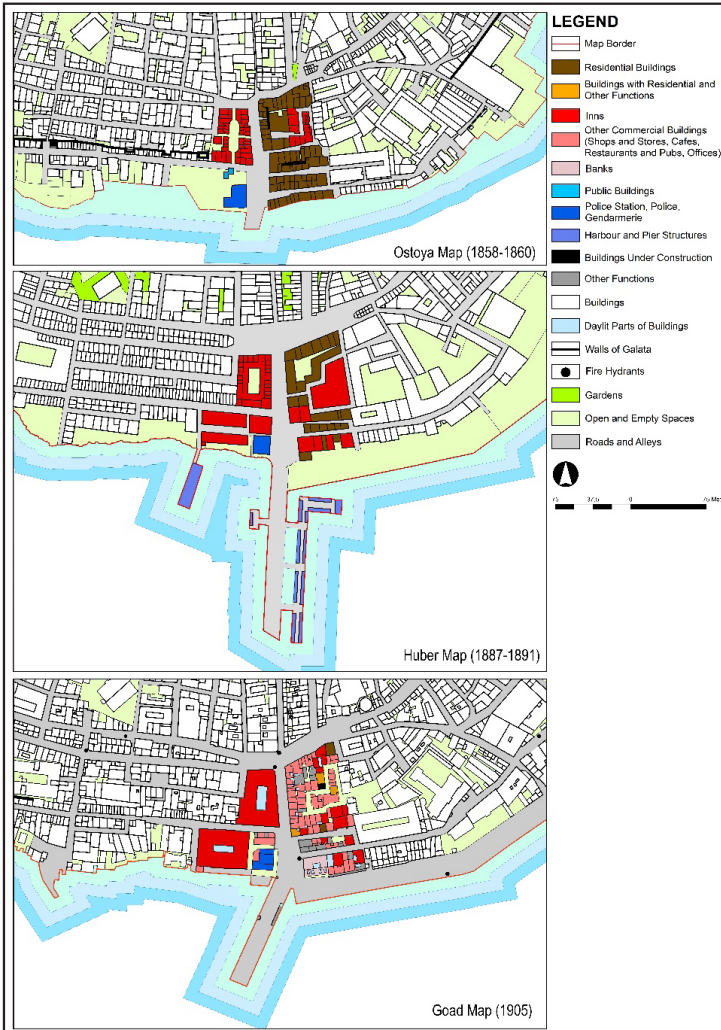


Figure 2. Structures and functions shaping Karaköy Square and its surroundings.²

² Figure 2 was prepared by making use of the database produced within the scope of the PhD thesis, M. Ö. Kınacı, “The Effects of Natural, Socio-Economic, and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century”.

Karaköy Square and its transportation arteries, especially the Galata Bridge leading to the Square, remained narrow and poorly maintained despite its central role and density. As a result, the Sixth Municipality embarked on a renovation project. The primary approaches to revitalizing Karaköy have involved demolishing old buildings, widening streets, and reorganizing Karaköy Square, the base of the Galata Bridge. The removal of the Karaköy Gate, a part of the Galata Walls, facilitated the Square's expansion and was pivotal in fostering change. Property issues arose during these renovations, but the Municipality resolved them through expropriation. One such fixed problem entailed demolishing the inn west of the Square and constructing a new inn to generate revenue for the Municipality. Thus, Karaköy Square emerged as the first Square organized by a local government (Rosenthal, 1980; Kafesçioğlu, 2016).

Observations by Bareilles (2003) at the end of the 19th century in Istanbul provide insights into Karaköy Square and its environs. Bareilles (2003) noted that the post offices of foreign colonies and financial institutions affiliated with these colonies lined the street starting at the end of Yüksek Kaldırım before reaching Karaköy Square. He also mentioned the existence of local craft shops and activities related to the porcelain trade extending to the sea. Corroborating these accounts, Freely and Freely (2019) referred to the inns surrounding Karaköy Square, asserting that it evolved into a square by the end of the 19th century.

The evolution and transformation of buildings and functions in Karaköy Square and its surroundings during the 19th century can be gleaned from the maps presented in Figure 2. Changes in Karaköy Square and its access routes are also discernible from these maps. The Ostoya Map (1858-1860) depicted narrow roads encircling the Square, particularly on its eastern side, with a predominance of dead-end streets. In contrast, the Huber Map, representing the late 19th century, showed the disappearance of these dead ends, reflecting the state at the end of the century. At the same time, the Goad Map captured the early 20th-century configuration. The roads had been revamped to specific widths, with many buildings receiving renovations in alignment with these alterations. Notable variations in building forms and functions between the Ostoya Map and the Huber and Goad Maps underscored this transformation. This disparity was particularly pronounced among buildings facing the Square. One such building, discerned from the maps to have been restructured in accordance with square aesthetics, was the inn that demarcated the Square's western boundary, as previously mentioned. This inn was identified as "Commission Han" on the

Ostoya (1858-1860) and Huber (1887-1891) Maps and as “Commission Ou Consolide Han (Bourse)” on the Goad Map (Figure 2). Thus, it can be inferred from the maps that the Bourse was situated here at the commencement of the 20th century. Another notable edifice on the Square’s western periphery was the Aziziye Police Station along the coast. The Goad Map (1905) confirmed its presence at the beginning of the 20th century.



Figure 3. Sixth Municipality Building in the 19th Century (Url-2).

Another significant change occurred in terms of functionality. The predominantly residential functions discernible in the Ostoya Map in the mid-19th century were supplanted by a diverse range of commercial activities. A comparison of the maps revealed that the coastline had been partially filled due to these new functions. One such addition was the Credit Lyonnais Bank, situated at the foot of the Galata Bridge (Özbay Kınacı, 2021).

The second Square was organized through extensive efforts of the Sixth Municipality, which is Şişhane Square. This Square acquired importance due to its intersection with significant thoroughfares. The Sixth Municipal Palace stood at the terminus of İskender Street, the widest axis intersecting the Square. This building stood out with its Neoclassical style, harmonizing with the surrounding structures. Its grand façade faced Şişhane Square, and its elevated position, reflecting the area’s terrain, was noteworthy (Kolay, 2023). It was constructed according to the plans of Italian architect Barborini during the tenure of Blacque Bey, the renowned director of the VI. Municipality (Duhani, 2017), the building, along with Şişhane Square, sought to emulate the architectural characteristics of Paris during that era.

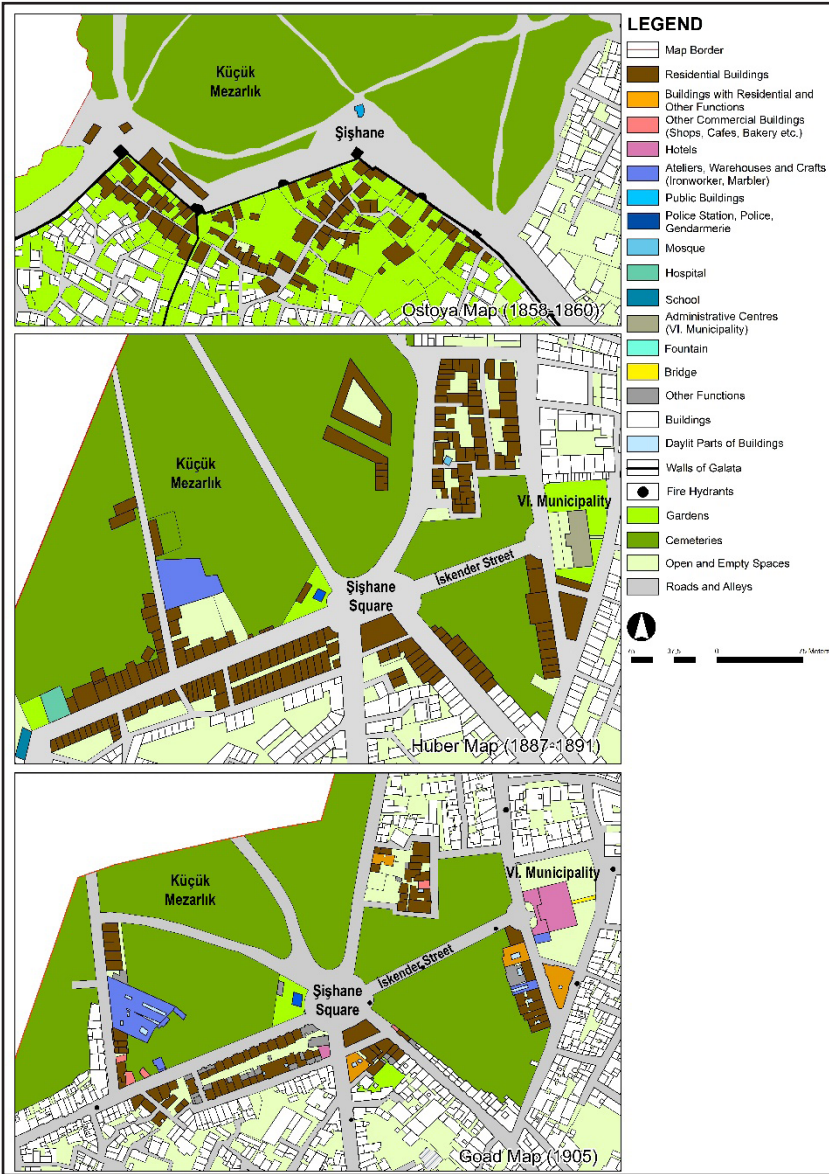


Figure 4. Structures and functions shaping Şişhane Square and its surroundings.³

The transformation and evolution of Şişhane Square over the 19th century are discernible from the maps in Figure 4. The Ostoya Map, depicting the mid-19th century, revealed no formation of a square. Instead, an open area

³ Figure 4 was prepared by making use of the database produced within the scope of the PhD thesis, M.Ö. Kınacı, "The Effects of Natural, Socio-Economic, and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century".

existed where several roads converged, though this space fell short of serving as a focal point where intersecting axes joined. Analyses based on the Ostoya Map indicated that, during this period, Şiřhane was situated south of Küçük Mezarlık, on the outskirts of Galata, which had not yet expanded beyond the city walls. By contrast, the Huber Map, reflecting the late 19th century, displayed the emergence of Şiřhane Square (Figure 4) at the juncture of new axes resulting from the demolition of the city walls.

The Huber Map also depicted the Sixth Municipal Palace, located at the terminus of İskender Street, as one of the newly opened axes. The Goad Map, representing the early 20th century, showed both Şiřhane Square and the Sixth Municipality Building in their final forms. On the Goad Map, Şiřhane Square appeared more oval than the Huber Map, while the Municipality building was labelled a “hotel” (Figure 4). This transformation in function can be attributed to the diminished prominence of the Sixth Municipality toward the end of the 19th century.

Küçük Mezarlık, portrayed with its comprehensive boundaries in the Ostoya Map, served as the northern and eastern boundaries of Şiřhane Square. The Huber and Goad Maps indicated that new buildings had been erected in parts of the cemetery close to the Square during the latter half of the 19th century. Notably, a symbolic and renowned building stood northwest of the Square- the Şiřhane Police Station, a prominent triangulation point of that era, as confirmed by the Huber and Goad Maps.

2.2. From the Assembly Area to the Square: Taksim

One of the most renowned squares associated with Beyođlu is Taksim Square. Cezar (1991) defines Taksim Square as “the Republic Square of the secular state.” However, in the 19th century, the area where Taksim Square was now situated was far from a square. This section, located in front of Taksim Fountain and Maksem (the cistern responsible for water distribution), was characterized by a broad intersection of four roads, which gave it its name. One of these roads was İstiklal Street, a famous thoroughfare of that era. The remaining roads led to Pangaltı, Gümüşsuyu, and Siraselviler (Cezar, 1991).

While Taksim Square had not yet fully taken shape, another area assumed the role of a significant gathering place and “square.” This area was Talimhane, which also hosted military drills and continued as a spacious open space

throughout the century. Maps denote this area as “Talim Alanı,” and it was actively used during the occupation of Istanbul on November 13, 1918. During this period, various sports activities were organized in both the Topçu Kışlası and the Talim Alanı (Üzümkesici, 2011).

When examining the open spaces on the Ostoya Map in Figure 5, it becomes evident that the most significant open space is the Talim Alanı (Talimhane Square), situated opposite the Topçu (Taksim) Kışlası. It is apparent from the Ostoya Map, reflecting the mid-19th century, that residential buildings and a hospital structure existed in this area’s north and northeast regions. Additionally, the Ostoya Map reveals the presence of a building with a circus function in the northwest corner of the Square. As previously emphasized, Talimhane Square was utilized for sporting activities and various shows during this period. Records from the Ottoman Archives⁴ dating back to 1860 indicate that Cambaz Sölye was granted permission to organize shows in the area belonging to Taksim Kışlası. This circumstance elucidates the wooden circus building’s presence, as depicted on Talimhane Square on the Ostoya Map. However, the circus building was not visible on the Huber Map.

On the Huber Map, it is observed that the constructions in the northwest of the Talim Alanı shown on the Ostoya Map are absent. A school and a church were added to the hospital function (Surp Agop Hospital) northeast of the area. In the south, the functions of “stables” and “fire brigade” are notable. A fire brigade’s presence indicates increased firefighting activities during this period. The stables were situated in this section in connection with the barracks function. This relationship can be verified through BOA records. According to these records⁵, the buildings in Talimhane Square included a police station, fountain, fire brigade barracks, fire brigade officer’s office, barracks, large and small stables, and haystacks.

Although the 19th century had not yet witnessed Taksim Square assuming the role of a focal point and Square, it was a pivotal period for the development of Taksim Square. In the latter half of this century, construction began on the buildings that would shape Taksim Square and its surroundings. Among these, the police station building located across from the Topçu Kışlası was one of the first. This building is also visible on the maps in Figure 5. Another significant structure was the imposing Topçu Kışlası.

4 BOA, 1860, MKT.NZD. 67/35

5 BOA, 1913, İ.MMS:47

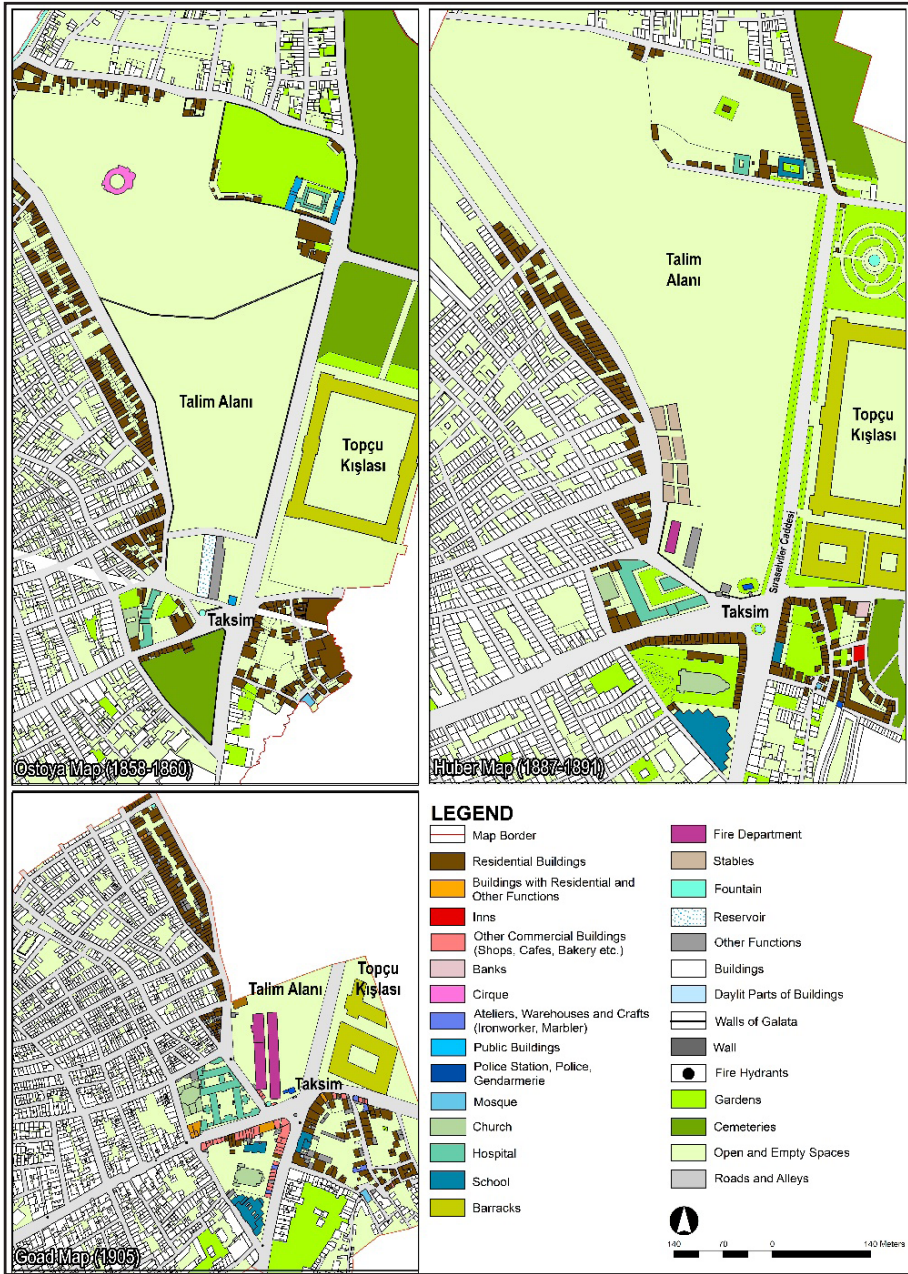


Figure 5. Structures and functions shaping Taksim Square and its surroundings.⁶

⁶ Figure 5 was prepared by making use of the database produced within the scope of the PhD thesis, M. Ö. Kınacı, "The Effects of Natural, Socio-Economic, and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century".

Figure 5 illustrates the transformations that Taksim Square underwent during the 19th century. Taksim Maksemi can be seen on all three maps: Ostoya, Huber, and Goad. This building, located south of the Talim Alanı and north of Taksim Square, appears consistently on all three maps. The Huber Map additionally displays a water feature near the center of the area, which, on the Goad Map, has been replaced by a circular structure.

From the Huber and Goad Maps, it is evident that a Greek School and a church were constructed in the cemetery area bordering the Square in a southwestern direction, as observed on the Ostoya Map. Both maps indicate the school as Zapyon Greek School and Aya Trias Church. On the north façade of the building block housing the church and school, the Huber Map depicts the addition of residential buildings. In the Goad Map, from the early 20th century, this section accommodates a school (Greek School) and various commercial establishments, including a bakery, café, shop, and carpentry. As indicated by the Ostoya Map, the French Hospital and St. Jean Armenian Catholic Church were just north of this building block. Comparing the maps, it becomes evident that the façade of the Square facing Siraselviler Street had undergone minimal changes throughout the century.

In conclusion, Beyoğlu, which did not possess squares resembling those in European cities until the 19th century, saw significant developments in this regard under the leadership of the Sixth Municipality during this century. Notably, the transformations in Karaköy and Şişhane Squares took center stage. In addition to these sections, which remain pivotal nodes in Beyoğlu and Istanbul today, the analyzed maps reveal that the 19th-century modifications significantly contributed to shaping Taksim Square.

3. Cemeteries and Gardens in Beyoğlu

During the 19th century, cemeteries played a crucial role in the urban landscape of Beyoğlu and throughout Istanbul. Eyice (2010) describes Istanbul's cemeteries as areas shaded by cypress trees, resembling forests, and identifies the cemeteries in Beyoğlu as extending from Kasımpaşa to Tepebaşı, following the Galata walls on the outside and descending to the shore from Taksim-Ayaspaşa and Tophane. Similarly, Sezen (1994) delineates the region known as the Beyoğlu Cemetery in the 19th century, encompassing the area from Galata, just outside the Genoese walls (Figure 6), to the Kasımpaşa ridges and extending to the upper part of Yahya Kethüda Quarter⁷.

⁷ Today it is known as Yahya Kahya Neighbourhood.

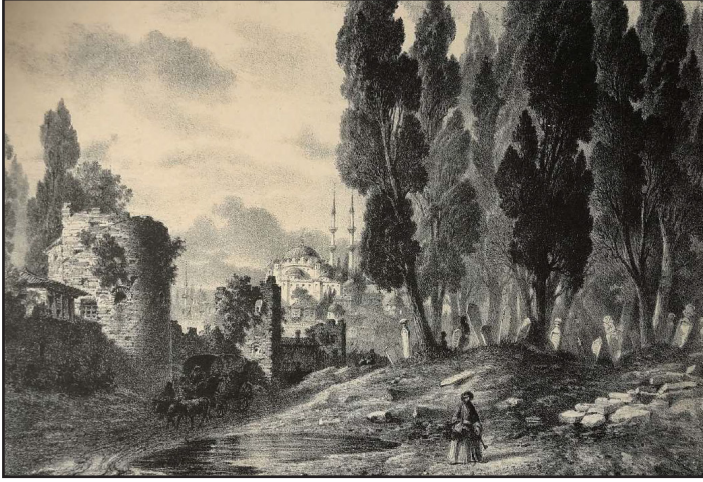


Figure 6. Engraving showing Galata Walls and Cemetery (Flandin, 2014, p. 54).

Cemeteries, initially sprawling green areas, became the focus of transformation efforts toward the century’s end. The cemeteries’ integrity, characterized by their lush greenery, sporadically placed tombstones, and panoramic vistas, was at times disrupted for residential and occasionally military construction.

3.1. Beyoğlu Cemeteries and Their Functions as a Green Space

One of the largest cemeteries, the Armenian Cemetery, situated in the Harbiye direction, is evident on 19th-century maps. In Figure 7, both the Ostoya and Huber Maps show this cemetery located north of the Topçu Kışlası. The portion marked as the “Armenian Catholic-Protestant Cemetery” on the Ostoya Map later transformed into the Taksim Garden. The northern section, which occupies a larger area and is labelled the “Grand Champs (Grand Cemetery)” on the Ostoya Map, was also an Armenian Cemetery. The Huber Map reveals this cemetery’s presence after the planning of Taksim Garden.

The cemeteries designated for the Muslim population, situated south of the Beyoğlu settlement along the periphery of the Galata walls, are visible on all three maps—Ostoya, Huber, and Goad (Figure 7). These maps suggest the continued existence of these cemeteries until the early 20th century when the Goad Map was created. Slightly north of these cemeteries lies another Muslim cemetery called “Petit-Champs des Morts” or Small Cemetery. In his observations, Amicis (2006) highlights the pedestrian and vehicular activity within this cemetery, characterized by dense cypress trees. The Small Cemetery

is depicted with its most expansive boundaries on the Ostoya Map in Figure 7, extending from Şişhane to the British Embassy. The Tepebaşı Garden, created on a section of the cemetery area, is visible on the Huber Map.

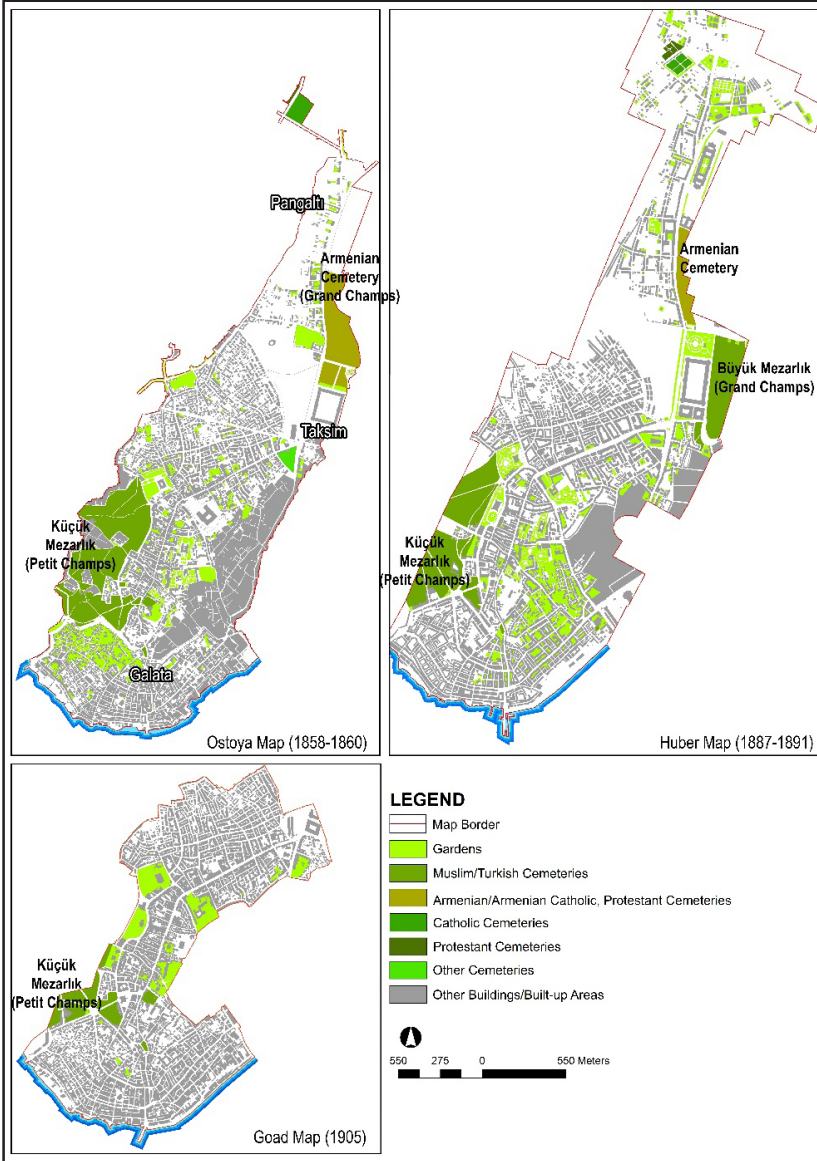


Figure 7. Cemeteries and gardens in Beyoğlu.⁸

⁸ Figure 7 was prepared by making use of the database produced within the scope of the PhD thesis, M. Ö. Kınacı, “The Effects of Natural, Socio-Economic, and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century”.

“Grand Champs des Morts,” or the Grand Cemetery, is situated in Taksim, on the outskirts of Beyoğlu (Marmara, 2020). The Grand Cemetery, partially depicted on the Huber Map, was positioned adjacent to the Topçu Kışlası and extended toward Gümüşsuyu. The Taksim Garden, arranged west of the cemetery area, can also be traced on the Huber Map, dated at the close of the 19th century.

Beyoğlu’s cemeteries also served as gardens where residents strolled and found reprieve. Characterized by their abundant tree cover, the irregular and sparse placement of tombstones, and picturesque vistas, these cemeteries offered a serene and inviting environment for leisurely activities (Cerasi, 2001). The scenic views from the cemeteries, overlooking the Maiden’s Tower and the Bosphorus entrance, their incorporation into daily life, and their absence of a macabre or eerie appearance were significant factors in their utilization as green spaces.

3.2. Beyoğlu’s Gardens and the New Green System

The demand for green spaces in Galata and Pera (Beyoğlu), which developed within a compact urban structure, emerged as a critical deficiency in the 19th century. These demands for green spaces were reflected in the newspapers of the era as calls for the transformation of vacant or uncertain areas into public parks (Akin, 2011).



Figure 8. Melling’s Engraving shows the Taksim Garden in Grand Champs des Morts (Grand Cemetery), (Url-3).

Two prominent developments in the creation of gardens and green spaces in Beyoğlu during the 19th century were the Taksim Garden (Figure 8) and

Tepebaşı Garden. In the latter half of the 19th century, with public parks gaining prominence, the idea of relocating the Grand Cemetery (Grand Champs des Morts), which served as the burial ground for non-Muslim minorities, arose in 1859. In 1860, a cemetery area in Feriköy was designated for Protestants and Catholics, prompting the Sixth Municipality to transfer the cemeteries in Taksim to this new location. Following this relocation, the Municipality initiated efforts to transform the site in Taksim, where the graves had been moved, into a garden (Önver, 2019).

The process of converting cemetery areas into gardens was also documented in newspapers of the period. A news article dated 1870⁹ reported the commencement of the conversion of a portion of the Grand Cemetery (Grand Champs des Morts) into a park. Another news article¹⁰ towards the end of the same year praised the beauty and excellent maintenance of Taksim Garden, highlighting the satisfaction it brought to the residents of Beyoğlu.

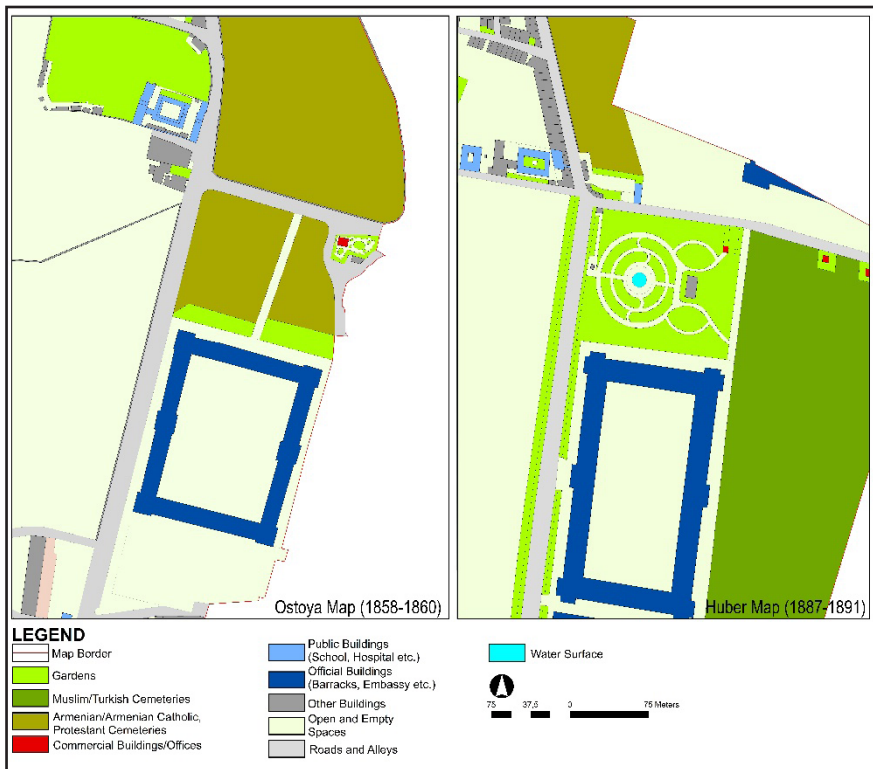


Figure 9. Taksim Garden and surroundings (Özbay Kınacı, 2021, p. 260).

9 La Turquie, 29 January 1870.

10 La Turquie, 25 November 1870.

Before the establishment of Taksim Garden, a coffee house existed within the Grand Cemetery. This coffeehouse, depicted on the far right in Melling's engraving in Figure 8, was known as "Belle Vue Kahvesi" in the 19th century (Durudoğan, 1994). A building (café) with this name can also be observed on the Ostoya Map in Figure 9. When the rectangular Taksim Garden was designed, Belle Vue Café was retained within the garden area. Designed by Beaux-arts principles, Taksim Garden included a pool, a wooden casino, a two-story wooden buffet, and another casino with an octagonal roof housing an orchestra space. Organic promenades connected these structures. The fame of the Belle Vue Coffee House eventually led to the garden being referred to as the Belle Vue Garden. The park was host to dancing balls and various forms of entertainment throughout the 19th century (Çelik, 1993). The status of the garden at the close of the 19th century can be observed on the Huber Map in Figure 9, displaying the buildings within the park.

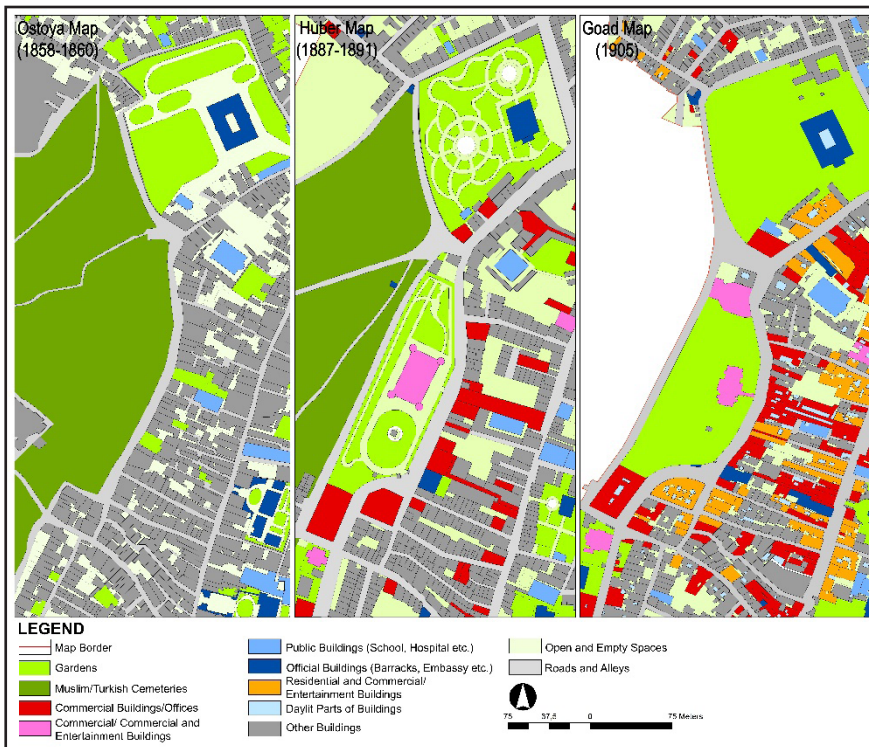


Figure 10. Tepebaşı Garden and surroundings.¹¹

11 Figure 10 was prepared by making use of the database produced within the scope of the PhD thesis, M. Ö. Kinacı, "The Effects of Natural, Socio-Economic, and Political Events on the Spatial Development of Istanbul in the XIX. Century and at the Beginning of the XX. Century".

Tepebaşı Garden was established in 1880 by transferring the Small Cemetery district to the Sixth Municipality, along with budgetary support for its conversion into a park. The park featured a restaurant and a theatre, known as Tepebaşı Municipal Theatre, which became one of the region's most significant entertainment venues (Önver, 2019). Although the garden maintained its significance at the start of the 20th century, it fell into disrepair during World War I and subsequently lost its importance (Üsdiken, 1991).

Figure 10 presents the state of Tepebaşı Garden in the analyzed maps. The garden, absent from the Ostoya Map, was planned in the area immediately south of the British Embassy and to the northeast of the Small Cemetery, as depicted on the Huber Map. The Goad Map shows the new Tepebaşı Theatre, rebuilt after a fire, and the Amphitheatre constructed just north of it.

Tepebaşı and Taksim Gardens emerged through the reorganization of cemetery areas and made significant contributions to the socio-cultural life of Beyoğlu as spaces for leisure and social interaction. This transformation of cemetery areas continued into the first half of the 20th century, laying the groundwork for urban decisions that would redefine the character of Beyoğlu.

4. Conclusion

In the latter half of the 19th century, the burgeoning European population in Beyoğlu spurred heightened demands for urban space, encompassing public services such as healthcare and education and open green spaces. The square development initiatives undertaken by the Sixth Municipality, notably in locations like Karaköy and Şişhane Squares, alongside European-inspired garden projects in Tepebaşı and Taksim, yielded transformative results that reshaped Beyoğlu.

The synthesis of literature and maps greatly facilitates the analysis of changes in open and green areas during the 19th century. Due to their temporal context, maps serve as invaluable resources for such investigations. For instance, it becomes apparent from maps such as the Huber Map from the close of the century and the Goad Map illustrating the early 20th century that Şişhane Square, originally an undefined and vast expanse in the mid-19th-century Ostoya Map, was refashioned into a square intersected by radial axes. Similarly, the evolution of Karaköy Square and the placement of elements that would transform Taksim Square into its 20th-century form can be discerned through maps.

Another domain where maps emerge as pivotal data sources pertains to the metamorphosis of cemetery areas. Owing to rapid population growth and urbanization pressures in the latter half of the 19th century, cemeteries, which

were prominent at the century's outset, underwent conversion into either construction sites or garden spaces. Tepebaşı and Taksim gardens, stemming from the transformation of these cemetery areas, became hubs for socializing and recreational activities for the European population of Beyoğlu.

Geographical Information Systems (GIS) and historical maps of Beyoğlu have been instrumental tools in deciphering the neighborhood's evolution. Creating a dynamic GIS database, leveraging historical maps, facilitates comparative analysis of elements presented across different maps. This method sets a valuable precedent for future research into the urbanization history of Beyoğlu and similar historical locales. Notably, the digital transfer of historical map elements offers new analytical possibilities and diversified research outcomes tailored to specific research inquiries, affording considerable potential for studying urban history in diverse urban settings.

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CHAPTER II

PERCEIVED SPATIAL QUALITIES OF URBAN STREET ENVIRONMENT: A HUMAN-ORIENTED SYNTACTICAL MEASUREMENT

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1. Introduction

Reading urban form from a positivistic perspective has always been questioned; however, phenomenological approaches are also desired in bridging research and practice. To inform urban design practice, specifically in the development of commercial city centres, practical measurement tools based on empirical research have gathered momentum, especially if they are integrated with real-world testing. Various factors can determine urban spatial quality, and perceived qualities of the urban built environment are the initial sources to consider during the place-making activities. The built environment certainly impacts pedestrian activity at different spatial scales. Still, there needs to be more actual data at the street scale to back up urban planners' and designers' claims on the factors contributing to vibrant street life (Park et al., 2019). Thus, various spatial characteristics have been explored in the literature focusing on street quality (Zhang et al., 2019). However, their performance evaluation to capture the people's holistic perceptions attracted less attention. This is because it is challenging to reveal the way how urban built environment is perceived,

especially at various spatial scales, amongst which the street scale is probably the most popular research area to explore both the pedestrian activity and/or human behaviour and the actual impact on the physical/spatial characteristics of a given environment.

The perceived qualities are hard to measure, hard to evaluate, and most importantly, hard to relate to the spatial configuration of the physical environment. Therefore, most studies have stressed on physically observable characteristics of the urban street environment and mostly adopted quantitative approaches to measure pedestrian activity, such as walkability or accessibility. However, human behaviour varies at the street level and is both tangible and intangible. Considering the scarcity regarding the measurement of the perceived quality of the urban space, this study aims to bridge both for a better understanding of human-environment relations by utilizing a quantitative method for measuring the perception and exploring how descriptive evaluations of the urban city centres can be related to urban perceived quality parameters. To reach the aims and objectives, this study investigates the relationship between pedestrian movement and accessibility, as defined by the syntactical measures and urban spatial quality indicators that determine the perceived characteristics of the street environment. The research adopts a human-oriented approach and aims for an empirical study utilising a methodological framework proposed by Ewing and Handy (2009) within the context of Duzce, Turkiye.

2. Literature Review

2.1. Reading Urban Street Environment through its Perceived Qualities

Reading the urban street environment is crucial to explore urban experiences through a multidimensional approach. This is because urban streets are fundamental components of cities, acting as arteries of movement, hubs of activity, and settings for social interactions. Besides, streets are very much signs of the city, which confers the meaning of urban space, the evident formations of cityscapes by drawing scratches on the literary presences on the urban layout (Ferguson, 1988). The complexity of the urban street environment necessitates a holistic understanding beyond conventional analyses. As such, via literature review, it is crucial to examine the multifaceted dimensions of the urban street environment and emphasize the importance of reading it comprehensively to enhance the urban experience.

Streets set a pattern that begets codes of marvellous collections of urban spaces as movement corridors that rationalize networks of linear connections (Park et al., 2019; Crucitti et al., 2006). On horizontal and vertical layouts in each city, streets are constructed as spatial graphs by associating urban nodes to street intersections and edges to streets. This is cartographically represented by showing the site maps by generalizing an urban street network in an objective operation to understand the city's structure, function, and organization. However, streets also involve people's actions as a movement to reach somewhere else that becomes a reaction and interaction with others in junction with activities, lifestyles, and histories to adopt and appreciate. In that movement, links form a street network between the straight lines connecting the nodes of built structures and their edges from different destinations (Xia & Fukuda, 2021). Streets in the city reflect the quality of the urban public space, making critical places for satisfying human needs and providing comfortable cityscapes. The spatial qualities of the street depend on the visual and functional qualities, which not only give a visual aesthetical experience but also potentially impact the physical forms of the urban street environment through the performances of urbanites (Wu et al., 2021). Spatial quality leads to visual qualities that allow enjoying the streets' space to commodify the willingness to stay and behave. As such, tangible and intangible values are based on the compositions of a street environment materially and immaterially. The perception of physical compositions of the street environment consists of appropriate forms and perceptual design where physical properties of the elements of the streets, such as green spaces, parks, sky view built form, etc., meet with the experience of people on the streetscape. So that there can be subjective assessments when recording the quality of street environments (Wu et al., 2021). As each individual has their own perception of the streetscape components, and their widespread use determines how they experience the physical characteristics of street environment. Through observation, seeing a street through a human-eye helps to analyze the spatial configuration of superior visual quality, which determines the relationship between the street environment and streets' visual quality and characteristics (Verma et al., 2020). The street network structure is retained with the filtering of streets subsequently on spatial and visual qualities, which positively influences social bonds, public health, and physical activity within public life (Rezvanipour, 2021).

Urban street greenery is also important in the physical spatial qualities of streets as prime landscape design elements to provide shading and enclosure to increase the attractiveness, leisure qualities, and walkability of streets (Xia & Fukuda, 2021). According to how inhabitants see and experience the urban

vegetation landscape at street level, the visibility of street-level greenery enhances the street-side environment and aerial images. Visible greenery also creates a panoramic street view image for pedestrians.

Centrality has entered the scene of the urban street environment by creating a shared and common network of homogeneity and heterogeneity of distribution accessibility when connecting some important places that are more central than others. This is due to economic geography that transports cost and effort trigger accessibility to reach the primal representation of spatial systems (Crucitti et al., 2006). Street junctions are transformed into nodes to nearby settlements and their linear linkages into the margins of infrastructure to work in correlation with the integration of urban area to attain centrality as precise geographic entities. (Crucitti et al., 2006). Centrality is important in creating street vitality as a continuing force in urban streets to analyze the human perception within the image of the street environment using several experience-based spatial entities over and around streets, paths, edges, districts, nodes, and landmarks, as described by Lynch (1964).

The movement through the street network is provided by connectivity when a subject is linked to others in any form. Streets serve as a means of connecting people from one location to another during various activities. Also, they open the area between city blocks and the edges of blocks. Research on space syntax examines streets as direct pathways that link intersections and create a network of streets (Mohamad & Said, 2014). Consequently, the movement of people through this street network for navigation purposes is influenced by the level of connectivity it offers. The number of streets linked by a node in a junction that connectivity is created through street function or character of the environment. Dependently, street connectivity determines the walkability indices by generating cognitive spatial knowledge of the features of the streets (Marshall & Garrick, 2010).

Studies that look at how people move around on the streets have significantly increased during the past ten years. Pedestrian street movements are associated with connectivity; walking behaviours are the interaction between objects and street features. So that there is an identification process whether people find them appealing or not. Connectivity and walking behaviour integration make it possible to determine the factors influencing the likelihood of people engaging in physical activity within specific areas of interest along interconnected streets. This indicates a relationship between spatial elements and their connectivity within the street environment (van Nes & Yamu, 2021).

The above literature review on the street network stimulates the perceived qualities of the streetscapes. Perceived features can be explored via the orientation of urban walking environments comprising several vistas on the streets. Since perceived characteristics might vary between routes and spaces along the street, urban design features cannot be easily quantified (Johansson et al., 2016). So, capturing several dimensions in the urban ambiance of temporal perceptions in the several perceived urban design qualities is hard.

2.2. Urban Design Quality Assessment Model

Urban design quality has a profound role with numerous determinants related to the urban form. There are differences between urban design qualities from the qualities of conditions, attitudes, and preferences, such as a sense of comfort, safety, and reflection of the interest that measures the reaction of different people (Ewing & Handy, 2009). Urban design aspects that are seen by outside observers who respond to the built environment’s physical attributes have some degree of objectivity. The intervening variables can help better understand to score the urban design quality in this study. Within the available literature, Ewing and Handy (2009) offer a robust assessment method for perceived urban design qualities at the street level, which has been adopted by this study.

Table 1: Operational Definitions of the Perceived Urban Street Qualities (Ewing & Handy, 2009).

| | Operational definitions of the perceived urban design qualities included in this study |
|---------------------|---|
| Imageability | ‘The quality of a place that makes it district, recognizable and memorable.’ |
| Enclosure | ‘The degree to which buildings, walls, trees, and other vertical elements visually define streets and other public spaces.’ |
| Human Scale | ‘A size, texture, and articulation of physical elements that match the size and proportions of people and, equally important, correspond to the speed at which people walk.’ |
| Transparency | ‘The degree to which people can see or perceive what lies beyond the edge of a street and, more specifically, the degree to which people can see or perceive human activity beyond the edge of a street.’ |
| Complexity | ‘The visual richness of a place. It is related to the number of noticeable differences a viewer is exposed to per unit of time.’ |

Ewing and Handy (2009) identified 52 indicators by a group of specialist panelists and validated 5 in practicing on-site: ‘*imageability, enclosure, human scale, transparency, and complexity*’. The validation of the indicators has been made by an expert panel in New York City and further applied and tested in several studies (e.g., Ewing & Clemente, 2013; Ameli et al., 2015; Maxwell, 2016; Ewing et al., 2016; Hamidi & Moazzeni, 2018). Table 1 below briefly defines them.

These measures offer a fresh perspective on the practical working definitions of the perceived nature of urban design qualities, as well as including the humans’ physical observation reflecting their perception by quantifiable measurements so that the results could inform future urban design practice too.

2.3. Bridging between Perceptive and Quantifiable Qualities of Urban Space

Compared to Ewing and Handy (2009)’s method, an alternative method quantifying the urban environment is the syntactical measurement of the urban environment. Spatial syntax analysis was established as a tool to analyse the spatial arrangement characteristics of the built environment and to describe the processes that create the spatial configuration and the underlying social structure (Şikoğlu & Arslan, 2015; Hillier & Hanson, 1984; Hillier et al., 1993). This method also underlies the social processes and human behaviour within the urban space (van Nes & Yamu, 2021), however, the measurement is solely based on mathematical calculations (van Nes & Yamu, 2002). That is why it is suggested that such studies should be accompanied by the site observation (of the movement (human, car or vehicle, etc.).

It is also important to quantify the subjective spatial evaluations to provide a logical base to improve the urban spatial quality comparatively, both tangible and intangible. Since it is now widely believed that doing space syntactical analyses may provide a fundamental framework because of its strong foundation in mathematical representation of space, the combined methodologies can close the gap between the researchers’ theoretical goals and the practitioners’ practical interests (van Nes & Yamu, 2021).

Since space syntax has been increasingly widespread in recent years and helps us play a role between urban spatial analysis and urban design disciplines, this study attempt to benefit from it by identifying the intangible perceptual relations of urban space with the calculation of the tangible physical/ configurational features of the urban environment. Within the given scope of the

paper, syntactical measures of the space, such as connectivity, integration, mean depth, etc., will be accompanied by the five human-oriented measurements of the streets' perceptual quality. The combined assessment model will be performed in the city of Duzce, the details of which will be explained in the following methodology section.

3. Methodology

The city centre of Duzce has been selected as the case study area for the purposes of this research. Due to the devastating earthquake that struck Duzce in 1999, the city has been trying to develop ever since, although progress has been very gradual. In the development process, five of the most historically important and characteristic urban corridors (see Yerli & Kesim, 2009; Governorship, 2002) were selected for further urban spatial quality analysis, namely, Kuyumcuzaade Boulevard, Ataturk Boulevard, Rasim Betir Paşa Boulevard and Mehmet Akif Street and Istanbul Street. The following initially introduces the case study site and the analyses that have been conducted in two steps. One is the perceived urban spatial quality indicators measured following the methodology established by (Ewing & Handy, 2009). Second is the syntactical street network analysis conducted through DepthMapX software (Hillier & Hanson, 1984) (The research outcome is drawn on the correlation analysis between the measured parameters of the five streets).

3.1. Introduction to the Case Study Area

Duzce is a city located in the northwestern part of Türkiye, in the Black Sea region, and situated between the cities of Istanbul and Ankara. The surface area of Duzce is 2593 km², and the settlement area of the city province is founded on agricultural and forest land, which needs to be improved in terms of underground construction due to its plain formation (Governorship, 2002). The city has rich flora and fauna with streams and a coastal side of the Black Sea region. It is also known for its natural beauty with its mountains, waterfalls, forest, caves, etc. The historical development of Duzce, where its main centre was used as a settlement by the Bitanians, Roman and Byzantine Periods, and the Ottoman Empire, respectively (Municipality, 2016). Besides different civilizations, the city has a rich socio-cultural diversity as it is a city that receives immigration and has hosted different ethnic groups (Turks, Circassians, Abkhaz, Georgians, Laz, etc.) throughout history (DIGP, 2018).

The 1999 earthquake highly affected the city, and the city centre was mainly rebuilt with a reconstruction process immediately after that, where the traces of the disaster have yet to be erased. Nevertheless, the community's post-disaster relocation and place attachment show strong bonds with the citizens. After the earthquake, the housing layout was enriched with open and green areas, resulting in horizontal urbanization growth. The zoning plans were revised and approved that there is a rule that the city is rebuilding according to the two-three floored construction plan above the ground level (Kesim, 2010).

Duzce is among the developing cities where population growth and urbanization pressure are felt intensely. Duzce has undergone significant development and modernization in recent years, with new infrastructure and facilities being built to support the growing population. The city is now a hub of industry and commerce, with a thriving economy and a vibrant cultural scene after the separation from the province of Bolu after the 1999 earthquake. Duzce's important location in the transportation network, rich cultural texture, land use status, earthquake risk, population potential, entrepreneurship opportunities, increasing quality of life, and embodying the urban identity are among the issues that should be emphasized in the urban transformation process of Duzce (Ozdede et al., n.d.).

The settlement started via the marketplace in the Duzce plain, which has developed depending on the transportation between Ankara and Istanbul since it is mainly on the transit route within the 1950s plans. Between 1950-1965, the city continued its developments in the city centre have been realized through the renewal of the old texture or the filling of the gaps in urban areas (Ozdede, Karacor, & Gultekin, n.d.). The first settlement of Duzce, Camikebir, is in the city centre today, Kultur, Serefiye, and Cevdediye districts. However, the first urban ordinance plan of Duzce dates to 1963 by the Iller Bank, followed by 1985 and 1994 with additions and revisions (Eser, 2004). These plans have never been applied fully but continued with partial revisions till the 2001 master plan obliged by the 1999 Earthquake. In the current situation, Duzce's urban form is scattered and developing along the road. Scattered urban texture and sprawl negatively affect the urban economy, especially transportation and infrastructure (Anonymous, 2011). The developments mainly focus on the city centre regarding the protection and renewal of the historic tissue and refill developments in the area hosting Camikebir, Kultur, Serefiye, and Cedidiye neighbourhoods (Kesim, 2010). There are mixed residential settlements seen in these central districts.

Duzce is a road junction city with its location crossing with D100 (Istanbul) and TEM highways, creating urban corridors between these transit

routes. In these highways, there are mainly structuring serving industry, small industry, and highway services developed along the highway constructions. This study focuses on the Kultur neighbourhood, whose development was parallel to Ankara and Istanbul roads. D100 Highway corridor is one of the main corridors of the city centre that leads a network of intermediate nodes within the linearity of boulevards and streets in horizontal and vertical connections (Yerli & Kesim, 2009). For this study, according to the north-south direction, two horizontals: Istanbul Street and Rasim Betir Boulevard, and three vertical intermediate nodes, Ataturk Boulevard, Kuyumcuzade Boulevard, and Mehmet Akif Street which were directly connected to the D100 Highway, were selected with their linear domains to measure urban spatial quality over the street scale. Unlike the connection of three existing streets, Rasim Betir Boulevard is later constructed. The land use intensity of Istanbul Street and Ataturk Boulevard is higher than Kuyumcuzade Boulevard, Rasim Betir Boulevard, and Mehmet Akif Street since they are on the main arteries of the city with roadside vegetation which is the result of usage by the endeavours of the municipality (Yerli & Kesim, 2009). Today, the city centre development expanded around Istanbul Street even after the earthquake with similar functions. However, it was destroyed by rehabilitating the urban area, and the environmental plan, not for the area, has not yet been completed (Elmas, 2004).

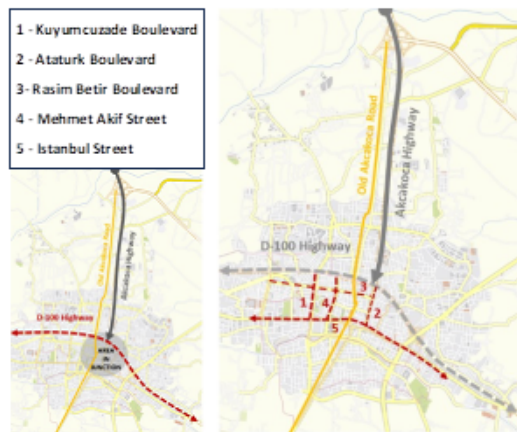


Figure 1: Main and Sub-Corridors of Duzce City Center in Junction with Selected Case Study Area.

Four or more qualified corridors connect Ataturk Boulevard and Istanbul Street with many features. However, Kuyumcuzade Boulevard and Mehmet Akif Street are joined by three corridors. These two important corridors are connected to Rasim Betir Boulevard (Figure 1). The selected corridors for this study pass through the city centre and penetrate the urban fabric entirely in the urban formation system of Duzce. The busiest part of the urban centre has been created between these corridors, and dense residential settlements and, commercial areas, and public transportation are often intertwined. Also, these main and sub-corridors carry the city's traditional neighbourhood textures, effectively forming new developments after the earthquake.

3.2. Spatial Analyses

For the purposes of this research, two sets of analyses have been conducted: urban spatial quality assessment and the syntactical measurement of the street network. The perceived spatial quality analysis focuses on the five validated measures in the study of Ewing and Handy (2009): imageability, enclosure, human scale, transparency, and complexity.

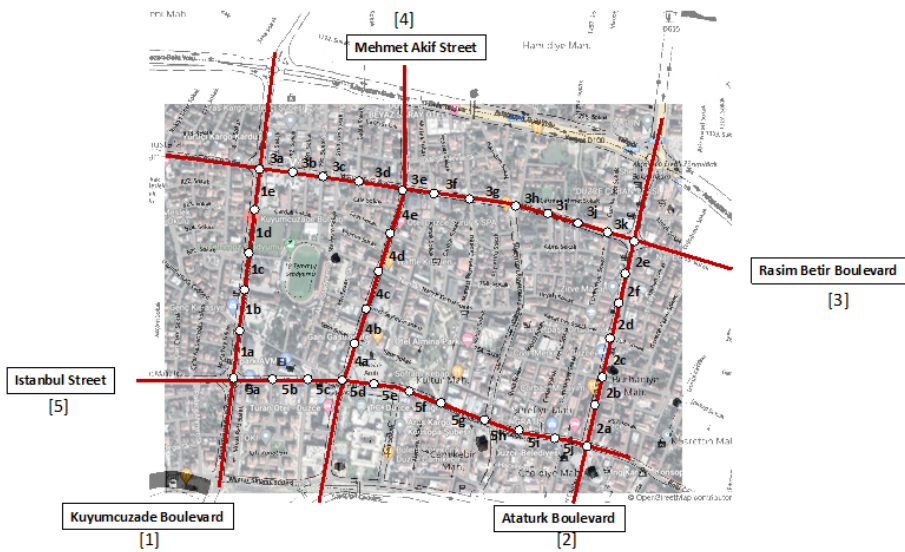


Figure 2: The Street Segment Blocks Identified in the Study Area

To measure these five qualities in Duzce city centre, this study has utilized the illustrated field manual prepared by Otto Clemente, Reid Ewing, Susan Handy, and Ross Brownson for the Active Living Research Program of the

Table 3: The Score Sheet Content Used During The Field Study Measurement (Adapted From Ewing & Clemente, 2013)

| ITEMS TO MEASURE URBANS SPATIAL QUALITIES | |
|--|--|
| IMAGEABILITY | <ul style="list-style-type: none"> • number of courtyards, plazas, and parks (both sides, within the study area) • number of major landscape features (both sides, beyond study area) • proportion historic building frontage (both sides, within study area) • number of buildings with identifiers (both sides, within study area) • number of buildings with non-rectangular shapes (both sides, within study area) • presence of outdoor dining (your side, within study area) • number of people (your side, within study area) • noise level (both sides, within study area) |
| ENCLOSURE | <ul style="list-style-type: none"> • number of long sight lines (both sides, beyond study area) • proportion street wall (your side, within study area) • proportion street wall (opposite side, within study area) • proportion sky (ahead, beyond study area) • proportion sky (across, beyond study area) |
| HUMAN SCALE | <ul style="list-style-type: none"> • number of long sight lines (both sides, beyond the study area) *from above • proportion windows at street level (your side, within the study area) • average building height (your side, within the study area) • number of small planters (your side, within the study area) • number of pieces of street furniture and other street items (your side, within the study area) |
| TRANSPARENCY | <ul style="list-style-type: none"> • proportion windows at street level (your side, within study area) • proportion street wall (your side, beyond study area) *from above • proportion active uses (your side, within the study area) |
| COMPLEXITY | <ul style="list-style-type: none"> • number of buildings (both sides, beyond study area) • number of basic building colours (both sides, beyond study area) • number of basic accent colours (both sides, beyond study area) • presence of outdoor dining (your side, within the study area) *from above • number of pieces of public art (both sides, within the study area) • number of walking pedestrians (your side, within the study area) |

According to the manual, the lengths should be defined according to the size of each block face across the chosen street and divided into approximately 100 metre or 300 feet if one block is longer than that. Because some blocks in the case study area are even shorter than that constraint, the authors had to alter their methodology in the Duzce instance by looking at the main streets every 100 meters. Table 2 above illustrates the representative street layout patterns from the study area.

In the first step of the spatial analyses, in a total of 37 block faces (some of which are represented in Table 2, street views of the selected street segments are shown in Table 4) from the chosen five main streets of Duzce city centre have been audited and systematically photographed, and the spatial observations following the field manual have been noted on the individual score sheets. The score sheet content used during the fieldwork is presented in Table 3. The obtained scores during the site visits for each street segment identified earlier have been aggregated to reach an average score for each city corridor. In total, five urban spatial quality score has been tabulated for five main streets. These scores have been processed further in two ways. First, the scores have been compared to each other within a given street and across the five chosen streets. Second, correlation scores between the perceived qualities have been calculated to understand the association between them.

DepthMapX software has been used to calculate the syntactical measures, an open-source tool for the given study area's street network analysis in the second step of the analysis. The street network patterns have been drawn and imported into the program and converted into an axial map to run a graph analysis where the software generates the values of connectivity, integration, entropy, mean depth, RRA (Real Relative Asymmetry), control, and controllability). Connectivity is measured through the number of spaces that are accessible from space. A space demonstrates high connectedness if it is connected to numerous other areas. However, if there is little connectivity, the area is self-sufficient/isolated (Tatsuya & Mayuko, 2014). Choice, also known as betweenness, defines how closely each spatial element adheres to the shortest pathways between any two spatial components. In contrast to the to-movement potential evaluated by integration, choice evaluates the potential of the movements going through each place, known as the through-movement potential (Hillier & Hanson, 1984). Entropy measures the dispersion of spatial places relative to their depth from a space instead of the actual depth, and if many places are in proximity to a space, the depth is asymmetric from that

space, and the entropy is low (Turner, 2004). Integration is a measure of topological accessibility from one space to another (Hacar et al., 2020; Hillier & Hanson, 1984) and is also explained parallelly to mean depth and RRA values. As integration is a normalised version of mean depth, accessibility and pedestrian behaviour studies take into integration values account in the correlation tests (Hillier et al., 1993; Hacar et al., 2020). The depth, on the other hand, is also linked to the measure of fundamental relative asymmetry (RRA), the standardised value comparing how deep or shallow the system is (Hillier & Hanson, 1984). Regarding walkability, control entails choosing visually dominant locations, whereas controllability establishes easily observed regions while walking (Hacar et al., 2020).

The syntactical measures discussed above are the most typical ones described in the space syntax theory, particularly in understanding how people behave in urban settings. To empirically assess the uniformity of the street layout pattern within the research area, these scores were initially computed using the DepthMapX software. To determine which accessibility elements are the most important and hence contribute to the overall perceived environmental quality, the scores were then compared to the findings of the field survey for the perceived spatial qualities of the streets. The conclusion has been drawn from the overlapping results of the two main analyses explained above.

4. Findings

4.1. The Perceived Qualities of the Duzce Street Environment

The descriptive findings of five perceived characteristics of the five main city centre routes in Duzce are shown in Figure 3 below. The findings revealed that the five urban spatial quality scores varied both inside and among each individual street despite the typical gridiron street layout pattern extending across the city centre. In other words, at first glance, perception of such streets has been influenced more by other street scale aspects than by layout, which has been sought further in the following section. Regarding the perceived urban spatial qualities, the Istanbul Street area has shown the most noticeable variances. The scores were proportionately more significant than the other four city corridors, except for the slightly higher transparency score. However, it might be explained by the transparency scores noted as more or less the same

across all five streets and the gridiron street layout of Duzce City centre, hosting parcels generated from blocks of similar sizes.

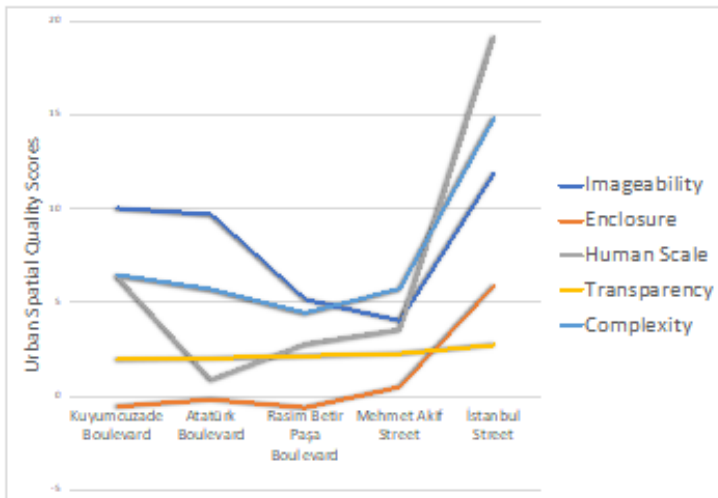






















Figure 3: Comparison of the Urban Spatial Quality Scores of the Streets.

A greater variance, on the other hand, among the spatial quality indicators has been found in imageability scores. This score has been mostly noted as the highest one compared to the other four quality scores, particularly in the Kuyumcuzade, Ataturk, and Rasim Betir Boulevards. Imageability has been the second most notable in Mehmet Akif Street and third in Istanbul Street. However, it is also important to present that Istanbul Street has shown the greatest imageability score compared to the other streets.

Similarly, complexity comes exactly after the imageability scores, as being the first or second highest score in all streets among the five spatial qualities, and the highest in Istanbul Street compared to the other four streets. The human scale indicator comes in third place overall among all street ratings. Nonetheless, following the given order, transparency and enclosure have been identified as the streets' weakest perceived characteristics. Transparency and enclosure scores are also not varied across the chosen streets, which is also clear from the street views shown in Table 4 below.

Table 4: Street View Samples for the Individual Street Segments Observed in this Study.

| Kuyumcuzade Boulevard [1] | | | |
|---|---|---|--|
| 1A | 1B | 1C | 1D |
|  |  |  |  |
| Ataturk Boulevard [2] | | | |
| 2A | 2C | 2F | 2E |
|  |  |  |  |
| Rasim Betir Paşa Boulevard [3] | | | |
| 3A | 3C | 3G | 3J |
|  |  |  |  |
| Mehmet Akif Street [4] | | | |
| 4A | 4B | 4C | 4E |
|  |  |  |  |
| Istanbul Street [5] | | | |
| 5B | 5F | 5H | 5J |
|  |  |  |  |

4.2. Relevance of Urban Spatial Quality Indicators

In addition to the relative comparisons made above, Table 5 displays correlation coefficients for the five perceived qualities. Similarly, to Ewing &

Clemente (2013)’s work, in Duzce’s case, we have found all correlations positive. However, the associations were varied. No association has been statistically noted between imageability and each of the qualities (all p-values were above .05, ranging from 0,19 to 0,66). The highest correlations have been noted in the pairwise comparisons of the scores of human scale, transparency, complexity, and enclosure indicators, ranging from 0.86 to 0.97. These associations have also been statistically proved by their p-values ranging from 0,003 to 0,017. This indicates the strong relevance of these indicators to each other first, but also may imply that similar design interventions at the street scale can help us improve the street’s multiple design qualities.

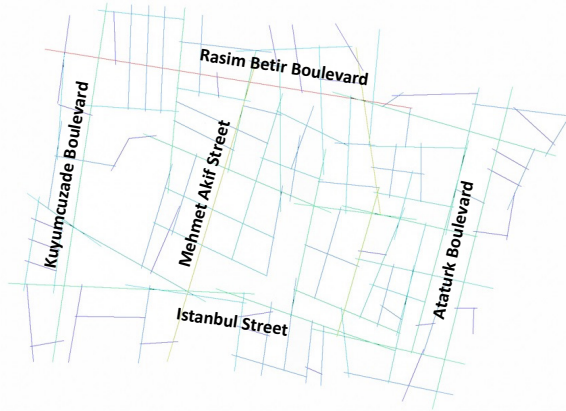
Table 5. The Correlation Scores.

| | <i>Imageability</i> | <i>Enclosure</i> | <i>Human Scale</i> | <i>Transparency</i> | <i>Complexity</i> |
|--------------|---------------------|-------------------|--------------------|---------------------|-------------------|
| Imageability | 1 | | | | |
| Enclosure | 0,54526522 | 1 | | | |
| Human Scale | 0,62282893 | 0,94075004 | 1 | | |
| Transparency | 0,26512219 | 0,95016365 | 0,86856488 | 1 | |
| Complexity | 0,68832689 | 0,97770729 | 0,9731885 | 0,87522129 | 1 |

Alternatively, the imageability score can be taken as a reference point as being the most influential determinant of street scale perceived qualities and may help us understand which quality contributes the most to creating vibrant imageable streets. Given this, complexity, human scale, and enclosure are highlighted as the primary contributors to imageability, while transparency showed a weak association (0.26<0.50).

4.3. Validation of the Homogeneity of the Duzce Street Network

To define the syntactical attributes of the street network within the study area, the axial map of the study areas has been drawn and analysed in the DepthMapX software. The scores obtained from the graph analysis are presented in Table 6 below.

Table 6. Syntactical measures.

| | Connectivity | Choice | Entropy | Integration | Mean Depth | RRA | Control | Controllability |
|-----------------------------------|--------------|-------------|-------------|-------------|-------------|-------------|------------|-----------------|
| Kuyumcuzade Boulevard | 9 | 1269 | 2 | 2,31 | 2,9 | 0,43 | 2,08 | 0,22 |
| Ataturk Boulevard | 11 | 1731 | 2,1 | 2,16 | 3,03 | 0,46 | 3,25 | 0,29 |
| Rasim Betir Paşa Boulevard | 15,5 | 3017 | 1,97 | 2,75 | 2,61 | 0,36 | 3,7 | 0,27 |
| Mehmet Akif Street | 14 | 1900 | 1,99 | 2,64 | 2,66 | 0,37 | 2,77 | 0,26 |
| Istanbul Street | 9 | 1553 | 1,96 | 2,27 | 2,94 | 0,44 | 1,77 | 0,23 |

Connectivity, a local indicator of the total number of direct linkages each street has to other streets in its immediate vicinity, has been shown to be clearly different. Given this, Kuyumcuzade Boulevard and Istanbul Street showed the lowest degree of connection, followed by Ataturk Boulevard. On the other hand, Mehmet Akif Street and Rasim Betir Pasa Boulevard have the most connections. However, most of the other syntactical measures were not prominent, which validates that the street layout configuration is homogenous and not so varied within the study area. To illustrate, when the street network system within the study area is taken as a whole, it is not segregated, especially when looking at the values of RRA below 1. In particular, the values between 0.4 and 0.6 indicate strong integration (Hillier & Hanson, 1984), particularly observed in Kuyumcuzade Boulevard, Ataturk Boulevard, and Istanbul Street. Another important measure is the control value which determines how much a space controls access to its nearby neighbours by accounting for the number of alternate

connections each of these neighbour (Klarqvist, 1993). It is a local measure whose values of greater than 1 refer to the spaces with strong control (Hillier & Hanson, 1984). Given this, it is evident that the system, also as a whole, does not have weak control areas in all five street corridors. Such homogeneity was also reflected mainly in the other syntactical values, such as entropy, integration, mean depth, RRA, and controllability, except Rasim Betir Pasa Boulevard, which scored either the highest or the lowest compared to other streets.

4.4. Overlapping the Results

Finding the pertinent syntactical measurements is thus crucial because some may need to be more appropriate for comparison with indices of urban spatial quality. Such syntactical analysis is different from the measurement of the urban spatial quality indicators since it is more relevant to the movement patterns rather than the characteristics of the buildings surrounding places of movement (e.g., building heights, façade characteristics like colours, shape, etc.). On the other hand, the perceived qualities are closely associated with walkability; changes in movement patterns can affect how pedestrians experience the built environment. To explore the association between them, the syntactical metrics presented in Table 6 earlier have been correlated with the urban spatial quality indicators calculated in the earlier section. The correlation scores are illustrated in the line graph in Figure 4.



Figure 4: Association between the Syntactical Measures and Urban Spatial Quality Indicators

Despite the variety in the correlation scores presented above, not all of the relations have been proved statistically; besides, most of them were found statistically insignificant (p -values <0.05). Between syntactical measures and urban spatial quality parameters, only associations have been noted with imageability about connectivity, integration, mean depth, and RRA. The most significant correlation was between imageability and connectivity ($r=.928$, $p=.02$). If connectivity is greater, streets become less recognizable. In other words, the imageability increases if a street is less connected to its surroundings with fewer axial lines. This is clearly exemplified by Rasim Betir Boulevard having one of the lowest imageability scores with its higher number of axial lines directly connected. Similarly, the other three measures were also strongly correlated with imageability: Integration ($r=.888$, $p=.04$), Mean depth ($r=.89$, $p=.04$), and RRA ($r=.90$, $p=.03$). Given this, Rasim Betur Boulevard is the prominent example again, since it has the highest integration value and the lowest mean depth and RRA values among the five streets.

5. Discussion and Conclusion

This study has explored the relationship between pedestrian movement and accessibility defined by syntactical measures and five urban spatial quality indicators defining the perceived characteristics of the street environment. For this reason, it initially utilized an established methodological framework proposed by Ewing and Handy (2009) within the Turkish context. Then, five perceived qualities have been calculated for the five main corridors of Duzce's city centre.

In the first step, this study attempted to test the applicability of Ewing et al. (2012)'s methodological framework outside the US and probably for the first time in Turkiye and Duzce. With its historical development and rich socio-cultural background dating back to the 14th century, Duzce also served very well to apply this methodology and its validation in a Turkish case. It was a mixed-used, developing city centre model with a strong place identity, robust gridiron street network pattern, low-to-mid-rise building stocks, parks, and pedestrianized streets. So, it can be claimed that the method is applicable, at least in low-rise urban developments. Besides, the results reflected the current state of the urban core, where the lowest scores were mainly observed in the youngest street corridor, namely Rasim Betir Boulevard, and the highest scores were noted prominently for historically important Istanbul Street.

In return, it was also crucial to benefit from the results to guide its current and future urban development and management processes, which were interrupted especially after the 1999 earthquake and accelerated after being announced as a city. As measuring the current state of the urban core, historically, the most important Istanbul Street has scored the highest. Thus, its users probably have created a strong perception of space over time through its spatial characteristics. Moreover, the study has shown which perceived characteristics of the street environment need more attention in future development, and these were transparency and enclosure scores in Duzce's case, as they were scored the lowest.

Further exploration at this step was on the relationships between the scored five urban spatial quality indicators in the field with direct in-field observation, namely imageability, enclosure, human scale, transparency, and complexity. The case selection rationale has also served well for this purpose thanks to its homogenous street layout pattern within the borders of the study area that can be taken as a control measure to run a robust correlation test between them. The results showed no association of any quality with imageability. However, despite being at varied degrees, the other four have shown strong relevance to each other. However, this requires further examination with a bigger sample size to obtain more robust results, as some of the items measured as part of the scoring sheets are common across these four indicators and might result in higher correlation scores. As this is not the main objective of this paper, future research might explore it further.

In the second step, syntactical metrics have been aimed as a method where human observation is not required. Still, pedestrian intensity could be computed through multiple indicators, such as connectivity and integration. Initially, the results have been used to validate the homogeneity of the given street network system in Duzce. Although Rasim Betir Boulevard has slightly differed, the system is connected, integrated, and has substantial control areas. Proving that the system is syntactically performing better, the results further helped us to scrutinize the association with the human-oriented calculated urban spatial quality indicators. The syntactical measurement had also been carried out on purpose. This has been chosen as a quantitative counterpart to the perceived quality assessment. The overlapped results and correlation statistics only revealed their strong connection to imageability. It is evident that the length of street segments or the increased number of interruptions to the street scale experience in the street layout of an urban tissue affects the way to sense

the other spatial features such as facades, colours, parks, noise level, people watching over, etc. In other words, the distinctive characteristics of the place may be less recognizable and affected by the number of visits, the changes in directions, the time spent, etc. This may also require further exploration with a more comprehensive framework for measuring the degree of imageability under such circumstances. Similarly, transparency and enclosure might be discussed in the same context, although this study could not reveal any relevance between them and street network patterns. This is likely because the measurement of these qualities mostly involved the observation of windows aligning across the streets and active uses of the facades for transparency and proportion of the sky for the enclosure. However, transparency also consists of visibility beyond the edge of the given street segment and enclosure; the measured long sides of the streets are also described in the field measurement manual. Thus, their potential relationship to street connectivity, integration, and control values might be claimed too.

This study has also argued that the urban design practice referencing the quantitative measurements of the physical characteristics of the streets and their surrounding urban tissues needs to include the intangible qualities feeding the human sense of place. On the other hand, a phenomenological understanding of the urban built environment requires more work to be reflected in practice in a concrete manner. It thus requires a positivistic perspective to be adapted to the existing system. Given this, this study has brought two frameworks together, bridging between tangible and intangible characteristics of the urban street environment. In Duzce's case, within the given five main street corridors, Istanbul Street, with the least connectivity and integration, has been observed to be the most imaginable one, simultaneously complex and in human scale. This also aligns with the field observation and users' views. Istanbul street is narrower than the other streets; this makes the enclosure feel stronger and thus the adjustability to the human scale. Besides, the street has been closed to vehicle traffic and is pedestrianized today. This might make us think of rearranging static and dynamic places in the urban environment. Now, Istanbul Street has not been a dynamic place involving movement, dominantly anymore but a static place involving activity and spatial experience.

Taking this as a reference, the street layout influences how people move through and orient themselves in an urban environment and experience (van Nes & Yamu, 2021). Here, the question is how to balance linearity and being a collective public space where active uses, social interactions, and accessibility are equally promoted. Urban public space is created by the different combinations

and arrangements of these static and dynamic places, and to achieve the holistic spatial quality where both physical and perceptual satisfaction is met, it is required to bridge between research and practice and benefits from both users' and specialists' perspectives. It is therefore suggested that there is a need to expand the research towards timely observations and repeating the process with people experiencing the street environment from different backgrounds. The activities involved, opening hours, changing functional variety, or urban development projects applied, etc., should also be included in the examinations. The city centre could also be studied over its primary corridors and secondary arteries. In this research, the public parks and gardens have been only considered based on the coverage they offer on the street edge. Still, future research can use those locations as destinations while investigating the relationship with accessibility. Overall, it is believed that studies aiming to review the design actions or seeking to improve them should prioritize the human-oriented approaches regarding how to include them in a positivistic perspective.

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CHAPTER III

URBAN SPACES: STREET–SQUARE –COURTYARD TYPOLOGIES

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1. Introduction: Urban Spaces; Definitions, Meanings, Formations, Types

Urban spaces stand out as spaces that are shaped unplanned or based on planning and architectural studies, and are functionally open to everyone with their physical space identity (Özdoğan, 2002). From another perspective, urban spaces are physical spaces shaped by the ground plane, the structures around them and landscape elements (Çağlar, 1993). In this context, it is seen that the concept of urban space is used to define spaces reserved for public use and open to the use of urban residents.

Urban spaces differ depending on their formation and functional structures. Streets and squares stand out as the two basic elements of urban space. Squares formed by positioning buildings around an open area; It provides a model for the most basic spaces that people use in urban space, such as agora, forum, and mosque courtyard, while streets are formed by building buildings in areas other than squares (Krier, 1991). Although urban spaces are emphasized as streets and squares, it is seen that courtyards also stand out as effective in the urban space typology. Squares are defined as urban spaces that enable gatherings and coming together in social life, and that change depending on religious beliefs, the economic and social life of the society, and the needs of individuals (Aşkoğlu, 1999). When evaluated from this perspective, it is seen that the square, street and courtyard are the main elements / parts that complement each other in the urban integrity. While the space surrounded

by different buildings coming together stands out as a city square, the spaces formed due to the formation of a single building can stand out as a courtyard. Urban courtyards are defined as urban spaces that stabilize movement, are defined by walls within a building or group of buildings, and can offer different opportunities to users (Yoldaş, 2010). Linear spaces that provide dynamic pedestrian and vehicular transportation constitute streets, while static spaces that gather people together constitute squares and courtyards. In addition to providing urban transportation and communication, streets stand out as urban spaces that support social life.

Definitions of urban spaces can be handled in different emphases;

- *Urban spaces are seen as places where people's subjective and psychological life processes, perceptions and experiences turn into memories (Eşkinat, 1993).*

- *It is defined as all the places built on land outside the buildings, used by the citizens, and where urban events take place (Bakan and Konuk, 1987).*

- *Urban spaces are considered at the intersection of activity, meaning and physical features (Lynch, 1981), as parts of the city defined by buildings and open to the public outside the buildings (Krier, 1991).*

- *From another perspective, it is the integrity created by buildings, perceived by urban residents, and to which urban events are related (Bacon, 1992).*

- *According to Woods, urban spaces, which are a part of the environment, are three-dimensional spaces formed by buildings, where people live and perceive, and where their actions take place, and they are related to time (Woods, 1975; Çevik, 1991).*

- *Spatial use is considered as private, public and semi-public spaces, and public spaces can also be defined as urban outdoor spaces (Bakan and Konuk, 1987; Gehl, 1987).*

- *Although urban courtyards are defined as spaces with public and semi-public features, surrounded by walls that add stability to movement, it is stated that they can offer different opportunities to users at points where movements merge and interlock (Yoldaş, 2010).*

- *Open-top spaces surrounded by walls and buildings in the middle or in front of a house, administrative or educational building are defined as courtyards (Anonymous, 1973).*

- *Courtyards stand out as urban gathering and meeting spaces that are open to the public with their public use feature, have some special functions, have closed or transitional vertical planes, and open or semi-open ceiling planes (Özdoğan, 2002).*

- *It is stated that courtyards have humane dimensions as small open spaces with the widening of streets in residential areas or as middle spaces in large building complexes, closed to the wind, with sunbathing opportunities and lively public life (Şahinler, 1984).*

- *Urban courtyards; These are spaces that are open to the city and its inhabitants, have activities aimed at social-social-cultural-psychological needs, express stability, are large-scale or surrounded by a few buildings, and where closedness is felt effectively (Çevik, et al., 1999).*

- *Urban courtyards are urban spaces that bring people together for passive togetherness (Jackson, 1985).*

- *City courtyards are at the heart of several dense urban areas, like an activity center; with high-sidewalks from the road, surrounded by high-density buildings, surrounded by and communicating with streets, and have features that attract people and enable them to gather (Lynch, 1981).*

- *They are structural or urban elements providing common space for various functions. They are compatible with the urban context, distinguished from other spaces of the city with its unique determinants, standing out as the summary of the city in the collective memory, opening to streets, avenues, and boulevards, open to public spaces, or semi-public outdoor spaces (Yoldaş, 2010).*

- *Agora and forums in ancient times, inn courtyards with commercial functions, mosque courtyards for religious purposes, madrasah courtyards for educational purposes, and social complexes... are considered urban courtyards (Özdoğan, 2002).*

- *“...design buildings connected to urban space occurred not as a result of building components but as a result of a series of urban spaces. ... He proposed a binding building bracket/context, but it was not the urban space created by these buildings, but a design compatible with the urban space...” The expression gives a specific perspective on creating urban space/urban space and space for urban residents.*

(Der Wettbewerb: Kennwort “Stadtraum”, 1981).

...the negative criticism of urban spaces can be expressed as “There is no urban space, there is only emptiness in the center” (Lautenschläger, 1994).

Definitional and contextual/semantic views on urban space observed with different scopes and emphases can make important contributions to understanding urban space, the formation of urban spaces, and the process of creating final products.

In practice, authorized institutions, and institutional formations are related to urban space; streets, squares, green and water, functions, etc. This issue is also important in creating important guiding and legally binding studies at different levels in the process that leads to implementation and concretization on issues. This standard in question appears as design guides and determinants prepared within different institutions and institutional formations, studies that deal with alternative solution presentations in written and drawn form.

On the basis of the explained subject, the study is mainly addressed under the headings of streets, squares and courtyards, which are the building blocks of the urban fabric and urban spaces. In other words, typology-morphology studies that provide a basis for these studies, ranging from research on the definition and meanings of urban spaces to studies on time and place-dependent spatial presentations, continuity, historical continuity, ways of realizing continuity, etc., to practical studies in the creation of the city and urban spaces. is given. In addition, in the context of a typological - morphological view of urban spaces, the study includes general definitions of typology and morphology, approaches that form the basis of typologies, and urban space typologies such as streets, squares and courtyards. In addition, attention is drawn to the importance of typological studies and their usage environments and possibilities.

2. Typological – Morphological View of Urban Spaces

2.1. Typology and Morphology: General Definitions

Typology and morphology have an important place in the field of research, education, and practice, which can help in understanding urban spaces and cities, reaching their ideal definitions, formations, and contents, and evaluating their development and changes. In this context, explanations under the headings of type, typology, and morphology are given here.

Type is defined as the type or variety that largely collects the basic characteristics of beings or objects of the same kind, and typology is defined as the method of determining or distinguishing these types (TDK Sözlük, 2023). At the urban space scale, typology is used as a method of identifying and distinguishing urban spaces. It is seen that urban spaces differ from each other in terms of form and function, and typologies are created in this direction. Urban spaces are streets, squares, urban courtyards, passages, parks, urban forests... It can diversify in different ways, and in the context of this diversification, it is evaluated in the context of the differences and similarities offered by urban spaces.

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Typology in different scientific fields; It can be found in history, medicine, economy, architecture, planning, fashion, etc., and can emerge with type expressions that are expressed in different ways.

As explained above, it has a range of uses/benefits ranging from research to practical studies on spatial presentations depending on time and place, continuity, historical continuity, ways of understanding historical continuity, ways of realizing continuity, etc. in the creation of the city and urban spaces through the definition and meanings of urban spaces. Typology-morphology studies constitute an important bases for these studies.

Type actually plays a productive role for architectural formations. Sometimes, when structural-spatial formation, aesthetics and experiences meet, the result can overtake typology and morphology through spatial experiences (Voigt, 2020).

- *Typology is characterized by buildings with different functions in urban architecture, a specific design that provides legibility, orientation and organization/structure in the urban fabric. What gives the urban texture is typological stability, readability and organizational formation. Typology formulates the laws underlying the properties of each concrete design. Many of these typologies are directly related to the biographical life stages to which they are functionally assigned and accommodated. Educational and research institutions provide space for teaching and learning, provide space for government and education.*

- *The term typology encompasses different architectural designs and their features that can be summarized under common, overarching categories.*

- *According to Kenneth Frampton, typology is one of the founding foundations of architectural design: “In fact, it is as if what is built seems to grow continually from the ever-evolving interplay of three converging things: vectors,*

topos, type, and tectonics.” This trio has an equally formative, meaningful and structuring impact on architectural design.

- *Topology, typology and tectonics are three influential conditions for an architecture that – beyond design objectives in individual cases – fundamentally shape architectural design. Type, topography and tectonics form and determine the broader cultural, structural and local context.*

- *...what are these cultural structures that make up the type, what are they based on, how narrow are they and what is their permanence? They answer many questions such as.*

- *...Typologies refer to construction or design features or types of urban development. In terms of typology, the text refers to aspects that have stood the test of time and remain constant as immutable factors in cultural history. The three aspects of architectural design – type, topography, tectonics – can in turn be divided into individual partial aspects, which, like vectors, enable further unpacking of complex levels of meaning for each of these three terms...*

- *...Typological questions concern the spatial structure and organization of architecture. To crystallize the different elements of typology formation, we can use the categories put forward by Alban Janson and Florian Tigges as a guide to a rather abstract structure of six basic types; It can be divided into plan types, connections/road systems, usage types, construction types, formation types and urban construction types (Voigt, 2020).*

It is also important to understand the correspondences of the typology in its definition and application areas. The types that find their counterparts in the process in the context of building detail-urban texture are seen as an active topic in the field of research and practice on the continuity of typologies. Examples of this working method created in different shapes and weights can be evaluated with positive and negative criticisms.

For example, when we look at the practices in Berlin within the scope of the 1984/87 Exhibition (IBA). The subject can become a little clearer when we look at the positive or negative expressions in critical views of the works in which the Berlin Block concept is interpreted and used. The Berlin Bloc urban strategy, lively street life, dynamic mix of use and function, as well as the spatiality that defines the urban space, as well as the qualities sought in the urban space, are discussed together. The inputs of the Berlin Block typology, modified alternatives and a number of current master plans are included. In this context, when we look critically at the practices of Rob Krier, one of the important names;

The use of historical references, quotations from the past, allusions, reconstructions, etc. can be seen as a type of visual imagery; snapshots that help pluralize different readings...these references can be read as a positive visual stimulation of the past.

...the nineteenth-century Berlin block with Rob Krier's winning competition project in 1979; With its explicit focus on history as a mode of analysis of the debate surrounding the formal framework, IBA's premise, classification and reinterpretation, provides a static classification of form and therefore does not underemphasize the contribution to architecture...

Use of historical references...such as quotes from the past,...references; and reconstructionother quotes throughout history can be seen as a kind of visual image; snapshots that help pluralize different readings. As we have seen, these references can be read as a positive visual stimulation of the past;

... Same as Krier's approach to historical quotation, but it seems that the meaning of the plural interpretations is based on an ascribed meaning. In contrast, we also identified two versions of the formal and spatial concepts. Continuity between the nineteenth-century block and Krier's Ritterstrasse. The first, as Krier explains, is the restoration of the historical principle. Morphological characteristics: bounded streets and squares and a clear alternation between a series of built volumes and defined spaces (Borsi, et al., 2016).

The understandability and evaluability of type-typology concepts also increase critical perspectives on applications from theoretical and practical perspectives. Looking at the synonyms of type and typology used in different fields can make it easier to understand these concepts (Figure 1).

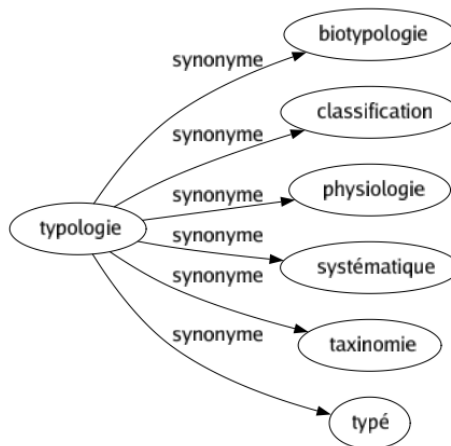


Figure 1. Typologie(<https://definition-mot.fr/typologie/synonyme/>, 2023)

When we look at the application areas of Type and Typology and the headings and sub-topics that can be observed in these areas, we can see diversity based on similarities and differences.

When we look at the most recent studies, it shows itself in the field of digitalization. It seems that the subject of typologies of the spatial effects of digitalization has an important place in smart city studies. Within the scope of these studies; The subject is studied under qualitative and quantitative headings such as Spatial Effectiveness of Digital and Analog Technologies, Perception and orientation in urban space (quantitative), Environment (Qualitative) Spatial perception, Aesthetic formation... etc., changes in human behavior on this ground, Changes in physical urban space, Positive and negative changes in the spatial system. is being studied. In short, technology-based studies on environmental changes in urban space are carried out with an understanding that fits the age of digitalization we are in (Radulova-Stahmer, 2021).

It has been mentioned that typology-morphology studies have found an area of use/benefit in the creation of the city and urban spaces, ranging from research to practical studies. Through the definition and meanings of urban spaces, and that typology-morphology studies have formed important bases for these studies. In this context, in practice, authorized institutions, institutional formations, related to urban space; streets, squares, green and water, functions... etc. Important guiding and legally binding studies to varying extents in the process leading to implementation and concretization on issues; are seen as design guides and determinants. Authorized and responsible institutions, state administrations founded on volunteerism, state governments, municipalities, associations, etc. carry out effective work in the creation and shaping of urban spaces and the management of urban developments. This issue finds its response in many countries and cities. It is seen that these studies are important because of their perspective on the issues and the alternatives, guidance, and follow-up of the study.

To give an example; On the Stadt Zürich side, it carries out important typology studies under the headings of streets and roads, squares, green and water areas. In this context, green areas that divide the city; green areas such as large surface green areas, linear green areas, green areas related to the city part, green areas with a closed character, green areas with an open character, neighborhood green areas, green areas related to the street, small green areas, river and lake shores; squares; stop-wait-stay squares, single-function squares, mixed-function squares, traffic squares, traffic areas with selective emphasis,

traffic areas with a highlighted axis, traffic areas with a highlighted center, symmetrical traffic squares, connection/intersection points, building-oriented squares, squares, street-related connection squares, building-related connection squares; street-street spaces: main traffic axes, four-lane main traffic axes, two-lane main traffic axes, two-lane main traffic axes with trams on their own route, neighborhood streets, narrow access streets access to roads with a central canal, access to roads with side lanes, promenades They are typified under the headings of lake promenades, river walks, panorama trails, pedestrian and bicycle paths, sidewalks, freely guided paths and bicycle paths (Stadt Zürich, 2023).

It was mentioned that studies created with type/typological views can be used to reach a morphological view and analysis, and sometimes they can override morphology. In this context, it would be useful to look at Morphology. Morphology can find explanations in the literature with varying definitions and scopes, just like typology.

While “Morphology”, a concept introduced by Johann von Goethe for the theory of the formation of forms, is used in different fields such as language, physical geography, etc., within the scope of urban morphology, settlement, and urban forms, physical formation processes of settlements are examined, building structure, parcel formation, building typology and It is adressed within the scope of the zoning system. In this context, urban morphology is also seen as a research field of urban planning, urban design, and urban geography. Urban morphology and historical analysis of the development and transformation of urban structures is a particular focus. The main subject can be defined as the analysis of time-dependent changes and transformations in the process (Wikipedia, 2023).

Practical studies to create the future of the city and its future spaces in line with the discussions, examples, and explanations on the change-transformation of cities and urban spaces through the morphological and typological structure and characteristics of the city also find an important area.

When we look at important theoretical, conceptual and practical research and examples regarding the City of Berlin, one of these studies, we see highly valid suggestions. In the session report on the Typology of Urban Spaces, important visionary key information for the future of the city, urban spaces and urban residents can be viewed (37. Sitzung Typologiered öffentlichen Räume; 1994).

- **Hans Christian Müller:** *Public space cannot be clearly defined, at least not much less than its obvious name suggests. However, it is not only a matter of its design or even decoration, but above all the message, which is the*

symbolic value for the whole, must be seen. This shows the complexity of the design tasks of public spaces and the danger of being involved in purely elitist and aesthetic values that are unrelated to the intrinsic values of the space, as well as responding to functional demands. The design needs of public space should generally be localized and priorities determined.

Such a plan should exemplify categories such as communicative, practical functions, cognitive, or aesthetic, but also reduce the complexity presented in favor of an overall view. Big cities have to carry out this intellectual process for the benefit of our social development...

...articulated a typology that guides design criteria for urban spaces and ensures the vitality of Place. However, the various parts of the whole cannot be listed using a typology; Rather, a typology should enable evaluations and show connections that can be discussed. This requires filtering framework ideas from the variety of rooms and formulating them on a trial basis...

- **Hanns Adrian:** *... Morphology of public spaces: The contrast between quiet and dense urban areas makes the city urban. Every generation redesigns and appropriates urban spaces, this is legitimate if quality is created. ... Urban spaces are experienced as motionless sequences. Therefore, it should be designed to be speed-dependent... Public urban spaces are largely determined by their relationships with private spaces. Urban spaces can be re-enhanced and enrich cities. Citizens are connected to urban spaces through their experiences, emotions, or memories. These spirits must be cared for, not ignored... Berlin, which must find its future identity, must find a relationship with its story... Places are the “memory” of cities... through transformation – new in each generation... Urban transformation is legitimate when quality is created...*

Urban spaces are experienced sequentially. urban spaces ... are experienced through movement ... The calligraphy of public spaces often emerges from the meeting of Private and public spaces. They must be given the opportunity... to re-enact urban spaces – enrich cities as a tribute to the “work of art of the city”...

...here the movement is staged across the city at different speeds... Citizens cling to urban spaces because they are with them and are connected by Memories ... they are interconnected, good and bad historical events emotions, and experiences...

- **Dietrich Flicke:** *With the help of the representation of Relief (Figure 2) on “Dietrich Flicke: ... Concept of the Topography of the City - Report of a Workshop” the image of the city is represented significantly more concretely and can be improved. This visual representation can also be considered as the basis of analytical work on the topography of the city.*

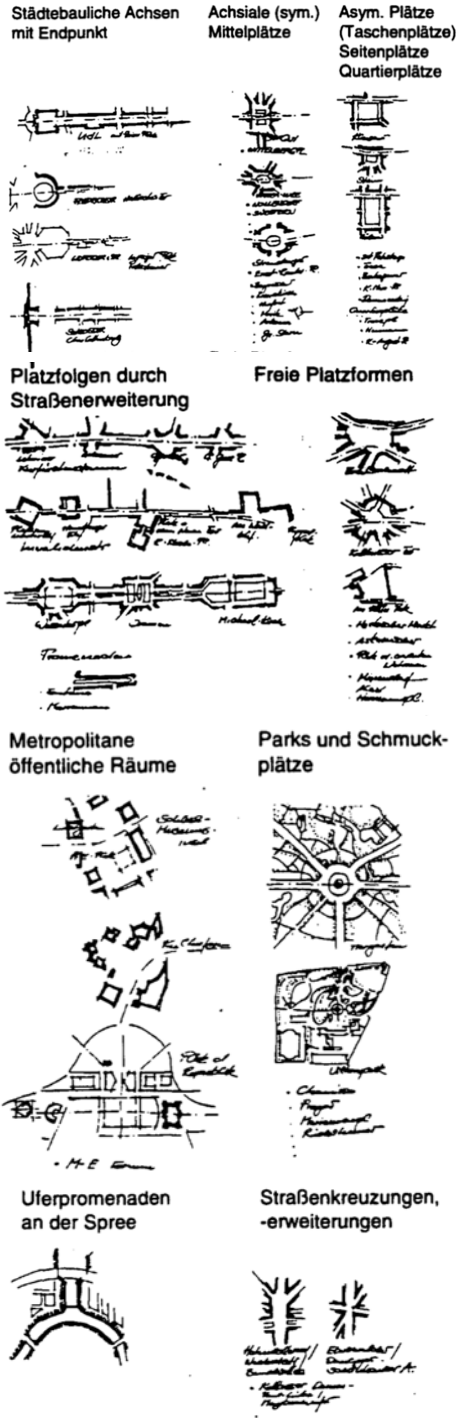


Figure 2. City topography concept (Flicke, 1994)

With the help of relief representation, the image of the city can be presented in a much more understandable way. This visual representation can also be seen as a basis for analyzing the topography of the city. ... An attempt was made to systematize the different square and street forms in the city center. In this way, it can be added as an explanatory element to city-wide land use and urban development planning. Further development of this method could include objectives and areas of action... (Flicke, 1994).

It can be said that the discussions on the change and transformation of cities and urban spaces through the Morphological, Typological structure, and characteristics of the city discussed in this section have also found an important area in practical studies to create the future of the city and its future spaces.

2.2. Approaches that form the Basis for Typologies

In this section, prominent approaches that have effective roles in the creation of typologies in terms of purpose, content, and visual presentation; Kevin Lynch –Urban Image, Gordon Cullen: Townscape, Aldo Rossi: The Architecture of the City, Leon Krier: Krier’s “city within the city”, Christian Norberg-Schulz: Genius Loci, with Rob Krier-Urban Space They are located.

Kevin Lynch: The city; emphasizes that it is a structure that occupies space, just like a building, and that the city is much larger and perceptible over time. It uses the elements that make up the urban image and the method of creating ‘memory maps’ in the perception and evaluation of urban space. He states that every citizen has a relationship with a part of the city, that person’s memories and meanings lie in the image of the city, and that the image of the city in memory depends on the citizens. Urban image elements are listed as roads (streets, pedestrian paths, transit passages, waterways, railways...), borders (linear structured elements), focuses (strategic points), landmarks (references) and regions (homogeneous structures) (Figure 3). Urban design qualities are determined as singularity, simplicity of form, continuity, superiority, openness in combination, changing orientations, visual explanation, participation of movement, time series, name and meaning (Lynch, 1960). In the context of the visual and ‘place’ approach, the concepts of “legibility”, “identity”, “structure” and “meaning” come to the fore (Bilsel, et al., 1999).

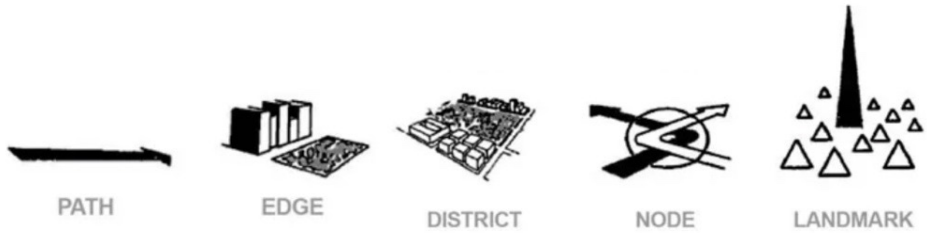


Figure 3. Urban image elements put forward by Lynch (Lynch, 1960).

Gorden Cullen: By revealing his reaction to the shaping of space with the modernist approach with the concept of townscape, he develops the theory of integrated city image based on the serial perception of a series of consecutive spaces (Bilsel et al., 1999). It seems that the experiences and perceptions of the person on the street, such as perception in motion, rapid views, feeling the differences in space arrangement, are important. “Serial appearances” as current and sudden appearances perceived in the street space depending on the structure of the street, knowing where the room is when entering a room, and a person walking around the city knowing where he is in the city; Details such as closures, deviations, protrusions, plane changes, narrowings... give information about here and there as “placement”, and features such as the texture of the city, color, scale, style, character... contribute to the current situation as “meaning”. is evaluated (Figure 4). City squares are classified as secret squares, open and closed squares, public squares, popular squares, municipal squares, university campuses (courtyards), etc. (Cullen, 1961).



Figure 4. Serial views (Cullen, 1961)

Aldo Rossi: In Rossi's article *L'Architettura della Ragione Come Architettura di Tendenza*, written in 1969, the architectural forms used in the Tendenza movement consist of primary geometric forms such as cubes, prisms, cylinders, pyramids, cones... and the form language in architecture is based on these basic rational geometric forms. are reduced and they appear to stand out as typologies to be used in design (Kortan, 1989). City morphology is seen as the definition of the origin (artifact) of the architectural/artistic products that make up the city, and the city is defined as the area (locus) formed by the collective memory (Figure 5). Typology is defined as the necessary forms (archetypes) that make up something. Settlement and structure, continuity of the building and plan, the natural and structured artifact... constitute the physical structure of the city, and it is stated that the spirit of the city is formed by the history of the city, city walls, city regions, and memory. The city is seen as a meaningful form, and roads, squares, monuments, and anonymous residential buildings are defined as parts that help read this meaning (Rossi, 1982; Moneo, 1984; Çevik, 1992-2023). It is seen that building types are filtered from collective memory and create a beginning for new urban structures through analogy (Korkmaz, 2001).

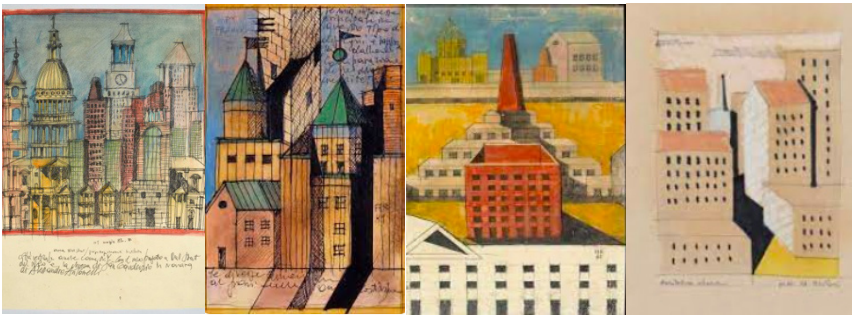


Figure 5. Form language in architecture (Rossi, 1982)

Leon Krier: Krier's "city within the city" idea stated that a city can be built with the establishment of its neighborhoods and that a small or large city can

only be organized by the federation of small or large city neighborhoods into an autonomous neighborhood (Figure 6). It is stated that each neighborhood should have its center, perimeter, and borders, that the streets and squares should display a familiar personality, and should be shaped in size and proportions like those in the most beautiful and best pre-industrial cities. In his works, he reveals a perspective that includes the shape of blocks, streets, and buildings (Krier, 1984; 1990; 2014; Carmona, et al., 2003). Historical typology is recommended as a design method, and it is emphasized that the area, which has been the basic element of urban space throughout history, should benefit from the primary geometric forms of “square, circle and triangle” and their designs (Yıldırım, 1991).

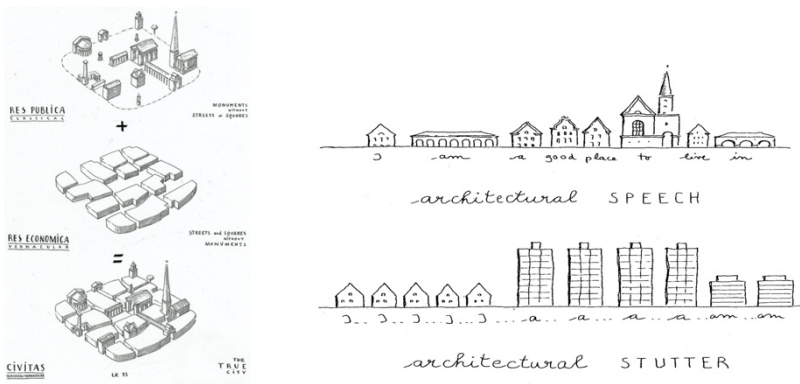


Figure 6. Urban formation based on streets and squares (Krier, 2014)

Christian Norberg-Schulz: It is emphasized that it is important that the place and architectural identity, which is shaped by the structure of the environment, has a local character (Figure 7). The vertical components of existential space are classified as geography or country level, landscape level, city level, avenue/street level, house level. It is stated that the space is increasingly approaching the human scale, is experienced at a changing level, and concentrates on only one level in each specific time period. The concept of urbanity is explained by the existence of density (which is necessary for urbanism at certain optimal values, while it is considered unacceptable at higher values), continuity (functional continuity and easy transitivity in spaces, historical-cultural continuity in social memory) and diversity (mixed space use versus zoning understanding) (Norberg-Schulz, 1980; Çevik, 1991; Bilsel, et al., 1999).



Figure 7. Identity in the built environment (Schulz, 1980)

Rob Krier: Rob Krier states that new cities consist of independent and disconnected buildings, that streets and squares have existed together as complexes throughout the five thousand-year history of urban planning, and that the traditional urban understanding is still valid in today's modern city. It is emphasized that architectural details and urban planning are of equal value and that geometric contours (limiting and shaping the space) and well-resolved façade qualities are important in the effect between streets and squares. Rob Krier is detailed on the definition of urban space (squares and streets), typical characteristic space of urban spaces, typology of urban spaces, architectural impact of urban space, square-street connections, space types and their combinations, morphological archive/collection of urban spaces, theory of the city and its space. studies (Figure 8) (Krier, 1984; 1988; 1991).

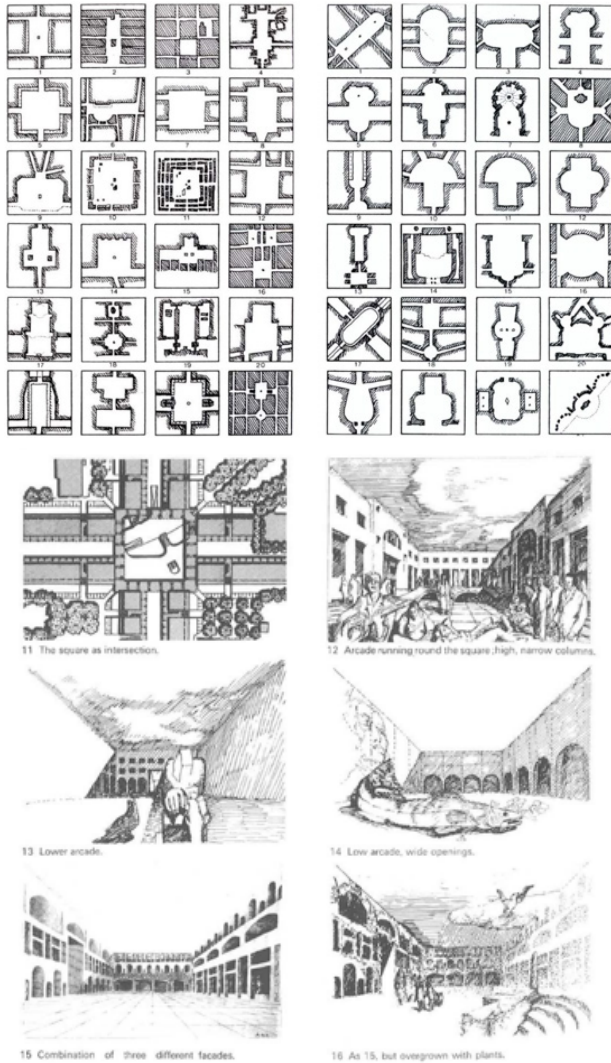


Figure 8. Typology and detail studies in urban space (Krier, 1991)

3. Urban Space Typologies

Urban spaces can be addressed in different ways, with their culture, functions, locations, formations, and organizational positions within the city, and typological approaches are created based on these different perspectives. Urban spaces are generally given as streets, squares, and courtyards. However, parks-gardens and urban forests are also included in these places. In addition, shopping malls containing street and square formations, passages, and bridges

as a continuation of roads can also be considered effective urban spaces in this context. In this section, the subject will be detailed on the streets, squares and courtyards, which are the basic building blocks of the city. In some cases, streets, squares and courtyards may overlap based on structural-spatial similarities and be named accordingly.

3.1. Streets

Streets; They are the channels that relate all the elements of the city, called focuses, regions, landmarks and borders, and users perceive and evaluate the city with their movements on these channels. In this context, they have important roles in the formation of urban identity and identification at different scales. In this subsection, the typological approaches of Mc Jim Cluskey, Sonay Çevik, Bozok Özerdim, and Stephen Marshall will be given.

Mc Jim Cluskey: In the study titled “Road Form and Townscape”, it is stated that the first stages in the perception of the environment occur depending on the road, places are connected by roads, roads determine movement, places determine pausing and resting. It is emphasized that different road networks create spaces with different characters; Roads are classified as serial, radial, grid... Straight, parallel roads give a strong-dynamic effect, curvilinear roads provide changing perspectives, different road widths reflect the separation of public-private spaces, curved service roads, and dead-end roads provide Benefits such as safety and road-dependent square solutions are mentioned (Figure 9) (Cluskey, 1971).

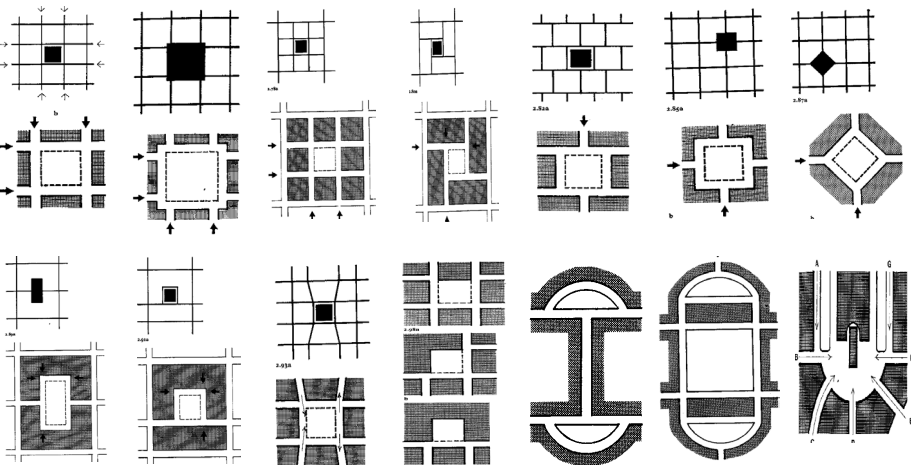


Figure 9. Examples of different squares connected to road axes (Cluskey, 1971)

Bozok Özerdim: A method proposal is being worked on, which visually examines the environmental image of the city as a whole, utilizes the urban view - townscape - analysis that remains in the minds of the citizens and visitors, and focuses on the visual analysis of urban spaces (Figure 10). In this context, the physical space elements that form the urban appearance and environmental image are revealed, and as cities grow and change their characters, information is obtained on which physical elements are worth protecting and how they can be protected. It is seen that visual analysis of urban spaces and achieving correct synthesis are important in terms of preserving the character of the urban environment. Roads and road-related spaces, which are among Kevin Lynch's urban image elements, are discussed. Side surface features that affect street views and provide spatial richness; focal points, undulations, deviations, concave spaces, convex spaces, adaptation, invitation, dead end, Y-trap, key passage, frame, sculpture (sculpture), structure and wings (Özerdim, 1983).

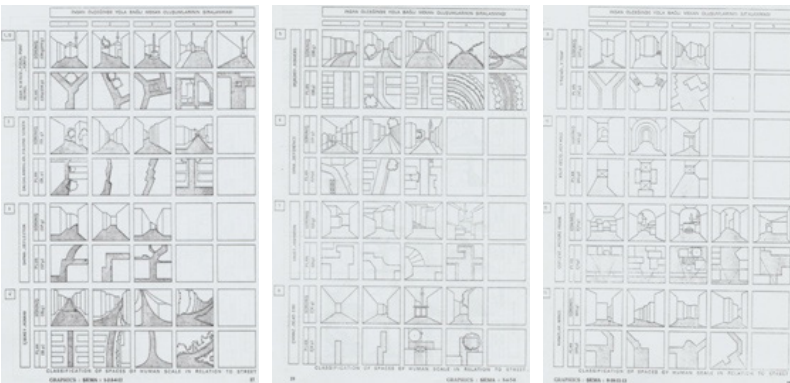


Figure 10. Road-dependent space formations at human scale (Özerdim, 1983)

Sonay Çevik: In the first stage of the studies, a typology was created based on the formation of street types. In his study titled “An Example of a Typological Approach to Space Formation on Streets at the Scale of Trabzon”, streets were classified into three main groups: straight, curved and stairs streets. Following this, it is also diversified according to continuity and discontinuity characteristics. In the second step, an overall typological approach is created by investigating the formation principles that create street types. The study is detailed in the context of the general structure analysis of the types and the physical space elements-components in the types. The study within the scope of Trabzon streets focuses on the social, structural-spatial qualities of the urban part-residential area. Streets are typologically defined in terms of physical-architectural and aesthetic

elements; They are classified as straight streets (straight and almost straight), L type streets, crooked streets (curved and broken streets), and streets with stairs (Çevik, 1984; 1991). Streets are examined in three main groups and six groups according to their continuity and discontinuity characteristics. Physical space elements and features of the street space are discussed as blind walls, ground slope and stairs (serial views), overhangs, doors, and their locations, use of the fountain element, material-texture-color, and green (Çevik, 1991).

General structures of the types; The streets belonging to each street group are tabulated in a way that gives perspective, plan, entrance and exit features, allowing comparison and easy viewing (Figure 11).

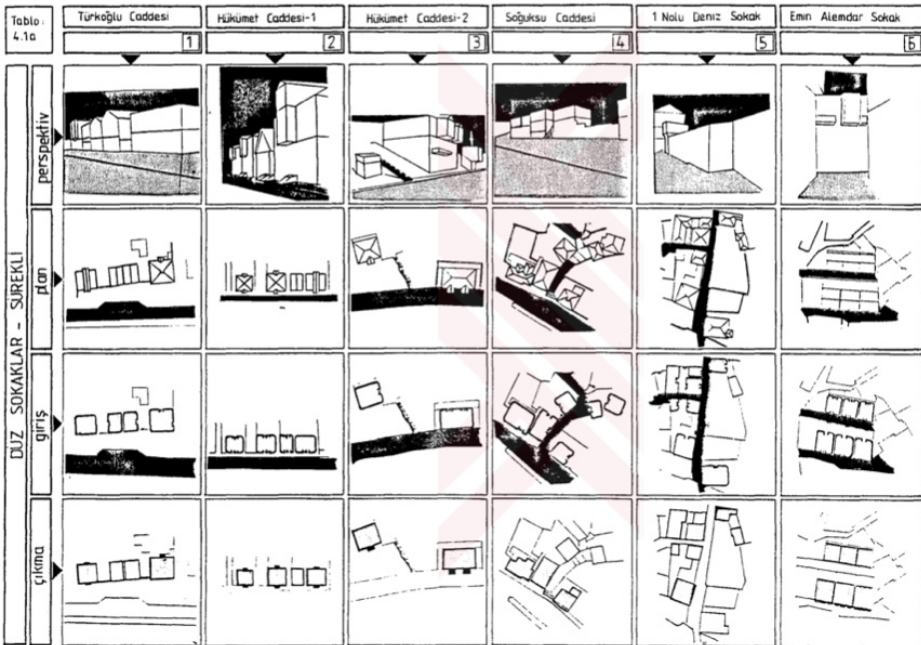


Figure 11. Typologies of streets based on their formal structures (Çevik, 1991)

In the analysis of the physical environment according to its presentation possibilities and presentation styles, action and action areas and relevant physical-structural spatial environmental regions and elements; relations between the structured environment and the social environment, action zones (house, garden, street, square) and actions; They are listed as residential-house zone, garden zone, doorstep zone, street zone, square zone, religious buildings zone-mosque, shopping zone and rest-gathering zone (Figure 12) (Çevik, 1991).

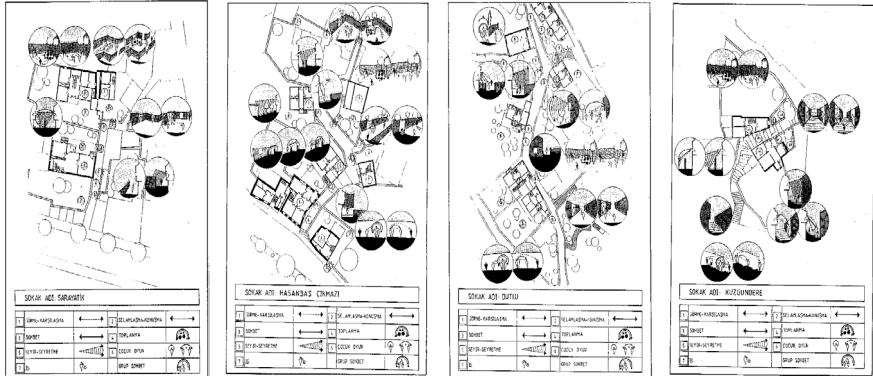


Figure 12. Action points and actions in street spaces (Çevik, 1991)

Stephen Marshall: If a building consists of elements such as columns and beams, in a city it consists of elements such as roads and streets, and in this context, the relationship between urban structure and building by structure is discussed. Between building structure and street structure, there are traditional structures (with streets that have both movement and public space, marketplace functions), modernist structures (streets used for movement instead of multi-functional streets), and neo-traditional structures (traditional street types such as trams and pedestrian paths). It is stated that there are different formats. With the arterial concept, it is stated that every road should be connected to a road and this can be applied at any scale. All high-status roads form an adjacent system and lower-level roads do not necessarily have to be adjacent (Figure 13) (Marshall, 2005: 2006).

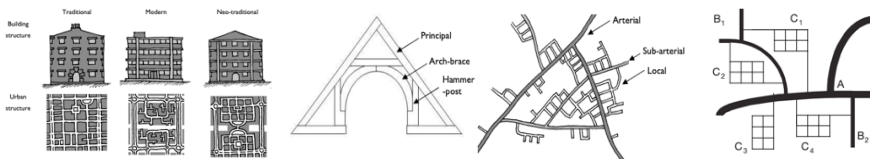


Figure 13. Three types and the arterial concept between building structure and urban structure (Marshall, 2006; 2005)

According to Marshall typology, it is stated that urban order and configuration are important for urban quality, and street typology; It is revealed depending on the street configuration, composition, and complexity (Gil, et al., 2012).

3.2. Squares

Squares; They are vitality, meeting, accumulation points, and focal formations that connect other elements of the city, called streets, centers, regions,

landmarks, and borders. Small-sized ones are called squares. Squares, like streets, have effective roles in the formation of urban identity and identification at different scales. In this subsection, the typological approaches of Camillo Sitte, Edmund N. Bacon, Paul Zucker, Paolo Favole, Hans-Joachim Aminde, Hideyuki Sakamoto, Carolyn Francis, Clare Cooper Marcus, and Rob Rusell, Havva Özdoğan will be given.

Camillo Sitte: It is seen that Sitte stood out as a pioneer in urban design issues with his work titled “City Planning According to Artistic Principles” dated 1889. However, Sitte’s user-oriented approaches to public space appear to have developed after the 1960s (Pezzica, et al., 2016). He states that there are two types of squares at the site: deep and wide, depending on the viewer’s position and viewing direction (Figure 14). The direction of view here is determined depending on the observer’s stance against the dominant structure in the square (Sitte, 1965; Rader, 2009). According to Sitte, based on ideal morphological-aesthetic criteria, squares should be closed and protected areas, their centers should be free to ensure entry and exit lines of sight, monuments should be placed on the periphery. They should have surprises with narrow-crooked streets, architectural facades should be concave and attractive, squares should be connected to each other. and it is generally emphasized that their relationship with the urban fabric is important (Levy, 2012; Moughtin, 1999).

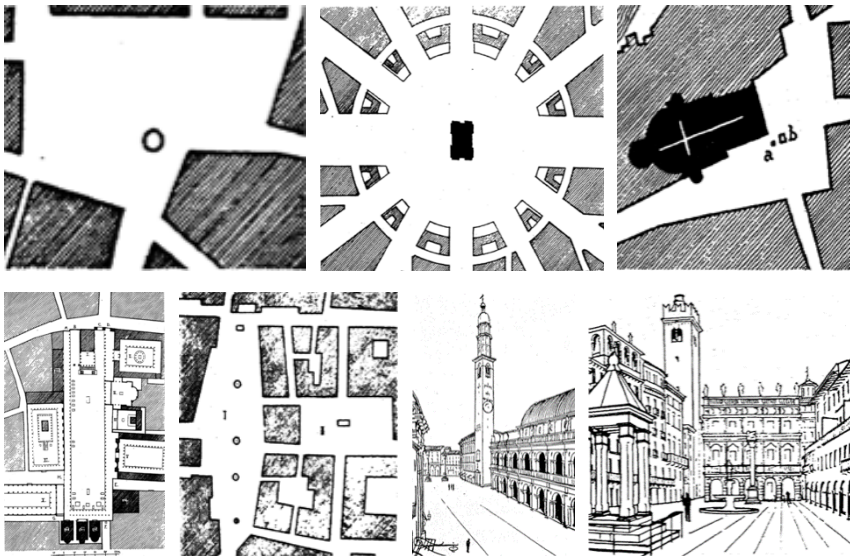


Figure 14. Square typologies in urban spaces (Sitte, 1965)

Edmund N. Bacon: In his work titled *The Design of Cities*, meeting the sky, meeting the ground (allows participants to scale buildings and relate their sizes to each other), points in space (use to create tension and relief between elements), static planes (to increase the effect of dramatic/monumental structures), It focuses on space qualities such as in-depth design (formation of scale with depth), ascent and descent (level differences), convexity and concavity (connecting and dividing function) and human relationship (the urban built form reflects the human scale and establishes a connection between the built environment and people). (Figure 15) (Bacon, 1992).

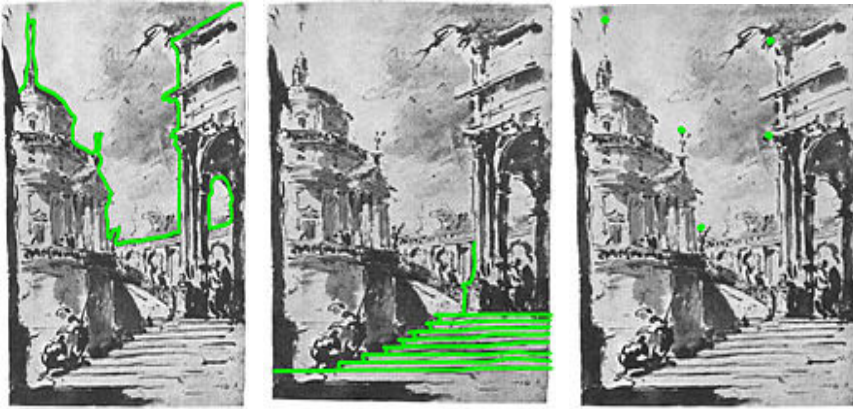


Figure 15. City participation flow process (Bacon, 1992)

Paul Zucker: Squares can be classified according to their characteristics: closed square (usually having a geometric shape such as a square, circle, or triangle, bounded by the mass or facade of surrounding buildings), dominant square (dominant plaza, having a dominant feature that becomes the focal point of the area, with its main view). dedicated to a large building or statue of historical or cultural value), core plaza (highlighting the feature in the middle that acts as the ‘core’ of the plaza), grouped plaza (comprising several open spaces incorporated into one area, the relationship between each square, the road , a structure that can be formed by physical connections such as a street or a bazaar and consists of three or more monumental or historical adjacent buildings) and amorphous square (a structure that forms organically and does not have any specific elements such as clear edges or borders) (Figure 16) (Zucker, 1959; Stefania, et al., 2020). These typologies are based on the view that public space archetypes should be based on form, not function and that more than one form typology can be found in a single space (Rader, 2009).



Figure 16. Different square typologies (Zucker, 1959; Rader, 2009)

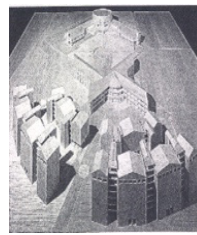
Paolo Favole: In his work “Today’s Squares”, he draws attention to the square space, its historical-present meaning, its place in history, especially its architectural value, and details the subject under the headings of new squares, new scenarios, new arrangements, new appearances, historical squares, monumental squares... and exemplifies (Figure 17) (Favole, 1995; Çevik, 1996; Özdoğan, 2002).



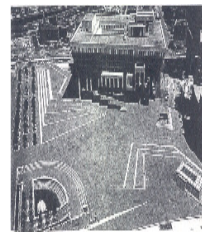
Shiohiko Takahashi
Hafenzplatz-Yokohama



Olympic Plaza, Calgary



Guido Canella, Piazza
del Municipio-Pioltello



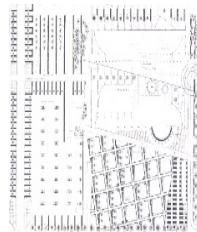
Kalmann, McKinnel
Boston City Hall Plaza,
Boston



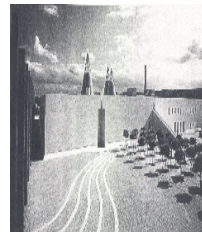
Arata Isozaki, Art
Tower Mito, Ibaragi



Norman Foster, Ansicht
des Platzes



Peter Walker, Hotel
Kempinski square,,
München



Gustav Peichl, Kunst-
und Ausstellungshalle,
Bonn

Figure 17. Examples of current squares (Favole, 1995; Çevik, 1996).

Hans-Joachim Aminde: Square forms are listed depending on the search for answers to characteristic square forms. In this context, squares; closed square, semi-open square, open square, dominant square, built square/structured square, central square/square whose centrality is emphasized, street square,

grouped/segmented square - spaces flowing into each other in the spatial order formed by the building masses located within certain geometric rules and the city ground. spaces are classified as fragmented squares/squares consisting of different elements (individual architectural elements, pieces, space displays) (Figure 18). The functions of squares today are; They are determined as central square-market square, cultural square, city/part space in residential-residence areas, urban part square in mixed and office areas, neighborhood (residence-residential)/neighborhood square, memorial square, station square and traffic squares (Aminde, 1994). ; Çevik, 1996).

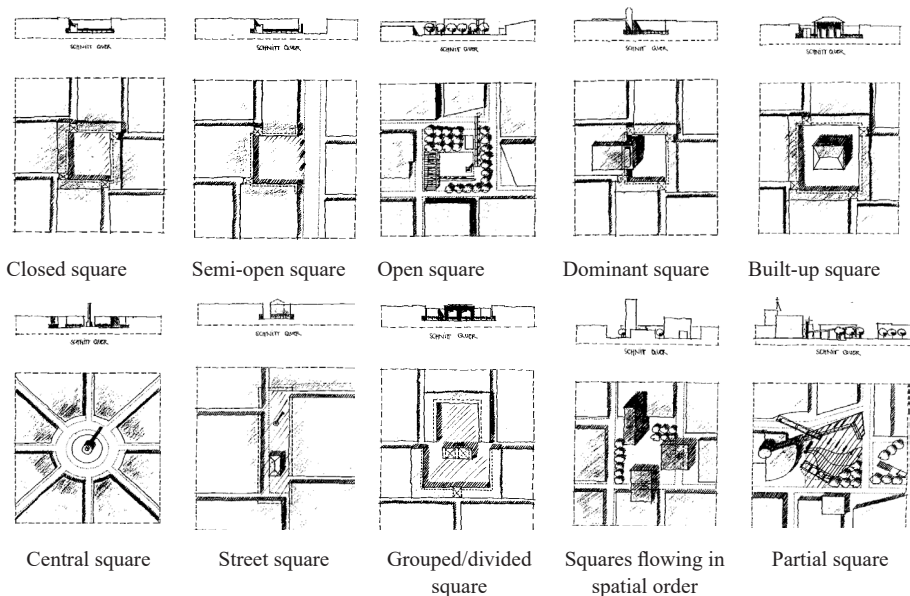


Figure 18. Characteristic square forms (Aminde, 1994).

Hideyuki Sakamoto: In his work titled “Foundations of the Design of City Squares”. Sakamoto provides information about the shaping possibilities of squares and their space quality. In the study it mentions studies in which square types are evaluated according to form (closed square, dominant square, nuclear/atomic square, grouped square, amorphous square) and function (entrance square, structured squares, squares surrounded by buildings, monumental squares, city gate squares). The trio of ground surface, wall surface, and body surface as square components; It deals with the trio of centrality, directionality, and closedness, and examines form formation at different scales. In this context, space components such as ground (measurement, ratio, shape of the ground, topography), wall (measurement, ratio, shape, type of closure), body (ratio and

dimensions, type, location and formation) and centrality (center), directivity (direction, Space qualities such as direction), closedness (region, area) are examined. They are examined in a certain systematic way, focusing on the formation language in reaching the final product, starting from the form (Figure 19) (Sakamoto, 1994; Çevik, 1996).

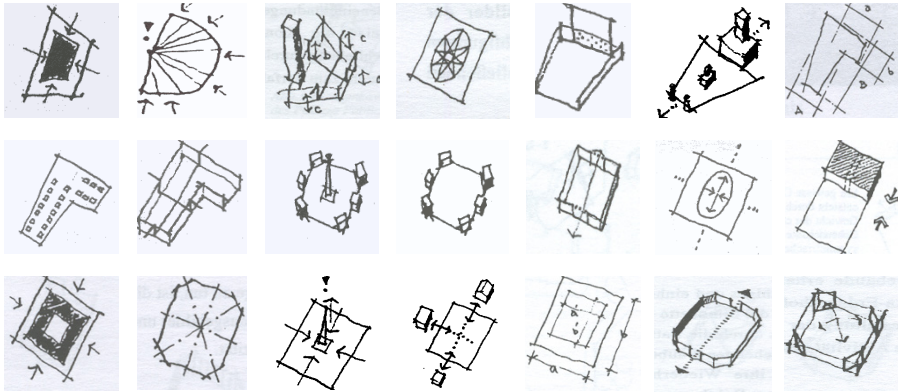


Figure 19. Square analysis techniques (Sakamoto, 1994).

Carolyn Francis, Clare Cooper Marcus and Rob Rusell: Squares in the city center are street squares (areas close to the street, adjacent to the sidewalk used for short-term sitting, waiting and viewing), institutional foyers (privately owned areas open to public use), urban oases (more often Areas partially isolated from the street in the form of planted parks and gardens), transit foyers (areas that facilitate entry and exit to public transportation areas), street squares - pedestrian and transit shopping centers (especially as in traditional city centers, where the street is closed to traffic and where people stroll, shop and gather). turning into a square) and large public spaces (the squares closest to the town square and city square image in traditional periods) (Figure 20) (Francis, et al., 1998; Rader, 2009).

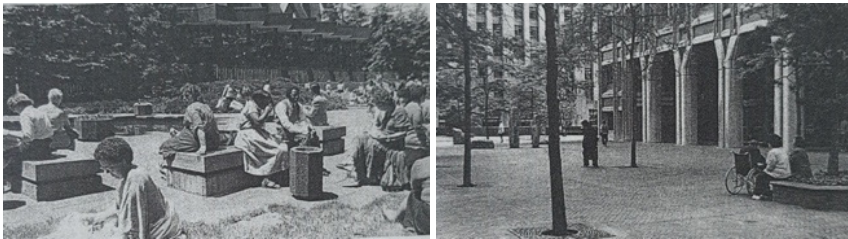


Figure 20. Examples of different types of squares from the city center (Francis, et al., 1998)

Havva Özdoğan: The reflections of the settlement culture and outdoor space understanding, which emerged depending on the social lifestyle in traditional settlement areas in Anatolia, on the formation of squares are discussed in the study titled “Squares in Turkey”. Square-road axis transitions are typified as squares developing along the road axis, squares developing on one side of the road axis, squares developing on both sides of the road axis, and squares formed by shifting on the road axis (Figure 21) (Kara, 1995).

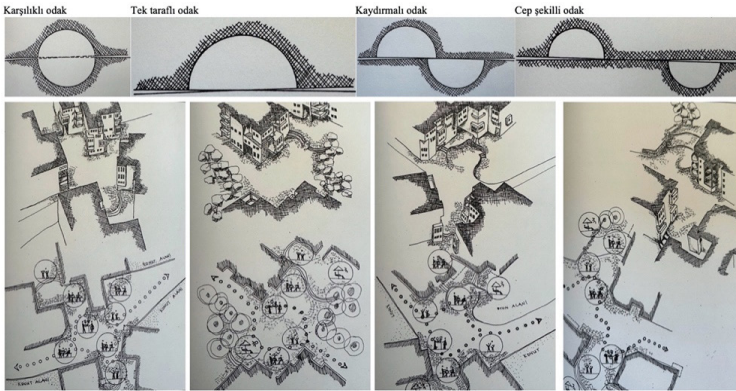


Figure 21. Classification and architectural representations of squares based on road axis crossings (Kara, 1995)

Squares according to the regions they are located in; city/central squares, neighborhood/residential area squares, residential area squares, and urban courtyards, according to their size; They are classified as squares, squares, and accumulation/event spaces. Squares in terms of their impact on the ongoing movement; They are considered as squares that collect, direct, meet, terminate and flow into each other (Figure 22) (Özdoğan, 2002; Çevik and Özdoğan, 2003).

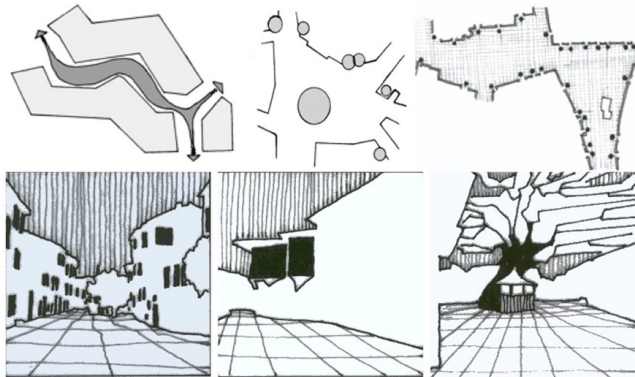


Figure 22. Examples of squares in different locations and scales (Özdoğan, 2002).

It can also be typified under the headings of the central square, pier square, administrative square, neighborhood/residential square-square, and explanations are given under the titles of action-point square and lined square, based on their related positions (Çevik, et al., 1999; Çevik, et al., 1992).

City squares are classified as downtown, courthouse square, historic square, meeting place, street corner, and food square (Moughtin, 1992; Rader, 2009). Unlike natural formations in city parks, squares differ in that they are connected to the city's culture, history, and the heart of its memory (Levy, 2012).

3.3. Courtyard Typologies

They are small-sized meeting, activity, and accumulation places with single or few functions, largely surrounded by buildings within the city. Urban courtyards can be observed in the urban texture as single, multiple, spread to different elevations, closed, or open positions. In this section, Erdiñç Yoldaş's typological approach will be given.

Erdiñç Yoldaş: In his study, Yoldaş divided the courtyards according to their number (single courtyards, multiple courtyards), according to their effective surface quality (water courtyards, grass courtyards), according to their general formation (street courtyards, nested courtyards) and according to their formations depending on elevation (collapsed courtyards and raised courtyards). Urban courtyard examples are classified as physical qualities; Analyses were made under the headings of urban location, form, closure, entrances-passages, size ratio, support spaces, planes, and vistas (Figure 23; Figure 24) (Yoldaş, 2010).

A) According to their numbers

1. Single courtyards (A1)
2. Multiple courtyards (A2)



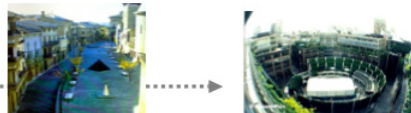
B) According to effective surface qualities

1. Water courtyards (B1)
2. Grass courtyards (B2)



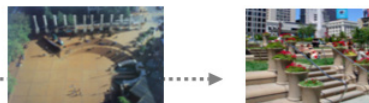
C. According to their general form

1. Street courtyards (C1)
2. Nested courtyards (C2)



D) According to their formation due to coding

1. Collapsed courtyards (D1)
2. Raised yard (D2)



(They are classified according to varying areal spread and elevation degrees.)

| COURTYARDS ACCORDING TO THEIR NUMBER | | COURTYARDS ACCORDING TO THEIR GENERAL SHAPE | |
|---|---------------------|---|---------------------|
| Single Courtyards | Multiple Courtyards | Street Courtyards | Nested Courtyards |
| | | | |
| COURTYARDS ACCORDING TO THEIR EFFECTIVE SURFACE QUALITY | | COURTYARDS ACCORDING TO THEIR SHAPE DUE TO LEVELING | |
| Water Courtyards | Grass Courtyards | Collapsed Courtyards | Elevated Courtyards |
| | | | |

Figure 23. Courtyard typologies depending on their number, shape, effective surface quality, and elevation (Yoldaş, 2010)

| Green items | Monumental/artistic items | Other items |
|---|---|---|
| <p>ETKİLİ MEKAN ÖĞELERİ ANALİZLERİ Yeşil Ögeler</p> | <p>ETKİLİ MEKAN ÖĞELERİ ANALİZLERİ Anıtsal/Sanatıl Ögeler</p> | <p>ETKİLİ MEKAN ÖĞELERİ ANALİZLERİ Diğer Ögeler</p> |

Figure 24. Physical quality analysis (Yoldaş, 2010)

4. Conclusions and Recommendations

- Differentiating definitions of urban spaces can be viewed from different perspectives. However, the explanations and analyzes given in the study from different perspectives show that urban space is a multifaceted phenomenon and is a key phenomenon for urban life and its inhabitants that can still be talked about and examined. In this key phenomenon, streets, squares and

courtyards are the building blocks of the city and are open to study, discussion and evaluation.

- Streets and squares (considering that courtyards are also included under the heading of squares); Among the urban elements called roads, centers, regions, landmarks and borders, they are the most effective elements that relate all the elements of the city and enable users to move, perceive and evaluate the city on these elements. In this context, they have important roles in the formation of urban identity and identification at different scales.

- Typology and morphology studies, which can help in understanding urban spaces and cities, reaching their ideal definitions, formations, contents, and their development-change-evaluation, have an important place in the field of research, education, and practice.

- Through the definition and meanings of urban spaces, spatial presentations formed/exhibited depending on time and place in the creation of cities and urban spaces, continuity, historical continuity, ways of realizing continuity, etc., it finds a field of use/benefit ranging from research to applied studies, and provides a basis for these studies. Conducting typology-morphology studies will bring significant benefits in terms of theory and practice.

- Urban space typologies in the sampling of streets, squares, and courtyards are seen as current situations when the importance of typological studies and their usage environments and possibilities are considered.

- When looking at the application areas of Type and Typology and the current headings and sub-topics that can be observed in these areas, it can be seen that there are varieties based on similarities and differences. Within this scope, the approaches that form the basis for typologies that stand out with their effective roles in terms of purpose, content, and visual presentation also maintain their current status.

- In the creation of the city and urban spaces through the definition and meanings of urban spaces; Typology-morphology studies constitute important bases for these studies, which have a range of uses/benefits ranging from research to applied studies. In this context, authorized institutions and institutional formations carry out legally binding studies at different scales that are important guides in the process leading to implementation and concretization on issues related to urban space; Design guides and determinants appear to be working effectively. Authorized and responsible institutions, state administrations founded on volunteerism, municipalities, associations, etc. carry out effective work in the creation and shaping of urban spaces and the management of urban

developments. It is seen that these studies, which are responded to in many countries and cities, are important with their perspective on the issues, the alternatives, guidance they put forward and the follow-up of the continuation of the study. It is important to study these studies for different urban scales and local locations. In this context, the importance of typology studies is once again seen more strongly.

- In reaching type/typological views and morphological views and analyses, the unity and relationships of both concepts/methods are also an important critical perspective and are important to study.

- It is seen that the change and transformation of cities and urban spaces, through the morphological and typological structure and characteristics of the city, is an important field of study in terms of creating the future of cities and their future spaces. Vision creation studies regarding cities, urban spaces and urban life are among the vital research and application areas.

- The fact that the typology studies given in the study can form the basis for new studies will take its benefits one step further.

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CHAPTER IV

A TYPOLOGY FOR ARCHITECTURAL CONTINUIITY OF THE CITY WALLS OF ISTANBUL, GOLDEN HORN

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1. Introduction

Architecture consists of a spatial narrative and finds its soul as time passes, as it takes place in experiences. Architecture takes a place in urban memory through both spatial and temporal continuity. The continuities that constitute the memory of the city are created both in a physical form and in a non-physical comprehension, in coordination and simultaneity with abstract place and concrete space. In this context, continuities should be understood as a spatial principle that provides meaningful experiences to our presence in the built environment.

The land walls that defined the urban periphery of Istanbul until the 1950s have survived to the present day due to their multi-layered construction techniques. On the other hand, the sea walls have been partially destroyed due to various factors throughout the ages. In addition to the individual destructions, the main source of these destructions is the construction activities that took place, especially on the Golden Horn section of the sea walls. Accordingly, very few parts of the Golden Horn walls survive today, the existing elements of the walls are used as foundations or supports by contemporary buildings, and building blocks are constructed by following the traces of the partially or completely destroyed walls. Therefore, the Golden Horn walls, which have been destroyed throughout history, continue to exist establishing a new architectural and urban context, morphologically and symbolically.

1.1. Problem and Aim

As defense structures, city walls have functioned to provide security to cities throughout the ages. City walls underwent structural changes with the transformation of firearms technology and started to lose their main function with the Industrial Revolution. In this process, city walls started to transform in terms of their defensive and protective attributes shifting towards the new urban context of the epoch. This study defines the new contexts that city walls have created through the morphological integrity they have established with the urban fabric despite the loss of their primary function, and the characteristics they have adopted to achieve their continuity at the architectural and urban scale.

According to the Athens Treaty, Modernism's approach to monuments is to detach them from the context in which they develop within urban space-place and everyday life experience; as article 68 states that '*settlement centers may be relocated and road patterns may be shifted, which may be detrimental to historical monuments*'; article 69 states that '*unhealthy settlements around historical monuments must be cleared*'; and article 70 states that '*irregular settlements surrounding historical monuments shall be demolished and urban open spaces shall be increased.*' (CIAM, 1933).

According to Venice Charter (1964), the continuity of monuments can be ensured by exposing them to the functional changes and spatial transformations required by the epoch as article 5 states that '*the conservation of monuments can be facilitated by their use for a useful social purpose*'. The Declaration of Amsterdam (1975) emphasizes the potential for achieving the continuity of monuments through functional changes and spatial transformations stating that, '*without neglecting to respect the buildings and their character, they should be kept alive by giving them functions that meet the requirements of contemporary life*', underlining the necessity of adapting to the spatial context of the period for the conservation of monuments. Finally, ICOMOS¹ Turkey Declaration on the Conservation of Architectural Heritage (2013) supports the continuity of the monuments through adapting them to the contemporary spatial context by stating that '*architectural heritage, one of the most important components of cultural heritage, should be integrated with contemporary life*'. In this manner, a typology of continuity is proposed by exemplifying the functional changes, uses and spatial transformations that ensure the continuity of the Golden Horn

¹ International Council on Monuments and Sites

walls. In line with the ICOFORT² objectives of 2016, typology of continuity aims to raise the level of awareness to understand the city walls not only as stand-alone structures, but also in a culturally holistic context with the settlements and communities they defended in the past.

1.2. Material and Method

Golden Horn walls throughout history and their current spatial configurations and uses within the urban layout are exemplified along the section between Fener and Ayvansaray. The research method is based on a typological classification that exemplifies the spatial configurations and uses of the city walls at architectural and urban scale. In line with the research context, the traces indicating the continuity of the city walls are read through Pervitich maps. Although those maps were prepared for reinsurance purposes, they contain resourceful information on the building stock and urban settings of the early-mid 20th century helping architectural and urban history research. Therefore, Pervitich maps reflect the spatial configurations between city walls, buildings and buildings blocks, also provide information on the past uses of the walls. The rest of the research material indicating current uses and configurations of the city walls were obtained from the fieldwork conducted in 2018.

1.3. Importance

Numerous studies on the historic city walls of Istanbul have contributed to the literature. These studies largely focus on conservation of historic building and sites, architectural history, urban history, and the use of public space. Among these studies, Semiz (2014), Bilgiç (2017), Sarımeşe (2018) examine the physical layout and some of the past and current spatial uses of the Golden Horn city walls. In particular, both Semiz (2014) and Bilgiç (2017) criticize the uses of city walls other than their primary functions such as protection and aesthetics. In opposition to hypothesis of this research which is based on strengthening the continuity of the historic city walls with current uses and spatial configurations, they claim that those uses pose a threat for the conservation of city walls. Akyol (2011) on the other hand, exemplifies the place-making possibilities of city walls, pointing out that the uses of city walls other than protection and aesthetics and the spatial configurations that provide place-making possibilities for urban public spaces have ensured the conservation and continuity of the city walls through the ages, thus providing a basis for the hypothesis of this research.

2 International Scientific Committee on Fortifications and Military Heritage

2. A Brief History of the City Walls of Istanbul

There are three stages in the development of the city walls of Istanbul in parallel with the development of the city (Millingen, 1899; Berger, 2000; Eyice, 2006) (Figure 1). The first was built in 196 during the reign of Septimius Severus, when the city came under the sovereignty of the Roman Empire. During the reign of Constantine I, as the city became the capital, the city walls were shifted on the axis of Unkapanı-Saraçhane-Yenikapı in 306. During the reign of Theodosius II, the city began to expand beyond its borders, and from 408 onwards, the city walls were rebuilt on its present location to fortify both the land and sea fronts of the city.³

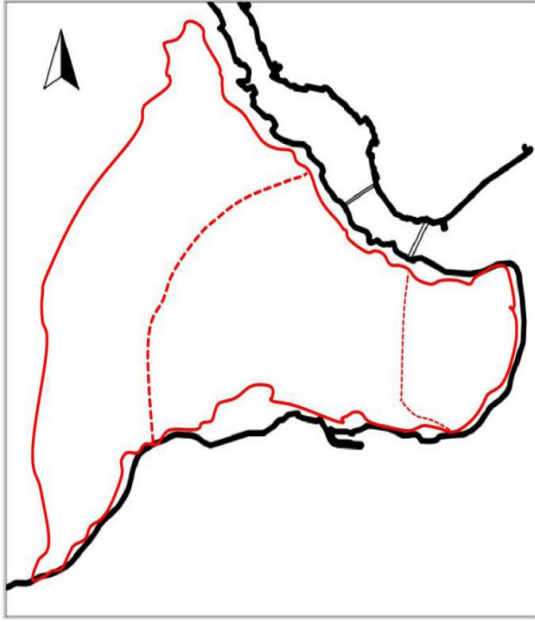


Figure 1. Developments of the city walls of Istanbul.

The land walls extend for approximately 5700 meters between Altınkapı (Porta Aurea) and Edirnekapı (Charisius); with 96 towers and 7 gates at variable intervals (70-75 meters). The body of the land walls covers 4.8 meters wide and 11 meters high and was built using 5 rows of brick beams and stone (Ahunbay, 2007). Approximately 15 meters in front of the main wall, a second wall with a lower height and narrower cross-section, and an 18-meter wide moat in front of it form a three-tiered fortification (Ahunbay, 2007).

³ Kuban'a (1996) göre 410–442 yılları arasında tamamlanmıştır.

The sea walls show a different character on the Marmara Sea and Golden Horn sides. The construction of the walls of Marmara was started in 439 by Theodosius II. The walls of Marmara extend for about 8500 meters between the land walls and the Golden Horn walls with 101 towers and 36 gates at variable intervals (Müller-Wiener, 2001). The construction of the Golden Horn walls was also initiated by Theodosius II in 439. The Golden Horn walls extend for approximately 5200 meters between Ayvansaray (Blachernae) and Yalıköşkü (Eugenius) with 20 gates on the walls, while 172 towers at varying intervals are attached to the outer face of the walls (Müller-Wiener, 2001). The body of the walls was built with a cross-section ranging between 2-3 meters and 6-7 rows of brick beams and stones. Between 713-715, it was fortified against Umayyad attacks; it was repaired in the 9th and 13th centuries (Müller-Wiener, 2001).

As in the rest of the world, the primary function of the city walls surrounding Istanbul has significantly decreased as a result of mass urbanization and technological development since the Industrial Revolution. The land walls, which bounded the city periphery of Istanbul until the 1950s, have survived to the present day due to their multi-layered construction technique. On the other hand, the sea walls were destroyed during this period due to various factors. The most important of these factors is the destruction of some parts of the Marmara walls during the reign of Sultan Abdulaziz due to the railroad constructions. Another important factor seems to be the construction activities that prioritize strengthening the urban transportation infrastructure around the Golden Horn walls, in addition to the individual destructions that took place throughout the ages. As a result, very few parts of the Golden Horn walls have survived to the present day.

2.1. Spatial Features of the Golden Horn Walls

The Golden Horn, a sheltered natural harbor, has been very active in the socio-economic life of Istanbul throughout the ages. With a topography narrow enough to provide security but wide enough to ensure effective logistical operations, the shores of the Golden Horn stand out as the main actor in the urban geography of Istanbul. This geographical composition created employment opportunities specialized in shipbuilding, maritime trade and fishing in the settlement, which was called Byzantion before it became the Roman capital. During these periods, strong ties in daily life with Beşiktaş, once the center of the slave trade, and Tarabya, the center of health tourism, supported port mobility and logistics activities on the Golden Horn.

The gates on the Golden Horn walls are much closer to each other and more numerous than the rest of the city walls due to catalyzing port activities as well as its relatively more sheltered geographical location and its more protected structure against attacks. However in the 8th century, the Golden Horn was transformed into a more protected harbor with a huge chain stretched between Galata and Eminönü. Thus, the Golden Horn walls, which were structurally much more vulnerable than the land walls, are completely saved from being exposed to direct military attacks, also logistical mobility can be ensured uninterruptedly.

The locations of the gates on the Golden Horn walls and their distances from each other are determined by; (i) the suitability of the topography for port operations; (ii) the location of maritime logistics units; (iii) the public density of entrances and exits to the city. So, the gates on the Golden Horn walls vary between 100 meters and 700 meters. From the day they were built until the day they were demolished, the gates on the Golden Horn walls remained in the same number and in the same position, with exceptions. These exceptions arise from the functional and spatial requirements of the epoch. The presence of a large number of gates on the walls of the Golden Horn ensures a high level of internal and external interaction for the city, thanks to the many large and small harbors on these shores. When the gates open into the city, they act as public squares and intersections that connect numerous road networks. In this context, the city walls form a spatial pattern that determines the dynamics of the city's social and economic life.

In addition, the development of residential neighborhoods adjacent to the city walls along the shores of the Golden Horn in the past is well-known (Erkal, 2001). Although these developments were often banned due to their contribution to the spread of catastrophic fires, they could not be controlled due to insufficient resources and the dynamism of daily life around the harbors. Moreover, the fortification towers adjacent to the city walls were rented out to bidders from the public and used as cellars or warehouses for various purposes. Mühimme books dated 1559 report that residential and commercial buildings adjacent to the city walls were forbidden, the previous ones were demolished, but new ones were built in their place over time (Han, 2016). It is also noted that multi-storey buildings built adjacent to the inner face of the city walls and exceeding the height of the city walls contributed to the spread of catastrophic fires originating from the port and production facilities outside the city walls (Han, 2016). In this context, criteria for land use around the city walls have also been determined in the past. These criteria include (i) a 3-meter setback

distance in front of the city wall; (ii) the use of this setback distance as a public road; (iii) the houses adjacent to the road should be built lower than the city wall with a maximum two storeys of height; (iv) the levels of both storeys should be aligned with the levels of neighboring buildings, no overhangs, bay windows or eaves; (v) commercial buildings should not have sofas on the facade facing the road and should not occupy the road; (vi) forestry products should not be stacked around the city wall and flammable materials should not be stored. Despite all these precautions, the walls of the Golden Horn have been subjected to authorized and unauthorized construction activities throughout the ages and have been partially or completely demolished. During the Republican period, the area between the walls and shores of Golden Horn was cleared of buildings as a result of demolitions between 1950-1960 and between 1980-1990, and the motorized vehicle traffic capacity of the road networks was increased. However, buildings built on or adjacent to the city walls have survived to the present day and the city walls have been integrated with these buildings over time.

3. Context: Continuity

Architecture is an interaction of time and space in which everyday life is staged, preserved and transformed. Architectural continuity discusses this interaction through recurring materials and transformed spatial arrangements (Rossi, 1984). Architectural continuity manifests itself to the epoch; through the construction of space in the physical dimension, and through the sense of place in the non-physical dimension. In this context, architectural continuity is represented in the possible formal combinations of temporal relations between the past and the present; in the perceived form and order, in the experiences that make a place in identity and memory.

Architectural continuity emerges in the temporal relations that constitute the space and place context of the city, in a city's weaving between past-present-future (Kostof, 1992). While a city's weaving contain unique attributes that include the technology and everyday life practices of a period, they are embedded in the history and spatial arrangements of the city. In this sense, the multi-layered and cumulative constitution of spaces extending from the past to the present can only be recognized with a careful gaze; and can only be understood with a conscious comprehension.

Architectural continuity offers an understanding and analysis of the relationships between the physical form of the city and its non-physical experiences in space and place, thus providing a supportive model for the

architectural design of historic buildings and sites. Continuity as a balanced decision-making module between conservation and renovation, between the past and the future, is the source of the archaeology of space and place, experiences and memories, revealing the historical and traditional components of the city.

4. Typology of Continuity of the Golden Horn Walls

The city walls of the Golden Horn have adapted to new architectural and urban contexts required by the epoch, going beyond their primary function of providing protection and security, and despite the destruction they have suffered throughout the ages, the city walls continue to exist by gaining a new identity thanks to this adaptation (Figure 2). The spatial configurations of this adaptation ensure the continuity of the Golden Horn walls determining a typology of architectural continuity.

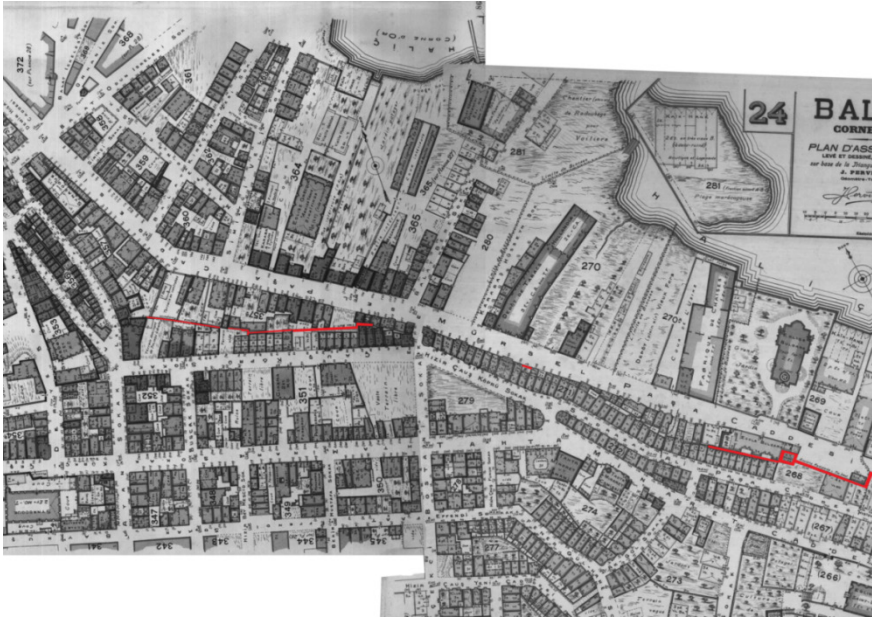


Figure 2. Surviving segments of the city walls and the urban trace between Fener and Ayvansaray (Pervititch, 1929).

The typology of the continuity of the Golden Horn walls is defined on an urban and architectural scale (Table 1). The city walls on the urban scale *define building blocks* and *define road axes* parallel to the walls, or *become a landscape platform*. Besides on the architectural scale, the city walls *become a foundation* for buildings built atop the walls, or *become a retaining* for buildings to lean

against. Apart from those, there is another phenomenon where the city wall can be defined as *a monumental entity* with high aesthetic value, yet to contribute to any specific architectural or urban setting.

Table 1. Typology of continuity of the Golden Horn walls.

| | Scale | Attribute |
|---|---------------|------------------------------------|
| 1 | Urban | <i>Define building blocks</i> |
| 2 | Urban | <i>Define road axes</i> |
| 3 | Urban | <i>Become a landscape platform</i> |
| 4 | Architectural | <i>Become a foundation</i> |
| 5 | Architectural | <i>Become a retaining</i> |
| 6 | - | <i>A monumental entity</i> |

To *define building blocks* and *road axes*, horizontally; while the city wall ensures the alignment of the buildings in the horizontal section along the profile it extends, the building blocks aligned according to this order form a trace on the urban scale by defining the road axes. This is realized by the building blocks built adjacent to each other, leaning horizontally against a fragmented section of the city wall. (Figure 3).



Figure 3. Defining building blocks and road axes horizontally.

To *define building blocks* and *road axes*, vertically; while the city wall ensures the alignment of the buildings in both horizontal and vertical sections along the profile it extends, the building blocks aligned according to this order define the road axes and form a trace on the urban scale. This is realized by the building blocks built atop the city wall vertically, also adjacent to each other horizontally, at the same time. (Figure 4).



Figure 4. Defining building blocks and road axes vertically.

To *become a landscape platform* on active use, while the city wall forms a retaining to define two different levels. On the upper level, the wall creates an active landscape platform where public activities take place for the surrounding users (Figure 5).



Figure 5. Becoming a landscape platform on active use.

To *become a landscape platform* on passive use, while the city wall forms a retaining to define two different levels. On the upper level, the wall creates a passive landscape platform where certain activities do not take place and no architectural function is attributed to it by the public users passing by (Figure 6).



Figure 6. Becoming a landscape platform on passive use.

To *become a foundation*, the city wall forms a vertical support for the buildings atop. In this case, the city wall acts as a foundation structurally, or as a basement spatially (Figure 7).



Figure 7. Becoming a foundation.

To *become a retaining*, the city wall forms a horizontal support for the buildings leaning against. In this case, the city wall forms one side of a building leaning against it, thus, this configuration represents one facade of that building. In some cases, a perpendicular intersection of the city wall and the tower attached form two sides of a building leaning against them, thus, this configuration represents two facades of that building.. (Figure 8).

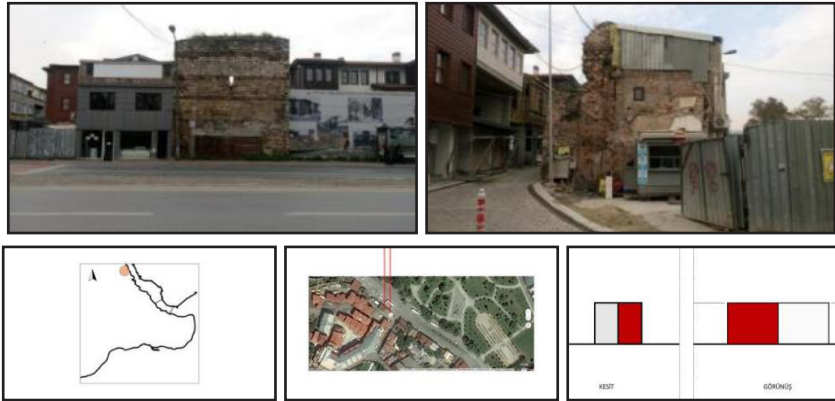


Figure 8. Becoming a retaining.

To *become a foundation and a retaining*, the city wall forms a vertical support for the buildings atop, besides, the city wall forms a horizontal support for the buildings leaning against, at the same time. This case is a unique configuration to represent the architectural continuity of the city walls because both architectural and urban attributes of typology of continuity are observed. (Figure 9).

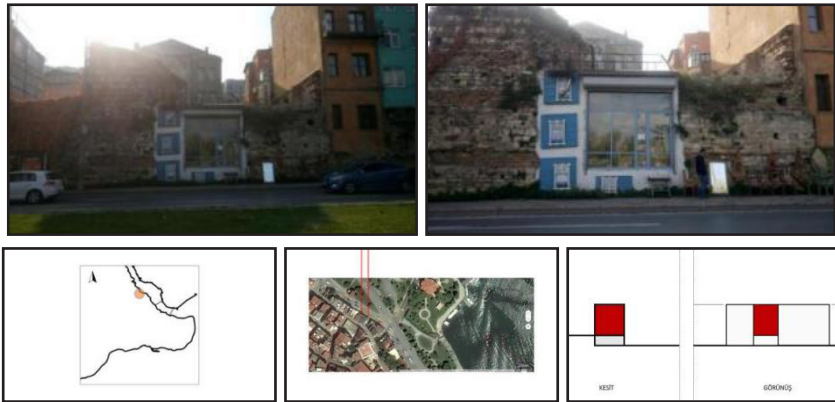


Figure 9. Becoming a foundation and a retaining.

As a *monumental entity*, the city wall is separated from its context and transformed into a symbolic object with historical and aesthetic value. Some sections of the city walls along the Golden Horn do not directly form a spatial configuration, but rather triangulate their surroundings and convey historical traces that contribute to the identity and memory of the city. These sections of the city walls contribute to the typology of continuity without creating a certain interaction with the architecture and the city. (Figure 10).



Figure 10. As a monumental entity.

5. Conclusion

Architecture is embedded in geography; and opens towards the urban layout. This order includes configurations between interior and exterior, public and private, building and city. Architecture and the city are therefore a formation in which the pattern of place and space is presented in a figure-ground relationship. Architectural continuity is the result of our pragmatic reflexes, which include actions of making-assembling-constructing space in order to reconcile our experience of space with the conditions in a long-lived process that animates this formation.

As a result of technological development and the transformation of transportation and communication infrastructure, traditional urban boundaries have dissolved. This dissolution in the process of modernization has led to the disappearance of the fortifications that bounded traditional cities, causing them to disappear to a large extent. On the other hand, some sections of the fortifications in the process of extinction have survived by adapting to different spatial manifestations of the modernization process.

Everyday life around the walls and gates of Golden Horn reflects the unique and dynamic fabric of the city. The harbors and road patterns connected by the gates form an urban settings where port-related logistics services and commercial establishments are concentrated. In the past, the irregular construction around the city walls not only facilitated smuggling activities in chaos, but also caused catastrophic fires. In this context, while building permits around the city walls are often restricted, private property is not allowed for warehousing services. Today, although the city walls have been largely destroyed, buildings built

adjacent to the city wall for centuries have ensured the conservation of the traces left by the city walls in the urban fabric. The road networks that developed around these traces shape the surroundings of the city wall and create a unique urban pattern. The gates of the city walls, which are the intersection point of these patterns, carry the vividness and richness of everyday life of the past to the present day with the layering of the spatial experience that developed around them, although they have been largely destroyed, same as the rest of the city walls. Even if the technology, lifestyle, and instruments of the time change, the experience of space accumulated over centuries ensures that the ruined city walls retain a place in memories, traditions, and habits. Even if the city walls are destroyed, the place they have occupied in the memory of the city through the ages does not disappear.

This research reveals that the continuity of city walls, a component of architectural and urban settings, can be ensured by adopting new structural and spatial configurations. In this regard, history shows the impossibility and irrationality of attempting to preserve monuments by detaching them from the contexts in which they are embedded in everyday life and by depicting them as *objects that should not be disturbed*. The city walls are physically missing to a large extent today. However, the spatial context they created within their architectural order is embedded in the buildings and the city. Therefore, rather than the city walls being ruined or destroyed, we need to say that the city walls have become immortalized due to the changes in their function and the transformation of their structural-spatial organization, through time.

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CHAPTER V

IN PURSUIT OF INTEGRITY IN URBAN MORPHOLOGY: CULTURAL LANDSCAPE VS URBAN LANDSCAPE¹

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1. Introduction

The form of the city refers to how the urban life is organized, regarding the distribution and connections of functions and services and human activities within the urban environment. It is shaped depending on the social-historical context, ideology, economic power, socio-political and cultural relations of that society, the development level of technique and the use of modern technology (Cakaric, 2010: 377). One of the main area of researches that focus on urban form is the field of ‘urban morphology’ that seeks “the physical texture of the urban form and the people and processes that shape it” (Larkham and Jones, 1991: 55). Traditionally, urban morphology studies explore understanding the development process of a city, how spatial patterns are formed, how they come together and dissolve, and the phenomena that cause change in the urban structure and urban forms.

The basic unit analyzed in urban morphology studies is the “urban landscape”. As an extension of the American geographical tradition¹, the notion

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of urban landscape in urban morphology researches consider landscape as a cultural entity. Goethe's use of the term morphology, Spengler's comparative morphology studies, C. Ritters' associating morphology with geography for comparative regional study, A. Penck's chronological morphology studies brought the notion of the urban landscape to the fore. Here, landscape is a holistic concept and it holds together both the built and unbuilt, permanent and temporary elements of a region.

The preeminent figure in urban morphology, M.R.G. Conzen explained the urban form shaped by the continuity and adaptation of the historical periods of urban plots, street blocks, building forms, urban land use and the transformation of the whole urban landscape (Conzen, 1969: 3). Some morphological studies explore urban transformation through structural components such as buildings, buildings or building plots, streets and urban blocks, which define the city's plan units (Whitehand 1981; Scheer 2015, 2018), Moudon, 1997; Carmona et al. 2003) and building types and use (Conzen, 1969; Barke 2015; Oliveira 2016; Kropf 2017), through texture and tissue (Hoskins, 1955; Caniggia and Maffei, 1979, 1984; Conzen, 1969; Kropf, 1996, Oliveira, 2016), contemporary structures, superblocks, network areas (Moudon, 2019), as well as ownership patterns and physical boundaries of the city. These components form the townscape character of the city that is a categorization of "cultural landscape" (Whitehand, 1981).

While the notion of urban landscape and the cultural landscape have holistic underpinnings, and urban morphology is a multidisciplinary area of study, it is recently defined as "the set of objects or assets built by people" (Kropf, 1993: 217). The study area of urban morphology has focused on the built environment, in which the unbuilt environment was somehow reduced into a natural/ecological category or excluded from the contents of the urban landscape. There are almost no tools provided to explore the elements in the unbuilt environment (McGlynn and Samuels, 2000).

This study seeks novel ways of incorporating unbuilt and built landscape into the field of urban morphology as a natural-cultural synthesis of the city through cultural landscape perspective. By focusing on the writings of the John.B. Jackson, a landscape geographer who borrowed the term "cultural landscape" from C.O. Sauer² and popularized it as a focus of study (Groth and Wilson, 2003), the study offers bringign cultural landscape perspective to the forth instead of the urban landscape approach. For Jackson (1984: 7), landscape is "the organization of manmade spaces on the land", a "place where we (humans) establish our own human organization of space and time" (Jackson, 1984: 157).

Without distinguishing between built and unbuilt elements, it is the synthetic space “...functioning and evolving not according to natural laws but to serve a community” (Jackson, 1984: 8). This extended notion of landscape has the potential to explore transformation of urban forms in a holistic way covering all the built and the unbuilt components of the city.

2. Methodological Approaches in Urban Morphology

Within the field of urban morphology, different theoretical and methodological approaches have been put forward since the beginning of the twentieth century, when the field started to emerge. Even though it is a short period of time since the emergence of the field up to now, there is a diversity of methodologies developed towards understanding transformation of urban form. It is possible to classify this diversity under the categories of historical-geographical analyzes, process-typology analyzes and numerical analyzes specifically space syntax analyzes in the most general sense (Ünlü , 2019).

The historical-geographical approach, led by M.R.G. Conzen, highlighted a morphogenetic approach, that focuses on the transformation of previous urban forms. Conzen criticizes against modern society which is in a state of crisis (Conzen 1981: 55) for him because of the loss of traditions and the negative effects of mechanization and industrialization. (Kropf, 1993: 126). Thereby, Conzen explores physical form and morphological aspect of built environment that he specifically called as the townscape, or ‘the physiognomy of the urban landscape’ (Conzen, 1969: 131).

By analyzing historical “urban landscapes” of British towns such as Whithorn, Frodsham, Alnwick, Conway, and Ludlow, Conzen identifies how the cities have changed from the Middle Ages until the present through the continuities and adaptations in the urban plots, street blocks, building forms, pattern of urban land use (Conzen, 1969: 3). Conzen concludes that despite the inherited and transformative effects of industrial revolution, the post-medieval urban fabric in all these cities is essentially combinations of traditional urban cores transformed over time as a result of medieval plans, where the traditional building fabric changed from pre-industrial urban landscapes with new forms and a series of additions (Conzen, 1981: 72, 105).

M.R.G. Conzen, introduced “morphogenetic method” defining a settlement as the topographical arrangement of this changing and constant elements basically through three components of a town plan: (i) streets and their arrangement in a street-system; (ii) Clusters in parcels and their aggregation

in street-blocks; and (iii) buildings or, more precisely, their block plans. These components cluster in various individual combinations and form different plan-units, that provide originality and uniqueness to the townscape (Conzen, 1969: 93; Whitehand 2001; Barke 2015; Oliveira 2016, Kropf 2017). (Figure 1)

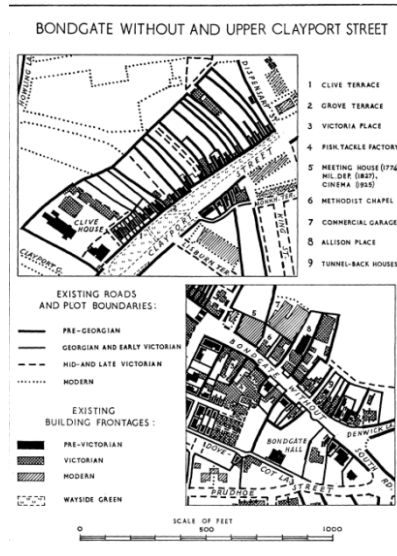


Figure 1. M.R.G. Conzen's work investigating the urban morphology of Bondgate city through the change of streets, blocks and parcels. Source: Conzen, 1969.

Conzen explores plot patterns held by enfranchised members of a medieval borough and analysis of city's tendency to fill in the landscape through the "Burgage Cycle". He defines historical change of cities on the basis of transformation of the parent plots into new plots (*derivative plots*) and the repletion of building blocks on the plots, the replacement of old buildings, the development of secondary buildings, and utterly change of the block layouts. In addition, the parameters to be explored for the transformation of the block and building layout are the siting of the residential area in the plot, the number of buildings in the built environment, amount of built up and open areas, building coverage, the gross density of plots, types of residual burgage complexes (repletive and climactic types), commercial development (adaptive and augmentative), the fringe belt development (intramural and extramural/fixation phase, expansion phase, consolidation phase), open space (site succession and colonization of open space) that are analyzed through maps and diagrams.

The plan units, defined by Conzen are still the basis for many morphology studies. Barrett, (1996), M.P Conzen (2004, 2009) Karl Kropf (1993, 2009),

Whitehand (1981, 1988), Caniggia and Maffei (2001), Whitehand and Gu, (2003), Gu (2008), Gu et al., (2008), Maretto (2012), Kim (2012), Scheer (2016), followed Conzen's historical-geographical approach and developed it further by focusing on other particular geographical regions. The contribution of these studies to urban morphology is the various analyzes types they developed to explore the transformation processes of urban landscape.

Another field of study in urban morphology is typology-based research that is mainly located in the field of architecture. Typology-based studies deal with the morphological and functional classifications of the architectural elements though classification of "type" in urban space. The the founder of the Italian school of type-morphology, Italian architect Saverio Muratori defined type as the process that would restore continuity in architectural practice in his book *Studi per una operanta storia urban di Venezia* (1959). Muratori examined two squares of the historical city of Cortoghiana, the hierarchy and backgrounds of streets and buildings, the cultural development and the historical buildings of the city, in terms of type, texture and formation of the urban organism. He claimed that all these phenomena occur with a temporal construction (*operative history*) and are determined by historical conditions. Typology-based morphology studies are positioned in the dialectical relationship between understanding the development processes of a city through the typologies produced and developing city plans through design (Muratori, 1959). Unlike geographical analyses, Muratori created a design approach based on traditional construction techniques and their production styles. Muratori's student, G.Caniggia, developed an "organic method" in his work titled *Composizione architettonica ve edilizia typology*, in which he defines the typology formation process as the development of the connection between the type of buildings and the urban texture, starting from the "unit cell" (or *elementary cell*) (Caniggia and Maffei, 1984). Instead of focusing on plots as Conzen did, Caniggia and Maffei read the change in the urban landscape in terms of blocks. The urban-scale building system, neighborhood units, or the combination of textures that make up neighborhoods constitute other components of their research method (Caniggia and Maffei, 2001). By developing Murattori's approach further, Caniggia introduced "processual typology" method, which he interpreted the correlations of the historical development stages of the city with the basic typological processes, while examining the historical production of the urban fabric through units, the formation of units, the system of structures and the organism of the systems (Mirmoghtadaee, 2006: 133). Even if it stays in the

background, when examining the blocks, the open area surrounded by the buildings in the sense of landscape, the land (the buildings and their courtyard areas), the street (divided into types according to their construction period), the continuous strip (the thin long parcels that define a road) are included in the analysis. Typology-based studies initiated by Muratori, have been developed by Cataldi (2003), Petruccioli (1998), Caniggia and Maffei (2001), Moudon (1997), Rossi (1982), Krier (1979), Hillier (1998), and Castex and Panerai (1977).

The third type of studies in urban morphology is the quantitative studies particularly “space syntax” method, pioneered by Bill Hillier and Julienne Hanson, and Batty’s cellular automata method (Ünlü, 2019). Instead of focusing on “surface”, space syntax studies aim to perceive volume and space (urban/exterior or architectural/interior) to understand the city and the way how the space/volume is organized in the urban environment (Oliveira, 2016). The theoretical basis of the approach is the relationship between the spatial structure and the general function of the movement (Kropf, 2009: 111). Space syntax studies focus on the street system of the city to understand how people use space, walk, stand and move in space and how they organize these spaces by using analytical quantitative methods. These studies especially focus on urban landscape’s street systems in terms of accessibility and continuity of movement, density of movement by analyzing them quantitatively or both quantitatively and qualitatively. According to Hillier (1997: 16), people talk in convex spaces, see areas that fit into their viewing angles at the same time (isovist) and move in lines. This trio directs them to move in space. Hillier (1997) claims that the distinctive features in traditional or modern street systems arise from these linear, convex and isovist forms. Accordingly, the space syntax method typically analyzes connected roads, dead-end streets, access points, network areas and closure levels through convex maps and axial maps and depict the most connected roads, streets and squares in neighborhood and settlement scale. The space syntax method in urban morphology refers to a paradigm shift that represents the transition from ‘form to space’ (Oliveira, 2016).

In almost all of the historical-geographical morphogenetic studies, process-based typology studies, spatial syntax studies or synthesis studies, the focus has been limited to the built environment. The landscape elements are defined as built and transforming elements, and the unbuilt landscape itself is taken into account to the extent that it becomes urbanized and transformed into built

forms. In other words, the transformed built form is investigated rather than the transformation of the unbuilt landscape itself.

2.1. Division Between Built and Unbuilt Environment in Urban Morphology

The unbuilt environment forms a fringe belt for urban growth for many British and European cities and provide a boundary, or a threshold for the transformation of the urban environment. This belt also affects macro-form of the urban development. Thus, unbuilt landscape is widely considered in the urban morphology studies under urban fringe-belt theory explaining the relationship between urban fringe and urban form. Introduced by the studies of German geographer H. Louis (1936), fringe-belt studies was systematized by Conzen (1969), Whitehand (1967, 1974, 1981, 1987, 1988, 2005), Parkes and Thrift (1980), Batty et al., (1992), Carter (1995), Pacione (2001), Whitehand and Morton, (2003, 2004, 2006), Whitehand, Morton and Hopkins (2003), Allain (2004).

Under fringe belt studies, the nature of urban growth over time is monitored, especially by focusing on the transformation in the land use to depict the changing character of inner fringe belts, middle fringe belts, outer fringe belts. M.R.G. Conzen's studies on the greenbelts of Alnwick, Newcastle and Tyne is one of the preeminent researches of the fringe-belt studies exploring the major changes in the green pattern in or out of the city. Conzen analyzed the transformation of parent plots (or unbuilt landscape) into new plots through processes of institutive phase, repletive phase, climax phase, recessive phase, and slum clearance (urban fallow) phase. In Alnwick town, Conzen focused on the transformation of plot pattern, and he depicted some cycles and processes on the transformation of this town under "burgage cycle". The burgage cycle includes explorations on *fixation line, replacement and repletion of blocks, repletive absorption, the proportion of unbuilt land and built up plan-unit, complementary building, intramural /secondary building development, ribbon development* as some of the steps of urban development over landscape's surface. Throughout these analysis, Conzen (1969) assessed the spatial configuration of unbuilt landscape by means of the plot's internal structure and he concluded that as the amount of the green area in the parcel decreased, the amount of rate of construction increases, all of which, had an effect on the formal structure of the city. Conzen's urban fringe analysis can be considered as one of the initial studies that saw unbuilt landscape as a spatial matter within the plots of the urban

environment. Whitehand (1967, 1972, 1987, 2007) added up the ratio of built and soft landscape areas to Conzen's analyses (*green plot ratio analysis*) and extended the boundaries of the Conzen's "historical-geographical" approach by adding some morphological periods and "character regions" to define distinctive character of regions due to the change of the perimeter on a plot, and the recent status of the parcel, its history, the activities, events and actors in the formation process of towns (Whitehand, 2007).

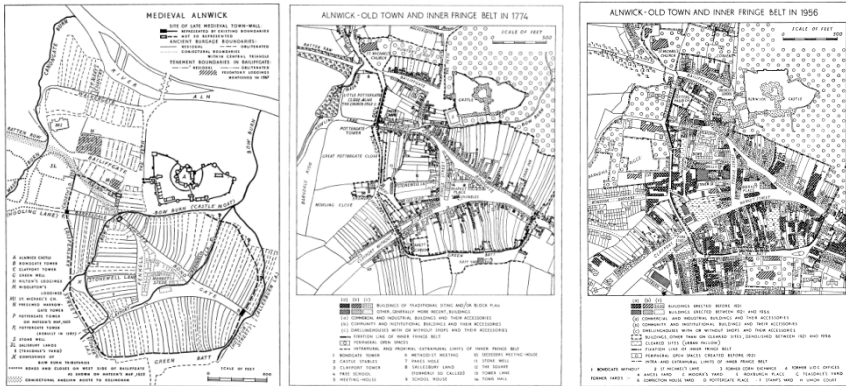


Figure 2. M.R.G.Conzen's study on Alnwick town, the relationship between transformaton of urban fringe and urban form. Source: Conzen, 1969.

It can be inferred that in urban fringe-belt theory, unbuilt landscape is taken for granted as individual green elements within an overall urban morphology exercise whose formal typologies are reduced into traditional formal categories of green belts, urban parks, sport areas, gardens at the urban fringe. The unbuilt landscape is monitored significantly through the transformation of the built environment by giving priority to newly urbanized surfaces over the unbuilt landscape. The unbuilt environment is taken into account in urban morphology only to the extent that it affects the built environment and imposes "conditions and boundaries" on the built environment (such as if it is fixation line)(Kropf, 1993: 218). It is merely considered as if it is a threshold such as a valley, a hill, a river etc (*a fixation line*, as morphological term), and once this threshold is crossed or built, its impact on the morphology of the city are completely neglected or less taken into account (Figure 3). However, even though they remain under the built environment, unbuilt landscape elements have an implicit impact on the formation of the city. The natural layers such as hills, waters and valleys that still exist under the built surface are yet indirectly effecting the urban pattern by means of imposing floods, winds, scenery, exposure to sun etc.

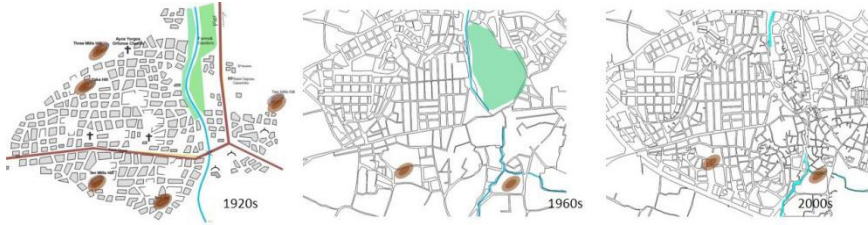


Figure 3. After the hills of Urla, known as the city of hills, started to be built and the Akdere stream was closed and covered with buildings in sections, only the built surface is taken into account. (Bingol and Kropf, 2022). Produced by the author for the “Modern Heritage in the Anthropocene Global Symposium”, 26-28 October 2022, UCL, London by modifying Milioris 2002 map, and 1969 and 2020 existing maps.

Alternately, Hopkins, (2001, 2012) discusses relationship between landscape ecology and urban morphology in a low density land use area. Mozingo (2011) argues transformation of suburban periphery, Lin, Meulder and Wang (2011) highlights transformation of the rural in village settlements, Rego and Meneguetti’s (2010) study on up-down construction of modern villages in colonized Brazil towns and Osmond’s studies (2007, 2008) covers a broad framework to deal with the relationship between sustainability and urban morphology in a multidimensional way by integrating unbuilt landscape analyzes in urban morphology studies. These studies provide potentials to improve the visibility of unbuilt landscape in urban morphology.

2.2. Seeking for a Holistic Perspective in Urban Morphology

The pioneer of the morphogenetic tradition, M.R.G. Conzen’s method carries some attempts for understanding the city in a holistic way. According to J. Whitehand (2007: 6), one of the most important representatives of urban morphology, Conzen’s analysis of “historical periodization” to represent the permanence of each element effective in the formation of the urban landscape (“morphogenetic priority”)³ is Conzen’s holistic perspective on urban morphology. However, as Whitehand later (2010), emphasizes the general tendency in the field of urban morphology is to evaluate buildings, streets and open spaces as individual objects of functional and formal typologies, but what is missing is the ways how to understand what kind of ensemble they form and how the pieces come together and how they fit together.

To comprehensively assess urban form, Karl Kropf (1996) evaluated urban form and morphological elements at various levels of resolution; from blocks,

streets, parcels, to structural elements and building materials, what he called “urban tissue”. The differentiation of Kropf’s approach from others lies in the fact that “physical form is defined in terms of the type, number and arrangement of parts and part-part relationships, rather than explaining it in terms of land use or historical evolution.” Another figure in urban morphology who added time dimension to the multiscalar urban morphology approach, Anne Moudon associated open spaces, plots or plots and streets among the elements that make up the urban texture at different resolution levels at the building/land, street/block, city and regional scale. Moudon defined urban morphology as “the study of the city as a human habitat” (1997: 3), he emphasizes the necessity of seeing the city as an organism. Moudon evaluated the city not as a finished object, but as a “process” with a dynamic approach to urban morphology. He defined the basic components of urban morphology research as the form of the city, the process of change, and the different levels of stability of space, even if the basic unit of analysis is the building (Moudon, 1997). Moudon added gardens and parks to the built units of the city plan and adopted buildings and their open spaces, parcels or plots and streets as the basic physical elements that define the urban form (Moudon, 1997). Moreover, the research field of landscape geography provided a natural-cultural synthesis that distinctively extended the notion of landscape. As a result of the visible influences of post-structuralism on the field of landscape field, the notion of landscape has expanded and started to be redefined as a natural-cultural hybrid instead of a purely natural-green entity (Bingöl, 2019). A landscape geographer from the same time as M.R.G. Conzen, J.B.Jackson (1909-1996) understood urban landscape as manmade spaces on the land and analyzed transformation of the landscape historically without distinguishing between built or unbuilt elements. According to Jackson, landscape is:

“... the place where we establish our own human organization of space and time” (Jackson, 1984: 157). “...a synthetic space ... functioning and evolving not according to natural laws but to serve a community” (1984: 8)

Jackson’s conceptual framework offers a holistic approach to the relationship between the landscape and the city by including spatial, natural, cultural, anthropological and political layers. Jackson not only re-introduce and popularize the concept of “cultural landscape” but he also provided a classification about the historical transformation of American landscapes in his book “Discovering the Vernacular Landscape” (1984). Thanks to this classification, the book includes the components of “form, scale and time”, which

are the three basic components that an urban morphology study should contain (Moudon, 1997: 7-8). Just like in morphology studies, Jackson chronologically separated the landscapes of different periods and historically classified different urban patterns spatially and formally. By reading change through landscape (because for him, landscape is “making history visible” (Jackson, 1984: 81)), he analyzed rural and natural or urban and cultural, built or unbuilt landscape.

What is quite interesting about Jackson’s classification is Jackson’s emphasis on the cultural landscape that blurs the well-known distinctions; not all the unbuilt environment necessarily transform into urban landscape but rather they might transform into the hybrid typologies. Therefore, instead of focusing on elements such as streets, blocks and buildings, a composite reading of the transformation of cultural landscape and urban life as a whole and is provided holistically (Figure 3 represents a holistic landscape of Urla including buildings, roads, built environment, and the unbuilt landscape).

Jackson’s studies open up a new field of discussion for the content of the urban morphology. If the entire landscape is man-made, how the unbuilt components will incorporate into the urban morphology field? If the field of study of urban morphology focuses on the built environment, where will the unbuilt landscapes take place in this field of study? This study, which seeks answers to these questions, aims to question whether it is possible to expand the role given to landscape or elements of unbuilt landscape in the field of urban morphology and whether it might provide a new methodological approach for urban morphology. The following section explores Jackson’s cultural landscape perspective under some main topics of urban morphology to identify whether his landscape perspective might provide new insights to urban morphology.

2.2.1. Subdivision of Land and Use of Land

The transformation of urban landscape is dependent on organization of landscape and division of land. In urban morphology, unit of analysis for division of land is “plot” to explore the formal continuities and discontinuities of urban space over time. Similarly, the unit of analysis for land use is also measured by means of plot units (Conzen, 1969: 5, 79, 128). According to Conzenian perspective, the urban landscape is typically reproduced by dividing large blocks into smaller plots (Figure 4) or by changing the internal structure within the plots, which are used to analyze spatial changes in urban morphology.

For Jackson division of land dates back to organization of the landscape by the proprietorship’ who has an historical knowledge about the subdivision

of a field” (Jackson, 1984: 6; Calo and Jackson, 1988; Ballesta 2016). But according to Jackson’s cultural landscape approach, property or plot is not a unit to be examined separately, but they form a landscape together with other social elements. Division of land, thus, forms of the division i.e. plot and block that represents being a part of a local community or a citizen of a nation gathered around a landscape:

“The block remains the basic unit, and the block is nothing more than a specific number of independent small holdings... for an active landowner in democratic process and a virtuous citizen (Jackson 1970, 5).

Therefore Jackson’s approach to plot, block or property relationships are far more likely to include the human perspective about relationship between land and the people in comparison with typical urban morphological researches. Moreover, more distinctively, rather than ownership and land division of plots, Jackson focuses on defining the “boundary” that enables control and the management of the community. In other words, for Jackson, the basic phenomenon that reflects the change in urban landscape is the transformation of borders and control area [territorialization]. What is primarily important to understand an urban landscape is to identify responsible citizens a community with its well-defined territory and small holdings and a series of public spaces that has divided the land into its members :

“...boundary is the first step in forming a community, organizing space, defining of that territory” ... Traditional political landscape is less to define a region but to establish an effective relationship with the outside to isolate and to protect. (center-buffer-outside) boundaries stabilize social relationships. Linear boundary is new since the end of 18th cc” (Jackson, 1984:13).

Defining the land through plots (area) vs through a boundary has a significant difference. Not necessarily all the urban landscape is legally divided into smaller land units. The irregular cadastral divisions of agricultural societies, or the historical distribution of vernacular landscapes are not based on plot divisions; they might be divided into sub pieces by the community in the daily life. Jackson draws parallel between the transformation of the landscape and the evolution of a language: Landscape is “gradually produced on the land as a result of the interaction between humans and the landscape. For him, urban landscape is an outcome of ceaseless interaction between *two landscapes*: “legally established, permanent and built forms, and temporary, mobile, vernacular forms” (Jackson, 1984: 148). The first type, is the *political*

landscape, permanent and legally established forms and spaces *evolved partly from design* organized by the authority of that landscape which is also Conzenian type of urban landscape. These landscapes are i.e. plots, streets, blocks, infrastructure that are *on a larger, more impressive scale, more permanent and easier to spot*”(Jackson, 1984: 42).

Before following the transformation of urban forms, Jackson focuses on the changes in the needs of the communities and then, transformation of their spatial patterns accordingly. Moreover, Jackson morphological perspective extends the political landscape elements into temporary, mobile patterns of the vernacular landscapes. He establishes a relationship between division of land and land use by incorporating a new layer to urban landscape: “inhabited” or “ordinary landscapes” that are evolved by the vernacularity of the daily life practices, not included in urban morphology’s plan unit analysis). Inhabited landscape is “*likely to be poor and small and hard to find*”, evolved in the course of daily activities but they determine how forms and spaces are used (Jackson, 1984: 42).

City dwellers can organize daily life in the urban environment from the bottom up, producing processes of organization and increased adaptation (Neuwirt, 2006; Kamalipour, 2016). Such ‘ordinary’ activities can result in self-sustaining processes of growth and transformation in what can be considered contemporary vernacular languages (Habraken, 1998). Because urbanity means that the city is in a constant state of formation with both planned and unplanned effects (Oliviera and Medeiros, 2015: 2-3). The traditional urban fabric, the division of blocks with dead-end streets are some of examples of such kind of Jackson’s ordinary landscapes also lead to transformation of urban patterns (Figure 5).



Figure 4. Change of urban form by dividing blocks into parcels in Urla. (green lines show dividing large blocks into smaller plots) (Bingol and Kropf, 2022)

Figure 5. The division of blocks by dead-end streets in the historical urban fabric of Urla, that determines the change of urban form. Both images were produced by the author for the “Modern Heritage in the Anthropocene Global Symposium”, 26-28 October 2022, UCL, London.

In addition to methods that can only be applied in urban spaces, such as Conzen’s and Whitehand’s analyses that analyze the transformation process of plan units, appropriate tools must also be provided to analyze the transformation of everyday, ordinary landscapes.

2.2.2. Transformation of Streets and Roads:

Streets are more than just an access line or a spatial form element in an urban landscape. In urban morphology tradition, streets are one of the typical form elements in plan units.

Analyzing the transformation of the *meaning* of the street, Jackson evaluates the street together with other forms of social life, beyond seeing it only as a form or as a singular urban element. At this point, *road* (instead of using the term street), does not give priority to vehicles as its mere users. Jackson defines *roads* as a socio-political tool beyond treating them as a purely physical element.

Thus the typology of roads is both an indicator and a determinant of their relationship with the socio-political context. According to Jackson, urban, economic, social and environmental systems depend on the existence of streets and highways on a larger scale. (Jackson, 2016:76). Highways which are connected to the center and used for the control of a community or a state by connecting all sub-spaces in a single center and strengthening and maintaining a social order are quite different from local road connections (Jackson 1984: 22; 1994: 6), and cannot be evaluated in the same context:

“Beyond their linear boundaries, roads are territories in the agrarian villages, he termed as “archetypal road” essential to the routines of work, worship and celebration, as well as preserving the territorial integrity of the village as an entrance to the territory of the village” (Jackson, 1994: 8).... connecting and introducing the city with the outside world” (Jackson, 1970: 102).

However, in traditional urban morphology, such differentiation is not taken into account. Besides, the road is isolated from its social functions. Beyond their singular accessibility function, highways produce their own locality (Jackson, 1970). Gas stations on the road, stopovers, settlements along, off-road office

complexes, road band vernacular dependent on cars (Jackson, 1970: 85). For example, dispersed residential settlements along the Çeşme Highway (Figure 6) and dispersed wine production and tasting venues and farms sprang up along the highway are new vernaculars in the Urla district (Figure 7).

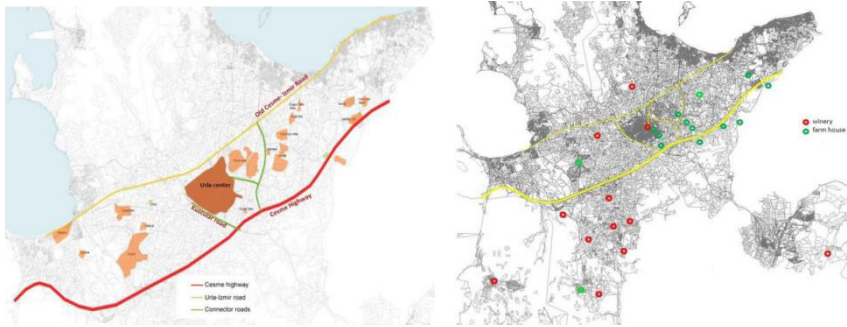


Figure 6. Site layouts along the Çeşme highway. (Bingol and Kropf, 2022)

Figure 7. Wine production and tasting venues and farms scattered along the Çeşme highway. (Bingol and Kropf, 2022)

Produced by the author for the “Modern Heritage in the Anthropocene Global Symposium”, 26-28 October 2022, UCL, London.

Jackson’s evaluations on urban change develop a general understanding of the change in the typologies of the street historically, instead of examining the change of the street system and the plot arrangement as in Conzen. For this reason, Jackson evaluates the road in a very comprehensive way, together with the local life he created. Because “the road is a very powerful field; Unless it is handled very carefully and constantly monitored, it can undermine and destroy the existing order” (Jackson, 1994: 6).

Jackson’s historical perspective towards the evolution of typologies of the street, is far more likely to be connected to urban life than the study of change in the street system and plot layout in a particular geography, as urban morphology does. For this reason, roads for Jackson are not only planned access roads, but also *paths* formed in daily life. In local landscapes, not only planned elements, but also ordinary landscapes shaped by people are an important element of the landscape whole. The alternation of small, isolated paths that are subject to constant change, barely shown on maps, and playing a very insignificant role in the history of material progress, are imprints of a community’s vital ties. These paths give many clues about the lifestyle and culture of the local community that should be included in urban morphology studies.

2.2.3. Transformation of Public and Private Spaces :

Urban morphology studies widely explore the connection between land use and urban form and their evolution over time. The morphogenetic approach especially provides quite strong tools in terms of defining the relationship between land use and urban form. As Conzen emphasizes that the “local society” transforms its settlement according to its diverse needs, and as these requirements change in the course of time so do the forms designed to cater to them (Conzen 1981, 87). Conzen explores how different building types - public buildings, commercial buildings, and housing - provide different siting sequences such as site successors and latecomers in periods, and how the gradual transformative change in traditional urban cores leads to greater variety in urban forms, measured by employing the plots as units of land use (Kropf 1997, 2009).

On the one hand, the public or private ownership of the open land is also a factor effecting urban transformation. Whether the land is allocated for private or public use is significant in terms of making the social order visible. Even if the space is a small plot, it defines the inhabitants and gives it status, and most importantly, it establishes lasting relationships. As the ownership pattern of spaces change over time, the organization of the whole space also changes. This is one reason why the contemporary landscape is so different from even a hundred years ago (Jackson, 1980: 115). J.B.Jackson especially considers not only the transformation of the public-private land use but also transformation of their way of use over time. As a component of cultural landscape, For instance park as a land use is an archetype that might have appeared in the Bronze age, or even earlier, but park with a recreation purpose, for him is a newcomer, previously there were private gardens and common grasses (Jackson, 1994: 107).

Community spaces also represent the change in the urban landscape. In urban morphology studies, public spaces that are regulated by central or local authorities are frequently discussed. Among one of the changing layers of the city, their spatial transformations are organized by urban planning activities and their transformation might be visible in the transformation of plot, block or street patterns. These spaces, are a. For example, the expropriation works by the mayor of the period for the construction of Urla’s Cumhuriyet Square, which was included in the Urla plan made in the late 1970s, changed the shape of the urban blocks (Figure 8-9).



Figure 8. Expropriation works carried out by the the Urla's mayor in the late 1970s to create Urla's Cumhuriyet Square: an example of the production of political landscape. Source: <https://www.facebook.com/photo/?fbid=831561713907621&se=t=g.206617199395531>

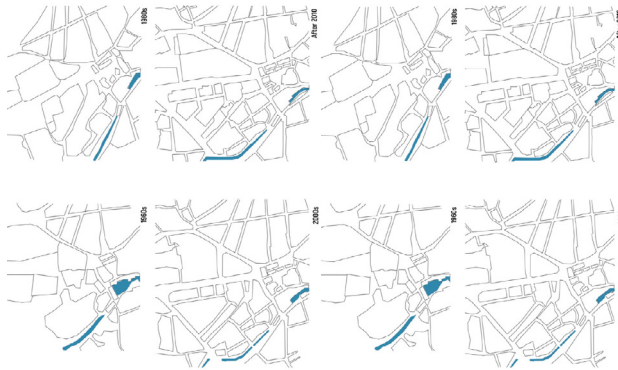


Figure 9. The expropriation works in Urla changed the morphology of the environment of Urla Cumhuriyet Square, one of the most important public spaces of the district. Source: Kocaman, 2020.

Jackson also analyzes the transformation of private space through housing. Private space, the “house”⁴ also changes over time. His writings on residential use have a significant importance not as a siting on urban land but as ““a place or combination of spaces, walkways, and doors that facilitate some relationships and obstruct others” not merely as a single unit but as a “more complex unit, incomplete in itself, serving as a supplementary to the larger, common areas of the community”(Jackson, 1994: 32). In his analysis of Mexican Pueblo housing units and basic room units, Jackson traced the organic change of local housing through

new additions based on changing needs, revealing how community and village houses serve as additions to the larger, common areas of the community (Jackson, 1994: 32) and he concluded of the house transformed from a shared space into a private, autonomous, legal and hierarchical dwelling” (Jackson, 1994: 57).

In addition to production and transformation of the community spaces by the planned activities and legal authorities, they can also produced spontaneously in daily life as a product of vernacular/ordinary landscape. Thus, Jackson added “place of assembly”, i.e. religious landscapes, village square, country roads, graveyards, agricultural production areas, forests, campuses to the land use analysis as a category of vernacular landscape (or *ordinary landscape* or *inhabited landscape*, seems to be interchangeable terms in Jackson’s language). These spaces, used in various ways and in groups, are essential in terms of their social functions. According to Jackson, public spaces such as a plaza, market, town square or forum constitute a community:

“It would be hard to find a community without such a place: alive and full of action with people buying and selling, talking and listening, walking and looking about, or merely resting... these spaces used in various ways and groups ...spatial experience shared by heterogeneous public...members of the community, responsible citizens...will participate in public discussions and take action on behalf of the community” (Jackson, 1994: 16-17).

Therefore, it can be concluded that transformation of the land use as well as transformation of how the space is used influences the urban patterns and the forms, that might be included in urban morphological analysis.

3. Conclusion

Urban morphology studies put forward how different elements work together and change the shape of the city, and provide information to understand the contrasts and coexistence of the city between continuity and change. The antecedents of urban morphology field has shown that urban morphology is initially based on the cultural landscape perspective as the overarching framework to explore urban landscape. However, over time, urban landscape come into prominence by reducing the unbuilt landscape into a singular greenery form or excluding it from the morphological analysis. By focusing on built elements such as streets, blocks and buildings, it reduces perceiving the cultural landscape as a whole. In the morphogenetic approach, unbuilt landscape has not considered as a spatial component of the city that undergoes change with other urban components. Similar to the morphogenetic approach, typomorphology

studies evaluated the unbuilt landscape as the green area component of the buildings within building plots in the historical texture. While considering streets, squares and open spaces of the city, space syntax studies do not consider unbuilt elements as a layer of the urban landscape.

This study sheds light on exploration for a desired but unattainable holistic approach in urban morphology through reintroducing the cultural landscape perspective. Rather than focusing on built landscape elements such as plots, streets and blocks, landscape geographer J.B. Jackson explores both urban and rural and natural areas, built and unbuilt landscapes and their composite formal combinations through through the cultural landscape perspective. This study revealed the cultural landscape approach that was explored in Jackson's writings through land division and use, street systems and land use and public spaces. The contributions of this approach to the field of urban morphology can be listed under some headings. First of all, the division of land not only reflects the structure of property relations but also mirrors the relationship between members of the community and to the land. Rural land use and agricultural patterns, small landowners, subdivision of a field might be included in studies of urban morphology.

Secondarily, although the street block includes a spatial area, it is functionally a social and transition space; with varying functional diversity. Jackson's reference to the streets as social spaces may offer new insights not only in the definition of the street as morphological object but also in the investigation of its spatial counterparts and the life it presents. Jackson's emphasis on the road as a place of community, ritual and socialization eliminates the one-way evaluation of the street and diversifies the morphological analyzes due to these new typologies of roads.

Thirdly, in order to understand the transformation of a city, the transformations of private-public spaces should be and the social functions created in private, public and hybrid spaces and the reasons behind their change should be included in morphological studies, .

Finally, the ordinary/vernacular landscapes organized by daily life practices are significant parts of an urban form. Jackson's cultural landscape perspective provide important tools for especially cities where places are widely changed by informal organizations as well as legal regulations. Including the research object of urban morphology in the analysis of the forms of spaces and the classification of the qualities of the community it hosts will strengthen the social and economic context of urban morphology studies.

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End Notes

1 Leighly's (1928) study of towns in central Sweden, on which the foundations of urban morphology are based, transfers "cultural landscape" approach of German-American cultural geographer Carl O. Sauer (1889–1975) who is the founder of cultural landscape approach (Larkham, 2015; Kristjánsdóttir, 2019). Besides, The Conzenian tradition has its antecedence in the German geographer Schlüter's work on morphology of the cultural landscape (Kulturlandschaft & Kulturgeographie) (Whitehand 1981: 1-2).

2 Jackson transfers the cultural landscape perspective of C.O. Sauer, but while Sauer separates natural systems from cultural ones and evaluates cultural

systems as a different group in his research (Sauer, 1925: 333), Jackson sees all landscapes as cultural and one group.

3 Historical periodization, or morphological area, defines an area that is distinct from surrounding areas in terms of form and is identified through map regression analysis to understand the structures and types of each growth in its own time (Kropf, 2011).

4 Jackson does not prefer to use the term “building” as all morphological studies do, but he prefers to use the term “house” to refer to residential function of buildings. He pays special importance to house as he stated: “My final reason for discussing the town instead of the country was this: the town, particularly the pre-industrial town, offers the best material for studying the house or dwelling” (Jackson, 1984).

CHAPTER VI

CHANGE OF EVERYDAY LIFE IN ANKARA WITH THE NEW TYPE OF SEMI-PUBLIC SPACES: NEW UNDERSTANDING OF PUBLIC SPACE WITH EXAMPLES OF 'TEPE PRIME AVENUE', 'MAIDAN', AND '1071 ANKARA' PROJECTS

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1. Introduction

The focus of everyday life and public spaces shifts from urban centers. For this reason, the attractiveness of traditional city centers, which are seen as the focus of public spaces, is decreasing day by day. The increasing number of new types of public spaces with commercial complexes appear to be areas where this focus shifts to. Thanks to the relationships between open and semi-open spaces, the diversity of public uses and urban life practices increase the popularity of these spaces. These areas, as a “*simulation of urban centers*” (Aksel Gürün, 2005), are of great importance in everyday life for cities like Ankara city. Especially since it is the capital city of Türkiye, the high population of civil servants and white collars has made these areas a part of Ankara’s everyday life practice. They are mostly located close to the city center, but similar projects are seen in the suburbs. These areas create alternative spaces for public usage in the regions where they are located. For instance, while projects such as ‘Tepe Prime Avenue’, ‘Maidan’ and ‘1071 Ankara’ create alternatives to traditional central areas such as Kızılay, Ulus, and Çayyolu, similar projects such as ‘Kaşmir Center’ and ‘Atlantis Botanik’ create alternatives to sub-central areas in the suburbs.

Although these areas are public spaces, they are part of a single private property, unlike traditional city centers. For this reason, they create an example of a new type of public life model because they are on a single plot, work like a sub-center, and consist of an open and semi-open form. This research tries to define this new type of public life and focuses on the impact of such areas on traditional city centers.

1.1. Aim and Scope of the Research

The aim of the research is to make a distinctive definition for the new type of public spaces, which are considered in the context of social life and shopping spaces on an urban scale. In this context, a theoretical framework is formed with the relationship between city centers, public spaces, and shopping spaces. With the theoretical framework, the location choices of new types of public spaces are determined. In order to understand the design features of these areas, their functional purposes in the design process, and their place in daily life, the ideas of their designers and reviews of users are discussed.

The research aims to understand the place and role of the social structure in these new models. In this context, the everyday life, and reviews of the users in these areas constitute the scope of the study.

1.2. Research Questions

The main question of the research is ‘Do new types of public spaces show a comprehensive public feature as an alternative to the traditional centers of Ankara?’. In addition to this question, ‘What are the similarities and differences between these spaces to public spaces in traditional centers when considered as an alternative to urban centers?’ and ‘What is the significance of new types of public spaces in the decentralization of Ankara city center’ are sub-questions.

2. Conceptual Framework

The conceptual framework of the study consists of the relationship between everyday life- public space and the relationship between urban decentralization-shopping spaces. It is of great importance to define the subjects based on the historical process to establish the relationship between public life and consumption.

2.1. Everyday Life and Public Space

Everyday life is a multidimensional concept due to its dynamic structure. *“Every day; although it is used to describe the worldly situation of that day, it*

also shows the permanent and ongoing features in its structure by repeating it every day" (Elden, 2004). According to Certeau, it is necessary to define it as a combination of daily practices such as talking, walking on the street, reading, moving, and shopping (Certeau 1988). According to Gouldner, it is conceptualizing to reconstruct the 'culture' in a consistent way (Gouldner, 2017). Lefebvre (1987) defines everyday life not only as a natural process that emerges with the rising and setting of the sun but also as a form of relationship between time and society. However, while making this definition, he creates a framework based on to dialectical logic. He defines it as the intersection of what a person controls and what he/she does not control. Gardiner (2016) also bases his definition on dialectics since he defines everyday life as a complex and multifaceted reality, a mixture of oppressive and liberating qualities.

Although everyday life is basically a phenomenon consisting of the activities of the individual, the definition is closer to a social phenomenon due to the interactive nature of the activities. Pierre Bourdieu expresses this sociality with the concept of 'habitus' and bases the existence and life (practices) of the individual on social reality. Lefebvre (1971), on the other hand, states that the process of everyday life is based on the similarities of consumption habits of society. In other words, the existence of the individual is based on society. Also, he bases the existence of society on similar consumption practices and similar daily life (Lefebvre, 1971).

The subject of living together and being a society is argued by Lefebvre and Bourdieu. It is mostly evaluated in a conceptual and social context. In this context, when the subject of everyday life is discussed spatially, the distinctions between public/private and public/private space, which came to the fore with Jürgen Habermas (1962), constitute an important basis for understanding public life (Habermas 2003; Yükselbaba 2008). The most important feature that separates private spaces from public spaces, unlike private property areas, the use of public spaces is open to everyone. According to Goheen, the public sphere in the modern city is the space where the public collectively value and attach symbolic meanings. Citizens create a meaningful public space by expressing their attitudes and using them for their own purposes (Goheen, 1998). These areas range from streets to squares and parks and the buildings that surround them and they form the most important parts of cities (Madanipour, 1996). According to N. Schulz (1980), there are three types of functions for these areas to sustain collective life. a-Open urban space should allow the formation of collective-social life and all kinds of activities. Also, it should be related to the

topographic structure of the natural environment. b-The building forms that make up the urban space should be expressed in a way that creates a collective identity. c-It is necessary for spatial forms to take place in the urban fabric in an organized way.

Madanipour (2010) defines the public space as a reflection-representation of the complex situation of the social structure and he states that the change in the social fabric will manifest itself in public spaces. From this point of view, it is possible to clearly see the effect of the public sphere and public life on the social structure. The harmony that will emerge from this transformational process will reveal new daily life practices. In addition to the social and property (as belonging) definitions of everyday life and public space, Carmona (2018) defines characters of the public spaces. He groups public spaces according to their characteristics such as 'Delineated Public Space', 'Engaging Public Space', 'Meaningful Public Space', 'Social Public Space', 'Balanced Public Space', 'Comfortable Public Space', and 'Robust Public Space'. In this way, he is able to go beyond the definition and separate the rules that should be considered in the design of urban areas, both socially and spatially.

Semi-public spaces are spaces that allow public functions, encounters, events, and everyday life in private properties. Although their use is public, they allow more limited public functions compared to public spaces, as they are located in private spaces due to ownership. On the other hand, areas such as cultural centers, the school, the city hall, the library, the museum and the university libraries, which are public property and have limited publicity, can also be considered as semi-public spaces. Verschaffel (2009) states that these areas are 'conditionally accessible'. In other words, there may be areas that require different features -theatrical- users. On the other hand, semi-public spaces, unlike public spaces, have a character between private and public spaces. For this reason, although they do not have as many restrictions as private areas, they impose stricter rules than public spaces (Peterson, 2016).

2.2. Urban Decentralization and Shopping Places

The meaning of the city center has changed in modern cities. Under the influence of neoliberalism and capitalism, public activities and commercial spaces have begun to take on a new identity. Against the increasing negativities of the central areas of the city (public security, land prices, lack of scale, accessibility, diversity, etc.), the fringes (suburbs) of the city have begun to reveal new alternatives (Aksel Gürün, 2005). Urban centers, which were expanded and

fragmented unlike Hoyt's (1964) model, have taken on a complex structure and sub-centers have begun to appear next to traditional city centers (cores) (Wolff & Wiechmann, 2018; Sat et al., 2017).

The internal structure of urban centers has also begun to diversify and each of them has started to reveal unique uses. In these uses, shopping centers are also encountered, but the urban life in these centers has remained only in an imitative state. Although these areas reveal patterns similar to commercial businesses, public activities, and daily life on the street level, it has been argued that they can offer an alternative to the city center and the social functions that make up the center.

Before modern cities, commercial spaces were one of the main features that separated the urban area from the rural area. These areas, which provide social interaction and public life, have changed shape according to the nature of society. Commercial and shopping areas, which were seen as covered bazaars, arcades, and street shops in pre-modern cities, are now seen in the city in a mixed form (Çetin, 2018). Today, shopping centers are places where commercial functions are concentrated in addition to city centers. These areas were part of the public sphere before. Especially with the effect of neoliberalism and capitalism, they have started to show the characteristics of public space on their own over time (Vural and Yücel, 2010; Cheng and Ling Yu, 2007). But in time, according to the designer of the first shopping mall, Victor Gruen (1938), this model of public life is losing its popularity today to new types of public spaces with commercial complexes (Hardwick, 2015).

3. Change of the Ankara City

After the proclamation of the Republic of Turkey, Ankara experienced major social and spatial changes. There has been a rapid transition from a small Anatolian city to a metropolitan-sized city. Urbanization, which started with the Ankara Castle and its surroundings (Ulus), grew over time with the location decisions of the functions that made the city the capital. Along with many economic and political movements, this growth was shaped and spread to the present settlement macro form.

The historical city center of Ankara is Ulus Square and its surroundings. Over time, this region and its surroundings have become a region where various urbanism and architectural movement manifest themselves (Tuncer, 2013). The image of modern Türkiye, which tried to be created especially in the first years of the Republic, is seen in this region. Parallel to these changes, the city

center grew in the Early Republican Period. Later on, the city started to expand along the southern axis of Kavaklıdere. In this process, the urban texture of Ulus has also changed with the effect of different planning decisions. With the Lörcher Plan, a change in the organic texture of the region was envisaged, but this decision was renounced in a short time. Later, the Kızılay-Kavaklıdere axis emerged, and it was envisaged to preserve the organic form of Ulus in the first planned development period in Ankara. This proposal by Hermann Jansen was accepted as the first city plan for Ankara. In the first phase of this plan, it was foreseen that the city would spread along the new Kavaklıdere axis, and then it was proposed to expand to regions such as Bahçelievler and Emek. However, the city needed a new plan, after the rate of urbanization was higher than planned.



Figure 1. 1932 Ankara Public Plan of Hermann Jansen (Jansen, 1937)

With the Yucel-Ubaydin plan approved in 1957, a city that ‘preserves its single-centered structure’ and spreads in the form of ‘oil stains’ was thought for Ankara. However, with the unstoppable increase in population and urbanization, the single-centered structure of the city (Ulus-Kızılay axis) started to be insufficient. With the 1990 Metropolitan Master Plan, the process of ‘decentralizing the city from the bowl-shaped topography to the outside with corridors’ began, and sub-centers emerged in parallel with this process (Sat et al., 2017). These sub-centers are located along the transportation axes towards the west of the city. This expansion allowed the development of suburbs such as Batıkent, Eryaman, and Sincan on the Istanbul Highway, and a new form of the city, the polycentric structure, emerged. The main center of the city continued to exist with the combination of the historical city center and the Kavaklıdere axis. On the other hand, the city took the form of a mixed city model with the sub-centers that emerged. (.....)

With the spread and decentralization of the city center, commercial areas and public spaces have also changed. At first, the public spaces and commercial areas around Ulus Square were in organic forms in harmony with the traditional texture. After the proclamation of the Republic, the public spaces in this region gained different qualities. Especially the area between Ulus Square and Sıhhiye district has undergone a great change with new public functions. After the new planning decisions, the expanding central areas started to shape as radial city forms (Cengizkan, 2004). The traditional trade, which continued its existence with arcades and bazaars, started to be seen on the streets in this process.

Slow and steady everyday life has become fast and active with the increase in the civil servant population. The spatial structure has changed in order to keep up with the social structure in Ankara city. The arcades in and around Kızılay district continued to exist as in the traditional center, unlike bazaars. Various types of shopping spaces emerged after the spread of the city and the transition to the polycentric city structure. In the city, shopping malls have begun to compete with the traditional city center and sub-centers due to their advantages (positive externalities). These malls, which have located especially on the Eskişehir axis and its surroundings, have become a controversial subject over time (Ergun and Kulkul, 2019; Ozuduru et al., 2014).

3.1. New Type of Semipublic Spaces of Ankara

After the 2000s, a new dimension of the relationship between city centers and shopping complexes emerged (Aksel Gürün, 2005). With the opening of Tepe Prime Avenue in 2011, different examples began to emerge. The complexes consisting of food courts in open and semi-open street concepts create a new usage and everyday life in Ankara. The relationship between these areas, which are like the simulation of city centers, and the Ankara urban system is of great importance in terms of public life.

There are many projects that offer a new type of public life in the combination of streets, squares, and commercial areas in Ankara. However, within this study, three projects are focused on considering similar open space forms, functions, and structural features. These projects are Tepe Prime Avenue (2011), Maidan (2018)' and Ankara 1071 projects. They have located along the Eskişehir Highway (Dumlupınar Boulevard) where there are many ministry buildings. They are also close to university campuses such as Middle East Technical University, Bilkent University, Çankaya University, and Başkent University.



Figure 2. Ankara city centers, sub-centers, and case areas

Tepe Prime Avenue:

Tepe Prime Avenue is the first example of a semi-public project with commercial complexes. After the completion of this project, an effective public space has been created for Eskişehir Highway (Dumlupınar Boulevard) and its surroundings. Considering the social group addressed by the restaurants in this project, the density of use of the white-collar population is seen.



Figure 3. Tepe Prime Avenue project 3d images and photos

The project consists of three office blocks and the open space between these blocks. In addition to being a street, this open space has a gathering place-square and a small stage for different activities. This open area-street forms a connecting pedestrian path between Eskişehir Highway (Dumlupınar Boulevard) and Mustafa Kemal Boulevard and it faces the restaurants on the ground floors. This feature (pedestrian connection) was emphasized during the design phase of the project. Thus, developed discourse on an urban scale, not just a building. According to A Design Team (Designer of the project), “*The Tepe Prime Avenue project, which aims to create an alternative center on Ankara’s developing west*

corridor, aims to design an open public space and integrate it with urban life, unlike traditional shopping and commercial typologies”, trying to create new public life. Unlike traditional closed-type and single-structure shopping malls, it creates open space on an urban scale and sets out with the goal of becoming a part of the urban pedestrian system.

In addition, they state *“In the project, various suggestions have been developed to make the offices a region that lives for longer periods of time with different activities, instead of the places where the offices live for a limited time in themselves and are abandoned at night. various social areas are designed.”* The project often emphasizes publicity and open spaces. The square and the small stage area, which are part of the open public space, serve on an urban scale of public life. Especially with the free entrance to the project area, it differs from traditional shopping centers in terms of accessibility.

Also, the landscaping elements increase the use of open space. This feature of the design of the project is the biggest difference from standard shopping centers. The fact that almost all commercial uses are in the theme of restaurants has formed the main feature of semi-open public uses. The intensive use of this project continues today, and it is a pioneer for many projects after it.

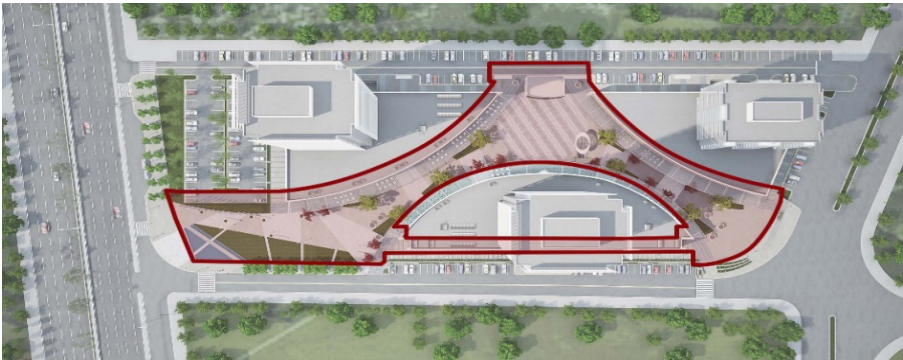


Figure 4. Tepe Prime Avenue project site plan and semipublic spaces

The Maidan project is located on the same road as the Tepe Prime Avenue project. The same principles are followed by Tepe Prime Avenue, and they have been designed by A Design Team. The unique feature of Maidan is that the open spaces formed by the building are like a big square. Basically, it consists of three tall and one small office block and a public square formed by restaurants located on the ground floor of these blocks.

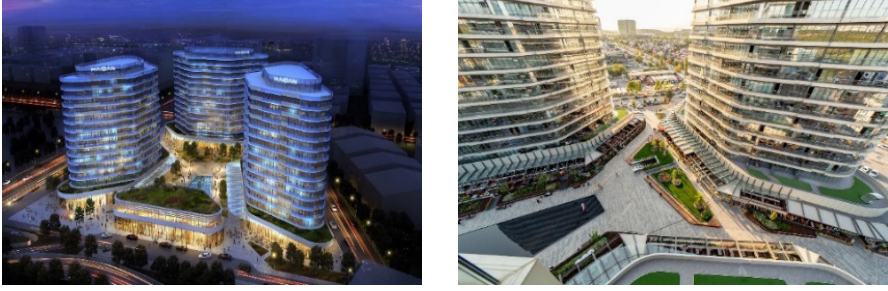


Figure 5. Maidan project 3d images and photos

It connects Eskişehir Highway (Dumlupınar Boulevard) and Mustafa Kemal Boulevard, and it provides a pedestrian connection on an urban scale. It is located at the entrance of Bilkent metro station and has a direct connection to the pedestrian access of two different university campuses. The building form is designed according to *“The design is primarily based on the idea of creating pedestrian spaces on the ground where functions integrated with the city take place, by carrying the pedestrian movements coming from close neighborhoods to the project area”* (A Design Team, 2011)



Figure 6. Maidan project site plan and semipublic spaces

In the Maidan project, the square form of the area is used for different public activities and hosts various activities at different times. Similar to the Tepe Prime Avenue project, social accessibility is higher than in traditional shopping centers due to the unsupervised entrance and the social diversity of activities.

This new type of design and management model offers an alternative to everyday life in the traditional city centers of Ankara. According to A Design

Team, “A new urban space has been created through semi-open and open spaces in the complex, which includes functions such as eating and drinking as well as working spaces. The curvilinear forms of the buildings have allowed open space arrangements by shaping the exterior spaces”. Particularly the water and landscape elements in the square allow different public activities for different social groups (children and the elderly). With this feature, the project is seen as a more comprehensive project in terms of the social groups it addresses.

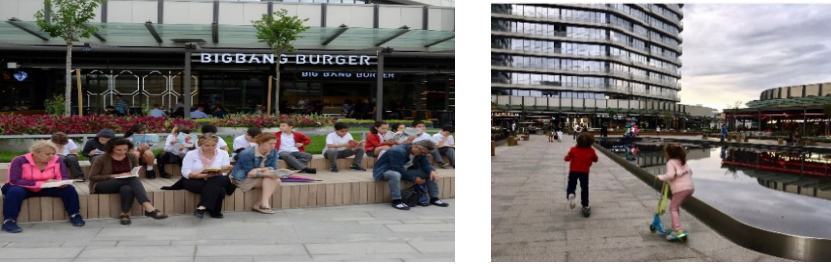


Figure 7. Different social groups in Maidan project,

1071 Ankara:

1071 Ankara is an example of a project that is not yet actively used among the selected projects. The construction of the project has been completed, but the offices-residences and open spaces have not started to operate actively yet. Similar to the other chosen projects, this project consists of three blocks and the public space between these blocks. Contrary to other examples, the street concept is in the form of open spaces at different ground levels. According to A Design Team, who is also the designer of other projects, “In the area surrounded by roads on four sides, various spaces have been proposed where different building programs come together. The urban spaces designed between the buildings can be accessed from different levels”.

The project is located between Çukurambar district and Balgat district, close to the city center. Although it is located close to the main arteries such as the Konya Highway and Eskişehir Highway (Dumlupınar Boulevard), it does not have a direct connection to the main roads like other projects. For this reason, it does not show the characteristic of a systematic connecting pedestrian path on the urban scale. However, it uses the size of the project area and its closeness to the city centers as an advantage. According to the design team, “*The independent commercial units designed on the ground floor have been provided with the opportunity to pass from many points. The fragmented order of the masses has prepared alternative spaces for functional diversity.*”

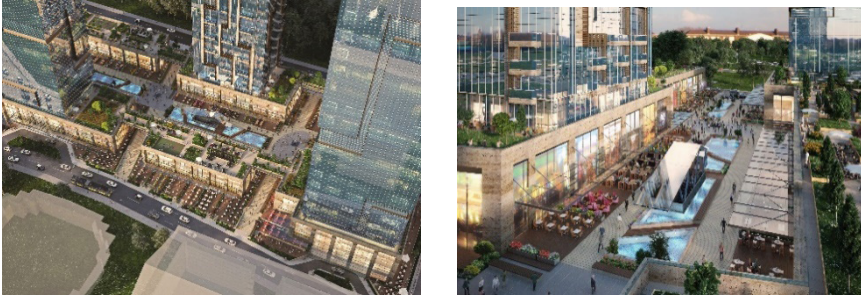


Figure 8. Ankara 1071 project 3d images

In the 1071 Ankara project, the space between the buildings is not only a street but also a green space. Although landscape elements are mostly used as figures in other areas, green spaces seem to be the main public open space feature in this project.

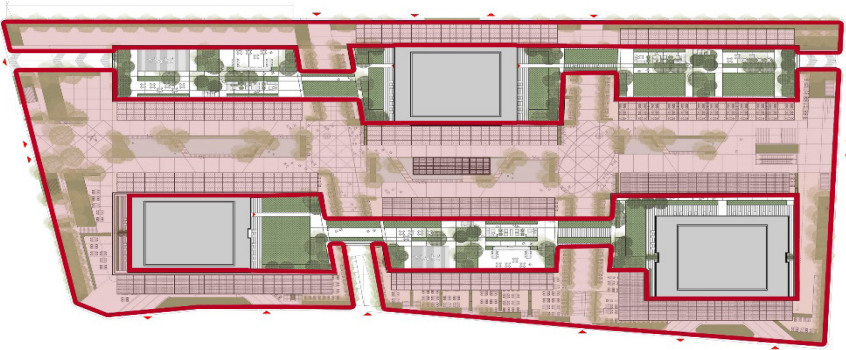


Figure 9. Ankara 1071 project site plan and semipublic spaces

These projects, which have been designed over different years, create a culture that spans time to create a new model for Ankara's public life. In addition, the characteristics of the semi-public spaces they create also differ. While Tepe Prime is in the form of a street and has an event-oriented gathering area, it shows its semi-public feature in more niche events. For Maidan, the gathering area is used spontaneously in daily life because it is larger and square form.

They benefit from university campuses, offices, technology centers, and ministry buildings located around their districts. In this way, they have become a part of the everyday life of the users of these functions. They are located close to the sub-centers of Balgat, Çukurambar, and Ümitköy along the Eskişehir Highway (Dumlupınar Boulevard), which emerged as a result of the decentralization of the Ankara city center.

4. Research Method

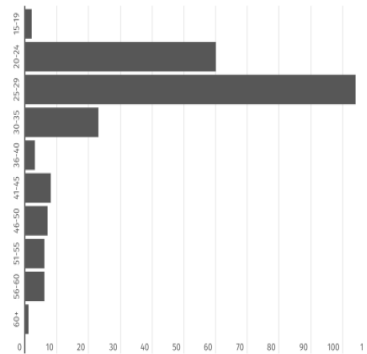
After a literature review of everyday life, public spaces, city centers, and shopping spaces, the research examines the change and transformation of the center of Ankara and shopping activities in the historical process. With the selection of case areas, a survey was conducted in order to reveal the user profile of these areas. 220 people participated in this online survey using by snowball sampling method. In the short survey, reviews were received on whether these projects are alternative small centers to the central areas of Ankara (Ulus, Kızılay, Tunalı, Bahçeli, etc.).

5. Findings and Conclusion

220 people participated in the survey conducted within the scope of the study. In this survey, the opinions of the users of the study areas (Tepe Prime Avenue and Maidan) were tried to be determined. For this reason, the age groups, and educational level of the participants were determined primarily.

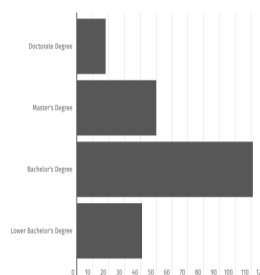
Age groups

It is seen that most of the participants are between the ages of 20-30, but the groups under the age of 18 and over the age of 60 are low. Considering the selected areas in the study, it can be said that a participant group pattern is like the user pattern of the area. In addition, it is thought that the group between the ages of 20-30 is dense because the survey was conducted through the snowball method and the internet.



Education Level

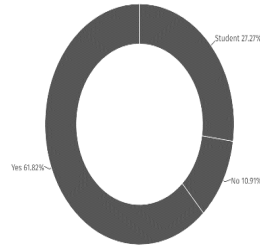
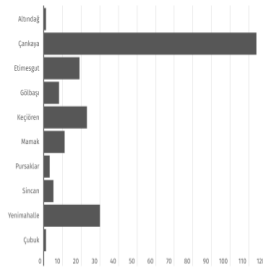
It is seen that the education level is mostly undergraduate and postgraduate. Considering that the white-collar population is the user of these areas, the distribution of education level is as expected.



To understand the relationship between the visiting habits of the users; the regions where they live, work and study participants were determined.

Where do you live:

The neighborhoods where the participants live are seen mostly in the central district. Accordingly, the main living areas of the participants are Çankaya and Yenimahalle.

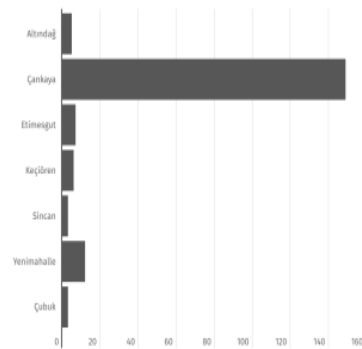


What is your employment status? Do you work?:

It has been tried to determine whether the participants are actively working or not. It is seen that 90 percent of the participants are working and studying.

Where do you work or study?:

The neighborhoods where the participants work, or study are mostly in the central districts such as Çankaya and Yenimahalle.



An open-ended question was asked in order to compare the new types of public spaces with Ankara city centers in the context of public space and daily life after the profiles of the participants were determined.

Questions such as “Do you think that these new types of public spaces are alternative small centers to the traditional central areas of Ankara (Ulus, Kızılay, Tunalı, Bahçeli etc.)?” are asked. Approximately 70% of the respondents answered the question positively. The remaining 30% answered negatively. When the reasons for the negative answers were asked, the following results were obtained. These answers can be grouped under certain headings such as:

Similarities to shopping malls and controlled by private management:

- *“The use of public space is not sufficient in any of them. I like to spend time in places where there are freer movement.”*
- *“City centers have plenty of alternatives. Also, there are the same type of shops and cafes in all shopping malls. And more, they are all in the same places. Very boring and unnecessary spaces. There is no variety.”*
- *“I am against the unnatural ‘shopping mall’ culture, I don’t think these places are an alternative.”*
- *“I do not believe that there will ever be centers for public use since the scale of a single building, single ownership, and single management elements cannot take care of various usage-user relationships and various need-deficiencies-interests.”*

Physical accessibility and design:

- *“Ulus, Kızılay, and Tunalı are sub-centers that exist with their morphological structures (especially street textures) and attract people to be there. I do not believe that these areas can have this quality.”*
- *“It is difficult to come to these places by public transport in the late hours.”*
- *“Activities are limited.”*
- *“As it is easier to access the open space in public spaces such as Tunalı, Bahçeli, etc., they provide more comfortable and spacious environments.”*
- *“Bahçeli and Tunalı are on the small-scale neighborhood, within walking distance of the residents. Ulus and Kızılay are in the center of the city, and they can be reached by one vehicle in the city. Also, they are places where citizens from different economic classes can meet all together.”*
- *“The only positive aspect of shopping centers is not being affected by bad weather conditions. But the main reason why I do not use it is the inability to reach on foot. Even if you live in a close location, try to go as an excluded pedestrian from places with vehicle-oriented transportation such as overpasses. However, if you have a car, there are no parking spots and preferable places because you can access them relatively easily. Apart from that, you can find your needs such as shopping in centers such as Tunalı and Bahçelievler, while at the same time, you can relatively meet your psychological needs in the open space.”*

Social accessibility and sense of place:

- *“I think that Ulus, Tunalı, Kızılay, etc. each have a different spirit. I think that malls such as Maidan and Tepe Prime are similar to each other. There*

is no place to sit in Maidan etc. Different socioeconomic groups prefer different areas and do not socialize in the same area. “

- *“Shopping mall culture does not address the whole of society. Because these areas are almost mandatory to have private vehicles for access to the area, and the places in them to eat and drink. It targets a certain level of income due to reasons such as being limited to eating/drinking/shopping activities, etc. This and similar shopping malls cannot be described as “centers” or “sub-centers” as they conflict with the principles of equality and public life.*

- *“They are not public spaces that appeal to all levels of society. They are more suitable for people with middle-high incomes. Far from the city center. They lack small-scale businesses. They don’t live 24/7.”*

- *“Instead of valuing the human in all its dimensions they try to encourage consumer dimension predominate.”*

- *“No matter how much they seem to function as public spaces, they actually do not go beyond the simulation of a street. Even by giving names such as “street”, “neighborhood”, etc. to their public spaces, they admit this simulation.*

- *“They have no soul, no traces of experience, no green space. They are not like the central areas where all these are intertwined.”*

- *“It does not appeal to everyone socio-economically.”*

- *“Ulus, Kızılay, and Tunalı are parts of city life, they can be reached in everyday life. Others are one-dimensional.”*

6. Conclusion

Ankara has experienced a rapid transition from a small Anatolian city to a metropolitan city. This transition did not occur simultaneously in the physical and social structure of the city. With the proclamation of the Republic, its social structure suddenly changed, and the physical structure of the city was able to adapt to this change later on with spatial and planning studies. Especially with the Jansen Plan, the expansion process of the city started, and the city grew up to its present borders. In this process, the city center developed, changed, and finally disintegrated and a mixed urban system emerged with sub-centers. Within this system, the structure of the city center was also discussed, and various types of center formations, public spaces and commercial spaces emerged.

The new type of public spaces that are the subject of the study provides an example of modern alternative life for public spaces as a summary of the change process in Ankara. Especially the fact that they are located around the Eskişehir

Highway (Dumlupınar Boulevard), which is described as the development axis of the city, supports this idea. But the main reason for this situation is the use of these new types of public spaces as an alternative to sub-centers in this axis.

With this study, the structural and environmental relations of these areas were revealed. These areas (projects) are not ‘non-private areas’, which is the most essential feature of traditional public space. This feature weakens the public space feature of these areas. In addition, the fact that these areas are in the form of consumption-oriented street concepts and that social accessibility is not as extensive as in the centers of the city further weakens the definition of public space in these areas. Last, as is frequently seen in the survey, it is thought that the concepts of ‘belonging’ and ‘sense of place’ are weak in these areas, unlike urban centers. Another important result of the survey is that these areas are more consumption-oriented and likened to concept shopping malls. According to the answers, although they are in public use, being connected to an ‘administration’ suppresses its public character. This situation changes the value and quality of public space.

On the other hand, the public life provided by the street typology to the open and semi-open concept increases the use of these spaces in the sense of public life. The uncontrolled entrances-exits and the fact that the activities carried out in the open areas do not carry any restrictions increase the social accessibility of these areas. In addition, the fact that the majority of commercial uses preferred in the street concept are restaurants increases the usage time of these areas.

It is evaluated on an urban scale; these areas are the focus of attraction. At the same time, there is a vehicle-oriented transportation system and there is no use such as any public squares and pedestrian streets in this area (Eskişehir Highway surroundings). The fact that these projects complete the deficiencies in concepts such as street-square is another important input that supports public life.

As a result of the study, the place of new types of public spaces such as ‘Tepe Prime Avenue’, ‘Maidan’, and ‘Ankara 1071’ projects in Ankara’s daily life has been determined and users’ ideas on public life in these areas have been obtained. With the literature study, the public space quality of these areas has been evaluated. When these areas are compared with the traditional city center and sub-centers of Ankara, it can be characterized as a ‘concept’ area rather than a city center, even if it offers an alternative to the meaning of public life. The fact that even the names of these areas are preferred in English reflects the concept

features they want to create. However, due to the increasing number of projects in this typology and approach, these areas have a visible impact on Ankara's daily life.

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CHAPTER VII

USING SOCIAL MEDIA AS A METHOD OF URBAN CRITICISM: THE CASE OF KIZILAY

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1. Introduction

The study examines and discusses the coexistence of social media and urban criticism. In this context, discussing the concept of criticism is also necessary. Criticism is “examining a person, a work, a subject to find and show its right and wrong sides” (Turkish Language Association, n.d.). There is a stereotypical perception in society that the concept of criticism only discusses negative and defective aspects. However, the task of criticism is to reveal the positive and negative together and, in doing so, inevitably to explain and evaluate the object of criticism. As supported by Güzer’s (2009) statements, criticism; “In the popular culture environment, while the “value attribution” aspect of the word comes to the fore, it is often observed that it contains a negative emphasis. In academic environments, on the other hand, criticism is perceived as a process of analyzing and understanding the gradation of relations, and accordingly questioning and reassigning meaning”. The word criticism is synonymous with the word critique, which is etymologically based on the Greek ‘kritikos/krinein’ (Attoe, 1978). Critique means “to examine, to investigate” in the simplest terms. The word ‘criticism’ in English means distinguishing and revealing differences. Based on the meaning analysis of the word itself, it can be said that criticism means examining, evaluating, and

developing a new interpretation. Dinç Kalaycı (2015) defines criticism as “the act of considering something with its good (merit) and bad (demerit) aspects and judging it accordingly .”This expression is valuable because it focuses on the ability of criticism to evaluate positive and negative aspects together and adds a new dimension to the usual connotations of the criticism concept.

In contrast to this perspective, Öymen Gür (2009) underlines the negative emphasis of criticism by stating that “criticism, however optimistically it may be defined, is ultimately an act of ‘fault-finding,’ implying that the object of criticism deviates from an assumed ‘ideal’ position .”Tafari (1986), while discussing the concept of criticism with the words “there is no criticism, there is only history,” emphasizes that the subject of criticism cannot be historical objects; it can be people or human civilization. Tafari (1986) avoids the positive or negative distinction by pointing to the anatomy of the parts that bring together the whole of the object of criticism.

While Yücel (1991) expresses criticism as “discourse on discourse,” Sözen and Tanyeli (1994), in parallel to him, express criticism as “thinking not on what has been done, but on what has been thought .”Critical thinking in urban and architectural criticism focuses on multiplying questions and inquiries and exploring boundaries rather than seeking answers to debates. Each ‘new’ that urban and architectural criticism will discover harbors a new potential that will directly or indirectly affect the production of architecture. The way this study deals with the concept of criticism is also related to the meaning and interpretation of the object with its different dimensions.

Instead of discussing criticism as an intellectual act, defined as a professional activity, the research conducted in this chapter discusses criticism as a coincidental criticism without continuity. In this context, the difference between the critic (professional) and the critical (nonprofessional) is revealed by the urbanites being in the position of ‘critic’ throughout the research. The urbanites, who will be effective in putting forward this criticism, have been the part that constitutes the interactional dimension of criticism. Criticism will often be constructed repeatedly by different urbanites under different topics of criticism, with different perspectives and expressions. The potential of the repetitive production of this coincidental criticism, which has no continuity, by different urbanites to define a continuity defines the interactional dimension of criticism. Urban criticism turns into a dynamic concept with the urbanites. The study can be read as an attempt to invite urbanites to become ‘critics,’ the urban criticism to be developed with this reading will differ from the process and results of criticism presented by the ‘critics’ of the architectural environment.

This study, which invites citizens to a city council in a virtual environment, attempts to construct the concept of urban consciousness discussed by Lefebvre (1984) in a virtual environment. Thus, it pushes the virtual environment to become an interactive environment for discussing the city and its future.

In Habermas' solution, as Demirović (2007) quotes, "[...] the criterion of criticism is placed in the use of everyday language. When individuals speak to each other, they always implicitly recognize others and often take the people with whom they speak to be autonomous individuals who can make rational arguments that may challenge what is being said reciprocally. Criticism is, first and foremost, the possibility of questioning the claims of validity in and expressed in statements about objective truth [Wahrheit], moral righteousness [Richtigkeit], and objective truthfulness, which are all related to everyday language. Since it has a normative projection on social reality, this communication-theoretical argument becomes a social-theoretical criterion of criticism". The questions, answers, and discussions that urbanites will raise through language as 'critics' can offer an experimental study on the criticism concept. Inviting urbanites to the position of 'critic' can also raise their awareness about the city and make them think and question. Within the scope of this study, social media can be defined as a tool that can be evaluated in the context of Habermas' relationship between language and criticism.

In this study, which is put forward in the name of urban criticism, 21st-century technology and media opportunities have been used. Technological developments called Web 2.0, which are used today as global development, have created a new communication system at the social and organizational level due to the easy accessibility of information. As a product or application area of Web 2.0 technology, social media allows communication to be two-way, interactive, and simultaneous rather than one-way dissemination (Landsbergen, 2010, p. 135). The potential of social media to be open to interaction and communication has created a starting idea for the development of a method that can carry urbanites to the role of 'critic' and differentiate itself from traditional methods with the necessity of keeping up with the developments of the age in the context of media and communication possibilities. Social media enables the sharing of text, audio, video, and pictures (Scott, 2010, p. 38), and this feature allows users to have a mass communication tool of their own. In this way, individuals have become viewers or readers and actors who directly disseminate/share information or discuss information. Information production, storage, and sharing have become independent of time and space, resulting in a radical transformation in the communication order.

2. Purpose of the Study

The primary aim of this study is to use the potential of social media to reach the urbanites in an unplanned way as a tool for the discussion of urban criticism. In this way, it takes the concept of criticism out of the academic environment and tries to discuss the concept of coincidental criticism. At the same time, this prepares the environment for the interactive creation of Lefebvre's (1984) concept of urban consciousness through the virtual environment. In this context, a trial is conducted through a selected social media application, and the determined study area and the possibilities of creating urban criticism are discussed.

Urban concepts such as urban identity, city center, urban consciousness, public space, green texture, and collective memory are determined to put forward urban criticism. To open these urban concepts to the discussion, critical concepts related to these concepts (regional values, publicness, perception, equality of urban use, green continuity, ecological values, 21st-century urban values, functional diversity and density, intellectuality, the role of design) are determined and a critical environment is presented to the urbanites within the framework of critical concepts.

3. Methodology

It should be a social media application that creates the environment and tools of urban criticism that will be randomly revealed by both the method and the urbanites the study aims to reach. Being able to include location notifications, sharing photos about a place, expressing opinions about a place, sharing where you are with people, and storing data about cities in the context of interaction and analysis. The fact that Instagram is a media tool developed with a focus on space-place-location and visual content; its structure prioritizes social participation, allowing individuals who make up society to have a say to participate in the design and planning process; the ability to continuously improve content and information and to create research projects have enabled Instagram to be determined as a tool and method of creating urban criticism within the scope of the research.

Instagram's business profile option allows access to statistical data about the account (location, age, gender, etc. of profile followers). Visual content shared on Instagram can consist of 'posts,' permanently placed on the user account, and temporary 'stories,' which can remain active on the user account for a maximum of 24 hours (after which they can optionally be passively fixed

to the account). Permanent posts can be shared as photos (up to 10 photos at the same time), videos (videos 3-60 seconds long), and long broadcasts (60 minutes). In addition, ‘Message (Instagram Direct)’ allows users to send messages in pairs or multiples (by creating a group). All users’ posts on Instagram can be liked, commented on, saved, and shared. In addition, Instagram allows two-choice surveys and scoring to increase user interaction. Within the scope of the study, permanent and temporary posts were made, the citizens’ opinions were asked with open-ended questions on permanent posts and multiple-choice questions were asked using the survey feature on temporary posts. With these possibilities, Instagram was used as a data collection tool to create urban criticism, and the profile created on Instagram provided an environment where data was collected and transformed into urban criticism.

4. Urban and Critical Concepts

Through theoretical readings on architecture and the city and historical readings of Kizilay, urban concepts were identified in the research: urban identity, city center, urban consciousness, public space, public space green tissue relationship, and collective memory. Critical concepts that enable the discussion of these concepts and form the target theme of the posts on Instagram were determined. Critical concepts were identified as regional values, publicness, perception, equality of urban use, green continuity, ecological values, 21st-century urban values, functional diversity and density, intellectuality, and the role of design. Critical concepts, proposed as singular concepts, can be related differently, so forming relationship matrices is possible.

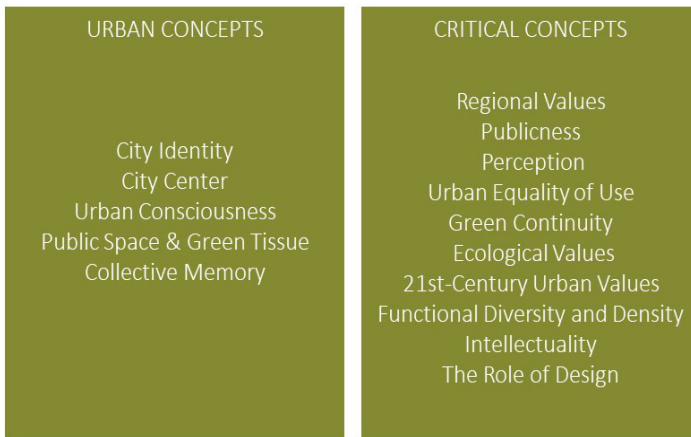


Figure 1. Urban Concepts and Critical Concepts

4.1. Urban Concepts

4.1.1. City Identity

The discursive plane (inevitably also spatial) is where the elements of the modern individual and the free citizen come together, which Batuman (2017) refers to with the statement, “Yenisehir, as the focus of the capital, will represent the will and ideals of the young nation and at the same time will be the place of the new form of administration and a new way of life” points to the urban part, Kizilay, which is used as a tool in constructing urban identity as the ideological context in which “individual experiences overlap and evolve into an integrated social life.” For Kizilay, which is considered a representation of the Republican period, it is necessary to state that the city center moved to Kizilay in that period with Sargın’s (2017) expressions “growing from the old city Ulus to the new city Yenisehir”. Historical values and cultural heritage from the Republican period to today (from Yenisehir to Kizilay) can also turn into reference points in the city center; however, reference points can also be defined as timeless reference points by getting rid of their connection with the historical past.

The identity of the urban part of Kizilay is formed by its functional pattern, especially after the 1950s. As Kizilay started to be known as a commercial center, it was observed that it started to gain functional diversity. Among this diversity of functions, it is noteworthy that the number of functions with intellectual references associated with artistic and cultural activities is more limited than other functions. In this context, another factor that still marks Kizilay as the center of the city today is its programs’ functional diversity and intensity. Municipal buildings, local government buildings, corporate buildings, hotels, advertising agencies, insurance and real estate companies, banks, tourism and airline companies, restaurants, cafeterias, pharmacies, clinics, offices, business centers, study centers, hospitals, courses, cinemas, public baths, Unions, associations, housing, schools, police, bus stops and shops (clothing, jewelry, cosmetics, stationery, bookstores, photography, glassware, optics, music, fashion houses, gsm operators, electrical-electronics, repair, technical service tailor, hairdresser, barber, greengrocer, market, bakery, buffet, bagel seller, etc.).) are among the examples that can be counted in a snap. These functions have formed an intertwined pattern and given Kizilay a texture of functions. This texture, a ‘patchwork’ in a sense, can constitute the identity of the urban part of Kizilay. For Kizilay, a specific function does not come to the forefront, but the totality of functions is at the forefront.

4.1.2. City Center

The areas defined by Lynch as nodes/focal points can be associated with the determination of the study boundaries and the city center concept. In Lynch's (1960) words, "...although they may be conceptually small points in the image of the city, in reality, they can be large squares, extended linear areas or, when considered on a larger scale, large areas covering the entire central area" (Lynch, 1960, p. 80-81). It is possible to associate these areas, which Lynch later defined as focal points, with Kizilay in Ankara. Again, the areas that Lynch (1960) described as "junctions or points where transport breaks" (Lynch, 1960, p. 81) can be perceived within Kizilay. The intersection defined at the intersection of Ataturk Boulevard, Ziya Gokalp Boulevard, and Gazi Mustafa Kemal Boulevard turns into an area that defines the transportation network of the city's main transport arteries together with Guvenpark. The density of existing subway stations, bus and minibus stops, and taxi stands support this situation, and Kizilay works as a transfer point for Ankara. Kizilay has gained the characteristic of the city's transport center as it embodies the intersection and distribution potential of the urban transport pattern. In this context, it functions as a gathering and dispersal place.

4.1.3. Urban Consciousness

Urban space as a living space, as the stage of our daily activities, and as a shell is production itself. According to Lefebvre (1984), space is "socially produced and social. Each social formation produces its spatial forms. In other words, space is a social production (process), and society is both the result and the precondition of production." In this context, life in space, daily practices, experiences, and architectural and urban environments and products assume new meanings and become a part of urban dynamics. At this point, the architectural and urban environment and products inevitably interact with the urbanite, which constitutes the city's largest population, with the capacity to transform the space and itself together with social processes.

The relations established through the urban part and the urbanite can be associated with urban consciousness. The variables used in the measurement of urban consciousness are valuable in the context of discussing and improving the relationship between the urban part and the urbanite: (1) Urban Identity - Place Attachment, (2) Opportunities Offered by the City, (3) Behavioural

Characteristics: Participation, Environmental Awareness, Transport Habits, and Governance (Ercöşkun et al., 2016).

Making urbanites a part of the urban design or involving them in the design process with their role as urban users may lead to positive results; however, directly assigning the designer's role to urbanites may lead to disorder in the organization of public space. In this context, design is essential to prevent the formation of idle areas in the urban part and to create order.

4.1.4. Public Space and its Relationship with Green Tissue

In Batuman's (2017) words, quoting Lefebvre, public spaces are "both the medium and the product of social processes at the same time". Starting with the Lorcher Plan, urban plans emphasizing open and public spaces have also impacted Kizilay. The Lorcher Plan played an essential role in shaping the texture created in Kizilay. With the Jansen Plan, Kizilay Square is defined by Guvenpark, which forms the last point of the Vekaletler Neighbourhood (today called Bakanliklar), and the Kizilay Building and its park located opposite (Batuman, 2017). According to Batuman (2017), who likens this square to a stage, the decor of the stage is the monument placed in Guvenpark and facing the Ataturk Boulevard axis. It is noteworthy that Kizilay, which gives its name to Kizilay Square, is a semi-official institution with special status. The formation of Guvenpark, Sihhiye, Zafer Squares, and the entrance squares of Tuna and İzmir Streets started from the Lorcher Plan (Günay, 1993). Kizilay cannot be considered independent from the concept of public space thanks to its location within the city and its title of the city center, the functional diversity it contains, its feature of forming the intersection and distribution route of transportation axes, its historical development process, its place in the urban memory and its image in social memory. The efforts made during the Mustafa Kemal period to ensure that Ankara had a planned urban development make discussing Kizilay with public spaces possible. The squares located at different scales and in different sub-regions, the gaps created at the intersection points of the streets, and the surprise street details called urban surprises constitute a great public space potential. Another important sub-heading when discussing public space in Kizilay should be security. Security should be considered as a factor that significantly harms the public identity of Kizilay in the process of change and transformation.

It is noteworthy that Kizilay was included in the Jansen Plan (which emphasized the creation of large green areas and proposed to weave a green system to create a network of parks within the city) and the Yucel-Uybadin Plan (the central theme of the competition in which the plan was selected was Ankara's green areas and parks (Cengizkan, 2006). It should not be forgotten that Ankara's parks with their mature trees and especially the Maltepe Green Belt (from the Mebusevleri entrance of Anitkabir to Bülbülderesi Street via Kumrular Street and Yuksel Street), boulevards and main avenues with their mature trees, and boulevards and main streets with their mature trees were emphasized as being designed to change the face of Ankara in this competition booklet. The green construction, introduced with the Lorcher Plan as a "sequential green area series" (Cengizkan, 2004), has maintained its continuity by increasing importance in the following plans. After the Yucel-Uybadin Plan, Kizilay Square was significantly reduced in size due to the widening of Ataturk Boulevard and Ziya Gokalp Street to meet the rapidly increasing traffic load of Ankara and became an institutional garden. The pool and sculpture in the park were moved. Today, Kizilay has lost the strength of its green axis along the boulevard and the parks and green areas it harbors. Until the 1970s, the fact that the public space known as Kizilay Square was laid out within the framework of green fiction strengthened the urban green fiction between Zafer Park and Guvenpark; however, it can be said that this fiction was interrupted by the transformation of Kizilay Square. While Kizilay incorporates Zafer Park and Guvenpark, it is in close relationship with Abdi Ipekci Park and Semih Balcioglu Park. This green fiction is favorable to be strengthened and sustained within Kizilay. For example, the tree continuity along Kumrular Street, which has become an image from the street perspective, and the gradual pool and sparse green texture positioned within the scope of the landscape project designed to prevent the undefined width of Izmir Street (Izmir Street Pedestrian Zone Urban Design and Landscaping Project, Can Kubin and Selami Demiralp, 2003) can be considered as sub-regions open to evaluation.

In this direction, the green continuity of Kizilay should be discussed based on its planning within a green fiction. While forming the framework of criticism here, three titles related to green can be examined: protecting the existing green, strengthening the green axis, and touching the green. As much as it is vital to strengthen the existing green situation physically, it can be criticized for not being able to establish a relationship with the existing green and not producing public space for the urbanites by using the green.

In Kizilay, while intellectuality becomes a means of sustaining public spaces, intellectuality can inhabit public spaces to exist. Intellectuality should exist in the city center, focusing on production and sharing. In other words, intellectuality should be produced in the city center and shared with the citizens, and a typical intellectual accumulation should be created. There are many theatre stages, libraries, music courses, and institutes in Kizilay, and intellectual reference points should be identified.

4.1.5. Collective Memory

The transformation of Kizilay into a representative space of the Republic and its attempt to define a center within the city from the 1925s undoubtedly made it possible to define an urban and collective memory for Kizilay. When Kizilay is analyzed in the context of free associations, it is clear that Kizilay has different meanings for different generations. In the collective memory, Kizilay is associated with protests, fights, mass actions, celebrations, and ceremonies and is a “place of political appearance” (Batuman, 2017).

The five urban concepts discussed here have paved the way for the creation of critical concepts. Critical concepts determined the themes of the posts and questions directed to the urbanites. In this context, urban concepts can be handled by evaluating multiple critical concepts.

Table 1. The Relationship between Urban Concepts and Critical Concepts

| URBAN CONCEPTS | CRITICAL CONCEPTS |
|---------------------|--|
| City Identity | Regional Values, Perception, 21st-Century Urban Values, Functional Diversity and Density, The Role of Design |
| City Center | Functional Diversity and Density, Urban Equality of Use |
| Urban Consciousness | Urban Equality of Use, Green Continuity, Ecological Values |
| Public Space | Regional Values, Publicness, Urban Equality of Use, Green Continuity, Intellectuality, The Role of Design |
| Green Tissue | Green Continuity, 21st-Century Urban Values, Intellectuality, The Role of Design |
| Collective Memory | Publicness, Perception, Functional Diversity and Density |

4.2. Critical Concepts

Urban concepts are concepts that include many sub-concepts or that relate to many other concepts. Instead of the urbanites analyzing these conceptual relations, it is aimed to simplify the concepts by creating critical concepts and making them more directly examined by the urbanites. The first concept that forms the critical concepts is *Regional Values*. It includes topographical values and their natural richness, historical values that need to be preserved; the spirit of place, reference points, and unique values that need to be maintained; urban-social memory that needs to be activated; and socio-cultural sustainability. *Publicness* is a critical concept created to discuss the enrichment of life, daily life practices, and experiences in the urban fragment; the enhancement of positive relationships between the urban fragment and its inhabitants; the protection of public spaces; the preservation of squares; the elimination of undefined areas; and the provision of security. The concept of *Perception*, on the other hand, includes values such as making the urban identity visible; integrity in architectural language; balance (full-void ratio); preservation of urban scale; being aesthetic and remaining aesthetic; creating unique vistas; creating and preserving unique boulevard and street perspectives. The concept of *Equality of Urban Use* discusses enabling urban use for children, the elderly, and people with disabilities; accessibility for all; increasing children's playgrounds, including children in the city center; taking into account the scale of children in the city. The critical concept of *Green Continuity* was created to discuss the values of preserving the existing greenery, strengthening the green axis/structure, and enabling urbanites to meet with greenery. *Ecological Values* include ensuring thermal comfort in urban spaces and acoustic comfort away from noise in urban spaces. *21st-Century Urban Values* include reflecting technological developments on the use of urban space, creating digital archives and platforms in cities, and ensuring that urban changes and transformations are digitally monitored and transferred to future generations as heritage. *Functional Diversity and Density* was created for discussions on the preservation and development of the pattern of functions, strengthening the intersection points of urban transportation and distributing them in a facilitative way, reducing the density of urbanites in the urban fragment, and if it cannot be reduced, managing it correctly/planned. The critical concept of *Intellectuality* discusses values such as sustaining intellectuality in urban space and urban life, increasing intellectual production and sharing spaces, and increasing intellectual reference points. *The Role of Design*, on the other hand, includes the values of utilizing the potential of the city dweller to be involved in urban designs in line

with needs and expectations, utilizing idle spaces waiting to be activated, the order and direction that should be brought to urban spaces; and giving the city dweller a share of the designer role.

5. Research Procedure

5.1. Selected Region: Kizilay, Ankara

Ankara is located in the center of Anatolia, has hosted many civilizations, and has a deep historical past. With the proclamation of the Republic, Ankara has entered a new identity construction process. The Ulus District considered the city center before the proclamation of the Republic, started to lose its importance with the concern of defining a new center after the proclamation of the Republic. The place of representation needed by this new identity, which undertook not only ideological but also urban, architectural, and socio-cultural missions, was Kizilay (then Yenisehir), which was designed and structured as a new center. Changing, transforming, and growing since the Republican era, Kizilay District still maintains its character as an intersection point of the city's main arteries, urban transportation axes, and public transportation facilities, inviting with its functional diversity, maintaining its importance in the urban routes of the urbanites on an individual scale; defining a gathering place for the urbanites; its character as a city center and its importance within the city in this context.

It was decided to select the Kizilay District of Ankara to raise awareness of Kizilay, to create a platform for discussion and criticism of the district, to bring Kizilay together with the urbanites through social media, and to explore the potential of the urbanites to develop criticism on Kizilay. The study area was limited to the Kizilay District; however, instead of the sharp boundaries of the region, blurred peripheral regions were tried to be defined through references. The Hittite Sun Course Statue was a boundary element in creating a door image. Necatibey Street, between the Hittite Statue and Yahya Galip Street, serves as a border. The area between Menekşe Street and Necatibey Street in Saracoglu Neighborhood creates the impression of a 'transitional' area, and the decrease in density has created ambiguous areas on this border. Hittite Statue, Mithat Paşa Street, and Kızılırmak Street serve as a boundary. The area between Bayındır Street and Mithat Paşa Street has similarly created ambiguous areas on this border. In addition, within the scope of the study, Bakanlıklar District served as a boundary with a sharp drop in density in the Bakanlıklar District and the elements belonging to Bakanlıklar. Çiçekçiler Street and Olgunlar Street, which are connected to Guvenpark and defined by an overpass, also serve as a boundary.

5.2. *Creating a Social Media Account: [urbandialogue.ankara](#)*

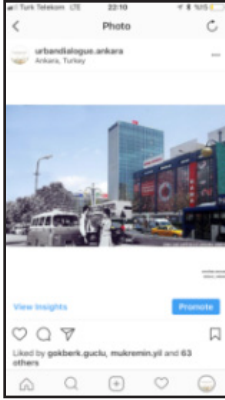
An Instagram user page was created on 20/04/2018 to share the framework of criticism created for Kizilay with the city dwellers to attribute the quality of being a ‘critic’ to the city dwellers. The account’s name was chosen as *urbandialogue.ankara* to create a dialog with the city. Although the main object of investigation of the study was the Kizilay District of Ankara and the user page created during the study period only shared posts from this district, the user profile name was associated with Ankara due to the potential to expand the study to the whole city in the future and to appeal to a broader audience. An English name was used because it is a universal language, and it was aimed to reach more urbanites without discrimination. In this context, the introductory text reads, “It was created to rethink, re-experience, and discuss Ankara with Ankara residents .” According to the data of 03/06/2018, it has 910 followers. According to the statistics provided by Instagram, 51% of the followers are between the ages of 25- 34, 61% are female, 39% are male, 94% live in Turkey, and 67% live in Ankara.

5.3. *Permanent Shares on [urbandialogue.ankara](#)*

A total of 20 permanent posts were made on the Instagram user page, including 18 visual content, photos, and two videos (*urbandialogue.ankara*, 2018). Here, an example is presented for each critical concept. A fading filter was applied to the images conveying the current situation of Kizilay, and the rearrangements made on the images created to trigger or direct the users’ thoughts were used in vivid colors. For the visual content in some posts, historical Kizilay archive photographs were used. Sharing texts that allow for feedback from the citizens were prepared. These texts included questions where the citizens could directly share their thoughts and questions with limited answers to guide the citizens. In the context of users’ eagerness for fast consumption and quick results in social media, special care was taken to ensure that the texts convey as much concise information as possible and to keep them short. To convey accurate information, many sources were consulted, and literature research was conducted. Examples of the visual content and texts of the permanent posts are given below. The posts were developed according to the sub-headings of the focus critique framework. However, it should be kept in mind that the sub-headings of the critical framework can be related to each other and that these critical values have the potential to overlap in the posts.

Table 2. Examples of Permanent Posts on *urbandialogue.ankara* in line with the Criticism Framework

Regional Values



21/05/2018

It is aimed to create a memory shift in users by overlapping two different dated photographs on Ataturk Boulevard in the same photograph. In this image, the point where the old and the new blend together is the Emek Commercial Block and the boulevard.

Memory slippage! As the years pass, the city is transforming. The city is being reshaped every day. The place of social memory in this transformation should be remembered. Now we ask you, do you have any unforgettable memories in Kizilay? If so, what are they? Are there any places in Kizilay where you say, “Change everything in Kizilay, but don’t touch this place/I wish you had not!” Please share with us; we are eagerly waiting!

Likes: 66

Comments: 16

Saved: 4

Publicness



17/05/2018

The photographs of Guvenpark’s four different passage corridors combine and use lines that create a labyrinth effect. This intertwining graphic is intended to make the user question the status of being a transition area.

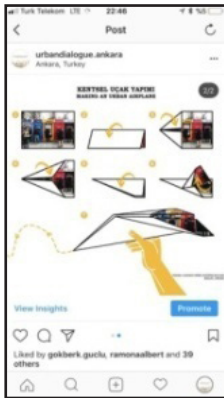
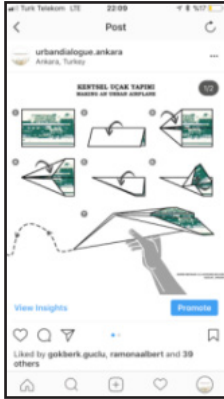
The transformation of Guvenpark into a transit space may trigger the transformation of Kizilay into a transit space. The city center should be transformed into a public space instead of a transit one. The ‘crowded’ characteristic of Kizilay may gain meaning when it becomes a gathering and meeting place for crowds rather than a transit space for crowds. In the future, do you think Kizilay will become a transit or living public space? Which do you prefer? What do you suggest for this situation?

Likes: 56

Comments: 19

Saved: 1

Perception



26/04/2018

In the first image, the Giyim Dunyasi Building is located in Zafer Square, and in the second image, the ATMs at the intersection of Ataturk Boulevard and Yuksel Street are seen to be placed on the plane. How to make an urban airplane?

✈️ Select the building(s) and/or urban part(s) and/or urban element(s) that you do not want to be in Kizilay.

✈️ Take an A4 printout of an image of your choice and follow the steps above to create an airplane model.

✈️ Now you can launch your urban airplane. No more buildings or elements that you do not want in Kizilay. It is that simple!

✈️ Which building/urban part/urban element would you not want to see in Kizilay? Share your reasons with us.

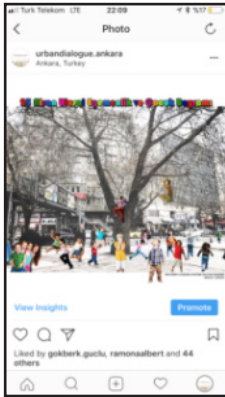
1. Aesthetic and formal concerns
2. Negative impact on boulevard/street perspective
3. Negative impact on city identity
4. Negative impact on urban memory
5. Dysfunction
6. Idle the current situation
7. You may have other reasons.

Likes: 41

Comments: 14

Saved: 1

Urban Equality of Use



23/04/2018

It is an April 23rd National Sovereignty and Children's Day celebration post that aims to draw attention to the scale of the built environment and the scale of children. It also shows that children cannot interact with nature.

Happy April 23rd National Sovereignty and Children's Day, a day for children to think and dream about the city. How often do you see children in Kizilay? Children want to play hide and seek in Kizilay. They do not need to hide; children are already lost in the scale of this built environment. Leave aside where and how children's playgrounds are; now focus on the child in the city! We must stop forcing children into limited spaces. The city must become a place of expression for children. Children should not be separated from the city; they should be included in urban design and production, in the urban experience. This will strengthen children's belonging to the city. What do you think alienates children from Kizilay? We are waiting for your comments. 1) Security 2) Lack of belonging 3) Urban design inadequacy 4) Built environment scale

Likes: 47

Comments: 25

Saved: 0

Green Continuity



03/05/2018

While the first image shows a bird's eye view of Guvenpark from the recent past, the second image is intended to open up for discussion the status of Guvenpark as a greener and more public space with the arrangements made.

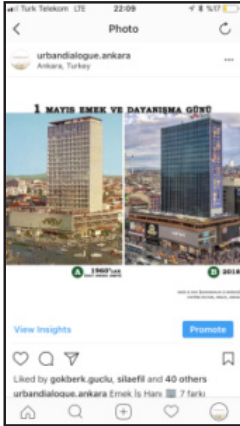
What are your expectations from the Guvenpark of the future? Or do you have any dreams for Guvenpark? What do you envision for the survival of one of the most valuable public spaces in the city center? What is your definition of public space? Please share with us, draw, write, discuss!

Likes: 54

Comments: 21

Saved: 3

Ecological Values



01/05/2018

To celebrate May 1st Labor and Solidarity Day, the 1960s and 2018 images of Emek Commercial Block were presented comparatively from the same perspective. Users were asked to choose one and point out the differences.

Emek Commercial Block  Find the seven differences! A or B?

Emek Commercial Block is known as the first skyscraper in Turkey. Completed between 1959 and 1965, the building is symbolic of the boulevard. It aimed to change the face of Kizilay and alter the physical structure and scale relations of Kizilay Square. Architect Enver Tokay’s skyscraper still retains its importance in urban memory. What are the changes the skyscraper has undergone? Find the differences. Which choice do these differences lead you to make? A or B?

Likes: 42 Comments: 16 Saved: 3

21st-Century Urban Values



10/05/2018

One visual was shared comparatively. By trying to add a hologramlike expression to the Security Monument, it is aimed to create associations with digital city archives.

Are cities becoming digitalized? What are the connotations of the digital city for you? Considering that in today’s digital age, everything is becoming increasingly technology-oriented, how do you think cities will be affected by these developments? Can concepts such as urban heritage, urban memory, and social memory keep up with this digitalization? Can we create digital archives of the cities we keep changing with demolitions and transformations? How will virtual reality, augmented reality, artificial intelligence, and infinite media tools affect the city? What do you think? Are you curious about the cities of the future?

Likes: 50 Comments: 10 Saved: 1

Functional Diversity and Density



13/05/2018

One visual shows seven different streets and avenues in Kizilay.

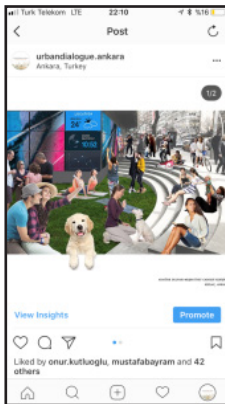
Density! Density is the common characteristic of all boulevards, avenues, and streets in Kizilay. However, what are their differences? Do they have their unique characteristics? What is unique to that street? What makes that street that street? What reminds you of that place? We are waiting for your posts about the streets and streets of Kizilay in the comments!

Likes: 47

Comments: 20

Saved: 5

Intellectuality



15/05/2018

It is aimed that the user who compares the current situation with the edited image will rethink Kizilay with a focus on activities such as sports, arts, etc.

How do you play around the corner?

- 🌀 Identify the activity you enjoy doing the most.
- 🌀 Take the materials you need for this activity with you.
- 🌀 Go to Kizilay.
- 🌀 Determine where you can carry out your activity and settle in.
- 🌀 This corner is your corner!

Kizilay can create potential spaces for everyone and every activity, but unfortunately, today, we cannot. Sports, painting, sculpture, photography, music and more. If you were to take a corner, where would you choose? What would you choose to do? Why can't you do it today?

Likes: 44

Comments: 15

Saved: 2

The Role of Design



14/05/2018

One 16-second video was shared, created by zooming in on an image and interweaving images. Do you have ways of not getting lost in Kizilay? Are there references you have set for yourself? Are there sign elements you have created in your mind in this crowd?

Likes: 39

Comments: 14

Saved: 0

Views: 382

5.4. Temporary Shares on *urbandialogue.ankara*

Using the Instagram Story feature, 159 surveys with two options were conducted on 30/05/2018. Among the 159 survey questions, 120 were created by adhering to the criticism framework, and 39 questions were created to make inferences about the respondents, increase urban awareness, or attract attention without the purpose of inference. An iconographic design language was created for these surveys, visuals were selected, and the survey questions were created by adhering to the criticism framework. Some examples of survey questions and visuals are given below, and survey results are presented.

Table 3: Examples of Temporary Posts on *urbandialogue. ankara* in line with the Criticism Framework

| Critical Concepts | Temporary Sharing Examples | Survey Questions | Interactions |
|---|---|---|---|
| Regional Values (Total 43 Questions) |  <p>03/05/2018</p> | There is a relief on the back of the Security Monument. | Story Views: 206 Story Responses: 105 Option 1: Correct - 81 people (77%) Option 2: False - 24 people (23%) |
| Publicness (Total 17 Questions) |  <p>02/05/2018</p> | Square is space. | Story Views: 158 Story Responses: 66 Option 1: Pause - 50 People (76%) Option 2: Transition - 16 People (24%) |
| Perception (Total 9 Questions) |  <p>02/05/2018</p> | How many overpasses are there on Mesrutiyet Street? | Story Views: 154 Story Responses: 82 Option 1 - 41 People (50%) Option 2 5 - 41 People (50%) |
| Urban Equality of Use (Total 9 Questions) |  <p>03/05/2018</p> | Is there a children's playground in Kızılay? | Story Views: 218 Story Responses: 115 Option 1: Yes - 23 People (20%) Option 2: No - 92 People (80%) |

Green Continuity
(Total 9
Questions)



01/05/2018

Available green
space in Kızılay?

Story Views: 137 Story
Responses: 77 Option 1:
Sufficient - 4 People (5%)
Option 2: Insufficient - 73
People (95%)

Ecological
Values (Total 5
Questions)

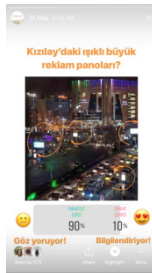


18/05/2018

Cycling in Kızılay?

Story Views: 280 Story
Responses: 178
Option 1 Common - 9
People (5%)
Option 2: Is it
widespread? - 169 People
(95%)

21st Century
Urban Values
(Total 5
Questions)



25/05/2018

The big illuminated
billboards in
Kızılay?

Story Views: 273 Story
Responses: 161
Option 1: Annoying - Eye
straining! - 145 People
(90%)
Option 2: Remarkable -
Informative! - 16 People
(10%)

Functional
Diversity and
Density (Total 9
Questions)



08/05/2018

Have you been to
Kızılay Shopping
Mall for shopping?

Story Views: 311 Story
Responses: 158
Option 1: Yes - 73 People
(65%)
Option 2: No - 85 People
(35%)

Intellectuality
(Total 9
Questions)



01/05/2018

The Role of
Design (Total 5
Questions)



02/05/2018

Cultural and
artistic activities in
Kızılay...

Story Views: 129 Story
Responses: 76
Option 1: Adequate - 9
people (12%)
Option 2: Insufficient - 67
People (88%)

Would you like
to have a say in
the future of the
Kızılay?

Story Views: 161
Story Responses: 95
Option 1: Yes - 85 People
(89%)
Option 2: No - 10 People
(11%)

6. Findings from *urbandialogue.ankara* Posts

The findings obtained within the scope of the research, within the framework of critical values, urban awareness, and future foresight, it has been observed that this platform acts as a filter for criticism while encouraging the urbanites to think and wonder about the city. The findings were prepared in line with the comments made by the participants on permanent posts, the survey answers obtained through temporary posts, and the messages received from the participants.

Regional Values: Questions about Kızılay's historical past and regional values led to the conclusion that the city has a social and urban memory. The fact that the citizens show this awareness is valuable in protecting these references in the future of Kızılay and protecting regional and historical values. In this direction, questions were directed to the citizens about the reference points that constitute the memory. For example, 68% of the 103 people who responded to the question "What is this building that still stands on Ataturk Boulevard despite the changes it has undergone?" chose "Army House" as the correct answer. In another example, 92% of the 92 people who responded to the question "Before the Kızılay Shopping Mall, there was" chose "Kızılay General Directorate" as the correct answer. It was observed that the past of Kızılay was more positively

perceived by the urbanites compared to its current state; however, there are also exceptional inferences that social tastes have started to change in a changing and transforming city. For example, it is noteworthy that 72% of the 108 respondents to the survey question “Has the transformation of the General Directorate of National Lottery affected the recognizability of the building” answered “Negatively,” while 28% rated the recognizability as “Positive .” Similarly, in the permanent sharing made over the comparative visuals of the transformation of Emek Commercial Block, 3 of the 16 people who made an evaluation evaluated the building positively with the changes and transformations it has undergone today. One user who evaluated the building positively stated that “illuminated signs and the squares/streets illuminated by them have always been attractive to me.”

Publicness: The fact that Guvenpark has become the center of transportation networks (especially minibus stops) turns Guvenpark into a transit area in the eyes of the urbanites. For example, in the permanent post, which includes photographs of Guvenpark from 1930, 1950, and 1980, urbanites were encouraged to think about the image of Guvenpark today. It was observed that urbanites do not approach Guvenpark with the concepts of park, garden, recreation area, public space, etc., as reflected in the photographs. Of the 30 people who commented on this post, 30 associated Guvenpark with insecurity, transit and transportation points, confusion, and chaos. Another permanent post aimed to discuss the dichotomy of public space and transit space through Guvenpark, and it was determined that 18 of the 19 citizens who contributed with their comments saw Guvenpark as a transit space. An urbanite calls for “utilizing the great potential of the competition phenomenon in architecture” to solve this problem.

Similarly, 82% of the 116 people who responded to the question “Did you know that the seating areas in Guvenpark refer to the past?” and 77% of the 166 people who responded to the question “The trees in Guvenpark have gradually increased, but it has lost its garden/park characteristic!” answered “No” and “Correct” respectively. In the permanent post shared with the citizens to share their predictions for the future of Guvenpark, according to the answers of 20 citizens, six people attributed the increase in its public quality to the removal of minibus stops, three people to the elimination of security problems and 14 people to the strengthening of the green fiction. The fact that a user who participated as an employee of the Metropolitan Municipality stated that it was on the municipality’s agenda to keep the public space alive by moving the

minibus stops to the lower level showed that the citizens could be informed about the city's future through these platforms.

Perception: In the context of urban perception, it was observed that boulevard and street perspectives gained importance. For example, out of 14 people who commented on the permanent post drawing attention to the fact that ATMs located on Atatürk Boulevard interrupted the perception of the boulevard, 3 of them stated that Kizilay Shopping Mall and 5 of them stated that the stops and billboards on the boulevard negatively affected the perception of the boulevard. In addition, it was discovered that the citizens defined some standard references in the context of boulevard and street perceptions. For example, while the tree fiction on Kumrular Street creates a perception that defines the street (91% of the 150 people who responded to the survey question "The street you recognize with its trees?" answered "Kumrular Street"), The Madenci Statue creates a descriptive perception for Olgunlar Street (92% of the 72 respondents to the survey question "Where is the Madenci Statue?" answered "Olgunlar Street"). However, it cannot be generalized that urbanites always develop a common perception. For example, although removing the five overpasses along Mesrutiyet Street had a significant impact on the perception of the boulevard, it was concluded that the level of awareness among the citizens was not the same. In the surveys, 50% of the respondents realized that the overpasses had been removed. Perception was also discussed at the scale of individual buildings rather than boulevards and streets in the urban fragment. At the building scale, citizens commonly believe that the intensive use of signage on building facades creates a negative perception. For example, 95% of the 158 respondents to the survey question "How do you evaluate the covering of building facades with billboards and signboards in Kizilay?" which was asked through the comparative visual, evaluated it as "Negative."

Equality of Urban Use: It was predicted by the participants/followers that there is no equality of urban use in the city center, especially for children, and that this situation can be eliminated by eliminating the security problem and seeking answers to the inadequacy of urban design. It was stated that there needs to be more playgrounds for children in the city center, and one of the biggest reasons for this is that there is no child-scale design in the city center. For example, 80% of the 115 respondents to the survey question "Is there a children's playground in Kizilay?" answered "No". In the April 23rd National Sovereignty and Children's Day celebration post, 20 out of 25 people who commented on the visual that

draws attention to the relationship between children and the city mentioned the increase in green areas and the elimination of the security problem. A similar permanent post aimed to discuss the relationship between Guvenpark and children instead of Kizilay, and it was observed that 10 of the 12 urbanites who contributed to the post with their comments mentioned the security problem. In addition, the urbanite criticized that Kizilay does not offer equality of urban use not only for children but also for the elderly and disabled people and that not all parts of the urban part are accessible (95% of 174 respondents to the survey question “Is there equality of urban use in Kizilay? (Disabled, elderly and children)” answered “No”).

Green Continuity: Referring to the insufficient green space (95% of the 77 respondents to the survey question “What is the existing green space in Kizilay?” answered “Insufficient”), the urbanites attributed the city center’s ability to move from being a transit area to a public space and to create a leisure space for the urbanites to the increase and strengthening of the green texture. It is possible to talk about the existence of an urban memory regarding the continuity of greenery. For example, 94% of 141 respondents to the question “The Kizilay Garden in Kizilay Square...?” answered, “I wish it had been preserved”. 89% of the 132 people who responded to the question, “What if we turned the overpasses into green walkways/terraces?” responded, “I wish!” which is a positive response to increase the continuity of greenery. In addition, the density of the green volume of the Saracoglu Neighborhood in the Kizilay District draws attention. Considering that this area is in the process of transformation, the issue that the citizens are trying to have a say in the neighborhood’s future is preserving the continuity of this green volume and not being negatively affected during the transformation process. Of the 12 urbanites who contributed to the permanent sharing about the neighborhood’s future with their comments, 6 drew attention to the green texture.

Ecological Values: The traffic problem arising from the density of the transportation network in Kizilay has attracted attention. It was observed that citizens do not want to go to Kizilay by private car and may prefer to use public transportation (89% of the 143 respondents to the survey question “If I need to go to Kizilay, I prefer to go” answered “by public transportation”). It is suggested that some regulations could be made in the city center to make cycling more widespread (95% of the 178 respondents to the survey question “Cycling in Kizilay?” answered “It should become widespread”). At the same time, 63% of the 136 respondents who answered the survey question on this subject stated

that it would be appropriate to remove the minibus stops in Guvenpark and open all axes of the area to pedestrians.

21st-Century Urban Values: Instead of facing urban transformation, change, and destruction in the city center of the future, the urbanite suggests that these developments should be preserved through digital archives, and urban existence should be made sustainable. For example, in a permanent post on this subject, an urbanite said, “With augmented reality tools, our memories that are about to be erased can be revived, and urban memory / social memory, which has started to disappear consciously / unconsciously, can be brought back to our lives .”Furthermore, even at the scale of the use of signage on building facades, it was concluded that this use does not show integrity with today’s values (19 out of 19 comments on the permanent post about the signs on the facades evaluated the signs negatively). Instead, signage standardizations were suggested to affect the design to a minimum or a solution by developing a digital application (stated by 10 out of 19 comments on the same post). **Functional Diversity and Density:** Of the 52 people who responded to the questionnaire questions on “reasons for going to Kizilay,” 40% use Kizilay “for work and education” while 60% use the city center “for personal needs .”Participants pointed out that Kizilay has survived as a city center with this identity and demanded that this situation be preserved despite expanding the city’s peripheries. For example, according to 78% of the 90 respondents, if the city is to undergo a process of change, this process should start from the “city center,” and the center’s qualities should not be changed. In many of the permanent posts, the urbanites mentioned that Kizilay is busy, with one participant saying, “There is a Kizilay where we walk bumping into each other. I bump into security measures the most. Those who bump into signs, buildings, ugly and stereotypical occupations of cafes, jugglers, glass walls, minibusses, taxis, heavy traffic... Kizilay, where we live, with the question of what would draw less blood if I bump into it... As long as we walk without bumping into it”.

Intellectuality: It has been observed that intellectual activities are taking place in Kizilay but that the city dwellers do not show interest or are not aware of it because they are not sufficiently informed about the function and location of the spaces that refer to social and cultural activities such as small-scale theater halls, educational workshops, libraries, sports fields, etc. where these activities are currently taking place. For example, as an example of reference points, 65% of the 146 respondents to the survey question “Where are the State

Theaters-75th Year Stage?” gave the wrong answer by answering “Ulus” instead of Kizilay. In addition, the urbanites attributed the insufficiency of intellectual activities in Kizilay District (88% of the 76 respondents to this survey question answered “Insufficient”) to the insufficiency of public spaces. These security problems would negatively affect Kizilay’s public identity and the inability to utilize green areas for these activities. In this context, the critical attitude of an urbanite who stated, “I wish that the movie theaters, which are still trying to resist the monopolization of the cinema sector, could be increased and the open-air cinema culture could be expanded by creating suitable public spaces in the city center” is noteworthy.

The Role of Design: It has been observed that there are areas in the city center that do not meet the needs and expectations, and these areas are tried to be changed and transformed by the citizens. The urbanites make these changes in walking routes and make bypass interventions that strengthen the urban use as a transit space. For example, 94% of the 174 respondents to a survey question asking them to indicate the points used by the urbanites as transit spaces through visuals did not prefer the designed route. Aware that they have a say on behalf of the city, they criticized their inability to exercise this right and hoped to take on the role of decision-maker for future arrangements and planning. In response to the direct question, “Would you like to have a say in the future of Kizilay?” 89% of the 95 respondents answered “Yes”.

7. Conclusion

Throughout the research, instead of creating a sharing space, an interactive sharing space was tried to be created, and the contributions of the urbanites to the criticism framework with the role of ‘critic’ were tried to be obtained. It has been observed that the urbanite can multiply the questions and answers about the urban part for the future urban vision, that inferences can be drawn for designers and decision-makers on behalf of the city by referring to their ideas, and that the citizen, who is the actual users of the city, may want to have a say and have expectations about the future of the city. In this context, it acted as a bridge between the users and decision-makers of the city.

Suppose Instagram is taken as a method of criticism. In that case, Instagram has the data potential to create a general opinion about the city and urbanites due to its easy usability and openness to interaction. Since Instagram is a fast consumption-oriented communication tool, posts are quickly consumed as much as they are adequate to get quick feedback. When the survey questions are

evaluated, the rate of answering/seeing the questions varies for all questions. If we need to specify an approximate average, it can be said that this rate is $\frac{1}{2}$. At this point, even if the participants do not answer the questions, the fact that they continue to look with curiosity can be considered a favorable inference. The rate of users reflecting their thoughts on permanent posts as comments and the rate of users expressing their thoughts by participating in surveys vary; however, the ratio is in the range of $\frac{1}{6}$ - $\frac{1}{10}$. This difference shows that despite the brevity of the post texts, users are not concerned about reading and sharing their evaluations. In Instagram polls, it is easy and fun for users to reflect their opinions with a single 'click .' The survey feature offered by the Instagram story feature reaches a higher audience than posts because it is easy and fun for users. The survey feature can be handled with 'gamification,' frequently used in many situations (business life, education, training, etc.). Users' expectations and interests can be raised to the next level by creating an interactive environment with gamification. In addition, the constant variability of the users who answer the surveys and the survey results can be considered a negative aspect of the survey feature on social media. However, despite this, it can be said that the surveys are sufficient to form a general opinion. In other words, the auxiliary situation in determining the general opinion also allows a coincidental criticism to be put forward on behalf of urban criticism, as stated at the beginning of the study. This study shows that social media can be used in coincidental criticism for future studies.

With this study, which takes the framework of criticism developed on Kizilay out of the academic environment, original research has been conducted on whether the urban consciousness put forward by Lefebvre can be reconstructed through the virtual environment. It has been observed that urban consciousness can be directed with the use of the media environment that allows manipulation. This research shows that social media can be used as a tool of criticism, and data can be collected to form general opinions. It has been observed that the values of criticism can be handled in a more integrated manner with permanent posts; however, results that overlap with more point values can be collected with surveys. Research conducted on social media will add a new breath to urban research and offer richness. It has been observed that social media is not only a medium for storing urban data; it can also become an alternative gathering place for urbanites for the city's future. This research is a preliminary study for future research that can be realized through social media.

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CHAPTER VIII

IOT TECHNOLOGIES IN URBAN SYSTEMS

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1. Introduction

The balance between rural and urban populations has shifted in favor of exponentially increasing urban populations around the world. As a result, cities have become difficult places to live and manage. Therefore, in today's cities, it is crucial to improve the quality of life. It is therefore imperative to design or update cities based on sustainability goals. As per UN estimates, 68% of the world's population will live in cities by 2050 (UN, 2018). There are many negative outcomes associated with population growth in cities that affect citizens, the economy, the ecology, and the environment, such as environmental pollution, waste management problems, epidemic diseases, stress-related health problems, traffic density, and difficulty in citizen participation (Zhang et al., 2016). A holistic approach is necessary to achieve sustainability goals today rather than focusing on each management domain individually, such as energy, mobility, food supply, security, and participation (Pera, 2020). Thus, it is necessary to take advantage of new technologies in the management of urban systems (USs) and their subsystems.

As determined by 18 indicators and 48 sub-indicators, the 2022 digital cities index (DCI) ranks Copenhagen, Amsterdam, Beijing, London, and Seoul as being the most digital cities in that order (DCI, 2022). Through technology, urban dwellers in these cities can increase benefits and reduce the harms associated with urbanization (Faldi et al., 2022).

“Smart cities (SCs), one of the hottest discourses of today, use models designed for this purpose and powered by the internet of things (IoT), big data (BD), and cloud technologies (Inkinen et al., 2019). SC models provide a means of achieving sustainability goals that are at the top of many city administration

agendas, to improve the quality of urban life, and to reduce environmental impacts (Wu, et al., 2021).

The problem in this study is that the current USs are struggling to cope with the needs of the ever-increasing urban population. The purpose of this study is to explore how IoT technologies can be deployed in urban systems to make cities more livable.

Additionally, there are several obstacles that prevent the widespread adoption of SC models. Among them are the security of the vast amount of data collected and analyzed, the financial cost that urban governments must bear to invest, and the unwillingness of municipal governments to support stakeholder engagement (Khan, 2022).

The research is limited to five USs: smart government, smart environment, public health, and well-being, public safety and security, and urban mobility. The following research questions were designed in this context:

Q1: What are IoT technologies, and how do they work?

Q2: What are the applications of IoT technologies in urban systems, and how do they benefit?

Q3: Which weaknesses are associated with IoT technologies used in urban systems?

Accordingly, a literature review was conducted in the context of IoT and IoT technologies that may be used in USs. The design of this study is represented in Figure 1.

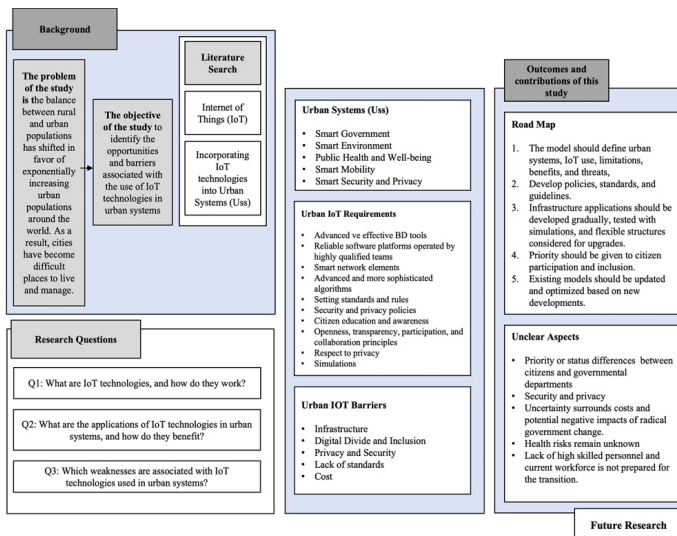


Figure 1. Research Design

In the conclusion, a roadmap for utilizing IoT technologies in the USs is outlined, and ongoing uncertainties are discussed regarding urban IoT.

2. Literature Research

The Smart City (SC) concept is all about creating urban environments with higher quality and a sustainable structure by combining IoT, big data, and cloud technologies (Inkinen et al., 2019). For this purpose, IoT devices, such as sensors and cameras, collect data, which is then analyzed by BD technologies and stored using cloud technologies. A SC model is designed to address the needs of a city and include the necessary USs (Noori et al., 2020). Vehicles, structures, and even systems used in-house are all interconnected in SC models. City dwellers use their smartphones, vehicles, and screens at home to access these systems. Thereby, a more interconnected environment reduces the negative effects of urbanization as well as energy costs. Governments are thus able to create more livable environments and achieve sustainability goals (Caird, 2018).

This study concentrates on IoT technologies underlying SC models. In the literature research section, IoT will first be explained, and then IoT technologies will be discussed in the context of USs.

2.1. Internet of Things

This section will explain how the Internet of Things (IoT) functions and how it interacts with other technologies. IoT is built on the principle of “interconnection of all things” (Wang et al., 2013). IoT systems are intelligent systems with features like perception, identification, and BD computing capabilities. IoT is the technology underlying a system in which all physical devices are connected to a network via sensors and software, which is managed by a central server, allowing everything connected to the network to be monitored, controlled, and data to be transferred (Hamdan et al., 2022). The widespread adoption of IoT technologies is seen as evidence of the third scientific and technological revolution’s power (Feki et al., 2013). The IoT technology is currently connected to more than 10 billion devices, with that number expected to increase to 27 billion by 2025 (State of IoT, 2023). Providing seamless connectivity between embedded devices, people, processes, and objects, IoT has become one of the most important technologies in the 21st century. Each gadget connected to the network has its own IP (internet protocol) address, so they can all see each other, communicate, and exchange data (Cirani et al., 2015).

Developing an IoT architecture to meet a variety of needs requires a complex system due to the number of devices, layer technologies, and services involved. To utilize the Internet of Things, sensors are needed to determine the status of people and devices, as well as software architecture and networking for processing and transmitting the data to the appropriate location, and analytics tools for automating and predicting behavior (Silva et al., 2018).

Transducers, microcontrollers, transceivers, and power are needed in these systems for the sensors to function. Microcontrollers then process and store the electrical signals that sensors convert from physical sensations like pressure, vibration, motion, humidity, temperature, or even human or animal body functions. As soon as the transceiver receives a command from the central server, it acts both as a transmitter and receiver, transmitting the stored output for analysis. IoT stores, shares, and analyzes data generated by embedded devices on a central cloud server. Using their smart devices, users can access this data anywhere (Wu et al., 2020). IoT architecture relies heavily on data. IoT uses cloud technology to collect, analyze, and process BD. The complexity of data collection and storage in data-driven processes makes traditional tools insufficient. Data collected through big data technology can therefore be processed and analyzed (Chui et al., 2019). Technology like CoAP (Constrained Application Protocol), EXI (Efficient XML Interchange), 6LoWPAN (Low-Power Wireless Personal Area Networks IPv6), and network architectures are used in IoT applications (Silva et al., 2018).

2.2. Incorporating IoT technologies into Urban Systems

Incorporating IoT into urban systems due to this, collecting, storing, processing, analyzing, sharing, and making meaningful data is a challenging task for SCs (Nuaimi et al., 2015).

Systems theory explains how interconnected and independent elements can work together to achieve a common goal (Baecker, 2001). The USs approach aims to solve the complexity in cities by applying the logic of systems theory. According to the USs approach, the city is not seen as a whole system by itself, but as a system composed of many different systems such as urban traffic, housing, education, and management (Michiel van Meeteren, 2019).

The primary goal of a city is to provide a healthy environment for the well-being of society. As cities develop, air and water quality, waste management, and recycling systems are adversely affected, posing a health risk (Goldstein, 1990). Thus, urban planning should take into consideration not only each US

individually, but also their interrelationships. Designing, monitoring, managing, and developing these complex systems with a dense flow of people, data, and goods is difficult with conventional systems (Chen, 2008). As a result, SC models work with IoT technology to detect this complex structure and communicate and exchange data (Humayun et al., 2022). By using deep learning (DL), BDA algorithms, and digital twin technologies (DT), SC models optimize data-based decision-making and USs (Al Nuaimi et al., 2015).

Through IoT, machines, automation devices, sensors, actuators, radio frequency identification (RFID) tags, smartphones, and other smart appliances are linked together to allow cities to optimize their use of resources, improve efficiency, and enhance citizen quality of life (Martins et al., 2021). By using IoT in SCs, urban governance capacity can be improved, and traffic congestion and environmental pollution can be reduced. Devices based on IoT can provide real-time data in various areas, including governance, public health, mobility, energy management, safety, and security in cities. This can both provide economic benefits and reduce negative environmental effects (Bruno and Fontana, 2021). With the IoT, urban life can be made more convenient and smarter for city administrations and residents alike. The city with the most developed IoT infrastructure (Smart Infrastructure) today is Shanghai, followed by New York, Toronto, Seoul, and Shenzhen (Smart Cities Market, 2023).

The research is limited to five USs: smart government, smart environment, public health and well-being, public safety and security, and urban mobility. This section discusses how IoT technology can support these 5 USs and how they can benefit society.

Smart Government:

With Urban IoT, municipal services can be better delivered and local management improved. As part of SC models, city governments must adopt a communications, information, and technology platform as an initial step towards making the management system transparent, accessible, and fast (Yaghi and Al-Jenaibi, 2018). Government-driven mobile applications and web portals should be developed so that citizen participation in law-making and resolving local issues may be encouraged (Clement et al., 2022).

By integrating IoT technologies into city management processes, (1) citizens will have the opportunity to participate in matters such as health, social support, housing, education, and law enforcement. (2) New policies can be introduced for the benefit of citizens to improve government services.

(3) Operations can be more efficient, data can be used more effectively, and management environments can be strengthened (Nesti and Graziano, 2020).

Smart Environment:

Integrating IoT technology into SC models can optimize energy use and facilitate waste management. Thus, urban economic development as well as urban environment quality development are possible. Urban IoT enables easy monitoring of air quality, noise levels, and weather. Through IoT technology, it is possible to identify and manage pollution sources and potential risks, thereby ensuring a more sustainable city. Incorporating smart meters, smart grids, and energy management software into urban IoT systems allows real-time monitoring, optimization of energy use, and a reduction in carbon footprint (Guo et al., 2022).

As part of this research, six headings are presented that highlight the benefits that can be obtained in the area of smart environments using urban IoT. (1) The implementation of the Advanced Metering Infrastructure (AMI) allows the monitoring and measurement of energy consumption. An AMI is a device that provides real-time energy consumption data. Through this data, cities can optimize energy consumption, reduce waste, and increase overall efficiency in their energy infrastructure (Talari et al., 2017). (2) Weather data can be obtained, which helps the country's agricultural production. For example, with systems that notify citizens ahead of time of possible disasters, significant losses can be avoided. Furthermore, meaningful forecasts can help optimize agricultural production processes (Taylor, 2018). (3) Integrated green urban transportation models include user-friendly transportation models that use the cloud network, have schedules that reduces private vehicle use and work with electric power. It is possible to reduce carbon emissions and fuel consumption with these vehicles (Zhou et al., 2022). (4) Smart lighting systems can adjust the brightness to match occupancy and save energy (Alvarez et al., 2022). (5) IoT-enabled waste management systems can be both software and hardware-based. By sending the fill-level data of waste collection units equipped with sensors to the center, efficient waste management, and recycling can be achieved (Rybnytsk et al., 2018). (6) IoT has been shown to increase wastewater recovery and reduce waste gases emissions (Wang and Liu, 2023). Through IoT applications such as smart trams and urban exhaust gas monitoring systems, urban exhaust gas emissions can be efficiently reduced (Ropkins et al., 2009). As a result of these benefits, local governments should develop policies to promote the widespread use of

IoT-based devices for energy management and pollution control (Leroux and Pupion, 2022).

Public Health and Well-being

Healthcare is a costly service, which leads management to look for ways to reduce their costs. Over time, data science has advanced, and new hardware and software inventions have been made to improve citizens' health and well-being. Utilizing IoT technologies, governments aim to improve the health and well-being for their citizens (Bibri and Krogstie, 2017). A number of IoT devices have wearable features. It is possible to monitor people's physical activity and health through these wearable devices. Moreover, wearable devices can be used for diagnosing some health issues, thus reducing the burden on health care. In the medical field, we are entering a digital era as we acquire digital health data with wearable devices, use virtual meeting rooms to facilitate doctor meetings online and equip elderly and disabled housing with Internet of Things technology. Healthcare applications powered by the IoT provide (1) easy access to patient information, (2) remote health monitoring, and (3) analysis and storage of patient information (Jonek-Kowalska, 2022). As a result, possible health problems of people in need of care, like the elderly and the disabled, can be detected (Trencher and Karvonen, 2019). Hence, healthcare costs are reduced as health-related services and the citizen's overall health status improve (Goodspeed, 2015).

Smart Mobility

Using IoT-based solutions for mobility and transportation, urban transportation quality can be improved significantly. There are several IoT-based inventions that make transportation easier in SC, such as the optimization of energy use in public transportation, intelligent traffic management systems, smart parking, smart traffic lighting, platforms for real-time travel information, and public micro-mobility alternatives (Ceder, 2021). Benefits in this area can be categorized into four headings. (1) By utilizing urban IoT, public transportation vehicles can arrive at pickup points on time, which shortens the waiting and travel time for passengers and improves public transportation quality and saves time (Holmgren, 2020). As a result, private vehicle ownership will decrease, and public transport use will increase. (2) In large cities, Intelligent Traffic Management and Control (ITMC) systems can improve traffic flow, reduce

traffic density, and increase productivity (Reza et al., 2021). (1) As cities adopt high railway solutions, the population flow between cities accelerates, and relationships between cities become stronger. The possibility of working in big cities and living in small settlements arises. These systems support urban belt models and ensure balanced development throughout the region (Liu and Ye, 2023). (4) Through the sharing economy, public transportation becomes more affordable and accessible with micro-mobility vehicles (human- and electric-powered vehicles such as bicycles, scooters, and mopeds) (Montes et al., 2023). Almost all of these devices run on electricity, which is a renewable resource. It is possible to track vehicles' charging information and location with IoT technology (Ayfantopoulou et al., 2022).

Using IoT, smart transportation models collect data from cameras and sensors. In the process of processing this data, BD technology is also used. By installing various mobile applications on their smart devices, people can access data such as traffic congestion, excavations on the road, traffic accidents, etc. Consequently, traffic with higher densities can be avoided and transportation costs can be reduced (Oladimeji et al., 2023).

Public Safety and Security

Among the primary responsibilities of government is safety and security of citizens. There are a lot of security guards employed for this purpose, and they sometimes work under difficult circumstances. Benefits in this area can be categorized into three headings. (1) In cities, security and safety levels are being improved by installing CCTV cameras in public areas, providing verified access to the collected data, alerting emergency response teams, monitoring on a proactive basis, responding quickly to emergencies, and taking crime prevention measures (K.M, 2020). (2) Smart surveillance systems emit real-time alerts when they detect suspicious activity in public places. Moreover, emergency response systems integrate location tracking and sensors into their operations to provide faster and more efficient responses (Henchy et al., 2014). (3) Intelligent Traffic Management and Control (ITMC) systems improve traffic safety and quality of life. The systems use deep learning and image processing to forecast traffic and intersection signals (Reza et al., 2021).

The security of social data obtained with cameras or sensors integrated with Urban IoT technology or of instant decisions made based on real-time analytics is another challenge that needs to be explored.

The five USs, outputs, and gains discussed in this study are presented in Figure 2.

| Urban Systems based on IOT | Urban Systems (USs) | Outputs and Gains |
|----------------------------|------------------------------|---|
| | Smart Government | While enhancing government services, effectiveness, data usage, and management environments, increase citizen participation and roll out new policies that will benefit citizens. |
| | Smart Environment | The Advanced Metering Infrastructure (AMI) enables energy consumption monitoring and measurement, while weather data aids agricultural production. Integrated green urban transportation models reduce carbon emissions and fuel consumption. Smart lighting systems adjust brightness to match occupancy, and IoT-enabled waste management systems improve efficiency and recycling. IoT applications, like smart trams and urban exhaust gas monitoring systems, reduce wastewater recovery and waste gas emissions. |
| | Public Health and Well-being | Easy access to patient information, remote health monitoring, and analysis and storage of patient information is possible. |
| | Smart Mobility | Urban IoT improves public transportation by ensuring timely pickups, reducing waiting times and improving quality. Intelligent Traffic Management and Control systems improve traffic flow and productivity. High railway solutions accelerate population flow, promoting urban belt models and balanced development. The sharing economy makes public transportation more affordable and accessible with micro-mobility vehicles, running on renewable energy. IoT technology can track vehicle charging information and location. |
| | Public Safety and Security | Cities are improving security and safety by installing CCTV cameras, implementing smart surveillance systems, and integrating location tracking and sensors. Smart surveillance systems detect suspicious activity, while emergency response systems integrate location tracking and sensors for faster responses. Intelligent Traffic Management and Control systems enhance traffic safety and quality of life using deep learning and image processing. |

Figure 2. Urban Systems, Outputs and Gains

2.3. Urban IoT Architecture Requirements

Data is collected by sensors and electronic data readers in urban IoT applications. Real-time and offline use of the obtained data is possible. Applications involving real-time data require instant input and rapid analysis since a decision has to be made and implemented quickly. If not, this data will become dysfunctional, resulting in a decrease in system efficiency. Consequently, real-time data applications require advanced technology. Applications that manage traffic, air quality, energy, water, waste, and safety and security in cities use real-time data to promote sustainability and efficiency (Mohamed N, Al-Jaroodi J, 2014). To develop meaningful solutions using data collected from IoT devices, it is necessary to pay attention to some design and development priorities. Security and privacy should be considered when addressing these issues. According to Al Nuaimi et al. (2015) this process requires (1) Big Data Management, (2) Platforms, (3) Smart infrastructure, (4) Advanced Algorithms, (5) Standard Technology, (6) Security and Privacy, (7) Citizen Awareness, (8) Government Role, (9) Simulations.

For the USs explored in this study, the Urban IoT Architecture must include the following features:

(1) It is essential that IoT models that support USs are managed with **advanced and effective BD tools** in order to handle the large volume of data collected from many different sources in different formats (e.g., images, audio, tweets, video, server logs, etc.) (Chan et al., 2018).

(2) The data obtained from SCs requires a **huge capability of processing power on hardware and software platforms** that are reliable (Amović et al., 2021). The IoT technologies must be accompanied by reliable software platforms operated by highly qualified teams that have high-performance computing capabilities, support stream processing, and are error-resistant.

(3) Data collection is achieved through **smart network elements** such as vehicles, appliances, smartphones, and wearable devices in urban IoT. In real-time BD applications, quality of service (QoS) is crucial. It is possible to reduce the network traffic and speed up the flow by filtering, thus improving real-time big data management decision quality (Mohamed and Al-Jaroodi, 2014; Celic and Magjarevic, 2020).

(4) Due to the large volume, high speed, and wide variety of formats of data received from many devices in IoT models, standard algorithms may not be sufficient and efficient. **Advanced and sophisticated algorithms** in SCs support IoT technologies, increasing efficiency (Lawal and Rafsanjani, 2021). There should be some algorithms designed for real-time and some designed for offline processing. Moreover, these algorithms should be optimized for high data volumes, a wide range of data types, and IoT devices located in various geographical locations, while considering time constraints.

(5) USs and BD obtained from it are both large-scale and heterogeneous. In order to maximize the efficiency of the urban IoT, standards need to be established. Moreover, open standard technology offers flexibility for upgrading urban systems and adding new applications. **Setting standards and rules** is also necessary to facilitate the addition of new applications, devices, and stakeholders (government agencies, stakeholders, etc.) to existing SC models and IoT infrastructure (Komninos et al., 2019).

(6) As sensitive or private information is collected and processed through Urban IoT, security and privacy mechanisms are absolutely essential. Despite the many benefits SC models offer governments and citizens, there are some risks to data safety, well-being, and citizens' privacy. If these technological systems are illegally accessed or attacked at any point, adverse events may occur affecting the US itself, government agencies, and citizens. It is, therefore, necessary to design urban IoT models with **security and privacy policies** in mind and to formulate clear guidelines and requirements (Jacobs et al., 2022).

(7) As citizens are important actors in this process, they should be informed about smart USs and how they work. Furthermore, this awareness will increase the quality of the collected data and improve the efficiency of the applications. The administration must develop and implement programs for **citizen education and awareness** on safety, security, and privacy issues (Przebylłowicz et al., 2022). (8) To control the flow of IoT-based models, governments should adopt **openness, transparency, participation, and collaboration** principles (Bertot et al., 2014). In this context, management must use advanced systems for collecting, storing, and analyzing data, and should encourage action by taking decisions in this direction. Meanwhile, all these processes need to be managed with **respect to privacy** in terms of data access, protection, and archiving.

(9) It is possible to **design simulations** to increase the efficiency of Urban IoT models, to determine how USs behave from a realistic perspective, and to generate possible outcomes. The use of simulations in IoT models helps reduce costs, test the stages, and optimize resources (Henchey et al., 2014).

2.4. Urban IoT Barriers

IoT technology in urban systems may face some obstacles and challenges. This study identifies five difficulties encountered in urban IoT, including (1) infrastructure, (2) digital divide and inclusion, (3) privacy and security concerns, (4) lack of standards, and (5) cost implications.

Infrastructure

IoT-based USs face challenges harmonizing all this data, as it comes from different devices, different networks, and in different formats, volumes, and speeds. To make use of BD efficiently, city administrations need to develop high-scale strategies, and this data should be analyzed by advanced algorithms (Fan and Biffet, 2014). As Urban IoT requires reliable and uninterrupted connectivity, ensuring interoperability of devices with different bandwidth and coverage, integrating the whole city into a network, is a challenge. Providing efficient Urban IoT solutions requires the cooperation of different actors with a commitment to security, privacy, cost-effectiveness, and careful planning (Talari et al., 2017).

Digital Divide and Inclusion

The urban IoT offers many benefits, however it may also contribute to the rise of the digital divide. Technological use varies by age group (Markoc,

& Sari Haksever, 2019) and socioeconomic class (Markoc, 2020), making it difficult for all citizens to benefit equally from these advances. In this context, administration must make sure that all citizens are included and involved in the process, as well as benefiting from IoT support in urban systems. All actors must also ensure transparency, consent, and equality to ensure that the administrations are trusted and unethical practices are avoided.

As IoT technology is integrated into the US, devices and software will be able to carry out many of the tasks of working people. The unemployment rate will eventually rise significantly as a result. Thus, these systems should be designed by considering employment planning and social policies (Reveiu et al., 2022).

Privacy and Security Concerns

Vulnerability is the most significant flaw in urban IoT models. All data collected from devices connected to the network is transmitted to the server or cloud, creating a high level of vulnerability. As data has become so valuable in today's world, it is susceptible to misuse. This is why urban administrations should place a high priority on the security of data used in all of these USs and the privacy of all individuals (Fabrègue and Bogoni, 2023).

Lack of standards

Although IoT-based applications are becoming increasingly popular, there are few standards in this area, which creates a serious barrier to their use. There are no optimized standards set concerning the types of IoT devices; how and in what formats the data will be collected from these devices; how the data will be translated into a common language, transmitted, stored, and protected; and how it will affect the solutions developed for urban problems. This is why it is vital that these standards are studied and defined by the authorities (Komminos et al., 2019).

Cost

Despite the many benefits of urban IoT solutions, the technologies require a high-cost smart infrastructure. As part of the process, it is also necessary to update the existing infrastructure over time. Consequently, all these infrastructure costs can be managed within a significant budget (Habib et al., 2020). Smart energy management is a way to reduce city costs, but it is still a high cost for many city administrations today due to the pre-investment required to start using the

technology (Yigitcanlar, 2015). However, it is expected that this barrier will be removed over time as hardware production increases and costs decrease.

3. Conclusion

The first question we have asked at the beginning of the study was “*What are IoT technologies, how do they work?*” (Q1) to identify the technology and the main logic. Due to the fact that every device and person in the IoT ecosystem is connected, the technology is based on an interconnected environment. IoT works with a system logic involving a central server that monitors and controls all devices and people connected to the network and enables data transfer between them.

The second question of the study was “*What are the applications of IoT technologies in urban systems, and how do they benefit?*” (Q2) to seek out the Urban IoT opportunities. Urban IoT is revolutionizing the way cities are managed. With efficient use of urban resources, the quality of life and health of citizens can be enhanced, traffic congestion can be reduced, public transportation quality can be improved, emergency response processes can be accelerated, and participatory management can be adopted. Consequently, it helps administrations achieve sustainability goals.

Our third question was “*Which weaknesses are associated with IoT technologies used in urban systems?*” (Q3) to highlight the potential disadvantages. While IoT-based solutions promote efficiency in urban systems, they have some disadvantages as well. A key weakness of IoT-based urban models is the privacy of data and individuals. IoT technology relies heavily on data. The majority of this data is collected from individuals. As a technology that processes data collected from individuals, it is very difficult to maintain privacy at the same time. One weakness of these models is that they do not provide equal rights to all stakeholders with regards to data. Developing the software and hardware infrastructure for these systems, which in theory produce many solutions, and working with qualified personnel is quite costly both in terms of implementation costs and return on investment.

For local governments planning to integrate IoT technologies into USs, **the proposed roadmap includes the following steps** (Musa, 2016; Mattern, 2017; nordicinnovation.org, 2021):

1. Clarification is required about a variety of factors, including the urban systems covered by the model, the aim and extent of IoT usage, restrictions, and predicted advantages and dangers. Determining the city’s goals and directing the

administration's attention to the areas that would result in the greatest efficiency at the lowest possible cost are essential.

2. The use of Internet of Things (IoT) technologies requires the formulation of policies, the establishment of certain standards, and the creation of guidelines.

3. To integrate IoT technologies into urban systems, infrastructure applications should be developed gradually, tested with simulations, and flexible structures should be considered for system changes and upgrades.

4. To ensure that models are effective and improved, ensuring the participation and inclusion of citizens should be a top priority.

5. Existing models should be continually updated and optimized based on new developments.

The roadmap is illustrated in Figure 3.

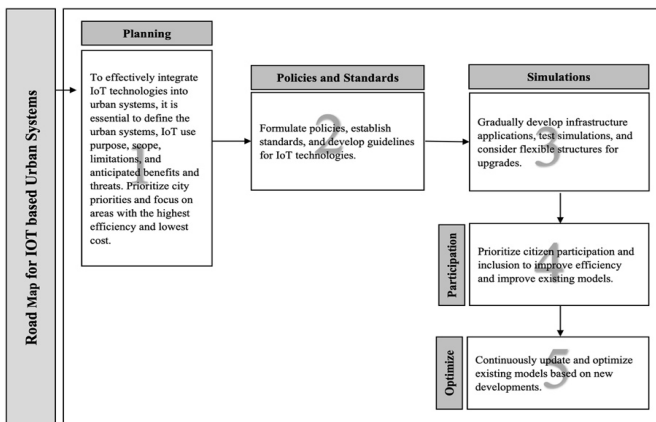


Figure 3. Roadmap

The following **aspects of urban IoT applications discussed in this study are still unclear** (Schaffers, 2018; Perić et al., 2022; Novák and Votruba, 2016):

1. Currently, the roles of different resources and actors in IoT-driven urban systems are not fully defined, so it remains unclear how *priority or status difference* between citizens and governmental department will be handled.

2. There will continue to be discussions over *what kind of solutions can be offered to this problem on what scale* for IoT-based urban models as security and privacy remain their biggest weaknesses.

3. It is unclear *what the material and moral costs* will be of a radical change in local or central government or of a different political stance taking over the administration or whether this will *negatively impact the citizens*.

4. Furthermore, *the health risks* associated with wirelessly connecting all IoT-compatible devices to a network are still unknown.

5. As IoT technology is being integrated into every aspect of our daily lives, high-skilled personnel will be needed for management, design, installation, operation, and maintenance. However, it remains unclear *whether the current workforce of countries is prepared for this transition*.

This study discusses how IoT-based applications can be applied to urban systems, what kinds of structures and approaches are needed, the strengths and weaknesses of these models, and unresolved issues. The study also highlights the potential benefits of incorporating IoT technology into urban systems, such as improved efficiency, sustainability, and quality of life. Additionally, it examines the challenges that may arise in implementing and managing these IoT-based applications, including privacy concerns and cybersecurity risks.

Urban IoT application areas demonstrate its revolutionary nature, but its weaknesses make it apparent that caution is required to ensure that these technologies do not pose a threat to the public. Future research on urban IoT simulations will provide opportunities to introduce these technologies to a broader audience and to develop potential problem-solving strategies.

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CHAPTER IX

URBAN SPACES AS THE REALIZATION SPACE OF ART

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1. Introduction: The Relationship between City and Art

Art in urban space; It can be defined as the whole of influencing, being influenced, and interacting that invites people to meet in the city through creative actions. These interactions are revealed through artistic encounters in the city, throughout history, it has become a part of the dialogue established between city-art-human by responding to different purposes such as remembering, representing, establishing relationships, producing meaning, protesting, reflecting the truth, being sacred, protection, and shelter. When viewed, the Notre Dame Cathedral, the sculptures of the Terracotta Army, Christo-Jeanne Claude's installation of Trees, Banksy's critical graffiti, Franko B's performance, and many more examples take into account of the influence and interaction between the city-art-human from past to present. At this point, it should be mentioned that the arts performed in city have different exhibition opportunities as well as carrying various purposes. These different artistic purposes and exhibitions mentioned are realized in various urban-urban space formations.

Different formations such as public, private, exterior, interior, open, closed, semi-open, semi-closed, artificial, natural, shaped, associated, and action space (Çevik, 2018) are urban-urban space formations that make social and cultural encounters possible. These formations have been widely used by different types of art, especially after the 20th century, when the time, space, and

movement elements of art changed and transformed. Art events, art biennials held in parks, squares, streets, and shores as public and open spaces; Artistic exhibitions carried out in the art museums and contemporary art galleries as private spaces and which can overflow to the outside, reveal these urban-urban space formations as the space of art. These places become places where art is realized both by hosting art and the artistic opportunities it offers. Mentioned remembering, representing, relating, producing meaning, protesting, reflecting the truth, being sacred, protecting, sheltering, etc Artistic purposes can be realized in these places and become effective and impressive for people.

In the context of the city and art, when an actual evaluation is made of the relationship between the city and art, which has increased since the 20th century, the existence of different art types in the city such as architecture and sculpture, installation, performance art, graffiti-mural art, and video installation can be observed. Urban spaces, which present these different types of art and approaches in direct relation to life, show themselves as the realization space of art. Regardless of their types, urban spaces, when viewed from the title of square, courtyard, or street, can sometimes be an element of art, and sometimes they can manifest themselves in the level of components, elements, and qualities that define urban spaces. Subsequently, it offers important experiences and evaluations to urban life, citizens, and visitors when it finds an environment for realization in urban spaces or when it is chosen as a realization environment. The components-items-qualities discussed here can be named as; in urban spaces, parks, squares, courtyards, streets, shores, intermediate spaces; ceiling, floor, wall/border planes and built-in elements in the space; sculpture, green/tree, water, etc.

When urban spaces meet art or art meets urban spaces, the ground is laid for a dialogue that art, artist, audience, art object, art space, time and movement formations establish or create in different ways. Therefore, the art realized in the urban space can be examined under these six headings. In particular, the formation/creation of different artistic interactions arising from the unity of time and movement makes it necessary to consider the existence of all artistic components. The art components include all relevant experiences such as whether the viewer is active or passive, what is mobilized, whether it is placed in an environment defined by historical elements, as well as the questions of what color-texture-material is used when performing art in urban spaces, how the measure-ratio is constructed. While these can stand alone in some types of art in urban space, some of them create different combinations between them and create a meaningful and holistic relationship with the elements that define the space such as walls, ceilings, floors, and interfaces in urban spaces such as parks, squares, courtyards, shores/borders, intermediate spaces. It shapes artistic perception and experience.

The unity of city and art; It is seen that it is based on an evaluation created by the artist and the audience and influenced by other components. In this context, the realization of art in urban space has been examined and discussed with relevant examples, depending on the effective components, artistic purposes, and exhibitions.

2. Types of Art Realized in Urban Space

The subject becomes more observable when we look at the different purposes of art in urban space and the various exhibitions it presents from the scale of art types. The artistic purposes of remembering, representing, establishing relationships, producing meaning, protesting, reflecting the truth, being sacred, protecting, and sheltering and different exhibitions like architecture, sculpture, installation, graffiti-mural art, land art, street performances, street activists, and media arts are effectively realized in urban spaces. When these art types are evaluated as actual, it can be said that architecture, sculpture, installation, performance art, graffiti-mural art, and video installation are the art types that are commonly performed in urban spaces. The effects of these spatial presentations and exhibitions initiate a dialogue between the city, art, and people, starting from the human body to artistic forms that exceed the human scale. These dialogues have been tried to be revealed with examples.

Architecture, as one of the fixed and fundamental artistic elements in the urban space, connects with people for the purposes of remembering, representing power, being sacred, protecting, and sheltering, and plays an important role in the urban space within the scope of art. Architecture is a creation that keeps the memory of the society alive in the urban space and forms an inseparable part of the period and society it is in (Rossi, 2006; Ünal, 2022; Çalac, 2013). In addition to effective visualization, semantics, remembering, and representing with the traces left in individual and collective memory; It comes to the forefront for purposes such as establishing relationships and producing meaning, as it contains various functionalities and offers impressive experiences. These different purposes, however, correspond with diversified spatial presentations. For example, architectures that show the features of remembering and representing power appear as a part of the individual and collective memory of the city, as in the Pantheon in Rome, or in the form of contemporary productions realized in a historical context, as in Renzo Piano's Fondation Pathe in Paris. In addition, when we look at the museum structure of Nouvel in Qatar and the Waldsprile structure of Hundertwasser in Germany, it is seen that the architecture itself can settle in the city with its form as an art object. In addition, it can be said that new relationships and meanings are established with the city, with the Blur Building in Switzerland and Depot Boijmans Van Beuningen in the Netherlands bringing different experiences to the city (Figure 1).



Figure 1. Architecture and Different Spatial Presentations in Cities

Another of the most important features of the exhibition of architecture in the urban space is that it is a cross-section of architecture within the scope of art. It forms the basis for the realization of art types such as sculpture, installation, and graffiti-mural art, both in terms of the value that the building has gained in the historical process and the surfaces that meet the city. Usually, a relationship is established between architecture and other types of art by using ceiling, floor, wall surfaces or intermediate space elements that define the space. One of the examples that best reflects the interaction between these art types is the use of Gaudi's Casa Batllo structure, which settled in the city as an art object, in Refik Anadol's Living Architecture. Similarly, Penique Productions used the Renaissance structure in its installation Globus Verd A Cel Obert in Tortosa, creating a debate between the additions to the space and the new old. In Willi Dorner's urban performances, interfaces where the city and architecture meet are used. JR to the facade of the Farnese Palace, where the French Embassy in Italy is located; Boa Mistura exhibited her anamorphic work on the walls of a prison. Zaha Hadid has brought a sculptural feature to the architecture, which stands out with artistic forms such as The Opus (Figure 2.)



Figure 2. Its Interaction with Architecture and Other Art Types in Urban Space

Sculpture, as another fixed and artistic element in the city, has been a type of art that has the purpose of remembering and representing many different cultures. Sculpture, as an aesthetic art object, has taken place both on architectural and urban scales and has become a genre that has some ideological and symbolic purposes and can have an impact on people in the city. It can be said that the sculpture, which can make references to the history and memory of the city, is a reminder and a representation tool, thanks to its ability to create a focus in the city by emphasizing its location (Rossi, 2006; Antmen, 2009; Karacan, 2014; Karaaslan, 2005). (Figure 3). However, from the past to the present, sculptures can serve different purposes

by tearing apart and transforming, and they can appear in the city with different presentations. This transformation of the statue is shown on the Holocaust Memorial, where 60 rusty iron shoes were placed on the banks of the Danube (Figure 3).



Figure 3. Change of Sculpture in Urban Space

Especially in the 20th century, the artistic change has expanded the expression area of sculpture and diversified the use of materials. Sculpture, which was a part of architecture in the past or whose monumentality was the focus of urban space, can be encountered in any form in any urban-urban space formation today. In this direction, the relationship established with the context and society has allowed instant constructions and experiences (Kedik, 2011; Çakar, 2014; Yaman, 2011; Şahan, 2017). Variations in size ratio depending on the over-enlargement and reduction of art objects; diversity in the use of materials such as reflective, transparent surfaces and textiles; In terms of giving experiences through the art object with participatory actions such as touching, speaking, and running, different exhibitions of the sculpture are encountered in the urban space. Isaac Cordal’s work “Follow The Leaders” and Lorenzo Quinn’s “Building Bridges” were used to construct measure-ratio; Superkolmemen by Plastique Fantastique and Azimut by Arnaud Lapierre are examples of both the use of different materials such as plastic and reflective surfaces and different participations such as running or chasing in it (Figure 4).



Figure 4. Sculpture and Different Spatial Presentations in Urban Space

Another type of art realized in the urban space is the installation, which establishes links with the space and emphasizes the space by placing art objects in the urban space. Contrary to being an art that is articulated/inserted into the urban space without thinking, it is created by fictionalizing the chosen context (Toluyağ, 2020; Baydar, 2017; Süzen, 2020; Yılmaz, 2017; Renççi Taştan, 2021). The artist realizes his art by constructing concepts together with the context as a means of expression, so contextuality and conceptuality come to the fore as the most basic features of the installation. In this type of art, as in sculpture, there are variations in measure-ratio; diversity in the use of materials; participatory actions. In this respect, Ayşe Erkmen's using the water element without making major interventions in the Dortmund-Ems canal; Ai Wei's covering the columns of the historical concert hall building in Berlin with 14,000 life jackets he collected on the shores of Lesbos, to draw attention to the refugee problem in Europe; Elina Chauvet's use of shoes representing a femicide victim or a disappeared woman in her work *Los Zapatos Rojos*; Nele Azevedo's use of human figures made of ice to draw attention to the climate crisis in her work *Minimum Monument*; In *Luzinterruptus Life Lingers on Blank Pages*, the writing of more than 4,000 memoirs during the Pandemic period can be evaluated that these highlight influential context and the conceptual aspect of the installation (Figure 5.).



Figure 5. Installation and Spatial Presentations in Urban Space

Graffiti, as a genre of art on which surfaces are painted in urban spaces, is a protest attitude with individual or political messages against political views, demonstrations, and actions. On the other hand, mural art is urban art in which a legal attitude is revealed by applying it to larger surfaces (Bayrakta, İlden, 2021; Toy, Görgülü, 2018; Aral, 2018; Başyurt, 2019). These art types provide an unusual visual experience in the city by using urban surfaces formed by the elements that define the architectural or urban space, and various concepts and visuals as a means of expression. For the Corona Heroes mural art, which includes the names of 380 healthcare workers who lost their lives due to Covid-19; The writing of Black Lives Matter on the streets during the George Floyd protests, and the inscription “I Don’t Believe in Global Warming”, half buried in a canal known to belong to Banksy, are good examples of protest graffiti. In addition, visual games that direct the viewer to a certain point can be created by creating anamorphic images in the urban space, as in Dymomo Exposition by Felice Varini and Perception by El Seed (Figure 6.).

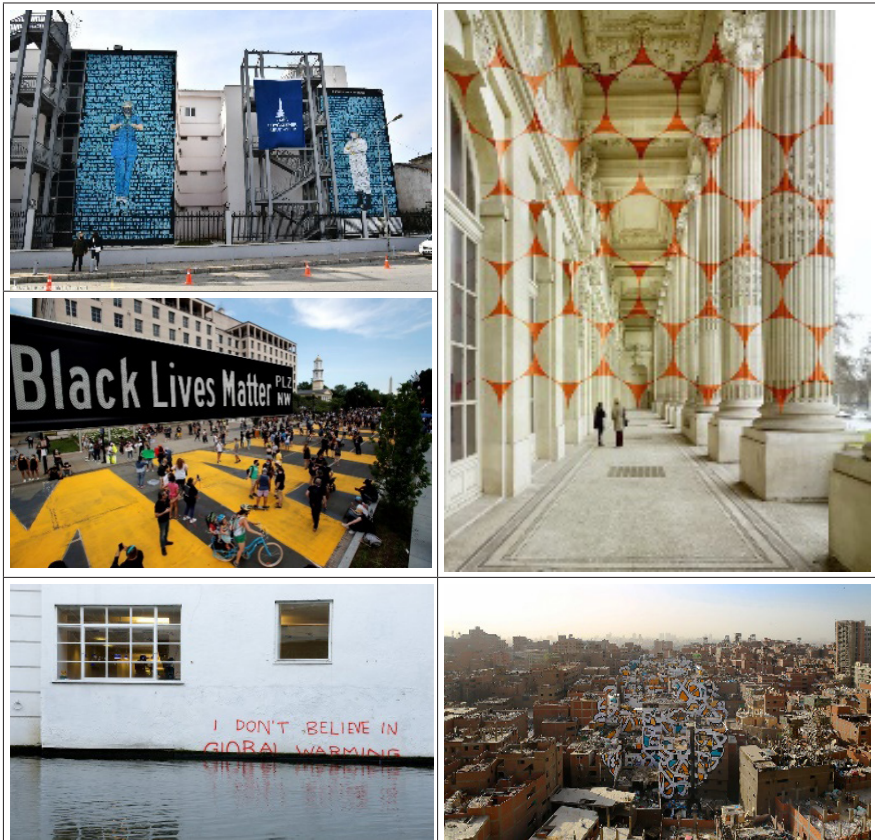


Figure 6. Graffiti-Mural Art and Spatial Presentations in Urban Space

Performance art in urban space can be thought of as a type of art in which the actual space is seen as the body, and the body is rediscovered in the city in every creation process. In this type of art, the relationship of art with reality comes to the fore in the urban space in terms of the artist's realization of his exhibitions with instant bodily movement (Antmen, 2019; Emengen, 2004). The artist shares his body experiences with the audience while discovering his experiences at that moment, and an effect beyond the show is created. The bodies of Xavier Le Roy & Scarlet Yu experience being sculptures; Lygia Pape's construction of body groups trying to walk together is an example of individual and collective performance art in urban space. In addition, a protest attitude can be mentioned in performance art. In *Hotel Empire: The New York Crossing*, artists carrying bedding and suitcases, Laurent Boijeot and Sébastien Renaud, live and sleep on the streets of New York for 30 days, trying to break down the behavioral patterns shown in the city like activists. Through this performance, people try to use the streets and squares of the city together are invited (Figure 7.).



Figure 7. Performance Art and Spatial Presentations in Urban Space

Finally, video installation is an art form where art and technology meet in urban space. It is often created by using video projection-mapping method by reflecting different visuals on architectural surfaces and elements that define the urban space, as in graffiti and mural art (Cokokumuş, 2012; Ergün, 2018; Aksu, 2019; Çevik, 2009). These can be the surface of the architecture, as well as green and water elements. In *Spectrum* by Cosimo Scotucci, using the billboards in Times Square; on the facade of Monolithic Haydarpaşa Train Station from Deniz Kader and Candaş Şişman; *Tijuana Projection* by Krzysztof Wodiczko using projections, headphones and speakers to the Omnimax Theater structure; *Ancecy Paysages* by Javier Riera was realized by projecting geometric shapes onto a tree (Figure 8.).

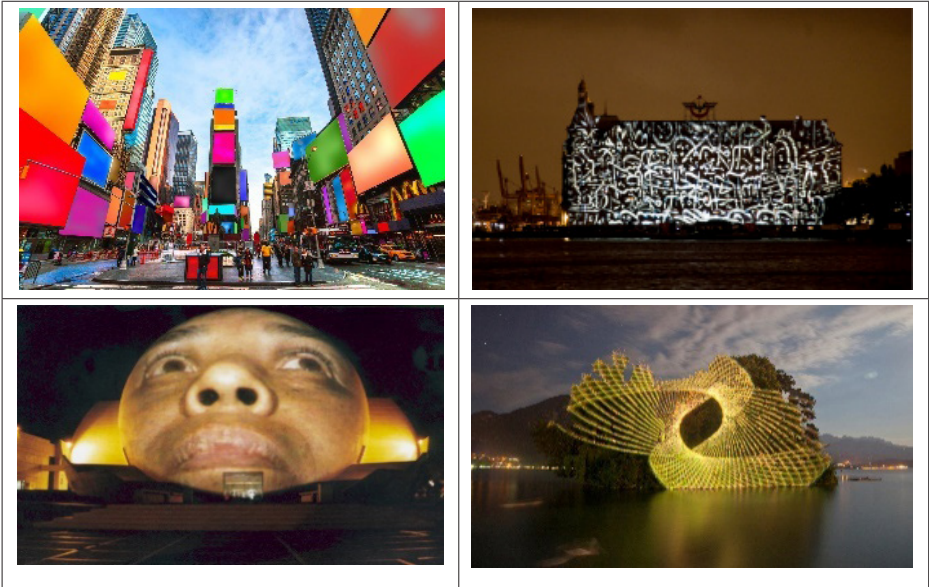


Figure 8. Video Installation and Spatial Presentations in Urban Space

All these types of art are exemplified in the urban space for various purposes such as remembering, representing, establishing relationships, producing meaning, protesting, reflecting the truth, being sacred, protecting, sheltering, and different exhibitions depending on the art types. When looked at, it has been shown that the purposes and exhibitions mentioned may vary for each artistic production. When this situation is approached in detail, it is necessary to mention the existence of several effective components. Therefore, to explain the relationship between art types and the city, it is important to examine the components that are effective for these differing purposes and exhibitions.

3. Effective Components, Elements and Qualities in the Realization of Art in Urban Space

Art in urban space; It has different exhibitions related to artistic purposes and art types that can be summarized as remembering, representing, relating, producing meaning, protesting, reflecting the truth, being sacred, protecting, and sheltering. These aims and exhibitions emerge depending on the construction of various components in the dialogue with art. Unique spatial presentations, in which these components are emphasized by creating different combinations or highlighting one of the components, play an impressive role in the city-art-human dialogue.

The elements that make up the art components can be summarized as artist, audience, art object, art space, time, and movement. While the elements of artist, viewer, art object, art space, time, and movement manifest themselves in urban space, different experiences emerge, especially with the unity of time and movement (Çevik, 2021). Depending on the way of participation, these differences observed together are included in the urban space in the form of elements. The qualities, on the other hand, can be evaluated as context, size-ratio, color-texture-material, technology, and use of light, green, and water. These qualities shape the physical structure of the city and affect the semantics of the art realized in the urban space (Yavuz, 2023). All these components, elements, and qualities are effective and impressive elements in the name of art, and it is also necessary to explain the artist, audience, art object, art space, time, and movement elements in this context.

The artist can be defined as the person who first initiates the creative action. He makes some inquiries such as how the art object will interact with the human being and what experience will be given. In this creation process, the artist can not only reveal his art by using his own ideology and concepts but also realize his artistic arrangements within different ideologies by being supported by power groups such as the state or private institutions-brands.

The viewer can be defined as a person who takes passive or active roles in the art object. Particularly, with the involvement of the movement in art, the construction of art objects in a way that invites the audience to participate (Eco, 2019) requires the active intervention of the audience. When the viewer is involved in the art object with a participatory action, the

question arises whether the real producer is the artist or the viewer himself. However, encouraging participation in art in urban space provides the creation of a meeting place by separating the art object from an ordinary environment. Therefore, it can be said that the role of the audience is very important for art in urban space.

Since the art space is considered as urban space within the scope of the study, it can be expressed as parks, squares, courtyards, shores/borders, intermediate spaces and walls, ceilings, floors, and interfaces (Çevik, 2021). When these spaces establish a dialogue with art, they can lead to emotional interactions by allowing some encounters. Thus, the urban space where the art object is placed or produced becomes an art space as well as a meeting place.

An art object can be defined as an artistic object that continues the creation process and is in a constant state of being with its movement component. The artist diversifies the meaning of the art object by using the elements of context, size-proportion, color-material-texture, light, and green-water and offers different experiences to the viewer (Eco, 2019).

Time plays an important role for art realized in urban space. Art, which is constructed in the urban space, can appear momentarily or take place in the urban space with a daily-monthly-yearly exhibition process.

Movement is an element that directly relates and influences all components of art. In the art exhibited in urban spaces, different movements are observed in distance, experiential, natural conditions and bodily.

Artist, audience, art object, art space, time and movement components as elements of art realized in urban space are the complements that construct, support and affect art in urban space. It is important to understand these effective components to discover the artistic experiences arising from the combination of these components and the subject is explained through examples. Art genres performed in urban spaces meet people with effective spatial presentations and the mentioned artistic purposes and continue to be a part of the dialogue established with people.

4. Instancing Urban Space and Art Dialogue

The experiences offered by different types of art in the urban space are inseparable parts of the artist, the audience, the art object, the art space, time, and movement. However, if more than one of these components comes

together and affects each other or cannot be independent from each other, it becomes uncertain how art will be evaluated in urban space. In this section, the interactions between the components are ignored, focusing on the artist, the audience, the art object, the art space, time and movement, and the art in the urban space is discussed through examples.

In the title of art in urban space, first of all, it is necessary to study the tools, materials and representations used by the artist in his works. The handling of designed materials and fictionalized concepts-ornamentation-icons in urban spaces with repetitive similar design understandings and approaches is regarded as the artist's signature production. The curvilinear lines in Zaha Hadid's structures, Yayoi Kusama's colorful spots and pumpkin form, Anish Kapoor's mirror surfaces, Leo Lunatic's Panda image, Miguel Chevalier's moving carpets, works that emphasize the artist and his role in different types of art performed in urban spaces (Figure 9.).

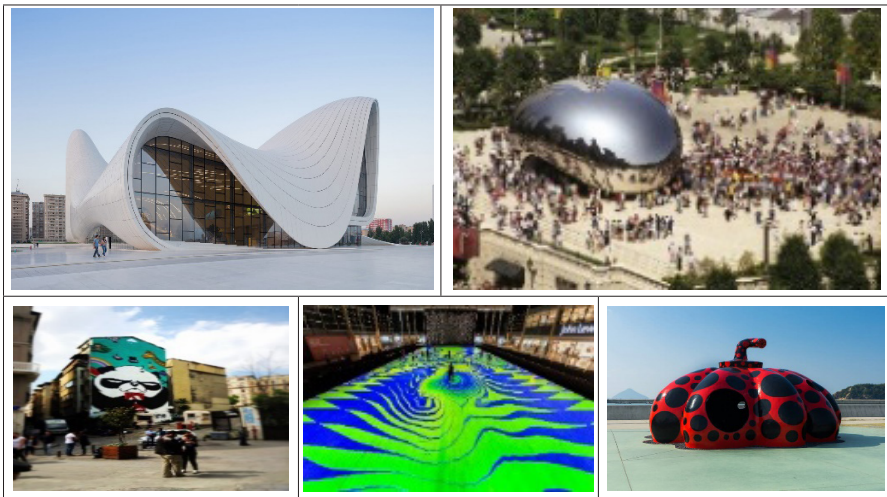


Figure 9. Its Interaction with Architecture and Other Art Types in Urban Space

In addition, artistic productions realized within the scope of collaborations of artists and brands can also make a lot of noise. Louis Vuitton and Yayoi Kusama, Snapchat and Jeff Koon, Fendi and Giuseppe Penone are some of these collaborations.

Urban spaces, as places of gathering, meeting and creating social memory by coming together, can be a space where interactions are created by inviting the audience to art. The viewer, who encounters art in the urban space, can assume a passive role such as looking and leaving, or he can

have an active role in the urban space by touching, playing and producing together. Doris Salcedo and more than 10,000 people come together to protest an armed conflict; Boa Mistura's writing words on street surfaces with the people on the streets of Sao Paulo; color changing of teamLab's sculptures by touch; Ayça Ceylan jumping rope with the people on the street; Kollision's reflection of an interactive play on the floor exemplifies the different artistic actions that the audience shows while being included in the urban space (Figure 10.).

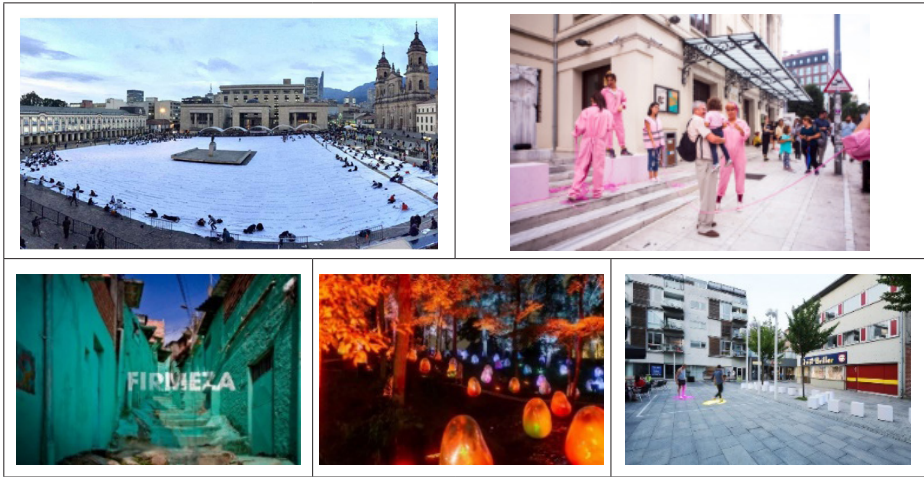










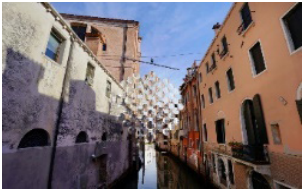









Figure 10. Participation in Art in Urban Space

Art types such as architecture, sculpture, installation, graffiti-mural art, performance art, and video installation use different urban-urban space formations in line with their purpose. These spaces give the city a more dynamic and vital dimension by enabling encounters, participation, influences and interactions. In this context, when a limitation is brought to the urban spaces where art is performed, they can be classified as parks, squares, courtyards, shores/boundaries, intermediate spaces and walls, ceilings, floors and interfaces that define the urban space (Table 1).

Table 1. Examples of Art Performed in Parks, Squares, Courtyards, Shores/Borders and Intermediate Spaces

| | | |
|---|---|--|
| <p>Park</p>  |  |  |
| <p>Square</p>  |  |  |
| <p>Quad</p>  |  |  |
| <p>Street</p>  |  |  |
| <p>Border</p>  |  |  |
| <p>Intermediate Place</p>  |  |  |

One of the features that makes art objects effective in urban space is the context. Context can emphasize the relationship between the city and art by supporting the story that the artist deals with. Art objects can be located in a historically defined environment, a built environment, a natural environment, or a mixed environment. Zaha Hadid's design of the abandoned fire station for the port in a context surrounded by historical elements; Jaume Plensa's questioning the idea of body-soul with sculptures wrapped in trees in the park; Malte Martin's reflection of the feedback of the people living in the neighborhood on the living spaces surrounded by the buildings are examples of solving the problems discussed together with the location they exist by holding on to the context (Figure 11.).

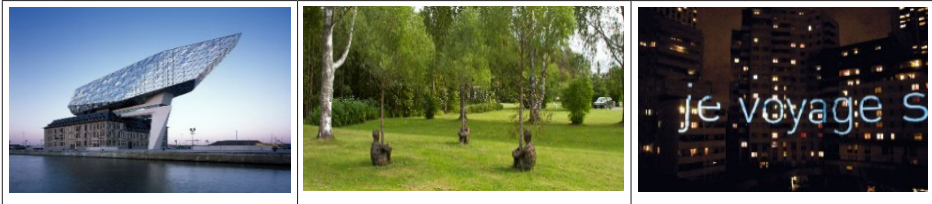


Figure 11. Art and Context in Urban Space

It can be said that if the position of these art productions is changed, the fictionalized artistic story will not have the same effect. In addition to these, it should be taken into account that art objects are directly related to size-ratio, color-texture-material, technology, light, green and water qualities.

The subject of art and movement in urban space can be quite extensive. On the one hand, the dynamic nature of the art object can be evaluated as it presents moving images, and on the other hand, it can be examined through different orientations such as interacting with the art object through different actions achieved by the viewer. From the tape sculpture made by Numen / For Use, the audience gains experience in the sculpture by using their bodies; Gijs Van Vaerenbergh's use of natural light and movement of nature by placing materials with spaces; In Outside – In and Divided Street art objects, the viewer's different experiences of art at a certain distance; In the Conversation Bubble performance, performing a bodily action within a distance is some of the examples that reveal the role of movement in art performed in urban space (Figure 12).

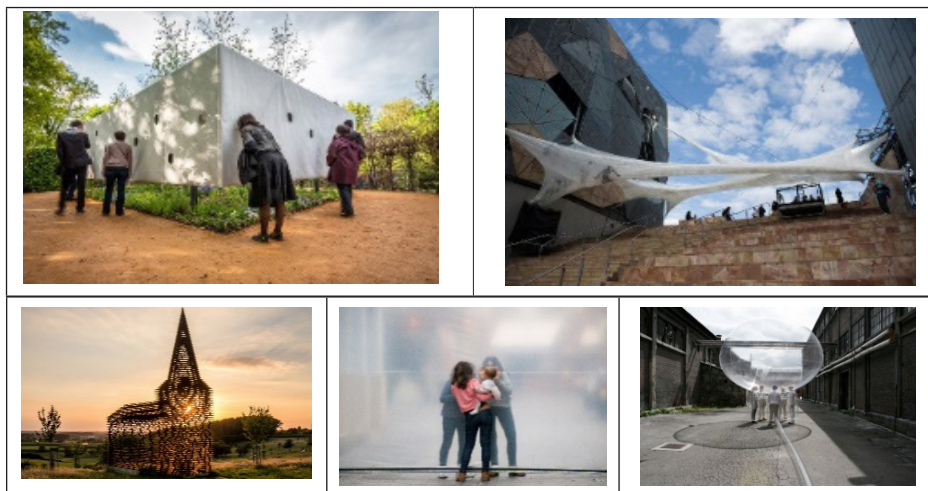


Figure 12. Art and Movement in Urban Space

In this section, as can be seen, the main subject of the city-art relationship is the artist, the audience, the art object, the art space, the ways of realization of art in the urban space and the types of art, while the urban space, art and human dialogue are discussed in detail. In addition, the role of art in urban space has been tried to be explained. In particular, the case of art creating an interaction space in an urban space has been examined, and it has been emphasized that art components have a descriptive and complementary character and play important roles in the relationship between city and art.

5. Conclusion and Recommendations

Throughout history, the city-art-human association has been revealed both by the city presenting itself as a work of art with all its components and by creating a basis for the realization of different types of art. Urban spaces where art is realized; It establishes a dialogue with people by bringing people together, making them talk, entertain, search for meaning and produce, and thus include people in the city. Artistic purposes, different displays of art genres and their effective components, which have an active role in the established dialogue, are seen as an important and at the same time effective research area that needs to be studied specifically for city art.

Urban spaces are closed, open, and semi-open; Street-licorice-courtyard-intermediate spaces become the spaces of art with different characters, naming and shaping, and together with art, these spaces offer effective opportunities

for social responsibility and awareness, ownership, sharing, participation and producing solutions. In this context, the subject studied under the title of “Urban Spaces as the Realization Space of Art” in the main subject of city and art was examined through examples within the scope of differentiating art types and effective components, and the basis for the intelligibility and evaluation of the subject was prepared.

Artist, audience, art object, art space, time and movement components are directly effective in the relationship of art as a social activity with the city. The conditions, goals and the creation process created by the artist, together with the different possibilities reflected on the viewer, show a constant change, making participation in the urban space active. In this context, it will be an important assessment to consider the role of all art components in the relationship between urban spaces and art, and the urban spatial presentations.

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CHAPTER X

AN INTERACTIVE URBAN FURNITURE THAT PRODUCES INTERACTIVE URBAN SPACES: INSTALLATION

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1. Introduction

The crisis of the cities nowadays is that the urbanization loses its human character in a destructive way. One of the reasons for this is the dizzying urbanization process that accompanies industrialization, and the other is the social conflict caused by majority of those who are not born and raised in a city and their decision-making on behalf of that city's minority. Bookchin calls this conflict as "Urbanization without Cities" (Önkal, 2016). The city dwellers, on the one hand, are shaped by the city in the flow of everyday life, while on the other hand they reproduce the city by their actions. Therefore, the city dwellers will be transformed and developed as a result of the interactions between their actions and the city (Esgin, 2016).

If you are living in a city, you are expected to understand and accept the rules, conditions and norms of being its inhabitant. This is the point where urban culture, urbanism which forms the basis of the spatial belonging of the city, is defined. When the individual finds possibilities for democratic participation in the fate of the city he lives in, he establishes a strong link between it and his own existence (Önkal, 2016).

The researcher Michel de Certeau brings a different perspective to the concept of urban culture, bringing the experience of the ordinary individual to the foreground in any area of the city or everyday life. He brings to the foreground the experiences of ordinary individuals in any area of everyday life in the city. This approach, which Certeau defines as "Plural in culture,"

comes to life as a counter-stance against the uniform spatial arrangements of the ordinary life experiences of everyday life that urban life planners are urging for the inhabitants. This counter output is in an invisible form. As the citizens' daily life experience changes, this conflict constantly changes, transforms, and resigns while belonging constantly reproduced and consumed anonymously in countless ways. The city dwellers redefine the area of struggle in any time with ordinary activities of everyday life such as reading, walking, talking, cooking, and so on (Yilmaz, 2017). Calvino defines the admirable side of the complex multiple-choice concept which the city offers for its users as "the answer of the city to a question you ask, or the question she asks you, and insist that you answer" (Calvino, 2002). At this point, the city is like an "Open Work" (Eco, 2001) where the text written by the author is interpreted in a completely different way, the images are evaluated in different forms, the words are eroded, and brand-new words are defined.

The research adopts the approach identified with the "being an Open Work" where the space offers many ways for the user to experience urban open spaces. In this context, it will consider the practices of everyday life in urban open spaces as tactics against existing planning approaches and will evaluate space production in urban open spaces as an interpretation of the user's preference diversity. Today, urban open spaces have a very similar variety of activities. Moreover, the foremost use of the economic benefits of urban open spaces of modern cities has turned them into restricted areas. The research suggests that the use of installation art in urban open spaces as a creative placemaking approach will improve the practice of daily spatial experience of urban residents interacting with it. Selected examples of urban space installations especially that can be used as interactive urban furniture in different cities of the world have been categorized in the context of how they transformed the urban space.

2. Interactive Urban Space

Urban open spaces that serve the whole city and meet the recreation needs of urban users are also vital spaces that also provide the ecological balance of the city. Sociologically speaking, urban open spaces are areas of meeting, gathering and socialization in which the individual experiences being a citizen of the city, behaving like a city dweller, and enjoying the city (İnan, 2008). Urban open spaces help to create a multicultural, multi-class, heterogeneous society by bringing together different groups of people. They also contribute to the strengthening of public life by their role as facilitators of education, instruction,

and communication (Ercan, 2007). This transforms urban open spaces into places where people form beyond the physical or architectural organizations in the context of social relations, they build with each other.

The way in which the urban open space is repeatedly reproduced by the city dwellers, in other words, the struggle of the individual to achieve self-realization in the urban open spaces, creates a tactical resistance zone for imposing the dominant system at the same time. A tiny path, representing a different unexpected walking path or anonymity, defines the free choice of the ordinary individual and embodies original tactics that add creativity to the city culture (Yılmaz, 2017).

As one of the pioneers of today's sociological researchers, Simmel examines the city and urban life with the understanding of "a result in which everything interacts with each other". Therefore, according to this understanding, behaviors related to everyday life come to the forefront, such as eating together, asking for directions, dressing up for others, which seem insignificant at first glance. However, they are significant because such interactions connect people together in order to form the basis of social life in the cities. For this reason, Simmel argues that the detailed analysis of daily life practices in the context of using the city's urban open spaces as the main object of urban research is important for understanding urban life (Esgin, 2016).

In a similar approach, in his study of New York's urban public spaces in 1980 American urbanist and observer William Whyte, focuses on how urban open spaces between urban squares, parks and skyscrapers are used, what kinds of activities take place there and what kind of social life exists. As a result of his research, he found out that (PPS, 2000): Some spaces are successful; lively, crowded, can be used for different functions. Some are 'dead'; can't attract people, have no contribution to the city life in order to be more livable.

Wondering why, Whyte has developed a brand-new urban design paradigm by observing people for whom planning is done: advocating a "user-centered" and "place-led" public space design way. According to him, design should start with an in-depth understanding of how people want to use and actually use spaces (PPS, 2014). Thus, the way of living both small urban open spaces that he described as "priceless" and streets that he described as "the living rivers we came together" were at the center of this new urban design approach. Jacobs who was inspired by Whyte, explored the streets and by following the traces of the walking people, he observed how the cities lived in real life and how they lived in urban open spaces (Jacobs, 2011). Donald Appleyard, Allan Jacobs,

Claire Cooper Marcus, Jan Gehl, Galen Cranz, and Robbert Sommers, who have done a great deal of research on the cities that live in the continuation of Whyte's movements, like Jacobs, have always met at the same point about the main objective of urban public space design: USAGE (İnan, 2008).

The group of "Projects for Public Spaces" set up by Whyte for the purpose of examining urban spaces also mentioned a similar diversity in the way they formulate how successful the space can be in terms of usage. In the approach they call "the Power of 10", a great urban space is defined as a place needs to have at least 10 things to do in it or 10 reasons to be there. Thus, this diversity makes the quality of the space larger than the sum of its parts (PPS, 2000). For urban spaces, what PPS refers to is precisely the case of the open work of Eco's design object. Urban space is the sum of the activities that the user can do in that space, the manner of doing these activities and the spatial pleasures produced by this way of doing things. The urban space redefines and multiplies itself every time by adding the users to the designers' expectations.

3. Installation Art as An Interactive Urban Furniture

Installation art involves an interactive process that aims to give the user experience in the places where it is practiced. Any installation, unlike traditional art works, is an art form that does not include an independent art object that surrounds it, but is created for a site-specific concept, uses the qualities of space, and need audience participation as a necessity (Ünsal, 2011).

In the 1960s, the idea of "artwork as an environment" turned into a practice of creating a place of "installation" with the expectation that the viewer is not just gaze at but 'live' in the work of art as well as an occasionally part of it. All the intention of the installation is to give the audience an experience. For this reason, the installation comes to the forefront with its 'process' -based nature. In addition, the main feature of the installation is to bring the space into relation with the audience, the audience with the work of art, and the work of art with the space (Ünsal, 2011). Site-specificity (for a specific environment), temporality (for a limited time), cerebral (having background thought), interaction (interaction with the outside world), process (from thought to physical object) and photo record (visually true presentation of the original) are other important features of installation (Schaefer, 1994).

Research that emphasizes the importance of art in the creative placemaking approach draws attention to the fact that a distinctive perspective on similar urban spaces in contemporary cities can be brought about by art practices. At

this point, installations look beyond physical alterations, paying more attention to the animation of places with economic and cultural activity (Markusen and Gawda, 2010). It is also known that installation increases social and economic value of the place, as well as providing space-user interaction. This leads to some gains in terms of space and user because of the interaction between the user and the installations in urban open spaces. A set of categories representing users' experiences of interactivity revealed from the individual case analysis can be categorized as follows (Ryan Bengtsson, 2012):

- Frame - Production aspects,
- Curiosity – attraction and expectations,
- Exploration – testing and learning,
- Engagement – creative use,
- Presence – experiencing a collective,
- Relations – social experience,
- Time - from curiosity to social relations.

The interactive effect of the urban space is possible by designing the elements that make up the space with flexibility to allow mutual interaction. In this context, while the installation transforms the space as it is site-oriented, it also challenges the roles of viewer and participant with its existence (Rubidge and Macdonald, 2004). It encourages them to interact with it and multiply their experience of urban space by generating a multitude of possibilities for different experiences (Bendor et. al., 2017).

When we look at the installations used in many urban open spaces of the world in terms of their interactive features to add a creative effect to urban spaces today, we see that they make urban spaces interactive with different features.

3.1. Installation as a Border Element

In this group of examples, installations are used as horizontal and vertical boundary element. They may have different functions depending on the characteristics of the area they are applied to, the nature of the material used and the concept of the installation.

The first two examples of installations with boundary element feature are in the form of a wall that limits one area and separates it from another (Figure 1). The first example of this group is the installation “Red, Yellow and Blue”, designed by Orly Genger in Medison Square Park in the spring of 2013.



Figure 1. Examples Of Installations As A Border Element: Red, Yellow, Blue (URL 1, 2023); Silent Movie (URL 2, 2023; URL 3, 2023)

The installation made of intricately hand-knotted nautical rope covered in paint, creating a work that transforms the park's lush lawns into colorfully lined chambers. Together, three separate undulating structures of layered rope shaped on-site by the artist will redefine the landscape of the park, creating interactive environments that will invite visitors to explore both exposed and hidden spaces, encouraging them to navigate and experience Madison Square Park (URL1, 2023). The interactive effect created by this installation allows users to perform activities at different points such as the front, back and top of the vertical boundary element defined by the installation. The installation thus multiplies space within space. At the same time, since each point also allows for different activities, activities such as standing, leaning, sitting, lying down also increase.

The second example is an indoor theme park called Silent Movie/Swarovski Kristallwelten (Crystal Worlds) at the site of its original factory in Wattens Austria (URL 2, 2023) by Regina Dahmen-Ingenhoven for the company Swarovski. As a permanent installation, the veil is made of a corrosion and weather resistant stainless-steel mesh, held by a 10-meter-high steel structure. The fabric is made of flexible stainless-steel rings and is dynamically illuminated by night. The unique curtain's sleek, sculptural fabric interacts during the day with the sun and passing clouds in a fascinating play of light and shadow. The main theme of the installation and the used colors is the Aurora Borealis (named after the Northern Lights) – a crystal created in 1956 by Swarovski and Christian Dior (URL 3, 2023). Imitating the colors of this crystal, the installation creates a transparent border between the street and the inner garden behind it. Thus, it provokes the

street user to enter. At the same time, it enables the activities defined in the interior to turn into a different experience under day and night lights.

The third and fourth examples of installations with boundary element feature are examples of the cover element group that defines the upper boundary of the space (Figure 2). The third example is the installation titled “Fata Montana”, arranged by Teresita Fernandez in Medison Square Park in 2015.

Fata Morgana is a mirror-polished, golden metal sculpture that will hover above the Park’s winding walkways to define a luminous experiential passage for Park visitors. The metal forms, perforated with intricate patterns reminiscent of foliage, will create abstract flickering effects as sunlight filters through the canopy, casting a golden glow across the expanse of the work, paths, and passersby (URL 4, 2023). The main point of the installation is to make the walking experience dynamic as it is designed as a walkway cover. The installation achieves this through the light-shadow and reflections created by daylight on its glittering and fragmented surfaces. Thus, the user walking on the walking path reproduces the walking experience with different light/shadow and glow effects according to the change of daylight.



Figure 2. Examples of Installations as a Border Element:
Fata Montana (URL 4, 2023); The Umbrella Sky Project (URL 5, 2023)

The fourth example is the installation called “The Umbrella Sky Project”, which was installed by Sextaferia Produceoes in Medison Square Augedan in 2012. The aim of the installation, in which dozens of brightly colored umbrellas hang in the air to form a cover on the city streets, is to create a colorful urban space experience. The installation was later reinterpreted many times in different parts of the world, with both the reflection of colors and the fun shadow reflections (URL 5, 2023). While walking under floating umbrellas, the user differentiates the walking experience, as in the previous installation. Here, color has taken the

place of radiance. Thus, the walking experience evolves into a fun, lively and dynamic activity where different colors are perceived together with light.

The last two examples of installations with border element feature are examples that emphasize permeability in spaces (Figure 3). The fifth example is the installation called “Field”, which was placed in Hyde Park in 2015 by the Out of Dark firm.

Installation called “Field” is a labyrinth maze of mirrors, reflecting the surrounding urban landscape like a kaleidoscope. Their multifaceted installation comprised of 81 mirrored pillars set throughout a 25 square meter plane. the 2.4m tall posts are arranged in a grid around the park, and the rows and rows that make up the 324 mirror faces refract the constantly changing scenes of the trees, grass, and sky surrounding them. According to New Zealand architecture firm Out of the Dark, ‘Field’ is a “meditation on the nature of perspective” that asks visitors to reflect on themselves and their natural surroundings, and question what is real and what isn’t (URL 6).

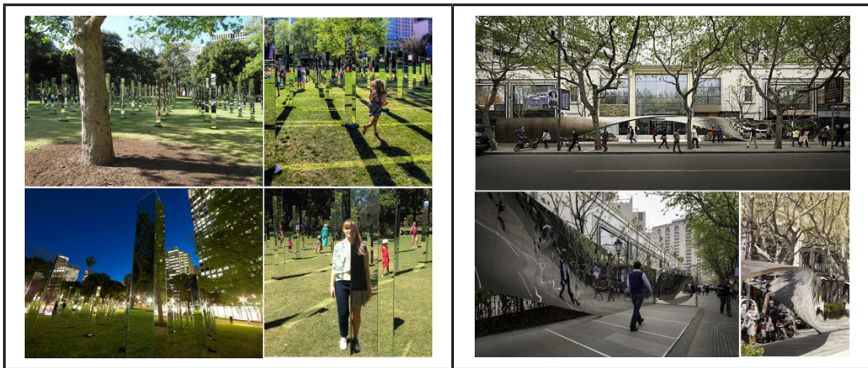


Figure 3. Examples of Installations as a Border Element: Field (URL 6, 2023; URL 7, 2023); Twist Xintiadi (URL 8, 2023)

The latest example of this group is the installation titled “Twists Xintiandi”, which was installed by UNStudio at the entrance of a shopping mall in Shanghai in 2014. The design frames the entrance to the site, reflecting interactions that take place between the city’s occupants and the urban fabric. Taking the form of an extended 30-meter corridor, the project transitions between wall and ceiling, translating occupants’ movements into a series of inverted reflections as they move throughout the space. According to its designer “*The installation is related to the culture of consuming, not with respect only to shopping, but to consuming images: images of our surroundings, of our city, of the buildings and the people around us and, of course, of ourselves,*’ ‘we wanted to ‘dress up’ the public space as it were and to capture the public in this environment,

almost in a kaleidoscopic catwalk – a place where you can see and be seen, but in surprising ways and within new perspectives of your surroundings” (URL 8, 2023). This installation adds the reflections of the city views at the point where it is located to the walking activity. Thus, many images of the surrounding city are consumed simultaneously by the user.

3.2. Installation as a Seating Furniture

In urban open spaces, wall edges, staircases, and even artificial platforms in some cases can offer different spatial activity solutions to users. In these examples where installation is transformed into furniture for seating, the user can use the space in creative ways for more than one activity.

The first two examples of installations with seating furniture are those that aim to bring the comfort of seating equipment to different points that allow seating in urban spaces (Figure 4). The first example of this group is the installation called “Stair Squares” applied by Mark Reigelman on the stairs of Brooklyn’s Brough Hall in 2007. It comes from the question “People rest and relax on public steps anyway, why not give them a comfortable way to do so?” In the installation there are little blue tables that fit perfectly onto steps to offer little tables for eating and reading (URL 9, 2023).



Figure 4. Examples of Installations as Seating Furniture:
Stair Squares (URL 9, 2023); (URL 10, 2023; URL 11, 2023)

The second example of this group was placed in Targ Weglowy square in 2013 by City Council Group and GDYBY. The proposed installation as a new outdoor space in an area where car parking space has been removed consists of temporary equipment. The light modular furniture designed by the GDYBY group in the form of cubic boxes gives users the opportunity to create their own small spaces where

they will feel comfortable (URL 10, 2023). The space of the square was arranged with mobile modules of urban furniture made of plywood and the green court, which is a base for them during the events, when the whole installation could be moved to the place of court and take a compact form which still is a space for resting (URL 11, 2023). In this installation, the modularity of the equipment allows the user to construct and experience different activities with the same equipment.

The third, fourth and fifth examples of installations with seating furniture aim to produce multifunctional seating areas in the urban space as a unit (Figure 5). The third example of this group is the installation titled “The Cascade” by Edge Design, which transforms an ordinary public stairway in Hong Kong into a striking, socially engaging public space.

The asymmetric mesh sculpture offers individual and adjoining seating areas surrounded by Bauhinia trees and assorted plants. The installation, designed as a mini park, uses all the advantages of stairs. While various points in the structure provide individual and multiple seating opportunities, some points turn into tables that can be used during coffee and lunch breaks, on which chess or games can be played (URL 12, 2023). Its creators, Edge Design Institute, describe the installation as “an artificial landscape that responds to the unique topography of the site: a cascade of steps that creates a public thoroughfare and generates potentials for a delicately scaled public space that have often been overlooked” (URL 13, 2023). This installation offers an extremely creative solution to use a transition area in a different function. It has transformed an unsuitable area into a suitable form, especially for an activity with special needs such as seating.

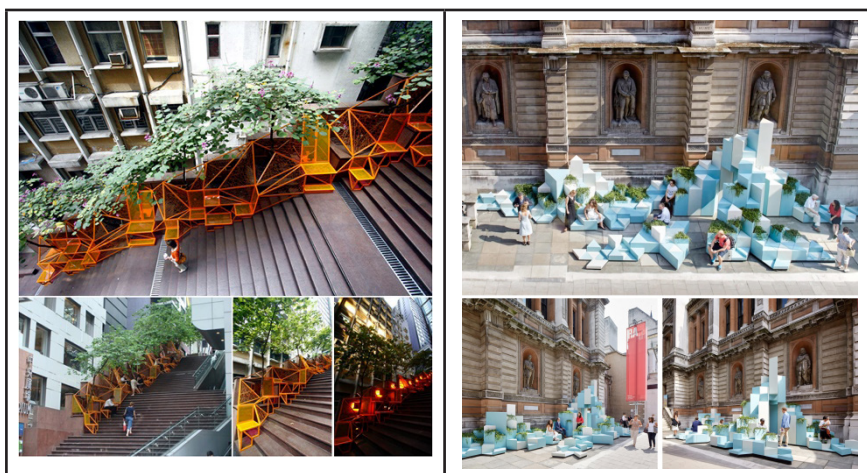


Figure 5. Examples of Installations as Seating Furniture:

The Cascade (URL 12, 2023; URL 13, 2023); Unexpected Hill (URL 14, 2023)

The fourth example belonging to this group is the installation called “Unexpected Hill”, applied by “SO? Architecture and Ideas” in front of the Burlington Gardens building in 2015. As a public place, the installation is an urban intervention that extends beyond the building and into the surrounding areas. It is also an indication that a material that is two-dimensional in nature and often used as a decorative element can create a three-dimensional structure open to public use. Installation not only communicates the 19th century appearance of Burlington Gardens, but also transforms the empty space at the entrance of the building into a new space with a multi-functional equipment where sitting, resting, and viewing activities can be held simultaneously (URL 14, 2023).

The fifth example belonging to this group is the installation called “Pincurbia” applied by Alana Green in 2009 in Robson Square (Figure 6).



Figure 6. Examples of Installations as Seating Furniture: Picurbia (URL 15, 2023)

The installation, defined as the orange picnic wave, is an installation that aims to encourage the people of Vancouver to revitalize the center of the city instead of evacuating from the city to the shores during the summer months. Designed as a downtown alternative to out-of-town beach trips, Picnurbia acted as an extensive picnic blanket for city residents and visitors. The installation offered pedestrians a much-needed gathering space in the heart of the city. Picnurbia allowed city-goers to view Robson Street as a pedestrian-friendly rather than a car-prioritized site, so much so that proponents mobilized to enact long-term change in the public space by petitioning its annual closure to automobiles (URL 16, 2023). The undulating landscape provides a colorful and comfortable place for people to watch, play and relax. Thus, the user experiences a new urban picnic area by spending time on the block for a purpose or more freely.

3.3. Installation as a Ground Cover

Ground covers in urban open spaces are used as effective tools to emphasize spatial function diversity. This group of installation examples is also used as a basis for promoting socialization activities as well as being used as a navigating guide due to the physical characteristics of the space.

While the first example of installations with floor covers aims to create a visual impact at a periodically organized festival, the second example aims to define the boundaries of an activity space (Figure 7). The first example of this group is the installation called “Flower Carpet” applied by Mark Schautteet in the historical square in front of the Grand Palace every August. It is a giant floral puzzle made by more than 100 volunteer gardeners to inhale the fragrant scent of the begonias and admire its details of a Gothic architecture masterpiece Grand Palace. The day before the opening, the spaces between the floral motifs are filled in using rolls of sod. The flowers are so closely packed that they can’t be blown away, and indeed they create their own microclimate (URL 17, 2023). Organized with different regional and country themes every year, this installation allows the user to perceive a historical city square with different sensory experiences.



Figure 7. Examples of Installations as a Ground Cover: Flower Carpet (URL 18, 2023); Cool Water Hot Island Installation (Dilworth, 2010)

The second installation belonging to this group is “The Cool Water Hot Island”, placed by Molly Dilworth in Times Square in 2010. The aim of the installation is to create a quiet place in the floor between the crowds of Times Square. The cool blue color palette chosen as the ground color refers to the historical region of the middle city, particularly to the “Great Kill” river, which once flowed on the Times square. The contrast of the blue palette with the neon red and yellows of the signs makes the square quieter and more comfortable space for pedestrians (Stark, 2010). The floor painting remained in the square for 18 months, slowing down the spatial movement of the crowd one step ahead and offering a room that slows down the daily life flow such as sitting, resting, chatting on the floor, and increasing socialization (Dilworth, 2010). The installation aims to create a stopping point in the crowd of Times Square, which stands out with its heavy vehicle and pedestrian traffic. Thus, the city user experiences the city in slow motion mode from a restricted, sheltered area while life is flowing around him at full speed.

3.4. Installation as a Play Environment

In today’s urban open space designs, creative urban spaces come to the forefront with their distinctive features. In this context, the creative power of the space is directly proportional to how differently the designer can have the users perform the basic activities in the space. Creative design work in urban

open spaces allows the user to experience everyday activities in the form of play in the urban space. In this group of installation examples, different spatial experiences and different experiences of daily activities are exemplified.

The first and second examples of installations with playground features reinterpret standard children's playground equipment in order to transform daily activities such as stopping, waiting, and watching in urban open spaces into an inviting and enjoyable game experience (Figure 8). The first example of this group is the installation called "Impulse" applied by Lateral Office and CD Design in Garmet District in 2020 (Ebert, 2020).



Figure 8. Examples of Installations as Play Environment:
Impulse (Ebert, 2020); 21 Swings (Fadden, 2013)

The installation, first realized in Montreal in 2016, aims to transform the urban space into an adult playground with 30 giant illuminated seesaws. The installation allows users to produce their own light and sound shows that transform the city's dreary January streets. The seesaws range from 16 to 24 feet and contain LED lights that vary in intensity and speakers that play random musical sequences. Installation by designers: "Inspired by the iconic cover of the Joy Division album 'Unknown Pleasures,' as well as Steve Reich's serial, minimal music, which plays with repetition, rhythm and syncopation, Impulse project explores how architecture can visualize sound" (Ebert, 2020).

The second installation belonging to this group is the installation called "21 Swings" placed by the Daily Tous Les Jours Design Group in Montreal in 2011. The 21 Swings public art installation, outside at the Quartier des

Spectacles in the heart of downtown, is the kind of instrument anyone can play – and everyone is, no matter what their musical ability, age or whether they find themselves next to friends or strangers on the swings. The aim of the installation is to bring people together in public space in a kind of balance that reflects the fast-paced urban environment while showing how community-oriented Montreal really can be. As people swing, melodies and harmonies are made along with others swinging next to them and nearby – sensors track the height, the speed and the position of the swings, triggering notes that match the swingers' movements (Fadden, 2013). The installation, where the more people swing, the more music can be made, offers the user the opportunity to stay individual and be included in the society. Thus, the installation defines an activity that is inviting for the outsider and a multi-user activity for the person interacting with it.

The third example of installations with the playground feature is an installation that makes its application points noticeable and invites users to explore these points (Figure 9). The installation, which is an example of this group, was placed first in St. Louis by Kurt Perschke in 2001. It has the title of the longest running placement that travels the world every year in other countries and cities (URL 19, 2023). The installation begins with the question of what would happen if an inflated 4.5m diameter red vinyl ball was placed in extraordinary locations in the world's major cities. The Red Ball project is very simple in theory - place a giant inflatable red sphere in urban spaces. The ball stops outside and is easy to spot even on a busy street. What is striking about this social art project traveling from one city to another is that the ball has an inner power that invites pedestrians to interact with it and discover the mysterious places where it is placed. (Noorata, 2011). As stated by its designer this installation “inflates where it's not supposed to be and gets in the way of everyday life in unexpected ways” (URL 20, 2023). This situation allows people to experience the space in a completely different way than it should be, with unexpected encounters in the urban space.



Figure 9. Example of Installations as Play Environment:
Red Ball (Noorata, 2011; Erikson, 2013)

The fourth and fifth examples of installations with the playground feature are among the most important examples of permanent installation in the world. The first example of this group is a permanent installation designed by Anish Kapoor for the Millennium Park in 2006, originally called the “Cloud Gate”, although it is popularly known as the “Bean” because of its shape (Figure 10). This incredible outdoor installation, a gateway to the city, was first presented at the opening of Millennium Park in Chicago in 2004. The installation is made of highly polished stainless steel that reflects the activity and lights of the park and surrounding city Skyline. The form is like a giant drop of water frozen in the air. Inspired by the liquid mercury drop, the surfaces of the monumental sculpture reflect and distort the silhouette defined by the city’s skyscrapers. Visitors can experience reflections around the Cloud Gate and within the arc below. Because of this magically attractive mirror surface, installation has become a popular

destination for tourists and locals. It has become a meeting place, where you can constantly take pictures of the sculpture or do selfies on the background of the reflected skyscrapers (URL 21, 2023).



Figure 10. Example of Installations as Play Environment:
Cloud Gate/Bean (Photos by author, 2014)

The fact that Cloud Gate is a permanent installation enables it to be constructed together with other installations at different times. The installation implemented by Luftwerk in 2012 to transform into a digital canvas of choreographed geometrical light forms with its first-ever site-specific video and sound installation highlights Cloud Gate (Figure 11). Cloud gate’s ability to reflect images is multiplied by light in this installation called “Luminous Field”. Setting out with the decision “No matter how many times you visit the experience is always different depending on the time of day, the weather, who you’re with, and what’s happening in the general vicinity of the giant

mirrored surface. The Bean is in a perpetual state of visual flux” the installation pursues instantaneously changing experiences. The duo is using an array of ten projectors to create the experience, setting everything to music composed by Owen Clayton Condon of Third Coast Percussion (Rosenfield, 2012). This installation offers its users multiple sensory experiences by combining light and sound and encourages them to experience the space in a multidimensional way.



Figure 11. Example of Installations as Play Environment:
Luminous Field (Rosenfield, 2012)

The second example of installations with playgrounds is the permanent installation called “Crown Fountain” designed by Jaume Plensa for the Millennium Park in 2004 (Figure 12). The Crown Fountain uses numerous design elements including water, light, and glass to create a unique meeting point and reflection space. Covering the ground surface is a “water skin,” and is spread out across the whole of the pool. The pool invites visitors to step on and look at the images screening on the two 50-foot towers. They project video images from a broad social spectrum of Chicago citizens. This idea comes from the traditional use of gargoyles in fountains, where faces of mythological beings were sculptured with open mouths to allow water, a symbol of life, to flow out. The faces are collected among the Chicagoans of different age, gender, and ethnic origin. (URL 22, 2023).

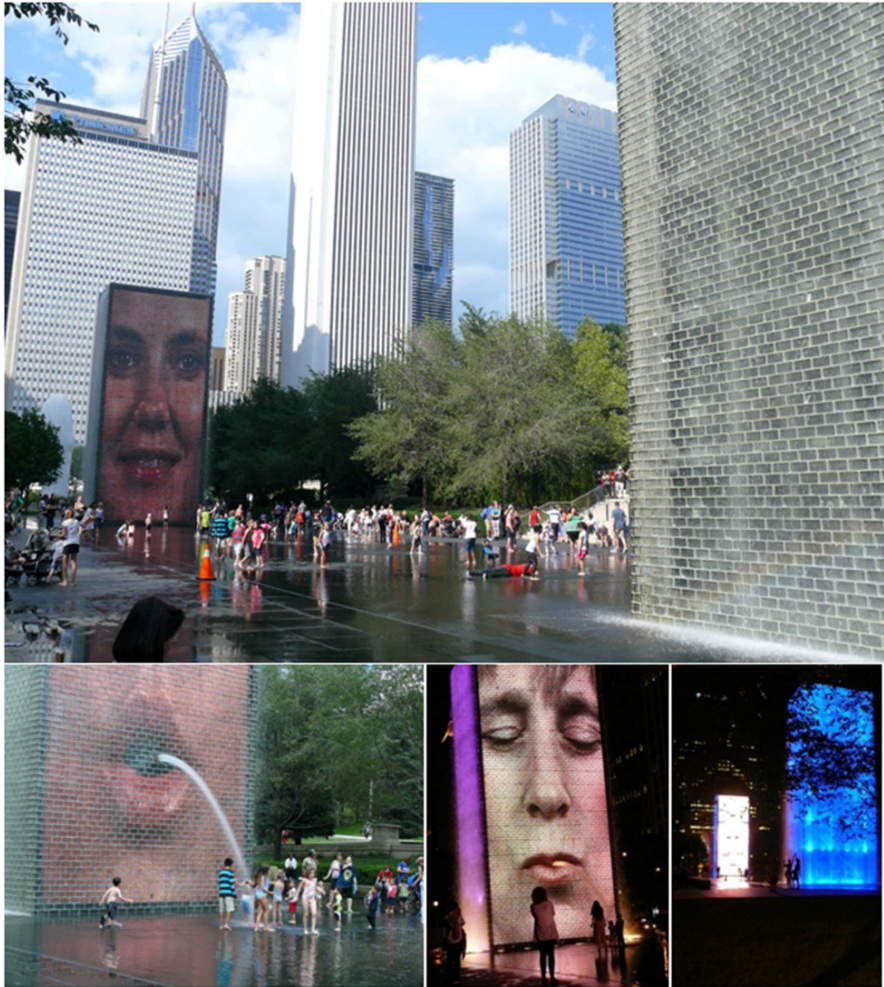


Figure 12. Example of Installations as Play Environment:
Crown Fountain (Photos by author, 2014)

While the digital installation creates an interactive playground with water, it also aims to bring together the people who experience the city through visuals, integrate them and make people familiar with each other.

Results

Gehl's famous quote "A great city is like a great party. You know people don't leave when they are enjoying themselves", emphasizing that the use of a city by its inhabitants is vital to its existence. However, in today's cities, which are designed for more traffic and cars, urban open spaces quickly leave their

places to more cars and traffic. Thus, urban open spaces, which are crucial as spaces that are accessible and well connected to other important places in the area, comfortable and project a good image, attract people to participate in activities there, as well as opportunities to meet and socialize with other people, are becoming increasingly unusable.

In today's crowded cities, interaction is more urgent than ever. Especially, today's people, who have a busy daily life tempo, always skip the priority of experiencing the city while living in big cities. Urban open spaces, if designed correctly, play an extremely important role in reminding the public of this priority. Unfortunately, at this dizzying pace of life, the standard urban open space understanding with ordinary breathing, resting and entertainment activities is not enough for the people of the city. Because now, urban space should be interactive, reminding itself to its user, and even inviting him persistently. The examples given in this research show how the art of installation, which is widely used in urban space today, can be used as interactive equipment and how it will produce interactive spaces.

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CHAPTER XI

EXAMINATION OF URBAN GREEN NETWORK ELEMENTS IN TERMS OF PROTECTED AREA FORMS

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1. Introduction

The city phenomenon is a dynamic concept that constantly changes depending on its geography, culture and interactions throughout the historical process (Topal, 2004). Underlying the ongoing changes in the role of cities are global economic changes. In the past fifty years, most cities in developing countries have grown with industrialization and subsequent urbanization practices (Sassen, 1998) and today's cities cover 2% of the world's

surface but consume 75% of the world's resources (Wiemann, 1996). Again, as a result of the solution of the problem of housing, which is a basic human need, which manifested itself in the 20th century, through squatting and concretization in cities, irregular and unplanned urbanization, urban infrastructure and urban environmental problems emerged.

Nowadays, it is expressed by scientists and experts that urban-rural balance is strikingly developing and differentiating against natural areas-rural areas, with the increasing population and global economic activity, a large part of the planet is shaped by human hands and cities will move away from being livable environments due to global climate change in the near future and the necessity of re-establishing the relationship of cities with nature as a solution is mentioned (Demirel and Oruçkaptan, 2017).

The struggle of the century we live in will be to improve the environmental conditions of cities on one hand, while reducing the pressures on limited resources on the other hand. The increasing negative impact of urbanization on natural and cultural values in our current times, along with the worsening effects of urban-related environmental pollution on human health, compel all stakeholders involved in a city to think and question in multi-dimensional ways about the concept of "ecological urban renewal and livable healthy city" (Karadağ, 2009), and force them to collaborate and generate solutions together. Urban planners, landscape architects, and ecologists are making efforts to recreate lost natural values within the city. The concept of "all green network elements encompassing built environment and open spaces that find a place within the urban fabric" is also a natural outcome of these necessities and pursuits.

The most significant issue of our cities is their continuous evolution and transformation in parallel with the increasing human activities, leading to the formation of congestion (agglomeration) areas due to concentrations of people over time and space. Green network systems will stand out as "critical infrastructure" in our country's cities for their ecological, social, and economic sustainability within today's dynamic and fragile urban environment. Green network and green infrastructure studies are being brought to the agenda to analyze and integrate the ecological-based systems within our cities. Despite the excessively expanding/homogenizing structure of cities, the elements that can render a city more unique, livable, and endowed with identity can be defined as the city's ecological values, which are the green network systems.

The biggest problem of our cities is that they show a development parallel to the increasing human use and that they have become areas of agglomeration

as a result of human density at time and space. For the ecological, social and economic sustainability of our cities, green network system comes forward as a “critical infrastructure” for today’s changing and fragile urban environment. In order to analyze and integrate the ecologically based systems in our cities, green networks and green infrastructure has been brought to the agenda. In contrast to the extremely growing/approximating structure of cities, green network systems as ecological values of the city, are what makes a city more unique, livable and adds an identity to it.

Natural environmental conditions are the fundamental factors in the establishment of cities. The location, topographical conditions, climate, water elements, vegetation, and data originating from the natural environment uniquely distinguish, define, and give identity to a city compared to others (Deniz, 2004; Kır, 2009). Cities are ecosystems that encompass natural structures and systems, in addition to being areas of intensified anthropogenic activities, involving the interplay between cultural and natural elements. The balanced and healthy continuation of the ecosystem functions of cities can be achieved through planning practices that approach cities with an ecosystem perception (Yaman and Doygun, 2014).

The concepts of the “green scenario” and “city within nature,” which have been articulated in cities in recent years, are also a natural consequence of these necessities and pursuits. Green spaces and their qualities, which develop in parallel with the civilization level of societies, have become indispensable elements of planned urban areas on one hand, and on the other hand, they have turned into indicators of the socio-cultural quality of the contemporary urban concept (Demirel et al., 2005).

2. Philosophy of Conservation and Cities

“Protecting” any entity or environment considered natural requires various tools and mechanisms. The most common use of these tools is to gain a special, privileged structure or “status” to the individual or environment that has been decided to be “protected”. Thus, it is hoped that the goal of “conservation” can be achieved more easily and permanently (KIRÇEV, 2000). Conservation in its own sense is a philosophy or policy that underlies or balances the use of resources.

“Protected Area Forms” or protection structures “creation decision” are closely related to the individuals or societies these areas contain. The fact that the biological life chain of every entity belonging to nature and our

living environment, along with its culture, is not fully defined, should lead us to the prevailing notion that for the sake of avoiding misjudgments about its conservation value, it is necessary to conserve all natural and cultural entities without making a distinction between beneficial and non-beneficial ones (Demirel, 2005).

Conservation thought and practices developed until the 19th century, through the maintenance of the building in order to keep the building alive and to ensure the functionality of the building with various additional changes, with the rules set in order not to lose the beauties of the cities and not to make changes without the knowledge of the city administrations. For the development of cultural heritage and the understanding of conservation, as well as for urban preservation practices to become a scientific endeavor, it was necessary to wait until the 19th century (Sağiroğlu, 2016). The importance of urban conservation, which began to develop in the late 19th century worldwide, started to increase in Türkiye along with the 1960s.

In our country, the concept of conservation and conservation statuses in urban areas are approached specifically in terms of the structure and its surroundings. However, urban parks that ensure the sustainability of collective memory from the past to the present are also important places that need to be protected. The preservation of these areas is important not only for maintaining the ecological balance of the city but also for ensuring the preservation of urban memory and the transfer of societal values related to the city to future generations (Doğan et al., 2022).

In Türkiye, the concept of conservation and conservation statuses in urban areas has been discussed through the building structure and its surrounding. However, urban parks, that substantial pieces of urban areas ensuring the continuity of social memory from past to present are necessary to be conserved. In addition to maintaining the ecological balance of the city, the protection of these areas is crucial for preserving urban memory and ensuring that the social values related to the city are transferred to future generations (Doğan et al., 2022).

3. National and International Agreements, Treaties and Initiatives in Creating Livable and Sustainable Cities

Below are the efforts related to cities that have been carried out at the international and national levels:

- *European Urban Charter*: The European Urban Charter, to which Türkiye is also a party, was adopted on March 18, 1992, during the 27th session of the ordinary meeting of the Congress of Local and Regional Authorities of the Council of Europe (CLRAE), operating under the Council of Europe, held in Strasbourg from March 17 to 19, 1992 (Tul, 2017). The European Urban Charter is a product of urban policies developed within the scope of the “European Campaign for Urban Renaissance”, organized by the Council of Europe between 1980 and 1982, which adopted the slogan “Better Living in Settlements” to enhance the quality of life in urban settlements. The two fundamental principles that are strongly embraced are “cooperation and solidarity” (Pektaş and Akin, 2010).

- *European Spatial Development Perspective*: The European Spatial Development Perspective, which was prepared by the European Union Spatial Development Committee in 1999 and accepted by the member states, includes common goals and policies. When it comes down to lower scales, it is seen that the spatial development policy proposes balanced and polycentric urban systems and new urban-rural relations. In Europe, where 80% of the population lives in urban areas (65% of the population lives in cities in our country), urban quality of life is of great importance. In the year 2004, a report titled “Towards a Thematic Strategy on the Urban Environment” points out the significance of revitalizing European cities. These approaches, which also form the basis of the European Landscape Convention, and these policies for urban and rural areas are of vital importance for countries such as Türkiye that do not have integrated landscape policies (Turan, 2007).

- *European Landscape Convention*: Signed by member countries on October 20, 2000, in Florence. It was approved by the Grand National Assembly of Türkiye (TBMM) with Law No. 4881 dated June 10, 2003, and entered into force on July 17, 2003. Its scope includes natural, rural, urban, semi-urban areas, land, inland waters, marine areas, and wetlands. The Convention is the first international treaty in Europe to comprehensively address landscapes with all their features. The policies of the Convention regarding urban and rural areas are of vital importance for countries without comprehensive landscape policies, such as Türkiye (Council of Europe, 2000).

- *Integrated Water Resources Management*: It was supported at the Dublin Conference (1992), the 2nd World Water Forum in The Hague (2000), the Bonn Conference (2001) and the Sustainable Earth Summit in Johannesburg (2002) (Ekinici, 2015).

- *Leipzig Charter on Sustainable European Cities* (24-25 May 2007): Articles 44-59 of this text, which encourages European local to build “Sustainable Cities and Towns” that respect the local and global environment, are extremely important (Leipzig Charter, 2007).

- *European Urban Charter 2*: The Council of Europe adopted the European Urban Charter 2 on May 27-29, 2008. It has been stated that the changes brought by the European Urban Charter 2 are a set of common principles and concepts that will enable cities and towns to cope with contemporary urban problems. It has been declared as the European Urban Charter 2 – Manifesto for a New Urbanism (Güler, 2012).

- *United Nations Human Settlements Programme (UN-HABITAT)*:

- The 1st Habitat Conference was held in Vancouver, Canada in 1976. Key Outputs; a/recognizing that housing and urbanization are global issues that need to be jointly evaluated, b/establishment of the UN Center for Human Settlements (UNCHS-Habitat) (Habitat Association, 2023).

- After the Habitat-II Conference held in Istanbul in 1996, the “habitat Agenda” and the “Istanbul Declaration” have committed to developing sustainable human settlements (Republic of Türkiye Ministry of Foreign Affairs, 2023).

- “Declaration on Cities and Other Human Settlements in the New Millennium” known as “Istanbul +5” in 2001 (Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, 2023a).

- At the UN-HABITAT 21st Executive Council in 2007, the 2008-2013 “Medium-Term Strategic and Institutional Plan” (MTSIP) was adopted. UN-HABITAT, the vision of “sustainable urbanization” developed on the basis of result-oriented management (Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, 2023a).

- Habitat III “New Urban Agenda,” the draft text prepared on May 6, 2016, embodies the necessary strategic decisions for the “Quito Declaration” released on October 16, 2016. The World-Scale New City Agenda (Quito Declaration-2016) (U.N., 2016) proposes Sustainable Cities and Settlements for All.

Urbanization with the Declaration; It is considered as the engine of sustainable and inclusive economic development, social and cultural development, protection of nature and environment, and sustainable development.

The shared vision of the New Urban Agenda is defined as “cities for all,” aiming for a better and greener urban future. Settlements that preserve the ecosystem, water, natural habitats, and biodiversity are envisioned to be present.

One of the most important principles of the new urban agenda:

- ✓ Environmental sustainability,
- ✓ Sustainable use of land and resources in urban development process,
- ✓ Conservation of clean energy, ecosystems, and biological diversity,
- ✓ Adaptation to climate change,
- ✓ Establishment of urban resilience.

○ Amsterdam Pact, on May 30, 2016, the “Amsterdam Pact” was adopted during the unofficial meeting of European Union Ministers responsible for Urban Affairs. The document states that efforts at the city level play a significant role in shaping and implementing European Union policies.

○ With the Quito Declaration on “Cities for All” (October 17-20, 2016, Quito, Ecuador), urbanization is addressed as the engine of sustainable and inclusive economic development, social and cultural development, nature and environmental protection, and sustainable development.

- *Integrated Urban Development Strategy (KENTGES) and Action Plan (2010-2023)*: The text prepared by the Ministry of Environment and Urbanization of the Republic of Türkiye was declared on March 3, 2010. KENTGES (Integrated Urban Development Strategy) is a roadmap for central and local administrations regarding urbanization and zoning issues. It determines the actions and processes to be carried out at both central and local levels in terms of transportation, infrastructure, housing and land supply, disaster preparedness, conservation, climate change, quality of life, social policies, and participation.

- Based on these studies, a series of institutional and managerial changes have been made in spatial planning after 2011. The Ministry of Environment and Urbanization of the Republic of Türkiye, established in 2011, has been assigned the tasks of guiding settlement, urbanization, and land use, collaborating with relevant institutions and organizations to prepare national and regional spatial plans, establishing fundamental principles, strategies, and standards for land use in urban and rural areas, ensuring their implementation, and conducting oversight.

- In addition, the Urban Transformation Law was enacted in order to solve the problems caused by rapid growth and to create disaster-resistant cities. Finally, with the Metropolitan Law No. 6360, which entered into force in 2014, the jurisdictions of metropolitan municipalities were extended to the provincial borders, and a holistic, effective and efficient administrative structure was established in terms of planning and zoning activities and service delivery.

- In high-level national policy documents published in 2014 and after (10. Development Plan/ 2014-2018, Government Programs, Medium-Term Programs, Sector Strategy Documents, etc.) Under the principle of “Livable Spaces, Sustainable Environment”, goals and policies have been included in order to increase the quality of life of our people in cities and rural areas in a sustainable way, to increase environmentally sensitive approaches.

- In the 65th Article of the section titled “Livability of Cities/Sustainable Environment” of the 5-year Development Plan covering the years 2019-2023, it is stated that “In Türkiye, there is a focus on policies aimed at human-oriented, respectful to natural life and historical heritage, providing basic urban services in a fair and accessible manner, providing local services with the principle of expediency, having a high quality of life and creating resilient settlements.” In the 666th Article of the same plan, it is stated that *“Efforts aimed at ensuring the sustainable development of cities, such as the establishment of accessible and well-connected urban transportation systems, Creating resilient infrastructure against disasters and climate change, establishing sustainable production and consumption mechanisms, conducting long-term integrated urban planning and design, and implementing effective disaster management, require the participation of all stakeholders and comprehensive collaboration. The increasing needs and diversified preferences of the growing population affect the development process, making it important to reduce the pressure on the environment. In this context, priority is given to efforts aimed at preventing environmental pollution, preserving biological diversity and natural resources, and promoting sustainable utilization.”* (Republic of Türkiye Strategy and Budget Department, 2019).

- Established with the joint initiative of the EU Commission, member states and the European Cities Communication Network, the Urban Agenda aims to solve priority issues at the first stage; Effective urban governance and participation, urban, rural and cross-border cooperation for balanced regional development, human and space-based strategic planning, smart cities, social issues, social, economic, environmental, spatial and cultural aspects of urban transformation, transformation of industrial areas, migration and public services.

- Türkiye’s Climate Change Adaptation Strategy and Action Plan (2011-2023): As part of International Commitments, Climate Action Plans (United Nations Climate Change, 2023) encompass the following areas: 1/Transport and Land Use Plans, 2/Energy Efficient Building Plans, 3/Waste Plans, and 4/Other

Plans related to Climate Change. In the document prepared by the Ministry of Environment and Urbanization of Türkiye, 5 strategic approaches have been identified for the Climate Action Plan. These are: 1/ energy-efficient buildings, 2/ renewable/clean energy sources, 3/ development of alternative transportation networks, 4/ disposal of waste and industrial pollutants, and 5/ adaptation processes (restoration-ecological renewal). The National Climate Change Adaptation Strategy and Action Plan (2011-2023) in Türkiye has focused on five critical areas that could be affected by climate change, supported by technical and scientific studies and participatory processes: (1) water resources management, (2) agriculture and food security, (3) ecosystem services, biodiversity, and forestry, (4) natural disaster risk management, and (5) human health.

At the universal level, numerous conventions, regulations, and declarations have been published regarding the preservation of cultural heritage, and in Türkiye, these international entities have become a part of our domestic law through legislative arrangements. Efforts are being made to protect cultural heritage with Legal texts such as the Venice Charter, the Convention for the Protection of the World Natural and Cultural Heritage, ICOMOS, ICOM, the European Convention for the Protection of the Architectural Heritage of Europe, the European Convention for the Protection of the Archaeological Heritage and Official and Non-Governmental (NGO's) Organizations.

Urban conservation is the protection of historical and architectural areas, structures and natural beauties in cities against all kinds of destructive, aggressive and harmful actions, and the establishment of ties with the present by ensuring their use in various ways. therefore, it is to protect the existing values in the best way and transform them into a state that appeals to the needs of the age. In this regard, the concept of urban conservation also encompasses activating the function of a structure or an area within the living dynamic entirety of the urban space, thereby enabling it to become functional (Can, 1993). Therefore, urban conservation refers to the processes involving natural and cultural physical, economic, social, technical, and scientific efforts (Başarmak, 2022).

The reactions arising in response to the extensive destruction and devastation in European cities after World War II, and the subsequent discussions on urban reconstruction that developed in conjunction with these reactions, constitute the inception of the evolution of the concept of preservation to the urban scale worldwide. In this context, the first international document is the "Convention for the Protection of Cultural Property in the Event of Armed Conflict" signed by UNESCO on 14 May 1954 in The Hague. Guided by the principles established

in the Hague Conventions of 1899 and 1907, as well as the Washington Pact of April 15, 1935, the parties have observed the immense significance of preserving existing cultural artifacts for all nations globally and the necessity for their international safeguarding (UNESCO, 1954). The Convention emphasizes that attacks on cultural artifacts, regardless of their ownership, are a loss for all of humanity.

During this period, the city of Warsaw, which had been nearly obliterated after World War II and reconstructed through old knowledge and documents, as well as the city of Rotterdam, which was re-planned after the war and has now gained fame as the “Museum of Contemporary Architecture,” serve as significant examples of the intersection of urban-scale preservation and planning (Dinçer, 2016a).

The fundamental turning point for urban conservation lies between the years 1950 and 1970. Since the first movement, which developed as urban renewal, caused the destruction of urban centers, conservation movements were initiated by the residents of these cities. This conservation movement, which first started in the cities of Baht, Brussels and Paris, will result in the declaration of 1975 as the European Year of Architectural Heritage under the leadership of Europa Nostra (Dinçer, 2016a).

The “Athens Charter” dated 1931 contains significant recommendations regarding the international and United Nations-level implementation of the function of preserving human heritage (Athens Charter, 1931).

Within the historical development of urban conservation, the Venice Charter of 1964 stands as one of the foundational documents, setting an international framework for the preservation and restoration of historical structures (Venice Charter, 1964). One of the most important results of the Venice Charter is the establishment of an international and non-governmental organization called the “International Council of Monuments and Sites” (ICOMOS) with the aim of “developing principles, techniques and policies for the protection and evaluation of historical monuments and sites, as well as supporting and directing all kinds of related research” (Başarmak, 2022).

After the Athens Charter, the Venice Charter of 1964 also encompasses significant conceptualizations for the preservation of cultural heritage. The purpose of conservation is stated in the Venice Charter as “preserving a historical document as well as a work of art” (Venice Charter, 1964).

The international conventions and charters that followed the Venice Charter are as follows (Ahunbay, 2019; cited from Batmaz and Biçici, 2020):

- UNESCO World Heritage Convention (1972)
- 1975 European Architectural Heritage Year and European Architectural Heritage Charter (1975)
 - 1975 European Architectural Heritage Year and Amsterdam Declaration (1975)
 - Conservation of European Architectural Heritage, Granada Charter (1985)
 - Conservation and Management of Archaeological Heritage (ICOMOS, 1990)
 - European Convention on the Protection of Archaeological Heritage, Valetta (1992)
 - Guidelines for Education and Training in the Conservation of Monuments, Ensembles, and Sites (ICOMOS, 1993)
 - Nara Document on Authenticity (1994)
 - European Network of Ancient Theatres and Showplaces, Segesta Declaration (1995)
 - Principles for Recording Monuments, Groups of Buildings, and Sites (ICOMOS, 1996)
 - European Network of Ancient Theatres and Showplaces, Verona Charter (1997)
 - Council of Europe, Charter on the Use of Ancient Theatres (1997)
 - Charter on the Built Vernacular Heritage (ICOMOS, 1999)
 - Principles for the Conservation of Wooden Heritage (ICOMOS, 2017)
 - International Cultural Tourism Charter (ICOMOS, 1999)
 - Archaeology and the City Project: European Principles (2000)
 - European Landscape Convention, Florence (2000)
 - Principles for the Analysis, Conservation, and Structural Restoration of Architectural Heritage (ICOMOS, 2003)
 - Principles for the Conservation-Restoration of Wall Paintings (ICOMOS, 2003)
 - ICOMOS Charter on Cultural Routes (2008)
 - ICOMOS Charter on Interpretation and Presentation of Cultural Heritage Sites (2008)
 - Joint ICOMOS-TICCIH Principles for the Conservation of Industrial Heritage (2011)
 - 2018 European Year of Cultural Heritage

European Convention on the Protection of Archaeological Heritage was signed in London on May 6, 1969. The aim of the Council of Europe is to achieve closer cooperation among its members, particularly in preserving and enhancing the ideals and principles they share as common heritage. This involves safeguarding and promoting Europe's shared memory, and also protecting archaeological heritage not only as a source of common heritage but also as a resource for scientific and historical research (Republic of Türkiye Ministry of Culture and Tourism Inspection Board Presidency, 1999).

- Reference is made to the European Cultural Convention, signed in Paris on December 19, 1954, and particularly to its Articles 1 and 5.
- Reference is made to the European Convention for the Protection of the Architectural Heritage, signed in Granada on October 3, 1985.
- Reference is made to the European Convention on Offences relating to Cultural Property, signed in Delphi on June 23, 1985.
- The ratification of the “European Convention for the Protection of the Archaeological Heritage (Revised)” signed in Valletta (Malta) on 16 January 1992 was deemed appropriate.

The Venice Charter marked the shift towards the concept of “integrated conservation,” and this direction was further solidified with the signing of the “Amsterdam Convention” in 1975. As a result, urban conservation has become a tool supporting social and economic development and accelerating urban revitalization practices across Europe. This understanding began to evolve with the signing of the “Nairobi Convention” at the nineteenth-year conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1976. This Convention, which is basically a Recommendation Decision, has emphasized the importance of the structures, spatial elements, and the environment that make up the historical areas. The text emphasizes the potential for historical site destruction to lead to economic losses and social discomfort, urging the safeguarding of these sites from damages that may arise due to insensitive alterations affecting their authenticity (UNESCO, 1976; cited from Başarmak, 2022).

During the 16th General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) held in Paris from October 17th to November 21st, 1972, the decision was made to address the international issue of establishing a treaty with the aim of introducing to the world the culturally and naturally significant sites of universal value recognized as the common heritage of humanity, fostering a collective consciousness to safeguard this

universal heritage, and facilitating necessary collaboration for the preservation of cultural and natural assets that face various threats and the “Convention concerning the Protection of the World Cultural and Natural Heritage” was adopted on November 1st, 1972 (Demirel, 2005). The Convention, deemed suitable for accession through Law No. 2658 dated April 14, 1982, was approved by the Council of Ministers with Decision No. 8/4788 dated May 23, 1982, and published in the Official Gazette with No. 17959 dated February 14, 1983. It has been noted that both cultural and natural heritage are increasingly threatened by not only traditional forms of deterioration but also by the more dangerous phenomenon of worsening decay and destruction exacerbated by changes in social and economic conditions, leading to an escalating risk of extinction.

The documents provided below have made significant contributions to the enhancement, revitalization, and adaptation of historical environments to contemporary life by introducing innovations to the principles of historical environment conservation and urban preservation.

- The “Bruges Resolutions: Principles for the Rehabilitation of Historic Towns” adopted in 1975
- The “Tlaxcala Declaration,” also known as the “Convention for the Revitalization of Small Settlements,” signed in 1982, signifies the initial institutional efforts in the field of urban conservation for the preservation and development of historic cities.
- The “Washington Charter,” formally known as the “Charter for the Conservation of Historic Towns and Urban Areas,” adopted during the 1987 ICOMOS General Assembly, constitutes a significant development in the field of urban conservation. It encompasses provisions related to the preservation of historic urban areas of varying sizes, including cities, towns, historic centers, or neighborhoods, along with their natural and built environments.

The approval of the “Convention for the Protection of the Architectural Heritage of Europe,” signed on October 3, 1985 (Council of Europe, 1985) and deemed suitable for ratification through the Law No. 3534 dated April 13, 1989, was decided by the Council of Ministers on May 18, 1989, in accordance with the third article of Law No. 244 dated May 31, 1963, based on the letter dated May 2, 1989, and numbered KİÇT/3609-2227 from the Ministry of Foreign Affairs. Recognizing that architectural heritage is a unique expression of the richness and diversity of European cultural heritage, and that it serves as an invaluable witness to our past, constituting a shared heritage for all Europeans;

- In terms of the European Cultural Convention signed in Paris on 9 December 1954 and Article 1 of this Convention,
- With the European Architectural Heritage Law adopted by the Committee of Ministers of the Council of Europe on 26 September 1975.
- Having regard to Recommendation 880 (1979) of the Parliamentary Assembly of the Council of Europe on the protection of the Architectural Heritage,
- Considering the recommendation of the Committee of Ministers to the member states regarding the training of architects, engineers, urban and landscape planner specialists, and the recommendation on aid to be given to professions in danger of extinction in some branches of handicrafts,
- Keeping in mind the significance of transferring a cultural resource system to future generations through the development of urban and rural environments, and thus contributing to the economic, social, and cultural progress of states and regions,
- Recognize the importance of reaching an agreement on the main principles of a common policy on the protection and promotion of the architectural heritage.

Since the 1990s, the idea of urban conservation has focused on “protection of the environment” and has been officially recognized by all countries as “the economic order compatible with nature is the economic order of the 21st century” (Demirel, 2005). The “Rio Declaration on Environment and Development,” adopted by the United Nations in 1992, was a significant step; this development was followed by the “European Convention on the Protection of the Archaeological Heritage,” adopted by the Council of Europe in the same year.

The “European Landscape Convention,” which our country adopted in 2003, is a significant document contributing to the development of urban conservation, encompassing natural, rural, urban, semi-urban areas, land, inland waters, marine areas, and wetlands.

Considering the natural and cultural structure of the city, the most important condition for ensuring the sustainability of cities is to reveal the key functions that are effective in the continuation of the life of that city and its inhabitants. In revealing these key functions, the integration of ecology-based approaches into all spatial planning and design processes from upper scales to lower scales is required. In this sense, ecology-based studies and tools

such as Landscape Plans and Landscape Atlases (prepared as a requirement of the European Landscape Convention) are important for providing guidance and support to all physical plans in making land use decisions. To put it concretely, instead of mapping information such as “forests, pasture-meadow areas, agricultural areas, conservation and protected areas, important plant areas, important bird areas” taken into consideration during threshold analysis in the existing environmental layout plans in the spatial planning hierarchy of our country only by taking institutional opinions, “Landscape Character Assessments” should be made and included in the revised Environmental Layout Plans (Demirel, 2021a).

The most important document adopted by the Council of Europe on the protection of cultural heritage is undoubtedly the Framework Convention on the Value of Cultural Heritage for Society (Faro Convention), signed on October 27, 2005. This convention is also the first treaty that approaches cultural heritage from a holistic perspective. In Article 2 of the Convention, cultural heritage is defined as “a set of resources inherited from the past, which people distinguish as an anonymous expression and reflection of their constantly evolving values, beliefs, knowledge and traditions”. It also “consists of people who value certain aspects of the cultural heritage that they wish to be sustained and passed on to future generations, within the framework of public action.” (Türkbay, 2021).

During the 2005 session of the UNESCO World Heritage Committee, the “Recommendation on the Historic Urban Landscape,” which was prepared in collaboration with a large group of experts from various regions of the world, was adopted in November 2011 at the UNESCO General Conference as a ‘soft law’ instrument. In this context, the main goal of the Historical Urban Landscape approach is to define the principles of application for urban conservation models that respect values and different cultural contexts, as well as to place the urban heritage at the center of the spatial development process, in other words, to see the historical city as the source of the future (Dinçer, 2016b). The Historic Urban Landscape approach draws attention to the role of historic cities as centers of art and creative industries, recognizing the link between natural and cultural factors in the preservation of the built environment and the new problems brought on by rapid social and economic changes.

In our country, the Cultural and Natural Heritage Preservation Law No. 2863 came into effect in 1983. With this Law, the “Law on the Establishment of

the High Council for Real Estate Ancient Artifacts and Monuments No. 5805” and the “Ancient Artifacts Law No. 1710” were abolished, and a new legal framework for protection was established. It was recognized that “all cultural and natural assets are state property,” and a redefinition was made in terms of cultural assets, natural assets, preservation, and conservation concepts.

This process was followed by the laws enacted in 2007, numbered 5663, amending the Law on the Protection of Cultural and Natural Assets, the law enacted in 2009, numbered 5835, amending the Law on the Protection of Cultural and Natural Assets, and the law enacted in 2013, numbered 6498, regarding amendments to the Law on the Protection of Cultural and Natural Assets. There are 30 regulations that have entered into force in accordance with the Law No. 2863 on the Protection of Cultural and Natural Heritage, which took its final form in 2013, and these regulations constitute the basic infrastructure for the continuation of conservation practices (Türkbay, 2021).

During the UNESCO World Heritage Committee’s meeting in 2005, the “Recommendation on the Historic Urban Landscape,” prepared in collaboration with a large group of experts from various regions of the world, was accepted in November 2011 at the UNESCO General Conference as a ‘soft law’ instrument. In this context, the primary goal of the Historic Urban Landscape approach is to define principles for urban conservation models that respect values and diverse cultural contexts. Additionally, it aims to place urban heritage at the center of spatial development processes, essentially viewing the historic city as a source of the future (Dinçer, 2016b). The Historical Urban Landscape approach wants to be aware of the connection between natural and cultural factors and the new problems brought by rapid social and economic changes in the protection of the built environment. In addition, the historic urban landscape approach draws attention to the role of historic cities as centers for the arts and creative industries.

4. Urban Landscape/Conservation Dimension Based on National Policies

Approximately 9 percent of our country has the status of protected area. The Ministry aims to increase the protected areas by 20 percent every year and to reach 17 percent of the country’s surface area by 2023. In our country, conservationist approaches that began in the 1930s during the Republican era have formed a conservation culture of approximately 80 years, and significant

progress has been made towards organizing efforts aimed at establishing the implementation infrastructure through various legal texts (Demirel, 2021b).

In present times, the institutions responsible for protected areas are as follows:

- Ministry of Environment and Urbanization of the Republic of Türkiye (General Directorate for the Protection of Natural Assets)
- Ministry of Agriculture and Forestry of the Republic of Türkiye (General Directorate of Nature Conservation and National Parks)
- Ministry of Culture and Tourism of the Republic of Türkiye (General Directorate of Cultural Heritage and Museums)

Natural protected areas, which are one of the 5 protected areas under the Protection of Cultural and Natural Assets Law No. 2863 and under the responsibility of the Ministry of Culture and Tourism of the Republic of Türkiye, were removed from this law as a protected status in 2011.

The Natural Conservation Areas, numbering 3.938 and covering an area of 2.798.076,89 hectares within the country's total area (Table 1), were transferred to the responsibility of the Ministry of Environment and Urbanization of the Republic of Türkiye in accordance with the temporary Article 6 of Decree Law No. 644 dated 2011, which pertains to the organization and duties of the Ministry of Environment and Urbanization.

Table 1: Protected Area Statistics as of 2023

| Protected Area Type | Protected Area Value (Ha) | Number |
|---------------------------------------|---------------------------|--------|
| Special Environmental Protection Area | 380.5 | 19 |
| Natural Site | 2.798.076,89 | 3.938 |
| Monumental Trees | | 10.512 |
| Caves | | 289 |
| Total | | 14.758 |

Reference: Republic of Türkiye Ministry of Environment, Urbanization and Climate Change, 2023b.

In Türkiye, there are a total of 23.632 conservation areas including archaeological, natural, historical, and urban sites. Currently, Türkiye has a total of 19 registered heritage sites, including 17 cultural and 2 mixed sites (Table 2). The numbers of protected areas and registered immovable cultural assets are given in Tables 3 and 4.

Table 2: Current number of protected areas according to different protection types in Türkiye

| Protected Area Type | Number |
|---|---------|
| Other Protected Sites (Historical site, urban site, Archaeological site, Urban-Archaeological site, Mixed site) | 23.632 |
| World Heritage Site | 19 |
| Immovable Cultural Properties | 122.144 |
| Total | 145.795 |

Reference: Republic of Türkiye Ministry of Culture and Tourism, 2023; Republic of Türkiye Ministry of Culture and Tourism, 2023

Table 3: Protected Areas in Türkiye (end of 2022)

| Type of Site | Number |
|--------------------------------------|--------|
| Archaeological Site | 22.898 |
| Urban Site | 355 |
| Historical Site | 223 |
| Urban Archaeological Site | 35 |
| Mixed Site | |
| Archaeological and Urban Site | 63 |
| Archaeological and Historical Site | 18 |
| Archaeological-Historical-Urban Site | 7 |
| Historical and Urban Site | 33 |
| Mixes Site Total | 121 |
| Overall total | 23.632 |

Reference: Republic of Türkiye Ministry of Culture and Tourism, 2023

Table 4: Immovable Cultural Property to be Protected in Türkiye (end of 2022)

| Registered Immovable Cultural Assets Throughout Türkiye | Number of Real Estate |
|---|-----------------------|
| Example of Civil Architecture | 75.663 |
| Religious Structures | 11.168 |
| Cultural Buildings | 14.797 |
| Administrative Structures | 3.360 |
| Military Buildings | 1.608 |
| Industrial and Commercial Buildings | 4.947 |
| Cemeteries | 6.368 |
| Martyrdoms | 334 |
| Memorial and Monuments | 423 |
| Remains | 3.399 |
| Protected Streets | 77 |
| Total | 122.144 |

Reference: Republic of Türkiye Ministry of Culture and Tourism, 2023

5. Evaluation

There is a large cultural heritage treasure in our country. It is extremely important that the cultural resource values that have been owned throughout history are preserved and transferred to future generations.

Cultural identities constitute an important part of human dignity. Therefore, the protection of cultural heritage will also ensure the protection of the rights of people who have established a connection with these cultural heritage items. Therefore, the preservation of cultural heritage is fundamentally a human rights issue that should be approached with a human rights-based perspective, aiming to safeguard human dignity (Türkbay, 2021).

As a natural result of international environmental sensitivities and movements, global non-governmental organizations and their activities, which have been observed in the last 50 years, have started to appear first in developed countries and then all over the world with the support of the global media. Sensitivity to conservation issues is a result of being informed and conscious, and over time, this awareness can evolve into a sense of ownership of the problems and taking responsibility for their implementation. It is known that responsible institutions often lag behind non-governmental organizations in terms of implementation practices. The root of the problems lies in the lack of Comprehensive Management Plans, the absence of a foundation for Conservation Economies, and Legal Gaps. The fundamental factor underlying all these problems is the “Lack of Education.”

Administrative Issues: 1/Lack of Institutionalization, 2/ Lack of Coordination, and 3/ Obtaining Information Without “Plan” and “Project” and Inability to Create Infrastructure issues come to the forefront. In addition to the importance of organizationalness and organization (personnel qualifications, central and provincial organizational structure) in the management of protected areas in our country, there is a need for a management and planning notion that will ensure the participation of the public, universities, non-governmental organizations, local administrations and relevant stakeholders, as well as legal regulations.

Legal Problems: In addition to the protection statuses that are protected by national laws, there are also areas that are protected by international conventions. This legislation shows that the conservation areas in our country are in a great legal confusion. In our country, in addition to “multi-legalitarianism”, the protection concepts imported within the scope of international conventions are

also compressed into the current legislation, and this situation creates uncertainty in the current legislation and practices, leading to chaos in the confusion of duties and authorities. Another problem is the desire of legislators to formalize when making legal regulations, from the point of view of the institution and as limited efforts. For this reason, legislators should ensure broad participation that would encompass the perspectives of different segments, allowing the creation of a law with a form and content that is so rich as to leave no room for any question or criticism.

Economic Issues: In conservation efforts, the high cost of conservation and the periodic lack of resources are often mentioned as challenges. As a solution, it is emphasized that more resources should be allocated to protection in the budget. However, it is now inevitable to develop resource creation practices with the best and rational use of the existing resource. In conservation areas in our country, it is already known that the income left by visitors and tourists to see these resource values and to rest or to participate in different activities is used for conservation and recycling/spending the income on the existing area is a wise method for creating a “Conservation Economy”, but it cannot be applied. However, this is not possible with the transfer of the income to the Ministry of Finance. In that case, there is an obligation to take projects and measures that will create resources, and it would be the right approach to use the revenue-generating aspect of conservation projects at the beginning of them.

Educational Problems: Developed countries make great efforts to ensure the protection of their natural and cultural riches, and it is known that all segments of the society are informed and educated on this issue. Conservation awareness and conservation ethics are cultural issues. Conservation culture is the last point that can be reached with the use of knowledge and its application to life. Unfortunately, the level of conservation culture is quite low in our country. Ignorance strengthened unconsciousness, and ignorance strengthened a distorted morality of protection. Conservation Knowledge will increase with research and use of knowledge on conservation issues. Conservation education, on the other hand, cannot be limited to the education given at school only. Conservation education can also be given in the form of after-school, public education and on-the-job training.

And The Final Word

In our country, it is necessary to know clearly and transparently the protection policy and intentions of all segments of society, institutions and

organizations, central government and political parties. We always lag behind in protecting our resources and responsibilities are given to inexperienced individuals. Ignorance and lack of education on protection issues should be overcome. It should not be forgotten that the way to have protection morality by creating protection awareness is through Desiring Protection.

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CHAPTER XII

TOWARDS NEW BALANCES IN THE RELATIONSHIP BETWEEN CITIES AND NATURE

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1. Introduction

The relationship that human establishes with nature has created relational changes between the state of being a subject or an object. In the transition from rural to urban, human have tried different ways to relate to nature, but pursued a reciprocal and balanced relationship with nature beyond being a subject or an object. This relationship, which conceptually started with cultural influence, has shaped landscape production and planning in the historical process with the influences and stimulations that emerged for different reasons in the titles of nature-human-city. Located at the intersection of natural and human-made elements, landscape encompasses the areas where physical elements such as buildings, roads, infrastructure systems, and natural elements such as vegetation, water resources, soils, and topography meet and blend. In the part of the natural landscape where there is no human intervention, there is an ecological balance. In different parts of the world where the physical conditions that provide this balance are similar, cultural differences such as traditions, rules, socio-economic conditions of societies reveal different cultural landscape patterns (Gül, 2000). In this context, Ian Mcharg (1969) draws attention to the physical and visual unity that emerges as a result of the relations of the landscape with the environment of humans and all other living things. By expanding the scope of the concept, it is seen as a structural system that is not limited to natural elements, is under the influence of human activities, and includes environmental, ecological, social

and aesthetic values. The effect of this system with the conceptual framework of landscape, changes the planning and design principles in the city (Forman and Godron, 1986; Nassauer, 1997; Steiner, 2002, Jognman et al., 2004).

Cities, which have been shaped by different dynamics throughout the history of humanity, have played important roles as centers of culture, trade, politics and social interactions. Cities that use the landscape as a tool have used their resources well, as they have chosen unity instead of contrast with nature (Conzen and Whitehand, 1981). However, new effects and problems such as rapid growth of cities, industrialization process, technological advances, social change, cultural effects, environmental sensitivity, economic factors, population growth, and decrease in resources have transformed the relationship of the landscape with the cities and led to a change towards new balances. Examining the evolution of cities in relation to landscape presents changes in the timeline under certain similarities or differences. Within the framework of these changes, it is necessary to seek new balances in the planning and design of urban areas.

2. City and Nature Relationship Throughout History

In prehistoric times, human's relationship with nature was such that human was a hunter-gatherer who had no impact on the environment. In line with the purpose of finding a place of shelter and satisfying their basic needs, human used the environment without interfering with nature or have transformed it with the least intervention. It is highly probable that primitive peoples showed an emotional attachment to interesting forms in nature in this period when there was no landscape consciousness. Observing many components of nature such as soil, water, stone, air, tree and trying to understand nature combined with the sensitivity to astronomical movements in the sky, the formation of many areas in different geographies in the world such as Stonehenge, Göbeklitepe and Teotihuacan emerged.

With the Neolithic period, agriculture, one of the most important steps in human history, can be an example of landscape as a form of land shaping. Agriculture, born entirely out of necessity, has revealed nature's incentive to produce through planning. Since agriculture is an attempt to cultivate the land with human hands, it can also be considered the beginning of the rural landscape. It can also be said that the way people intervened in nature, which started with purposes such as agriculture, led to the emergence of a landscape around the first settlements and led them to establish a balance with it in integrity. The attachment of human to the land, the purpose of living continuously at a certain point, has led to the emergence of creating/building space (Gül, 2000). As a primitive spatial

arrangement, the area of Skara Brae in Scotland can be given as a good example of the intervention in nature and the balance of human with nature (Figure 1).



Figure 1. Skara Brae Settlement (Skara Brae, 2021).

When the traces of civilization are followed in the historical process, it is seen that many settlements have a relationship with water. From the early period, civilizations built cities with green lands and water together. Especially as a result of the integration of water with cities, baths, fountains, water channels, bridges, uses in the residence and gardens emerged (Ekinici, 2016). The gardens, created according to the conditions of the land, were placed in the immediate vicinity of the water. The Hanging Gardens of Babylon, one of the ancient examples that draw attention with its approach to nature, can be considered as a building complex as well as a landscape area where green lands and water are handled together. Considering that it was built using the engineering and construction skills of that period; elevations, terraces and irrigation systems draw attention. By adapting to the climatic and ecological conditions of the city, these gardens brought together natural and artificial elements, allowing people to interact with and experience nature. Although it is an example of a cultural landscape in terms of the form of intervention, a landscape order that uses the data of nature, such as the use of climatic data and topography, also revealed a different, intellectual and creative planning to restore nature to human and the city.

The gardens of Andalusia, where water is valuable and important in terms of landscape approach, draws attention in terms of architectural and landscape relationships as one of the styles based on the concept of the garden of paradise (Figure 2). While the handling of the climate is extremely important in the gardens of the Andalusia, courtyard spaces are divided into four sections in a linear and formal order reflecting religious and social traditions. A landscape approach that integrates with the architectural space is presented in terms of the use of standing and active water, arches, geometric decorations and plant uses. In these gardens, it is important to appeal to the senses of sight, hearing, and smell (Ekinci, 2016).



Figure 2. Alhambra Generalife Gardens (Generalife, 2023).

In different parts of the world, the urban landscape has also differentiated to protect itself from natural disasters and the effects of epidemics and wars brought by time (Gül, 2006). In the Middle Ages, the landscape was created in more introverted and sheltered areas behind the castle walls, but with the Renaissance, the landscape production began to change, and large parks and gardens were integrated into the rural area. Especially due to the deterioration of the health conditions of the city, the Villa Gardens period started in Florence. It was a time of change, when wealthy families moved their residences to rural areas and supported the creation of parks and gardens in public spaces in the city. The depictions of writers such as Dante, Boccaccio and Petrarch in their works, their rural life stories and their handling of nature also strengthened this period. Literature and art in human sensibility were reflected in the garden design of the

Renaissance in Italy. While providing harmony with nature under intuitive and proportional arrangements in the landscape, an approach was seen in the pursuit of forms against nature and the use of form-based architectural elements in a measured and functional way (Figure 3).



Figure 3. Villa La Petraia in Florence (Intoflorence, 2015).

Changes in the management of the land also seem to have had a significant impact on the historical process. With the spread of the Enclosure Movement in England, the right of the peasants to cultivate the open agricultural land was abolished, the agricultural land was consolidated, and the landless peasants were forced to migrate to the city. In the industrial cities of the 19th century, this effect created vital and spatial problems of unprecedented intensity. When the effects of industry and urbanization and the rapid consumption of resources caused vital problems, processes began to draw attention to the problems and generate ideas on how to restore the urban ecosystem, and the concepts of balanced planning of open green spaces in the city and green infrastructure were developed (Carson, 1962; Mcharg, 1969). By recognizing the damage to nature over time, new planning principles have been developed for restoring the balance of nature, protecting the environment, and also for the physical and mental health of people. In this context, one of the most striking interventions is Hausmann's plan. Hausmann led to the establishment of city parks for the first time in Europe (Zuylen, 1995). This plan drastically changed the urban fabric

of Paris and reshaped the urban landscape. It has increased the order in the city, increased the aesthetic value and improved the quality of life of the people. It also added green spaces and open spaces designed in harmony with the urban landscape. Therefore, Hausmann's plan can be seen as a remarkable turning point in the context between urban landscape and urban arrangement. In this period, it is seen that the negative effects of the problems experienced in similar cities were tried to be reduced by using landscape resources.

Frederick Law Olmsted developed a successful model for establishing the relationship between the city and the landscape with contemporary green infrastructure theory and practice (Birge-Liberman, 2014). Olmsted emphasized that only size and good design are not enough in park planning in the city, and also emphasized the importance of interconnection of residential areas and parks around them. The Emerald Necklace, the park system in Boston designed by Olmsted, is an important example of nature conservation, environmental awareness and green infrastructure theory. The Emerald Necklace project has created a landscape based on ecological data by connecting natural areas through the green corridor it has created and ensuring the movement of water in the corridors it has created (Figure 4).

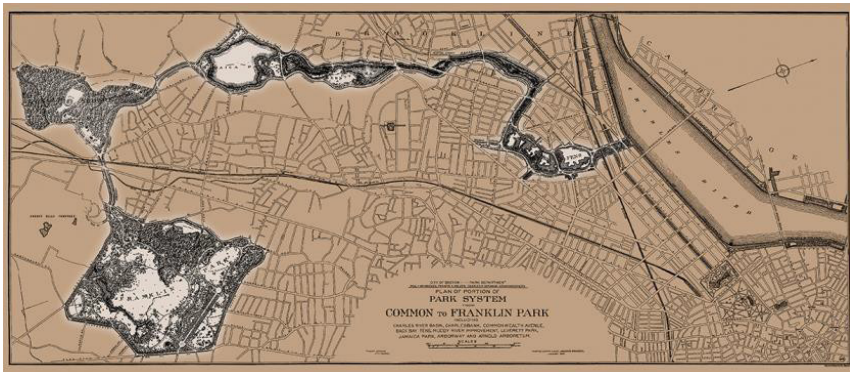


Figure 4. Olmsted Park System (Boston, 2023).

Ebenezer Howard, who brought a solution to the crisis of the time, which was similarly experienced in England in the 19th century as well as in Paris, wanted to change the social environment in which workers lived in the cities and peasants in the countryside (Howard, 1902). Howard, who built a model to restore the lost health of society with his idea of the Garden City, again recalled the healing of nature. While creating the Garden City model, Howard was influenced by the political movements of the period, the socialism and anarchism thinkers

Kropotkin and Marx's approaches to urbanization and the countryside. The biggest problem he tries to address is the town-country contrast and he explained it under the three magnets diagram (Figure 5). Each of the magnets represents a different life option. In the first, while the town life has negative features, it has economically advantageous features. While the negative features of country life due to economic depression and social deformation are highlighted in the second, its positive features such as natural beauty, clean air and healthy conditions are discussed. The third magnet covers the positive features of both the town and the country under the name of Town-Country. In this approach, Howard's goals are to isolate technology from the body of the city, to make the soil abundantly productive, and to properly direct buildings for sunlight and heat. The application of the Green Belt, which emerged with Howard's (1902) example of the Garden City, has been used in industrialized cities to limit urban development for built environments, to meet recreational needs, and to include agricultural areas. Many theorists such as Frederick Law Olmsted, Ebenezer Howard, Le Corbusier, Ian Mcharg emphasized the function of landscape in the city and stated that it should be used as an important figure for urban ideals.

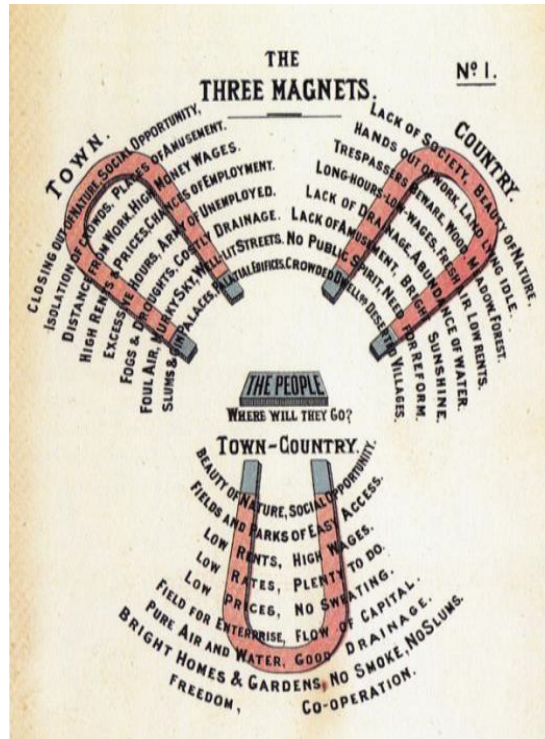


Figure 5. Ebenezer Howard's three magnets diagram (Howard, 1902).

In the 20th century, cities were confronted with ecological-sociological transformation and sustainable planning. Applications that take a systemic approach to solving functional difficulties and urban congestion have led to the questioning of design criteria. It has been tried to solve the problems with urban regulations. A good example is the work carried out around the Embarcadero Freeway in San Francisco, which was partially damaged following the 1989 earthquake. A very radical change took place, with the decision to remove the highway instead of repairing it (Gehl, 2013). The area has been transformed into a different environment by replacing the highway with a new road that allows the construction of new neighborhoods lined with palm trees on both sides and facing the water. It has been reintroduced to the city as a public park and urban coastal promenade with its landscape elements (Figure 6). The approaches that started with such projects for the city inspired the emergence of different urban readings and theories. Many ideas and projects have emerged from the potential of these experiences.



Figure 6. Embarcadero Freeway before and after (Bizjournals, 2014).

3. The Current Balance Between City and Nature

The relationship with nature has changed in today's metropolises. Humanity has moved away from its connection with the nature and has begun to destroy it. On the other hand, with the mental awareness created by conditions such as the recent pandemic process, people realise that they are not playing a

good role in their lives and want to return to nature. The behavior of questioning what people do and why in urban life causes people to question where and how they want to live. This situation can create a new opportunity for people, both in terms of their lifestyles and the nature with which they interact.

The need and the movement of the human being towards the nature is an impulse that comes from being a part of it. In his book *The Anatomy of Human Destructiveness* published in 1973, Erich Fromm introduced this relationship, the concept of biophilia, and stated that the relationship between human and nature is a need and an innate feeling of human (Fromm, 1992). If the experience and contact with nature can be balanced on a spatial level in urban areas, the biophilic need will be met. Kellert (2015), on the other hand, emphasizes the connection between nature and people while talking about the realization of biophilic design in urban areas. The principles of biophilia include combining natural elements with architecture, allowing people to experience the natural environment through a variety of sensory experiences, benefiting from the diversity and richness of nature, and integrating natural processes such as seasonal cycles and the movement of the sun into landscape design. It carries the concerns of urban design as an important approach developed to strengthen the connection between people and nature by placing the natural environment at the center of human life (Sevinç Kayıhan et al., 2018).

Biophilia like approaches (biomimicry, ecological design, permaculture, blue/green infrastructure etc.) that reflect the relationship with nature in landscape production and emphasize the bond between humans and the natural environment, encourage the integration of natural elements to balance the urban landscape and improve the quality of life for people. Ecological balance and ecosystem services are important in these approaches. As it is obvious that the degraded ecosystems in the city cannot be established or regenerated quickly, their protection and sustainability becomes very valuable. Today, factors such as sustainability, protection of natural resources, human health and quality of life are coming to the forefront in discussions about the urban landscape. These discussions and the concepts/approaches put forward are important for urban landscape planning. In this way, it is aimed to ensure environmental and social sustainability while increasing the interaction of people with nature. Discussions and studies on the landscape of cities, especially in the last decade, reflect a trend towards new balances. One of the current projects in Figure 7, the High Line project in New York, can be given as an example of solving the problems in the city with landscape intervention (İnan, 2013).

Cities are trying to improve the quality of life of their citizens by ensuring the sustainability of their resources through the development of different strategies to resist major urban problems such as the reduction of green spaces, the pressure of construction and land use, high traffic, air pollution and the deterioration of the ecological balance. The desire for ecological living and the disappearance of the natural landscape between high-rise buildings have led to the need to develop different landscape approaches in cities in order to establish sustainable living (Sürmeli, 2017; Ostrowski and Świtalska, 2020, Zein, 2023). Apart from the uses such as parks and recreation areas, lower-scale landscape areas such as green roofs, terrace gardens, vertical gardens, hobby and permaculture gardens have emerged (Bayazıt and Kısakürek, 2022). These approaches mostly include increasing the access of urban areas to green spaces, controlling construction, protecting biodiversity and providing ecosystem services. These require an integrated approach to urban landscape planning and management. It is important to ensure cooperation and participation between decision-makers, local communities, experts and stakeholders. In addition, scientific research, policy development and innovative design approaches help discover new balances in the urban landscape.



Figure 7. New York High Line (Gwarlingo, 2011).

Due to the diversity of the city's dynamics, it is in a multi-relationship network with many fields such as landscape, architecture, urban planning, ecology, geomorphology, biology, botany, sociology, psychology, hydrology, engineering, archaeology and economics. It helps these disciplines to develop landscape design and planning more effectively and efficiently by integrating the innovative technological tools required by the age to maintain the urban mechanism in a sustainable manner. Another benefit of the technology is that it increases the interaction of the landscape with users. For example, social media and web-based platforms enable people to share their landscape projects, exchange ideas and communicate with their communities, increasing awareness in the sense of landscape. However, the right balance must be struck by carefully managing the impact of technology on the landscape in order to preserve the connection between people and nature.

4. Conclusion

The relationship between human and nature is one of the oldest and most fundamental relationships in the history of humanity. While the relationship is a reciprocal situation, the one-sidedness of the landscape, by definition, creates an imbalance in the established relationship. In our time, it is impossible to separate these two phenomena in the context of the relationship between human and nature. Considering that human life is shaped according to the conditions of nature and that it is a creature that finds life in nature, it is necessary to see nature as a part of an obligation that it will be together and in relationship with human beings throughout their life. On the other hand, it is obvious that human is the strongest party in this relationship, both in creating problems and in solving them. When the power of the person who creates the problem and who is harmed by the problem is considered, the importance of the human being is realized. The rules that guide and regulate the relationship between human and nature should be handled and evaluated in this context. In dealing with nature and human, by accepting that human is an inseparable part of nature, progress can be made by determining the boundaries of the intertwined situation without entering into a struggle for supremacy. The human who conflicts with nature, must establish the right relationships and ensure their continuity.

When the historical traces are followed, the concept of landscape in the relationship between nature and human has changed according to the time, place and culture. Interaction with the natural environment started with the hunting, gathering and creating living spaces of primitive human and was shaped mostly

for survival and meeting basic needs. Over time, humans began to control and shape nature more, and with the agricultural revolution, humans turned to activities such as plant cultivation and animal domestication, creating settled agricultural societies that used nature more effectively and transformed their environment. The relationship with nature has changed over time between different cultures, different geographies and societies. While some societies regard nature as a sacred being and respect it, others have used it to exploit resources and make profit. As observed both in the Renaissance Florence Villa Period and in the England of the Industrial period, it is clearly seen that while the masses whose economic situation is weak due to class differences in the society are stuck in the city, other individuals who are in economic comfort have communication with nature. While the industrial revolution and modernization processes have deeply affected people's relationship with nature, issues such as environmental problems, ecosystem destruction and resource depletion have emerged. While the changing conditions and triggers in all historical processes alter the balance of urban/rural landscape and human relationship, an attempt is made to rebalance the established relationship with nature through rehabilitation, renewal and recovery.

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CHAPTER XIII

DISCUSSING WALKABILITY AND VITALITY OF CITY CENTER, BASED ON DESIGN OF CHIEF COMPONENTS CONSTITUTING THE CITY CENTER

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1. Introduction

In the literature of modern urban studies, the walkability concept has emerged as an essential factor ‘impacting the vitality of cities particularly in Central Business Districts. As the cities continue to grow and develop, the way that are designed and planed, the urban environment has a profound influence on the well-being of those who live in the city.

During recent decades the term of walkability which encompasses all the factors making walking easy, attractive and convenient for people, has become a focal point in the search for more sustainable, vibrant and livable cities. Walkability is not just a matter of convenience; It is a dynamic force that affects a city’s social, economic, environmental and public health consequences. Pedestrian-friendly infrastructure includes a number of factors such as well-connected roads, safe streets and inviting public spaces. The concept of walkability is considered as a multifaceted issue and in this study, it has been investigated which components and factors can be effective in the walkability at the city center scale. This research employs multiple components in city center and an evaluation and exemplification method is used to clarify the significance of each component.

2. Definition of Walkability Concept

As a simple, inexpensive and affordable means of transportation, relaxation and socialization, walking is a significant way of experiencing a city. Walking, which is the most affordable, healthy and sustainable means of transportation, relaxation and socialization, is a significant way of experiencing a city. In particular, in city centers -which majorly are the most influential part of a city- the significance of walking and walkability of urban space gains more importance. The walkability of a city is a measure of how friendly, safe and attractive it is to walk in a city. Walking in a city and the extent to which the built environment supports walking are indicators of civilization. Likewise, the admired walkable urban areas, particularly in the city center, can create a positive effect on collective memory of citizens. Accordingly, walkable urban areas with ingenious design have potential to be the place where many social, political or recreational urban activities can be held. After the widespread use of the automobiles, they have occupied urban areas and the form of many cities has changed according to the needs of automobiles rather than pedestrians. Despite of the many advantages and convenience that automobiles have brought to the human life, excessive use of automobiles has led to many social, physical and economic consequences (Farnian, 2014). City center of many cities today have been shaped according to the cars and traffic necessities rather than pedestrians.

As a sustainable solution to this problem, the creation of walkable urban spaces has come to the fore, and the concept of walkability has become one of the concepts that draws attention and is discussed in the field of urban planning and urban research. Walkability is the extent to which the built environment is friendly and safe for people walk, do shopping, visit diverse places on foot and enjoy spending time in an area. Walkability of an urban space has many environmental, social, economic and health benefits for the society. Factors contributing to walkability of an urban space is also a debating issue in sustainable urban design.

According to Gehl and Gemzo(1996) an acceptable method of assessing walkability of an urban area is to count the number of people walking, lingering, and engaging in optional activities within an area. Furthermore, presence of people chiefly children, the disabled and the elderly in an urban space can be an indicator of the walkability (Zehner, 2012).

Gebel et al. (2009) define walkability as the extent to which an environment is 'friendly' for pedestrians. They offer compact, well-connected, mixed-use and highly concentrated areas to be highly walkable as such areas provide shorter distances

between origins and required destinations and increase accessibility within walking distance. Hence, such an environment can encourage pedestrians to prefer walking as a transportation mode as well as a recreational activity (Gebel, 2009).

Franks (2006) claims that the walkability level of an urban space is majorly dependent on human travel behavior. Today, many citizens in multiple cities complain about traffic congestion in sprawling urban areas with a low-density. Therefore, the urban planners pay more attention to the relation between land-use pattern and travel behavior. People typically aim to take part in an urban activity or satisfy a specific necessity when they travel within urban space. Accordingly, in order to satisfy their requirements in a shorter time and conveniently they prefer motorized vehicles. Based on this, to reduce the necessity and dependence on automobiles, urban planners suggest that the distance between different destination ought to get reduced and necessary destinations should be placed within walking distance in a compact and mixed-use urban area (Inani Azmi & Karim, 2012).

3. City Center Components

City centers are at the heart of a city's economic and social life and are the concentration of commercial, administrative, cultural and historical activities in a city. It is usually home to the city's most densely populated places and contains diverse chief trade, shopping, entertainment and tourist attractions. The city center is usually located at the intersection of main streets or in a historical center. The design of the city center reflects the vitality, energy and cultural diversity of a city. Particularly, people prefer to experience diverse activities in city center by means of walking. Therefore, walkability of city center gains more importance. Walkability of city center mainly depends on the design of different components constituting it. Although the components that make up the city center differ from city to city, in general, there are several components which are very significant in walkability of city center. For this chapter these components are chosen and discussed: The design of roads in city center, Green areas, The effect of commercial and service areas on walkability of urban space, The design and functionality of urban squares in city center, Street furniture and Adequate and aesthetic lighting.

3.1. The Design of Roads in City Center

Since the city center is generally a node where the main roads intersect, the presence of various road types increases accessibility. In order to make

the city center more walkable a proper integration should be designed among walking pathways and public transportation. Moreover, the quality and design of pedestrian paths, connectivity and continuity of roads should be sustained to promote walkability of city center. Also, cycle paths should be included as a complementary nonmotorized transportation mode beside the walking paths.

3.1.1. Integration of Transport Network with Pedestrian Paths

A street with high level of connection with other streets has a considerable positive influence on walkability, on condition that the street is likewise highly connected to diverse transportation modes. The reason is that even in the most walkable cities, it is practically impossible to walk everywhere. Therefore, it is very important to connect the walking paths with various public transportation options (metro, bus, etc.) in an easily accessible way to increase walkability. Adequate transit stations are required to allow pedestrian access between residential and commercial areas, usually within $\frac{1}{4}$ to $\frac{1}{2}$ mile or about 10 to 20 minutes' walk (Southworth, 2005).

Several factors which affect preferences between different modes of transportation can be referred as: First, the time and cost spent traveling between two destinations influence the choice of transportation mode. Second, the individual characteristics of the traveler, such as affordability and availability of the car, can affect choice of the travel mode. Built environment factors such as residential density and the availability of suitable and continuous pavements are as significant as the role of travel time and cost (Cervero, 2002).

Density, diversity and design are the main features of built environment which impress travel demand and people's choice of travel mode. According to the "new urbanists", constructing compact, highly dense and mixed-use urban areas with a pedestrian-oriented design can decrease use of motorized vehicles and encourage people to choose walking as a healthier transportation mode (Cervero & Kockelman, 1997). An appropriate integration of non-motorized transportation including walking and biking with public transit can considerably decrease the usage of personal automobile. Proper combination of walking and biking, with public transportation can be significantly influential in decreasing the need for use of personal cars particularly in city center.

3.1.2. Pedestrian Paths

Pedestrian routes should be designed to relieve pedestrian traffic and shorten walking distances. Pedestrian roads in the city center have a crucial

place in city planning. These roads allow people to experience the city center by walking safely and comfortably. The design of the pedestrian walkways affects the social life in the city center and contributes to the identity of the city. There are many factors to consider in the design of pedestrian paths. Some of these factors are:

Width: The width of the paths should be adequate for walking comfortably. Furthermore, the width of the pedestrian paths permits pedestrians to walk easily without bumping into each other.

Floor Material: The floor material of the pedestrian paths is significant for the comfort of the walkers. These materials are necessary to be flat, non-slippery and particularly be safe for children and elderly. In addition, the floor material of the pedestrian paths should be in a harmony with the general architecture and design of the city center.

Lighting: Illumination of pedestrian paths ensures that people can walk safely. Pedestrian paths should be illuminated during the night and the lighting intervals should be determined accurately.

Obstacles: In the design of pedestrian paths, it is imperative to reduce obstacles as much as possible. Barriers can be a big problem, specifically for people with disabilities. For this reason, pedestrian paths should be designed without obstacles.

Green Areas: Green areas should also be taken into account in the design of pedestrian paths. Green areas can make pedestrian paths more aesthetic and eye-catching. In addition, green spaces can improve air quality in the city center and encourage walking in a pleasing atmosphere.

In sum, the design of the pedestrian walkways affects the social life in the city center and contributes to the identity of the city. For this reason, the correct design of pedestrian roads has a significance place in city planning (Eray, 2021).

When people think of public space, more parks and public buildings come to mind. However, avenues and streets, which are among the old urban textures, were the places where people carried out many activities as the most important public space. Industrialization and the advent of the car created profound changes in the pattern and function of the streets. such that in the middle and end of the 20th century, many environmental, economic and social problems arose. Streets ceased to be a public space for people and began to lose their vitality as a place of traffic and noise. In the last century, restrictions have been imposed on participation in the decision-making process on street design. In this limitation, we can cite professional

norms, goals, missions and plans determined by bureaucratic means, as well as the wishes of poor neighborhoods who do not have the power to take these bureaucratic decisions. However, the public can make the final decision about it, and the political process can influence this design (Banerjee & Loukaitou-Sideris, 2011).

By the end of the 20th century, due to the recognition of negative consequences of the car in cities, the movement to “reclaim the streets from cars” began. These movements advocated recreating mixed-uses, getting rid of the heavy economic burden of the car, and most significantly, enhancing walking which makes a great contribution to human and environmental health. In this direction, successful projects have been undertaken to create more walkable city centers with diverse social activities, particularly in European cities (Banerjee & Loukaitou-Sideris, 2011).

3.1.3. Cycle Paths

Cycle paths are a complementary part of walkable paths. Cycle lanes are reserved paths or areas where cyclists can safely and effectively travel. Bicycle path design aims to provide a safe and easy-to-use environment for bicycle traffic. Bicycle paths are an important element in the design of roads in city centers. Cycle lanes provide a safe passage for cyclists and provide an alternative option for urban transportation. Bicycle paths should be designed to be separated from pedestrian sidewalks. Some key principles to consider regarding bike path design are safety, road width, Road Marking, Road Regulations and maintenance.

Safety: The design of cycle paths should be considered as a priority to maximize the safety of cyclists. Road design should ensure that cyclists are kept separate from motor vehicles and pedestrian traffic.

Path Width: It is important that the bicycle paths have sufficient width. Generally, it is recommended that a one-way bike path should be at least 1.5-2 meters wide. The width recommendation for bi-directional bicycle paths is at least 2.5-3 meters. These widths provide ample room for cyclists to navigate and traverse safely.

Road Marking: Cycle lanes should be equipped with appropriate signs to identify cyclists' directions and crossing points. These signs can take various forms, such as arrows indicating the direction of the road along the cycle path, signs indicating the beginning and end of the cycle path, signs indicating the passage of bicycles at intersections (Figure 1).

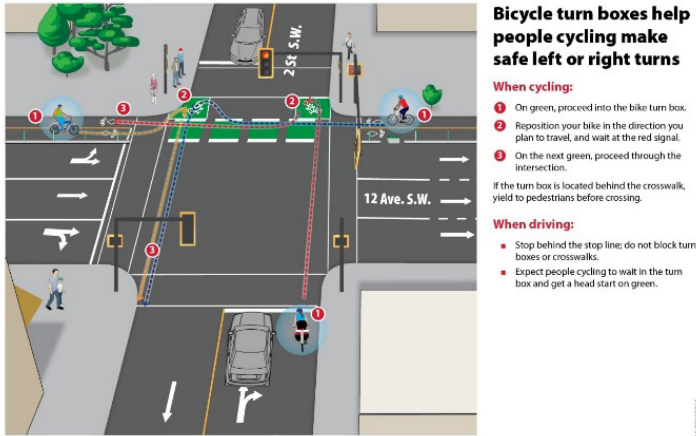


Figure 1. Road Marking for bicycles (Calgary, 2023)

Road Regulations: in order to provide cyclists a safe and comfortable trip Cycle lanes should be supplemented with regulations such as bicycle parking areas, roadside fills, barriers, traffic signals and pedestrian crossings. These regulations allow cyclists to travel safely and smoothly.

Road Maintenance: Bicycle paths should be regularly maintained and cleaned. Maintenance work should be done, such as smoothing the road surface, removing potholes and obstacles, updating traffic signs and markings.

Interaction Between Users: Appropriate interaction between cyclists, pedestrian traffic and motor vehicles should be considered in the design of bicycle paths. Appropriate arrangements should be made to facilitate the interaction of cyclists with other users, particularly in areas such as intersections and road sections (FHWA, 2023).

Cycle path design requires a customized approach based on local traffic management rules, traffic engineering standards and cyclists' needs. Cycle lanes designed by local authorities and traffic planners in accordance with these principles encourage cycling, relieve traffic and provide sustainable transportation options (Urban Bikeway Design Guide, 2023).

3.1.4. Continuity and Connectivity of Roads

According to Kevin Lynch (1960) two imperative components establishing the physical form of a city are 'paths' and 'nodes'. Paths refers to streets, footpaths, transit lines, channels or railways through which people move. Commonly, people perceive a city by moving through paths. The other noteworthy city

components being organized along these paths are nodes. Nodes are strategic points in a city that the observer can enter. They include concentration of any physical urban element, such as a street corner or a square (Lynch, 1960).

A pathway with an appropriate design approach can sustain comfort and safety of pedestrians and also vulnerable groups such as the disabled, children and the elderly. A comfortable and walkable pathway's width should be adequate for at least two or three pedestrians to walk beside each other without any disturbance. A well-designed path should also have a relatively smooth surface without any irregularity and disorder such as gaps or bumps which negatively influence the mobility of walkers or wheelchair users.

Continuity and connectivity are also a crucial factor affecting walkability of a path. Besides, the land's topography is very significant and can considerably influence the walkability and quality of pathway. For instance, steep pathways, particularly in regions with cold and snowy climate -in which the roads are covered by ice in several months of the year- can decrease safety and security of pedestrians and restrict their mobility. In such steep pathways using steps or railings can be helpful in making walking safer.

The continuity and connectivity of a pathway are significant factors in increasing walkability as well. In addition, the topography of the land is a very crucial factor influencing the quality of the pathway and directly affects the level of walkability. For example, steep paths can reduce the safety and security of pedestrians and limit their mobility, specifically in regions with cold and snowy climates where the surface is covered with ice for several months of the year. Using steps or handrails on such steep trails can help make walking easier (Eray, 2021).

The high connectivity of the road network can be determined by appropriate pavements, various pedestrian paths, the continuity of the road and the removal of obstacles from the path. In finer grained street patterns, the blocks are considerably smaller in size and the connectivity of roads in such streets increases. Likewise, a highly connected street model should not have anything that impedes pedestrian access and comfort of movement, including dead-ends and topographical barriers (Southworth, 2005).

3.2. Green Areas

Green area is the most influential factor in enhancing walkability of an urban space since it enables people to interact more with nature, reduce stress and create a healthier atmosphere. In addition, green spaces help to reduce

environmental pollution and the risk of flooding in the city by controlling water flow (Rouse & Bunster-Ossa, 2013). Green areas in city center can enhance walkability by considering several key factors in planning and design of them. Some of these factors can be mentioned as:

3.2.1. Variety of Green Spaces Based on People's Requirements

Different types of green spaces in the city center increase the aesthetics of the city and offer places where people can do different activities (Figure 2). Therefore, different green areas should be planned such as grass areas, wooded areas, flower gardens, natural habitats, playgrounds and sports fields. Green areas should be designed for people to rest, have fun and do activities. Therefore, the design of green spaces in the city center should be done in accordance with the requirements of the people. For instance, sport fields and playgrounds can be designed as areas where children and adults can do activities.



Figure 2. Design of green areas according to users' requirements
(Baharash Architecture, 2023)

3.2.2. Aesthetics and Usability of Green Areas

Green spaces add natural beauty to the city and offer comfort and spaciousness with elements such as walking paths, parks and outdoor seating areas. This encourages people to prefer walking in the city center as an interesting recreational activity. Accordingly, the greener areas in the city center leads to the more presence of people and this considerably increases vitality of the city center.

Many scientific studies have proven that natural environments have a calming effect on human. Having green spaces in the city center can reduce stress, improve mental health and help people focus better (Pretty, Peacock, & Sellens, 2005). The location of green areas in the city center should be in places

where people can easily reach them. Green areas can be located near the areas that are used intensively in the city center. In addition, connections between green areas should be provided with pedestrian and bicycle paths. Since people mostly prefer experiencing the green area by walking or biking through it. Green spaces offer people exercise opportunities and provides them with a healthy environment to spend time outdoors. Facilities such as walking trails, jogging tracks and bike paths encourage people living in the city center to lead an active life. This, in turn, can improve general health and well-being and also increase vitality of city center by making it an attractive and healthy environment to walk, bike or do different exercise.

3.2.3. Maintenance and Management of Green Areas Through Environmentally Friendly Approaches

The maintenance and management of green spaces is significant to ensure the sustainability of green spaces in the city center. Green areas need regular watering, pruning and cleaning. In addition, the city government should allocate an appropriate budget for the maintenance and management of green areas. Well maintained green areas can become safer and more attractive for walkers. Today, it is discussed that an environmentally friendly approach should be adopted during the design and maintenance of green spaces, as in many branches of urban design. In sustainable urban models such as smart city model, environmental compatibility emerges as one of the most crucial issues in urban green space planning and landscape design (Shan, Huang, Chen, & Li, 2021). In this sense, it may include the use of organic fertilizers, the recovery of irrigation water and the use of plants suitable for natural vegetation.

3.3. The Effect of Commercial and Service Areas on Walkability of The City Center

The commercial and service areas of the city center are the regions where economic activities are concentrated in a city and where commercial enterprises are located. These areas include various commercial and service sectors such as shopping opportunities, restaurants, cafes, hotels, offices, banks, law firms, health centers and etc. Commercial and service areas have a crucial impact on the walkability of city centers. The design, layout, and density of these areas can affect pedestrian accessibility, convenience, and overall walkability. Commercial and service areas also can create vibrant and pedestrian-friendly

urban environments. The factors which can be influential in successful design of commercial and service areas in the city center are mentioned as below:

3.3.1. Usability and Accessibility

Commercial and service areas are usually located in central and easily accessible areas of a city. Commercial and service areas should be designed in a way that customers and employees can easily access. Accessibility of elements such as walkways, entrances, parking areas, elevators and stairs should be ensured. It is imperative to have appropriate passage areas for wheelchairs and baby carriages, where disabled people and the elderly can move around conveniently. Furthermore, focused commercial and service area can be effective in decreasing the requirement for long-distance trips and enables people to reach a wide range of options on foot. This accessibility encourages walking and decreases reliance on private vehicles. Accordingly, it promotes sustainable transport and reduces traffic congestion.

3.3.2. Mixed Land-use

Commercial and service areas majorly offer a wide range of activities including shops, restaurants, cafes, offices and community services. This variety of uses generates a varied and active streetscape and provides people with a wide range of options within walking distance. Having access to multiple services and activities in a compact space, can encourage people to prefer walking rather than using motorized vehicles in the city center.

3.3.3. Pedestrian Infrastructure

Commercial and service areas can have heavy traffic and pedestrian flows. Therefore, traffic regulations and pedestrian path design gain double importance in these areas. Factors such as adequate parking spaces, adequate footpaths, bicycle paths and safe pedestrian crossings can provide appropriate solutions to reduce congestion and chaos in these areas. In this sense, in a well-designed commercial and service area, wide sidewalks, pedestrian-friendly intersections, crosswalks should be considered. These features can enhance safety and convenience for pedestrians and make walking an attractive and pleasurable activity. Available and well-maintained sidewalks in the city center, accompanied by facilities such as benches for resting, adequate planting and shading trees also contribute to a pleasurable walking experience in the city center.

In addition to these, the establishment of adequate and appropriate infrastructure and services is imperative in the design of commercial and service areas. Particularly, the basic service infrastructures such as electricity, water, sewerage, internet access and security should be well planned and designed to meet the requirements of the users.

3.3.4. Social Interaction and Vitality

Commercial and service areas function as the most significant social centers in city center. They present a variety of activities and places for people to come together, interact and cooperate. Well-designed streetscapes and attractive shop windows, convenient outdoor seating and street vendors create an inviting and vital atmosphere for pedestrians and enhance social interaction. Accordingly, availability of such urban space in city center encourages people to walk and explore urban environment and creates a well- connected and vibrant urban fabric.

3.3.5. Economic Vitality

Commercial spaces are essential for local economies that serve as trade centers and create employment opportunities. When these spaces are designed with walkability in mind, they can attract more customers and support local businesses. Pedestrians are more likely to visit shops and services if they are easily accessible on foot, resulting in increased economic activity and vitality in the area.

3.3.6. Aesthetics and Exterior Design

Commercial and service areas should offer an aesthetic appearance and adapt to the urban texture. Particularly aesthetics and exterior design of buildings directly affects pedestrians who experience the urban space in a slower pace. Details such as shop windows, signages, advertising billboards and design of the façade are very crucial in encouraging people to walk and promoting the walkability of urban space. The design of the buildings in the city center should create a harmonious and attractive appearance with its architecture and material selections.

3.4. The Design and Functionality of Squares in City Center

Squares are one of the most significant components of public spaces in city center design. Squares are often located in the heart of the city and provide an ideal place for the people to gather together, socialize and interrelate. City

squares have played chief role throughout the cities` history. Since the ancient cities, the squares have become the center of society and have been used for various purposes. Considering the historical development of the squares, it is seen that in ancient civilizations such as Ancient Egypt, Mesopotamia, Greek and Roman civilizations, city squares were used as the center of trade, social communication and political activities. These squares were also embracing main marketplaces and they were places where religious rituals were held. For example, the Roman Forum and the Agora in Athen is a noteworthy example of ancient city square. In the Middle Ages, squares began to form around churches and cathedrals in Europe. These squares have become the centers of religious ceremonies, markets and social events as well (Brown, 1967).

Today, still squares are significant part of city centers since they host many open-air meetings, festivals and social and economic activities. The size, shape, material and plants of the squares are determined depending on the use of the square. A large square is an area where large crowds can gather comfortably. The shape of the square is designed in accordance with the use of the square. Some squares are designed in an oval or round shape, providing accessibility from all directions (Gatje, 2010).

Historic city squares carry more significance and value since they have witnessed important events and also, they are where significant architectural and cultural heritages are located in many city center examples. Some of the famous historical squares around the world are mentioned as bellow:

Roman Forum (Italy): The Roman Forum, the center of the Roman Empire, was a square where political, commercial and religious activities took place (Figure 3). This historical square is considered as the heart of ancient Rome, since it includes several notable monuments and historical buildings (Barchiesi, 2010).



Figure 3: Roman Forum in Italy (Forumu, 2023)

Times Square (USA): This square covers the intersection of West 42nd Street with Broadway and Seventh Avenue in New York City and the surrounding area (Figure 4). Times Square in New York City is one of the most famous squares in the world. It is known for its bright neon lights, giant billboards and lively atmosphere. New Year's Eve celebrations and famous Broadway shows take place in this square (Nijman, 2020).



Figure 4. Times Square located in New York (Terabass, 2023).

Plaza Mayor (Spain): The Plaza Mayor in Madrid is a large square built in the 17th century. It is famous for its historic buildings, cafes and restaurants. Also, many festivals, concerts and events are held here. It covers an area of 129 m × 94 m with its rectangular shape and is bordered by three-story structures. It has hosted a number of events such as bullfights, football matches, public executions since its construction. It is the place where public trials and subsequent executions mainly took place during the Spanish Inquisition (Figure 5). There are many traditional and old shops and cafes under the cloisters surrounding Plaza Mayor (Wikipedia, Plaza Mayor, Madrid, 2023).



Figure 5. Plaza Mayor located in Madrid, Spain (DonPaolo, 2023)

Tiananmen Square (China): Tiananmen Square in Beijing is the largest square in China (Figure 6). It went down in history as the place where the Chinese Communist Party came to power. In this square the 'Great Hall of the People', one of the symbols of the Republic of China is located (Lexico UK English Dictionary, 2021).



Figure 6. Tiananmen Square located in Beijing, China (giladr, 2023)

Sultanahmet Square (Istanbul, Turkey): Sultanahmet Square, located in the historical peninsula of Istanbul, contains significant structures such as Hagia Sophia, Blue Mosque (Blue Mosque) and Topkapi Palace (Figure 7). This square bears the traces of the Byzantine and Ottoman Empires (Turgut, 1999).



Figure 7. Sultanahmet Square located in Istanbul, Turkey (Historical Istanbul Guide, 2023)

Red Square (Moscow, Russia): Red Square in Moscow is one of the most famous squares in Russia. Important structures such as the Kremlin Palace, St. Basil's Cathedral and Lenin's Mausoleum adorn this square (Figure 8). Historical events, military parades and festivals are held in this square.

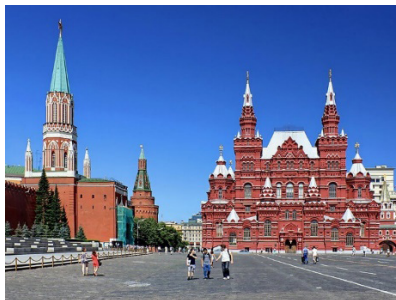


Figure 8. Red Square located in Moscow, Russia (Sygic Travel, 2023)

Plaza de España (Seville, Spain): Located in Seville, the Plaza de España was built for the 1929 Ibero-American exhibition. It is one of the most characteristic landmarks of the city and a major tourist attraction (Figure 9). The square is semi-circular in shape and is located around a huge central plaza. It is bordered by a canal that represents the Guadalquivir River, with four bridges representing the ancient Kingdoms of Spain. The main building of the plaza is a curved façade with a series of alcoves, each depicting a different province of Spain. The alcoves are decorated with colorful ceramic tiles known as azulejos, representing historical scenes and significant figures (Romero-Ternero & Puche-Ruiz, 2020).



Figure 9. Plaza de España Seville, Spain (Aconcagua, 2011)

Historic town squares offer influential cultural and historical experiences. They carry traces of the past with architectural landmarks, statues, monuments and surrounding historic buildings. Squares are connected to other urban components such as public buildings and historical sites. Squares may have connections to historical sites, such as historical monuments or other significant structures. The architecture of the buildings around the square can also give the square a unique character.

Squares can also affect traffic flow in the city center. The squares in which vehicle traffic is restricted or completely prohibited can make pedestrian traffic safer and more comfortable. In summary, squares as one of the most significant components of public spaces in city center design, provide an ideal venue for the community to come together, interact and organize events. Therefore, the walkability status of squares can directly affect vitality of city center.

3.5. Street Furniture

Street furniture is a component which significance cannot be overlooked in city center design. Street furniture is outdoor furniture used in urban and residential areas to meet the needs of the people such as rest, interaction and waiting. Street furniture can include various elements such as benches, sitting groups, trash cans, bicycle parking areas, street lamps, bicycle stations, pergolas

and children's playgrounds. This furniture aims to increase the comfort and satisfaction of the users by adding an aesthetic value to the urban spaces.

The design of street furniture is significant to meet the requirements of users, improve the quality of urban life, and encourage people to use outdoor spaces more. These factors should be considered in the design and selection of urban furniture:

Aesthetics: The design of street furniture should adapt to the urban landscape and make an aesthetic contribution to the environment. The shape, colors and material of the furniture should be in harmony with the environment and integrate with the urban texture. Aesthetically attractive and eye-pleasing designs should be preferred (Figure 10 and Figure 11).



Figure 10. An example of street furniture (Karlı & Öztürk, 2023)

Usability: Street furniture should be designed in such a way that users can use it comfortably. Seating areas should be ergonomic, benches and seating groups should be comfortable and durable. The height, depth of the furniture and the comfort of the seating surface should be considered.



Figure 11. An example of street furniture (Karlı & Öztürk, 2023)

Durability: Street furniture should be durable and long-lasting against outdoor conditions. Materials that are resistant to weathering, abrasion, vandalism and other adverse effects should be used. It is important that the furniture can be used for a long time without the need for regular maintenance and repair.

Safety: The safety factor is important in the design of street furniture. Precautions such as proper assembly of furniture, no sharp edges or corners, secure fastening systems should be taken. Furniture must provide a safe environment for users.

Street furniture such as mailboxes, light poles, etc. should be designed in a way that does not confine pedestrian mobility. In this sense, with functional design approaches pedestrian safety can get increased. For instance, properly placed landscape elements and trees along the pathway can increase road quality and walkability as they can enhance pedestrian safety by acting as a buffer between the pedestrian and automobiles.

Environmental Sustainability: Environmental sustainability principles should be followed in the design of street furniture. Recyclable materials should be preferred, energy-efficient lighting systems should be used, and design solutions that would use natural resources effectively should be adopted.

Accessibility: Street furniture should be designed in such a way that it can be accessed by all user groups. It should have appropriate transition areas for wheelchairs and baby carriages that can be easily used by disabled individuals and the elderly (Uffelen, 2010).

3.6. Adequate and Aesthetic Lighting

Lightening and visibility is the other factor affecting safety and convenience of pedestrian. The lighting quality of a road has a remarkable effect not only on pedestrian safety but also on drivers. Appropriate and adequate lighting system improves drivers' visibility and reduces accident risks. Likewise, research proves that adequate lighting can have a significant impact on reducing criminal activity. Safer urban areas can lead to more pedestrian circulation in the urban area and increase urban vitality. The required illuminations can be achieved through "bright, wide-range, high-mount lamps or dimmers, closely spaced, low-mounted lamps, the latter of which are often preferred because of their consistent contribution to the pedestrian corridor" (Jaskiewicz, 2000).

Although considering the lighting system of a street in the design process is a significant factor affecting walkability, the effect of lighting on pedestrians'

safety and sense of comfort majorly depends on pedestrians' personal perceptions and feelings, such as fear of the dark.

4. Conclusion

In this chapter the walkability concept was discussed based on the most chief components constituting city center. The issue was handled via explaining the meaning of walkability notion and the significant factors influencing it. Then, the principles that should be considered in the design of the basic components related to the walkability of the city center are explained. It is concluded that in the design of the city center components including squares, roads, green area and street furniture factors such as functionality, aesthetic, usability, safety and sustainability should be considered in order to enhance the walkability of city center. Designing these components in harmony and integrating with each other ensures that the city center gains vitality, activity and attractiveness which are basis of a walkable urban area. When all these elements come together, the city center becomes a livable and meaningful place for both residents and visitors.

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CHAPTER XIV

HARNESSING COLLECTIVE INTELLIGENCE FOR ECOSOCIAL TRANSITION: ANALYSIS OF RENATURALIZATION AND DEURBANIZATION CASES IN THE COASTAL MEDITERRANEAN REGION OF SPAIN

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1. Introduction

In the realm of environmental sustainability, the prevailing perception of nature as an infinite resource has led to its appropriation and exploitation without consideration of biophysical limits (Serres, 2004; Giménez, 2020). However, as we witness the current state of natural degradation, it becomes increasingly evident that these limits exist. Thus, it becomes imperative to understand the environmental limits to growth.

The seminal report, first published in 1972 and subsequently updated, issued a dire warning that our planet would encounter its growth limits within the coming century (Meadow et al., 1972). Iconic manifestations of climate change, such as rising sea levels, global warming, and glacier melting, have emerged as undeniable outcomes of human actions. For instance, since 1880, the global

sea level has experienced a rise of 20 cm, with projections indicating a further surge between 30 and 122 cm by 2100 (NASA/JPL-Caltech; IPCC/6AR, 2021). Similarly, alarming statistics reveal unsustainable levels of environmental impact, with the global expansion of artificial land surfaces tripling from 0.2 to 0.6 (based on comparative values between GLC-SHARE 2000 and 2014) (Latham et al., 2014). This destructive artificialization pattern has resulted in chronic issues such as pollution, deforestation, and inequalities, particularly in fragile areas like coastal systems, disrupting their high biodiversity value and equilibrium.

In response, global agreements such as the Kunming-Montreal Protocol and the Sustainable Development Goals (SDGs) of the 2030 Agenda have emerged as crucial mechanisms for combating unsustainable consumption, carbon emissions, and promoting climate change mitigation and adaptation (UN COP; WWF). However, efforts to address challenges posed by the growing global population, ecological policies, economic models, and justice in the face of anthropocentrism have yielded minimal results in slowing down environmental degradation. The existing efforts are necessary but not sufficient.

In particular, rapid industrialization has transformed rural areas and natural landscapes into developed zones, characterized by highways, airports, marines, shopping centers, tourist destinations, large-scale farms, and toxic waste sites (Riechmann, 1998). The speed and extent of this destruction are alarming, observed through land consumption, fossil fuel consumption, livestock production, and even nuclear weapons production. It is important to note that a significant proportion of carbon emissions originate from urbanization, transportation, and infrastructure, while renewable energy sources only account for 5.2% of energy consumed in industrial and urban production (IEA, 2021). Notably, energy supply has tripled from 254 to 606 EJ between 1971 and 2019, highlighting the urgency of the question: Can we produce enough to meet vital needs while respecting environmental limits?

Soja (2013) states that the impediment lies in the unjust global geography of production and consumption, with excessive concentration in privileged spaces and severe scarcity in others. This issue has been examined by scholars like Latour, Harvey, Ostrom, and Lefebvre, who identify capitalism and capitalist urbanism as key generator of inequalities and crises. Latour associated the explosion of inequalities, the extent of deregulation, and the critique of globalization to counteract and guide in politics (Latour, 2017). Harvey proposes anticapitalist resistance and emphasizes the importance of non-state,

non-hierarchical, and horizontal organizations as politically appropriate forms (Harvey, 2012). Ostrom, on the other hand, highlights the potential for collective action, self-organization, and local governance to manage commons effectively (Ostrom, 1990). However, “the need and the ‘right’ to nature contradict the right to the city without being able to evade it” (Lefebvre, 1996). Reconsidering existing perspectives beyond anthropocentric urbanism and incorporating ecological justice is essential to address the environmental crisis.

This research aims to explore the application of collective intelligence (CI) in the context of ecosocial transition, focusing specifically on renaturalization, conservation, and deurbanization cases in the coastal Mediterranean region of Spain. Coastal systems encompass a wide range of habitats and ecosystems, such as underwater habitats, wetlands, river estuaries, marshes, beaches, and dune morphologies (Greenpeace, 2019). However, rapid urbanization, commonly known as “tsunami urbanization” due to the construction boom until the 2008 crisis, has resulted in the destruction of fragile ecosystems and a prioritization of tourism-driven development, particularly in the study area (Rullan, 2011). The irreversible loss of nature underscores the urgency to reconsider existing strategies. Therefore, (strong) sustainable strategies must be developed to collectively rethink, identify problems, find solutions, make decisions, create and disseminate collective experiences. How can collaborative strategies, specifically collective intelligence, be effectively employed in coastal ecosocial transition?

By adopting an ecocentric and participatory perspective that emphasizes symbiosis and reciprocity, this study aims to contribute to the understanding of the underlying problems and the application of collective intelligence (CI) in ecosocial transition processes. It begins by analyzing the chronic issues specific to the study area, followed by a comprehensive examination of different approaches to harnessing CI through case studies.

2. Study Area Diagnosis

In Spain, “between 1986 and 2006, artificial surfaces increased by 60%,” which is “more territory than everything built between the Neolithic period and 1986” (Metropolitano, 2011) or “an area close to that of the island of Mallorca” (Rullan, 2011). In addition to the quantity, density also has a notable statistic: “13% of the coast is urbanized compared to 2% of the interior territory” (Greenpeace, 2019). Population data also confirms this. “Between 1860 and 2011, the Spanish

population has tripled, while in the Mediterranean region, it has multiplied by 4 considering the total provincial and by 6 in coastal municipalities” (Rodríguez & Hernández, 2013). Thus, the growth of artificial surfaces through urbanization and infrastructure is the main cause of ecosystem destruction, accounting for 240,000 to 530,000 hectares, representing 13.1% of the degradation of the Spanish coastal ecosystem in the last 30 years (Greenpeace, 2018).

In this context, the study area is examined through three main aspects: (1) the diverse morphologies of the Mediterranean coastal ecosystem, (2) the urbanized coastal stretch impacted by overtourism, and (3) the regulatory measures implemented at both national and regional scales to manage the coastal zone.

2.1. Coastal Ecosystem

In Greenpeace’s report (2001), which aimed to halt the devastation, the coastal zone is described as “a dynamic, rich, unique, and irreplaceable space.” From an ecocentric perspective, coastal systems exhibit high complexity, diversity, and value as ecotones (transitional areas) between the marine and terrestrial realms, encompassing both abiotic and biotic components. Remarkably, 22.2% of natural habitats (519,000 hectares, of which 28.8% are deemed priorities for conservation by the European Union) along the Spanish coast remain unprotected (Greenpeace, 2019). To begin with, it is necessary to define the coastal system as a dynamic entity that includes various habitats ranging from the inland mountains to the coastline. Geddes’s concept of ‘The Valley Section’ illustrates the natural ecosystem with basic human activities depicted by tools of different trades and crafts (Figure 1). The dune system is notably prominent among coastal ecosystems.

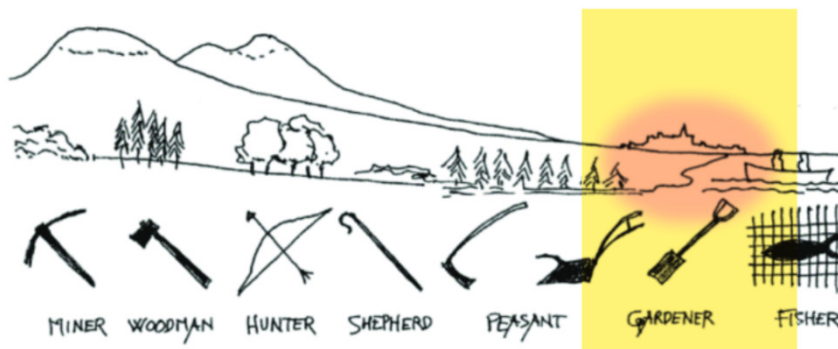


Figure 1. ‘The Valley Section’ from hills to sea (Geddes, 1923)

Dune systems are interconnected interplay of abiotic processes (sand transport) and biotic factors (vegetation colonization) (Prieto et al., 2009). Various types of dunes exist, including transverse dunes, incipient dunes, ramp dunes, climbing dunes, isolated dune crests, dune ridges with back-dune areas, stabilized dunes, and restored dunes (Garcia-Lozano & Pintó, 2018). Along the Mediterranean coast, mobile embryonic dunes, white dunes, and moist intradune depressions are prevalent and likely constitute over 80% of the entire Mediterranean coastal dune system (Prieto et al., 2009). The ideal transect of the dune system in Devesa del Saler would consist of the following zones (prior to alteration) (Figure 2).

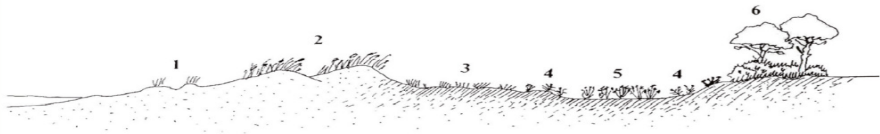


Figure 2. Dune system: (1) pioneer dunes, (2) mobile dunes, (3) stabilized dunes, (4 and 5) depressions and saltmarsh communities, and (6) fully stabilized dunes (Prieto et al., 2009).

Approximately 70% of European dune systems are estimated to have disappeared or suffered severe damage due to human activities over the past century (McLachlan & Brown, 2006; Garcia-Lozano & Pintó, 2018). Particularly, the Mediterranean coastlines, which host a diverse range of fragile and ecologically crucial morphologies, are the primary victims of this land consumption. Similar high human pressure is observed in coastal areas of Turkey (Aegean and Antalya regions), Portugal, Greece, Israel, and Tunisia (Van der Meulen & Salman, 1996). In this century, it is projected that many beaches, especially narrow ones, may completely vanish in the absence of dune systems, which serve as natural protection against erosion and flooding caused by rising sea levels (~90 cm). Dune systems play crucial roles, such as acting as aquifers, protecting against marine storms, supporting biodiversity, aiding beach recovery, and contributing to soil development (Prieto et al., 2009). As ecotones, the interaction between dunes and the seagrass *Posidonia oceanica* (a native marine phanerophyte of the Mediterranean Sea) is significant.

Firstly, *Posidonia* seagrasses (as well as other types of temperate seagrasses such as *Zostera*, *Phyllospadix*, *Heterozoster*, and *Amphibolis*) create a unique habitat. They stabilize the seafloor, trap sediments, clarify the water, and provide a habitat for plants and animals (McLachlan & Brown, 2006). By covering the coast with their leaves and meter-long berms, *Posidonia* seagrasses form an

organic layer that shields the coastline from erosion, reducing wave energy and promoting sedimentation processes. The berm serves a dual morphodynamic function: it protects the subaerial beach from storms and acts as a sediment trap through grain accumulation (Roig-Munar et al., 2012).

Furthermore, *Posidonia* seagrasses are particularly effective at carbon storage for two reasons: the tall plant stems effectively capture carbon-based plant and animal particles in the water, and they absorb carbon as part of photosynthesis, storing it in their leaves and roots. Research analyzing these sediments has discovered that they are over 3,000 years old and store millennia-old carbon (Nicholas, 2016). However, the presence of *Posidonia* berms has been misinterpreted as a sign of dirtiness, and mechanical beach cleaning has caused degradation processes in dune systems over the past decades (Pons & Garriga, 2016).

The misunderstandings about natural dune vegetation, dune stabilization, and afforestation extend beyond this. Hectares of dunes in Mediterranean countries have been afforested due to misunderstandings and the relative success of stabilization with trees, regardless of whether the dune types are mobile or not. Another misunderstanding is that artificial stabilization has often been carried out using exotic tree species such as Australian eucalyptus, acacia, pine, and tamarisk, which pose a threat to unique wildlife populations (Van der Meulen & Salman, 1996). To conserve these habitats, common recommendations include preserving sediment volume (e.g., slowing erosion, preventing sand extraction, using artificial catchers, restoring natural morphology) and maintaining native vegetation (e.g., removing exotic plants, replanting suitable species for dune development) (Prieto et al., 2009). Moreover, dune stabilization is not always considered necessary. In cases of planting for stabilization, only native species should be used, preferably pioneer species and not trees (Van der Meulen & Salman, 1996).

However, there is insufficient ecocentric implementation in architecture and urban planning, as well as a lack of awareness in society, to protect the Mediterranean coastline. Therefore, the study area focuses on the overdeveloped and artificialized coastal system.

2.2. The Built Coastal Zone

The Autonomous Community of Madrid and the provinces of Barcelona, Málaga, Alicante, Murcia, and Valencia (with a focus on the littoral) account for 41% of the total number of housing units started in Spain between 1997

and 2006 (Garcia, 2015). Over the period from 2001 to 2011, the overall number of housing units in Spain witnessed a substantial increase of nearly five million, reaching from 21.03 million to 26.01 million: Andalusia (1,115,659), Catalonia (769,786), Valencia (791,882), Murcia (292,708), and the Balearic Islands (118,069) (Morote & Hernández, 2016). Greenpeace's report draws attention to the significant concentration of residents in coastal areas, revealing that 44% of the Spanish population resides in municipalities located along the coast. Remarkably, these coastal areas constitute only 7% of the total territory (Greenpeace, 2010; Marcos et al., 2010). Moreover, the degradation of soil is more pronounced in proximity to the sea, with 36.5% of Spain's coastline being urbanized (Figure 3) and over one-third of coastal ecosystems having been lost to development (Greenpeace, 2019).

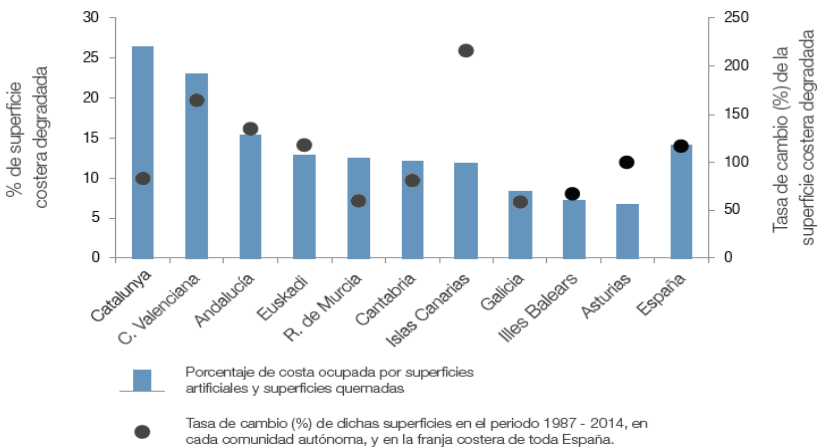


Figure 3. Human pressure on the Spanish coast (Greenpeace, 2019).

The rapid and irreversible destruction of nature is a major concern in Mediterranean coastal destinations, primarily driven by the tourism industry that revolves around the sun and beach. This industry is characterized by extensive utilization and occupation of delicate ecosystems. According to Marcos et al. (2010), approximately 80% of the nearly 60 million annual visitors to Spain choose coastal areas. In 2019, the entire national territory hosted over 343 million people, with a significant portion of these travelers opting for the Mediterranean coast. García et al. (2021) report that 59.6% of visitors stayed along the Mediterranean coast, with the Balearic Islands (16.98%), Catalonia (16.97%), and Andalusia (16%) being the primary destinations (Figure 4).

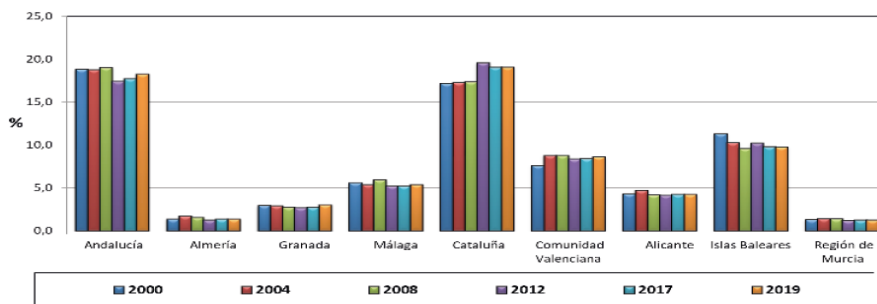


Figure 4. Percentage of tourists arriving annually in the Autonomous Communities of the Mediterranean coast (García et al., 2021).

Furthermore, the tourism sector, which constitutes approximately 12% of Spain's GDP (INE), experienced a sharp decline of nearly 5.8% during the pandemic. However, there has been a notable recovery in 2022, with Spain receiving 71.6 million tourists, reflecting a significant increase of 129.5% compared to 2021. Nevertheless, this number is still 14.3% below the figures recorded in 2019, prior to the pandemic (INE¹).

In both Figures 3 and 4, distinct values are depicted for the Autonomous Communities, and even greater disparities can be observed at the municipal level within each autonomous community. The correlation between degraded coastal areas, rates of change, and the percentage of tourists arriving annually enables a comprehensive understanding of the dynamics that have unfolded along the coast over the past three decades. These developments bear testament to the mounting human pressure that has been predominantly concentrated in coastal regions.

Catalonia, with 699 kilometers of coastline and 456 kilometers of beaches, despite official data indicating that 57.8% of the coastal area is protected, coastal municipalities have continued with construction activities, even within the first 500 meters from the shoreline (Marcos et al., 2010). Greenpeace's report highlights Catalonia as the region with the highest percentage of artificial surfaces occupying its coast, primarily due to construction, amounting to 26.4% (see Figure 3). Gaja Díaz emphasizes the relatively small and densely populated nature of Catalonia, referring to it as a phenomenon of hyperurbanization (Gaja Diaz, 2012). However, in a minority of Catalan coastal beaches, approximately 10% of the dunes remain nearly untouched, 60% of which have disappeared, and 30% have decreased in size. The province

most affected by this trend is Barcelona, where 80% of the beaches no longer possess nearly pristine dunes. Girona and Tarragona have also been severely impacted, with dune disappearance ranging from 60% to 40% (Garcia-Lozano et al., 2018). As expected, tourist attractions are concentrated in the same areas: Barcelona, as the primary destination, accounting for nearly 40% of overnight stays; the Costa Dorada (Tarragona) with 21%; and the Costa Brava (Girona) with 18% (Sauer et al., 2022). Notably, the most striking aspect of the Tarragona coast is the artificial urbanization that has expanded by 24.5% since 1987, while the Girona coast has seen a 15.4% increase, largely covered by cement, buildings, residential developments, and infrastructure (Figure 5) (Greenpeace, 2019).



Figure 5. The Costa Brava 1930-2005 (Martí & Pintó, 2011)

The Valencian Community, with 518 kilometers of coastline and 356 kilometers of beaches, exhibits metropolization trends similar to Barcelona. However, there is an imbalanced development, with an interior region facing desertification while the coast is heavily urbanized, resulting in an increase in artificial surface from 28% in 1990 to 42% in 2006 due to pressure from the tourism and real estate sector (Gaja Diaz, 2012). The trend of urbanization follows a model of tourist residential complexes supported by golf courses, ports, hotels, and shopping centers. The Impactur report (2007-2019) indicates that tourism accounted for 13.2% of the Valencian economy's GDP in 2007 and 15.5% in 2019.

The Valencian Community ranks second in terms of coastal ecosystem degradation, with 23.1% affected (see Figure 3). Notably, nearly three-quarters of its coastline is urbanized (74.3%) (Figure 6). Degradation percentages are 15.2% for the coast of Castellón, 22.5% for the coast of Valencia, and 28.5% for the coastal strip of Alicante, where more than 80% of the beaches have urbanized (Figure 7) (Greenpeace, 2019).

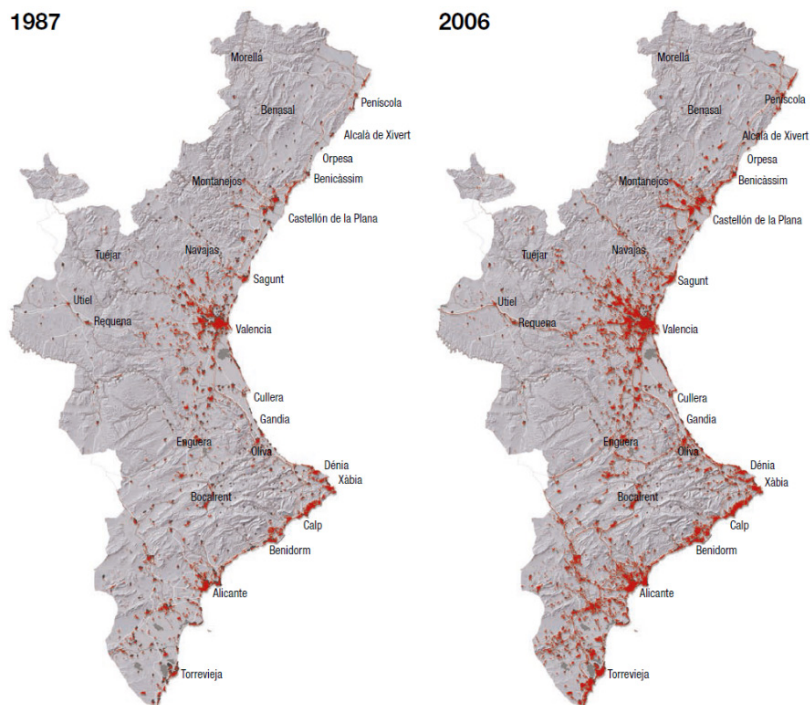


Figure 6. Change in artificial surfaces in the Valencian Community (Corine Land Cover; ETCV)



Figure 7. Evolution of Benidorm beach 1960-2005, Alicante (Ministerio de Medio Ambiente, 2016)

The Region of Murcia, with 274 kilometers of coastline, has a relatively low tourism reception value (see Figure 4) (García et al., 2021). However, the

coastal area has remained relatively stagnant and better preserved, with only 12.6% of the coast being degraded, except for the case of La Manga del Mar Menor. The pollution of the Mar Menor lagoon, resulting from sewage and nitrate discharge from agricultural drainage in the Campo de Cartagena, has caused significant ecological damage (Van der Meulen & Salman, 1996; Marcos et al., 2010). Murcia's growth pattern is characterized by scattered and low-density development, with limited coastal access (Gaja Diaz, 2012). The coastal transformation between 1990 and 2000 was notable, with a population increase of 14.9% and urban growth of 52.6% (Marcos et al., 2010). Urbanization projects during this period included the construction of 329,150 new housing units and approximately 32 golf courses (Figure 8) (Marcos et al., 2010).

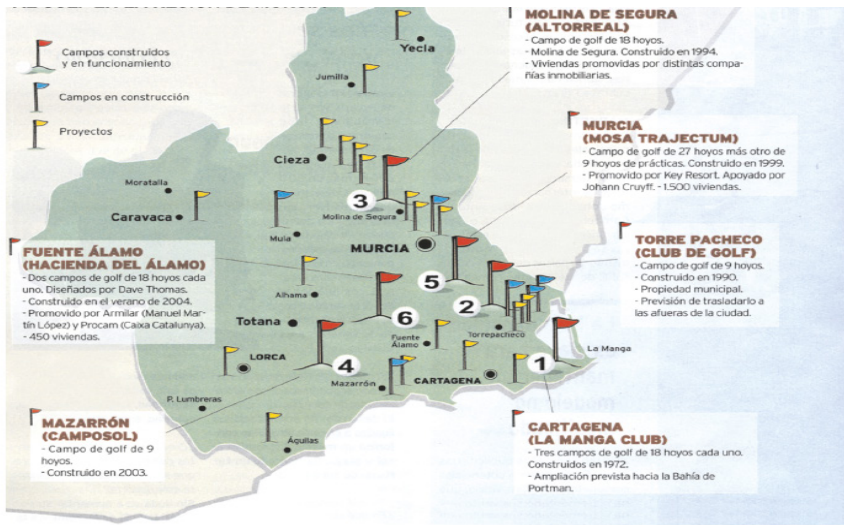


Figure 8. Golf-Related Urban Developments in the Region of Murcia (Sarasa, 2004)

The development of golf courses in Scotland on rain-soaked meadows has led to an unstoppable expansion into less humid regions like the Mediterranean coast, posing a critical threat and a form of exploitation, particularly in Europe and Turkey. The expansion of golf courses in the Mediterranean consumes vast natural areas, including coastal dunes, and requires significant water usage, ranging from 500,000 to 1 million cubic meters annually (Van der Meulen & Salman, 1996). In 2006, there were plans for 156 new golf courses, with 60 projects concentrated in Cádiz alone (Marcos et al., 2010). As of 2010, there were 416 golf courses in Spain, and by 2022, the number had risen to 450, with

only 107 of them located in Andalusia (Statista², ‘Campos de golf por comunidad autónoma en España en 2022’).



Figure 9. La Manga del Mar Menor 1957-2013, Murcia (Sánchez, 2018)

Andalusia, with 910 kilometers of coastline, encompasses different climatic and biogeographical zones of great diversity (including the Atlantic coast) and is the third region with the most degraded coastline (15.4%) due to sun and beach tourism. The Costa del Sol, as a pioneer, is one of the most transformed areas of all (Figure 10) (Greenpeace, 2019; Romero et al., 2015; 2017). Despite some inland cities like Seville, which have no growth in consumed areas but tend towards polycentrism and compactness, the growth in the first kilometers of the coast (from 23% to 32%) is significant (Gaja Diaz, 2012). Between 2000 and 2004, Andalusia experienced a 29% increase in hotel capacity, compared to the national average of 14%. In 2007, land development was consuming an average of 12.81 hectares per day in Andalusia, of which 9.23 corresponded to the coastal provinces (Marcos et al., 2010). Spatially, the coastal strip is endangered by the so-called “areas of opportunity” linked to golf courses and tourist marinas. According to Greenpeace (2001), the 32 marinas offering 11,653 moorings are responsible for coastal erosion in Andalusia. Although the coastal strip already had 42 marinas in 2007 (one every 23 kilometers of coastline), there were plans for 29 projects to build 9,051 new moorings (Marcos et al., 2010). The degraded coastline percentages in Andalusia are as follows: Almería - 8.3%, Granada - 12.4%, Malaga - 26.2%, Cádiz - 5.9%, and Huelva - 11.7% (Greenpeace, 2019).



Figure 10. Torremolinos 1960s-2010 (Piñeira Mantiñán, 2010)

The Balearic Islands (Illes Balears), with 1,428 kilometers of coastline, rank as the second region with the best-preserved coastal natural habitats, following Catalonia. The archipelago's coast is not subject to the excessive urbanization seen in the peninsular Mediterranean coast, likely due to the factor of insularity. Approximately 7.2% of the coast is urbanized, representing an addition of 7,265 hectares of artificial surfaces since 1987 (Greenpeace, 2019). However, there are concerns regarding tourism-specific urbanization. The surge in mass tourism, supported by charter flights, significantly explains the processes of coastal occupation in Mallorca compared to other Balearic territories (Gaja Diaz, 2012). In 2019, the Balearic Islands reached the peak of economic activity linked to tourism, amounting to 13,956 million euros, which constituted 41.3% of the Islands' economy that year. However, the region experienced a historic decline during the pandemic, with a decrease of -72.4% below the Tourism GDP in 2019 (IMPACTUR³).

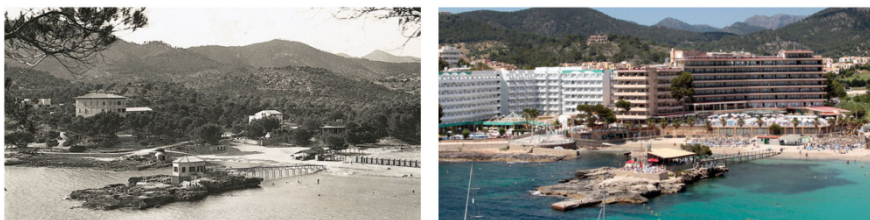


Figure 11. Balearas (El Pais, 2010)

In modern developed territories, the focus is primarily on providing necessary public facilities to ensure the welfare of the population. However, overdeveloped territories, which have emerged from underdevelopment, prioritize the construction of unnecessary private facilities. This trend is particularly pronounced in coastal areas, where leisure and tourism activities drive the growth machine. Examples of such facilities include ports, highways, leisure and theme parks, shopping centers, tourist centers, marinas, golf clubs, sports clubs, and spas (Romero et al., 2015). Megaprojects in these areas are often marketed as self-contained entities, and if they cannot be executed in their entirety, they often become zombie projects (Romero et. al., 2017).

In this context, the establishment of a sustainable symbiotic relationship based on reciprocity becomes crucial. This entails involving a wider range of actors and moving away from the exploitative exploitation of nature (Serres, 2004; Sennett, 2012). Alternative economic models, such as the social and solidarity economy, offer pathways for transforming the economy towards a more cooperative, democratic, and productive direction. These models provide alternatives to capitalist and consumerist economies (Laval & Dardot, 2015). Similarly, the transition to a circular economy prioritizes ecological sustainability and aims to reduce material cycles. However, these transitions require collaborative efforts to effectively address environmental crises (Beck, 2017).

Replacing the outdated notion of experts with the broader concept of co-investigators, Latour (2004) emphasizes individuals as co-investigators in the new division of labor. Similarly, Engelbart addresses the value of people's problem-solving capabilities as the most important resource society possesses (Engelbart, 1962). Focusing on the presence of urgent or complex challenges that require effective collaboration, it is crucial to explore and comprehend ways to harness collaboration in combating environmental crises.

In summary, chronic issues related to the artificialization of the Mediterranean coastline are evident, with unique variations observed across the five autonomous communities. It is crucial to analyze how this process of artificialization is managed at the national, regional, and local levels.

2.3. Coastal Management

Regulations and implementing laws related to the protection of coastal areas is one of the critical responsibilities of national and local governments. Therefore, it is necessary to determine why this legal process is inadequate

in preventing destructive artificialization and the accompanying problems. Additionally, the budget spent on addressing issues such as floods, pollution, and erosion is quite significant. Paradoxically, the majority of common interventions focused on recreational use - such as mechanical cleaning, aesthetically-driven beach nourishment, and coastal progradation through artificial filling - offer limited short-term solutions aimed at managing or bypassing the effects. In other words, they are oriented towards delaying problems until irreversible destruction occurs, rather than restoring the system and addressing the root causes of repetitive issues. According to Marcos et al. (2010), millions of euros are lost each year due to the arbitrary nature of coastal policies when new storms hit the Catalan coast, which is typical of the Mediterranean. Without addressing the underlying causes of erosion, these unsustainable solutions, seemingly convenient for maintaining beach use and resolving immediate concerns, are neither economically practical nor ecologically sustainable. Thus, it is crucial to reconsider who makes these decisions and how they are made.

Legally in Spain, the Water Law of 1866 includes the coasts and beaches within the public maritime domain, a time when the coastal areas began to acquire cultural value, particularly with the emergence of seaside resorts as the origins of coastal tourism (Tatjer, 2009; Rodríguez & Hernández, 2013). The Port Laws of 1880 and 1928, as well as the Coastal Law of 1969, do not have a protective connotation nor explicitly categorize beaches as public goods or define vegetation for beach-dune systems. Consequently, they provide the basis for the condemnation of many destroyed dune systems due to private property encroachment. On the other hand, the Coastal Law of 1988 specifically aims (with broad interpretation) to classify all beach-dune systems as part of the public maritime-terrestrial domain (DPMT) in order to protect and restore their system integrity, based on the Spanish Constitution of 1978. However, considerable areas of dune systems were excluded from the public domain under the new coastal regulations integrated by Law 2/2013, indicating a significant setback in protection (Pons & Garriga, 2016). These national regulations can be further complemented by protective norms and reports from the European Communities (such as the Habitats Directive) and detailed through autonomous implementations along the Spanish Mediterranean coast. It is crucial to strengthen coastal legislation to ensure the restoration of beach-dune systems, considering both national and European regulations as guiding frameworks, including the recent decision by the European Parliament on a key law of the green agenda (Castro, 2023).

The measures established by the Mediterranean autonomous regions propose three defensive strategies with varying degrees of scope against urban expansion (Table 1): the first one involves blocking reclassification (B), the second one quantitatively limits the amount of classifiable land (L), and the last one reclassifies urbanizable land as non-urbanizable (R)” (Rullan, 2011).

Table 1. Measures of blocking, reclassification, and limitation (translated to English) (Rullan, 2011)

| Autonomous Community | Regulation | Type of Action |
|----------------------|---|----------------|
| Catalonia | 2005: Coastal System Urban Planning Master Plan of Catalonia | B and R |
| | 2006: Urban Planning Master Plan of Areas within the Coastal System, composed of delimited urbanizable land without an approved partial plan | |
| Valencia | 2006: Decree 67/2006, of May 12, approved by the Consell, on Territorial and Urban Planning and Management of land without an approved partial plan | L |
| Balearic Islands | 1999: Law 6/1999, of April 3, on Territorial Guidelines for the Balearic Islands and Tax Measures | B, R, and L |
| | 2003: Insular Territorial Plan of Menorca | |
| | 2004: Insular Territorial Plan of Mallorca | |
| | 2005: Insular Territorial Plan of Ibiza and Formentera | |
| Murcia | 2004: Decree No. 57/2004, of June 18, approving the “Guidelines and Territorial Plan for the Coast of the Region of Murcia | B |
| Andalusia | 2006: Decree 206/2006, of November 28, publishing Territorial Plan of Andalusia | B and L |
| | 2008: Decree 11/2008, of January 22, establishing procedures aimed at putting urbanized land on the market with a preferential use for the construction of subsidized housing | |

B: Blocks the reclassification to urbanizable of part of the non-urbanizable land.

L: Limits the amount of land that can be classified as urbanizable.

R: Reclassifies land from urbanizable to non-urbanizable.

Different autonomous have implemented various measures to address urban expansion. In the case of Murcia (2004), a portion of non-urbanizable land is blocked from potential reclassificación. Catalonia (2005 and 2006) blocks non-urbanizable land and reclassifies it. The Valencian Community (2006) and Andalusia (2006 and 2008) limit the amount of land classified as urbanizable. The Balearic Islands (1999, 2003, 2004, and 2005) adopt comprehensive measures, including blocking, limiting, and reclassifying land (Rullan, 2011).

In addition to the theoretical framework of laws and norms, the absence of effective management, vigilant oversight, and comprehensive control mechanisms in addressing various forms of urban corruption is of significant concern. Pons and Garriga (2016) state that administrations can inflict harm through their actions as service providers (*culpa in committendo*) or through

negligence in their duty of supervision or control (*culpa in vigilando*), as well as by failing to fulfill their responsibility of providing environmental protection services (*culpa in omittendo*).

Despite the majority of Spanish institutions operating under democratic and participatory management models, “*in 2008 there were no channels or state bodies for public participation in coastal management. This is undoubtedly one of the major structural deficits of the state’s coastal management system*” (Muñoz, 2009). At this juncture, social movements with various forms of collaboration that promote strategies based on degrowth for sustainable development are of great importance. “These movements, organized around platforms and coalitions with names like ‘This region is not for sale’ or ‘Let’s save this natural space,’ had the ability to challenge and overthrow local or even regional governments, such as the case of the Balearic Islands in 2007 or Aragon in 2003” (Metropolitano, 2011). The progress levels mentioned in the Table 2 are based on the works of Muñoz (2009) and Andrés et al. (2020) regarding the coastal management decalogue.

Table 2. Progress of the coastal management (Muñoz, 2009; Andrés et al., 2020)

| Management aspects | Progress 1988-2003 | Progress 2004-2008 | Updates 2008-2018 |
|---|---|-----------------------------|--|
| Policy | Not a prioritized issue in public policies | Little significant progress | No significant improvements |
| Legislation | Abundance of legislative instruments | Little significant progress | Approval of laws and regulations |
| Institutions | Need for integrated management for coastal | No significant improvements | Roles at national and regional levels |
| Coordination Cooperation/ Competencies | Need for coordination and cooperation | Reasonable progress | Competency transfer to regional government increases |
| Strategies | Primarily focused on tourism activities | No significant improvements | Notable ecosocial strategies (i.e. Mar Menor) |
| Operational Instruments | Numerous and diverse operational instruments | Reasonable progress | Numerous and diverse operational instruments |
| Administrator/ Training and Education | Engineering-focused coastal agency training | Little significant progress | Marine degrees expands, including doctoral studies. |
| Economic Resources | Productivity-centric funding, no conservation | Reasonable progress | Decrease in resources, infrastructure-centric |
| Knowledge Information | Knowledge scarcity, transparency lacking | Little significant progress | Improved access to coastal information |
| Public Participation | Coastal issues lack forums for debate | No significant improvements | No significant improvements |

Indeed, there is also much to be said about laws and regulations, and the research by Giménez provides a comprehensive and reality-based perspective. It serves as one of the catalysts for a collaborative process in the case of Mar Menor: “...towards a new ecological citizenship, which not only includes social and ecological human rights but also the rights inherent to nature” (Giménez, 2020). An ecological ethics with a new temporal dimension is presented (Riechmann, 2001), encompassing future generations and all species on the planet, to mediate between ecosystems and humanity and overcome the lack of governance in temporal matters. So, how does nature speak, included as an actor (subject) in this new ethics? “Indeed, the Earth speaks to us in terms of forces, bonds, and interactions, and that is sufficient to form a contract” (Serres, 2004). The precursor crises can also be considered a form of expression, a declaration of emergency.

3. Case Studies for Ecosocial Transition

Collective intelligence (CI) has long been used to fight climate challenge and other related other problems by identifying problems, raising awareness, promoting learning, and fostering collaborative action. International organizations such as UN DP, UN-Habitat, GovLab, Nesta, Co-City, PPS, and others have developed CI approaches toward achieving sustainable development goals (SDGs). Our study incorporates a CI framework that encompasses contextual factors, purpose, approach, method, actors, and scale attributes. Based on this framework, we analyzed case studies (CS) presented in Figure 12, along with relevant geographical and chronological information. Through a detailed exploration of key models, we examined the principles of ‘redo,’ ‘undo,’ and ‘not do’ derived from the n’UNDO framework. These principles encompass various actions such as social movements, occupation movements, citizen-centered transitions, bottom-up reactions, heritage protection, nature-based solutions, co-governance for budgeting, co-decision-making for planning, and ICT-supported citizen science.

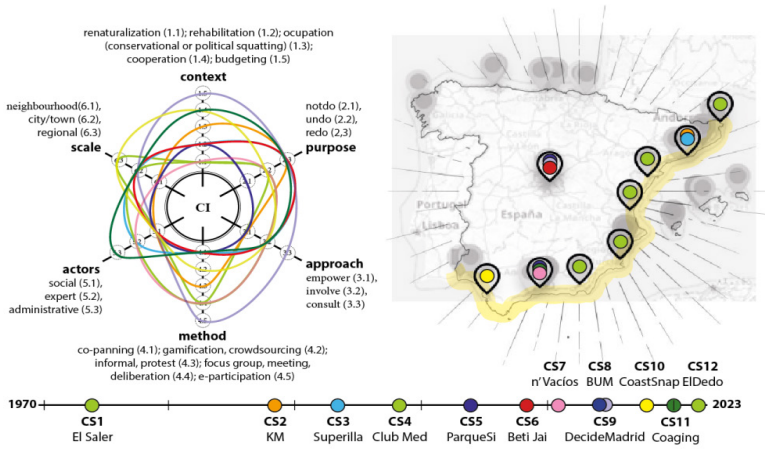


Figure 12. Identified key models focusing on Mediterranean coast and capital of Spain

El Saler per al poble (1974) (CS1) demonstrates the significance of **citizen movements** in Spain from early times. In this case, experts including professors, journalists, sociologists, architects, and ecologist groups, along with citizens, united to protect and restore La Devasa in Valencia. As a result, they successfully pioneered the **deurbanization and renaturalization of coastal dunes**. Similar cases include the preservation of Mar Menor in Murcia, the dismantling of Hotel Algarrobo (1994), the renaturalization of La Pletera (1999–2018), the deconstruction of Club Med (1998–2010), Les Madrigueres in Vendrell (2003–2018), the platform ‘Otro Maro y Nerja es Possible’ in Malaga (2017), and Hotel Sol in Elche (2021). Recently, Playa El Dedo (2023) demonstrates the collaboration between universities and local communities to address real issues, such as sporadic flooding, loss of biodiversity in the maritime-terrestrial ecotone, and coastal erosion, through sustainable collective proposals.

Kasa de la Muntanya (1989) (CS2) is another early example of occupation that involved a long-term process, transforming the former Civil Guard barracks into an anti-system center in Barcelona. Numerous similar cases of **entrepreneurial, conservational, or political occupations (squatting)** can be found, including CSA Tabacalera, La Fabrika, La Traba, La Enredadera, La Farbrika in Madrid, and La Casa de Invisible in Malaga. While **occupation movements** often exhibit closed structures and less permeability to various interest groups, typically following an illegal process dominated by specific groups and patterns, they can be viewed as integrated actions within the broader context of social movements, serving as platforms for protest and conveying social messages.

Parque Si Chamberi (2006) (CS5) and Bosque Urbano Málaga (2015) (CS8) exemplify **neighborhood movements** that resist top-down interventions (not do) and propose **bottom-up sustainable solutions**. Beti Jai (2008) (CS6) and Plaza de La Cebada (2012) platforms aim to conserve heritage and collective memories (not do - redo) with the collaboration of the Federación Regional de Asociaciones Vecinales de Madrid (FRAVM), Arquitectos sin Fronteras, and local communities. n' Vacíos (2011-2023) (CS7) addresses the challenges of urban expansion by focusing on vacant spaces and recognizing their strategic importance. This approach considers **renaturalization and decarbonization** as responses to the call of the Malaga City Council, OMAU, employing participatory strategies that utilize **digital tools for decision-making**, aligned with the principles of n'UNDO.

The participatory process involves a range of actors (Figure 13), including a focus group of senior citizens discussing the applicability of the 'Co-aging Project' developed by the University of Sevilla and Malaga (CS11). **Collaboration between Granada University and the neighborhood association** (Asociación de Vecinas/os de El Palo) takes place to diagnose and discuss solutions for Playa El Dedo (CS12). Additionally, collaboration between n'UNDO, citizens, and the local administration is also seen in Hacienda Bizcochero (CS7) and Teatinos, where mobile apps such as Menti are utilized for **co-decision making and discussions following the diagnostics process among neighbors**.



Figure 13. Participatory workshops in CS7, CS11, and CS12

SuperBlock (Superilla or Supermanzana) (1993–2018) (CS3) approaches primarily focus on **pedestrianization, revitalization, and renaturalization of neighborhoods and streets** in Born, Vila de Gràcia, Poblenou, Horta, and Sant Antonio in Barcelona. The City Council plans the SuperBlock as a collective action that involves dialogue and participation from all stakeholders and citizens to gather the **best ideas and proposals with maximum possible consensus**. The Sant Antonio transformation after the Superilla interventions in Barcelona showcases a citizen-centred pedestrianized interventions for public space (Figure 14). Another innovative case, SuperBarrio (2017), employs a **digital game** and

crowdsourcing methods to facilitate neighborhood participation in the design process, allowing citizens to envision new superblocks.

Decide Madrid (2015) (CS9) and Decidim Barcelona (2016) participation platforms were developed to enable citizen involvement through suggestions, **exchange of opinions, and participatory budgeting** (propose, support, or vote for projects by citizens and decide on municipal regulations), thereby increasing **transparency and consensus**.

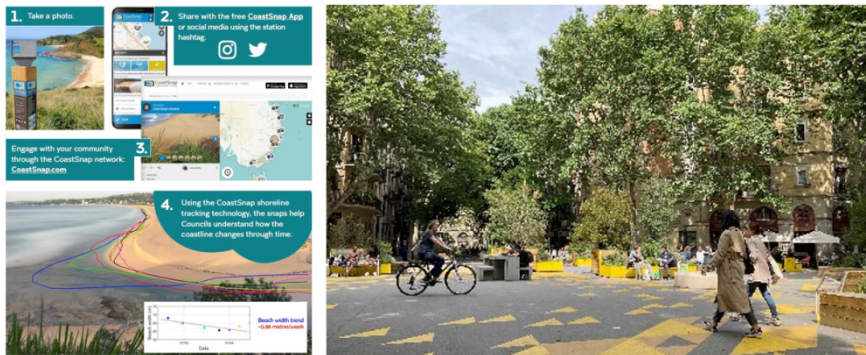


Figure 14. Nature-based and citizen-centered interventions in CS10 (left⁴) and CS3 (right)

Coastsnap (2007–2017) (CS10) proposes **civic auditing for coastal changes by crowdsourcing** photos from camera cradles or stations located in Cadiz, the Balears, Valencia, Galicia, and Barcelona (Figure 14). Similar community and technology development projects include IScape, Public lab and Making Sense, which utilize **citizen kits and social platforms**. Supported by the EU, projects such as OPEN4CITIZENS, CIPTEC (Collective Innovation for Public Transport in European Cities), C3PO (Collaborative City Co-design Platform), Cities4People, U_CODE (Urban Collective Design Environment), COMRADES, UrbanData2Decide, urbanApi (Urban Planning Tools and Intelligence for Integrated Urban Governance), and SOCRATIC (Social Creative Intelligence Platform for Achieving Global Sustainability Goals) have developed CI models and tools to address chronic urban problems by integrating **technology, data, and people**.

We have exemplified three strategies: the smart citizen kits and urban simulator in iaac Fab-Lab Barcelona, and the EEG wearable AI system in the UGR-Lab (Figure 15). The smart citizen kits, equipped with portable and user-friendly sensors, empower citizens to collect comprehensive environmental data, including air, soil, and water quality, noise levels, soundscapes, temperature, and even monitoring endangered habitats. This **crowdsourced data collection strategy** not only fosters a sense of environmental stewardship and awareness

among citizens but also facilitates the harnessing CI, providing valuable insights for necessary interventions. On the other hand, the urban simulator serves as an **interactive platform** that enables citizens to visualize the current state of their neighbourhood, and explore impacts of proposed interventions. Furthermore, EEG (electroencephalography) wearable AI system enhances understanding of outdoor physical activity and perceptions through citizen experiences. Consequently, these tools, including smart citizen kits, the urban simulator, and the EEG wearable AI system, offer innovative strategies to engage citizens in environmental monitoring, and urban planning. Their utilization contributes to the integration of citizen perspectives, and factual data, leading to more sustainable and **informed decision-making** processes.



Figure 15. Innovative strategies for citizen science

The current Venice Architecture Biennale (2023) themed ‘**The Laboratory of the Future**’ presents innovative strategies from different perspectives (Figure 16). Notable examples include Canada’s focus on **co-housing and social movements**, South Korea’s **interactive game for making collective decisions** on climate issues, and Singapore’s emphasis on measurement and calibration in sustainable urban planning “*How do we calibrate for different entities, environments, and dreams?*”. These exhibits highlight the power of CI through **interactive, participative, and informative** means.



Figure 16. Pavilions in the 18th Venice Architecture Biennale - 2023

These case studies serve as valuable insights and inspiration for policymakers, planners, and communities worldwide, emphasizing the potential of collective intelligence in addressing pressing societal and environmental challenges, as presented in participatory workshops (Fig. 13), field studies (Fig. 14), research laboratories (Fig. 15), and exhibitions (Fig. 16). By considering the diagnosed study area and analyzed case studies, CI can significantly contribute to the ecosocial transition of urbanized coastal zones in Spain. The identified CI strategies allow for:

- Increasing awareness and the capacity to project, counteract, and guide policies.
- Resisting or blocking misguided interventions to restore overdeveloped coastal systems.
- Enabling effective participation and conflict resolution among stakeholders.
- Strengthening the legitimacy to develop new approaches to justice, overcoming limitations of current laws and administrations in preventing and managing coastal degradation.
- Enhancing transparency in management and promoting participatory governance.
- Making more informed and inclusive decisions.
- Learning, sharing, and adapting experiences and best practices.

They demonstrate the potential for crowdsourced data, collaborative decision-making, citizen movements, neighborhood initiatives, participatory platforms, and technology-driven solutions in promoting sustainable development and shaping resilient and inclusive communities in urbanized coastal zones.

4. Conclusion

The research concludes by highlighting the challenges and complexities associated with the artificialization and degradation of urbanized coastal zones in Spain. The coastal areas have undergone rapid development driven by the tourism and real estate industries, resulting in environmental degradation, loss of coastal ecosystems, and other adverse effects. The research emphasizes the inadequacy of existing legal frameworks and management practices in preventing destructive artificialization and addressing the root causes of the problem and calls for a sustainable and collaborative approach to coastal management.

The study areas examined in the research encompassed diverse regions along the Spanish Mediterranean coast, including Catalonia, the Valencian Community, the Region of Murcia, Andalusia, and the Balearic Islands. Each region presented unique characteristics and patterns of coastal development, highlighting the varying degrees of artificialization, ecosystem degradation, and tourism-driven growth. Through the analysis of these study areas, the research deepened our understanding of the localized challenges and the broader implications for coastal management in Spain.

A key finding of the research is the importance of adopting a (strong) sustainable approach to coastal management, with a focus on CI. The research identifies CI as a promising framework for addressing these challenges. The case studies demonstrate the potential of CI in increasing awareness, resisting misguided interventions, enabling effective participation and conflict resolution, promoting transparency and participatory governance, and facilitating informed decision-making, foster collaborative action towards sustainable development goals. The case studies presented in the research illustrate the application of CI in different contexts, showcasing various strategies such as citizen movements, neighborhood initiatives, participatory platforms, and technology-driven solutions.

Furthermore, the research highlights the importance of considering the principles of ‘redo,’ ‘undo,’ and ‘not do’ in addressing coastal degradation. These principles advocate for proactive measures to restore and protect coastal ecosystems, as well as avoiding further destructive actions. By embracing these principles and integrating CI approaches, policymakers, planners, and communities can work towards an ecosocial transition in urbanized coastal zones, promoting sustainability, resilience, and inclusivity. The research underscores the need for a paradigm shift in coastal management practices, emphasizing collaboration, citizen engagement, and the implementation of nature-based solutions.

In conclusion, the research urges collective action in response to the urgent environmental challenges of the 21st century. It calls for a reconsideration of progressive concepts such as degrowth (Lopez, 2015), deurbanization, renaturalization, anticapitalism, ecological transition, and symbiotics, highlighting the interconnectedness of societal, environmental, and economic issues. The COVID-19 pandemic has demonstrated the possibility of transformative change and invites reflection on the post-pandemic world. As Latour suggests regarding “this sudden unexpected pause” (the world’s halt), it

is here that we must act (Latour, 2020). Where do we land after the pandemic? The research emphasizes the importance of seizing this opportunity to enact meaningful and collective action towards a more sustainable future.

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CHAPTER XV

THE CONCEPT OF PLACE-MAKING AND INTERCULTURAL CITIES: CASE STUDY OF TÜRKİYE

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1. Introduction

All the historical cities of the world are imagined in human memories by their historical backgrounds, monumental and historical buildings, and particular street sights as unique places. At the same time, the historical cities have hosted different languages, races, and religious groups throughout their lives. These areas illustrate the traces of the experienced historical diversity with their historical monument. On the other hand, historical monuments nourish and sustain the urban space's identity. Particularly, historical buildings are recognized as spiritual and mental factors in urban public open spaces identification spaces, embodying the urban space, and creating a good sense of place in people.

Public open spaces of cities are known as diverse environments that enable people of different ages, languages, religions, and socio-cultural levels to come together and mingle, communicate, socialize, and interact culturally. In addition, the public open spaces of cities create a sense of dependency, belonging, and urbanization of various people as cultural elements with their physical characteristics, natural features, and environmental functions.

The formation of space or the Place-Making concept in urban public open space requires an interdisciplinary and dynamic social context for the diversity of people living there. The Place-Making meaning includes various domains such

as architecture, landscape architecture, urban studies, sociology, psychology, economics, public policy, and tourism disciplines. The Place-Making concept defines the spirit of a place or an attempt to reveal the sense of place. The meaning of Place-Making includes all of the urban public open spaces' physical properties, function, structure, people's perception, and inhabitants. The Place-Making concept is the first stage definition of urban public open spaces' character, identity, and sense of place.

The Place-Making concept in urban public open spaces planning and designing is a significant factor in shaping better-quality spaces. Public open spaces in urban areas are known as multidimensional spaces by their nature. Urban public open spaces are known as places where different experiences, activities, communication, interaction, common sharing, sense of belonging to a place, and visual enjoyment by people.

Urban public open spaces are the crossroads and cross-sections of local and global problems. The Place-Making concept is a process of creating a "Quality Place" or "Creative City" where various people live, work, spend free time, and have fun with each other. In addition, people accept places with a strong sense of place as quality places. Urban public open spaces are multifunctional places, active, visually appealing, human-friendly, safe, connected, walkable, featuring public art, and suitable for mixed uses.

In today's global village, we live in, increasing industrialization, the development of new technologies, the increase in migration between countries, and the subsequent population density in big cities cause the formation of multicultural cities. More precisely, a homogeneous society can't exist in today's cities. Thus, in solving problems such as the diversity experienced in the urban public open spaces of cities, the Place-Making concept gains even more importance in facilitating people's lives and communication. The issue becomes even more substantial, especially for cities that receive large numbers of immigrants or have ethnic groups within themselves. In recent years, the concept of Place-Making in urban open spaces and the intercultural concept are two concepts in Western society that have emerged in cities with cultural diversity. Two concepts affect the relationships and interactions in urban public open spaces.

Within the scope of this study, in the first stage, by descriptive method, the Place-Making meaning is investigated based on various academic research and studies conducted by world organizations. In the second stage, the Place-Making studies examine the Intercultural Cities Program created by the European

Council. Afterward, is researched the World Intercultural Cities Program and then three participants' cities from the Republic of Türkiye in this Program. The final stage consists of suggestions for participant cities from the Republic of Türkiye to improve the Place-Making concept in urban public open spaces of these cities.

2. The Concept of Place-Making

Public open spaces in cities are particular environments that bring together people of different ages and socio-cultural levels to communicate, socialize, and provide cultural interaction. Urban public open spaces with artificial and natural environments around them increase people's sense of belonging to the place. Urban public open spaces are one of the urbanization elements in the urban fabric and transfer urban culture to individuals.

In the Turkish language, the word place (Tr. Mekân) comes from the Arabic word meaning "place, position, space, space, existence". In addition, according to TDK (2023), public space means "the place where public works are carried out".

Historically, place formation has been the most significant architectural role in human life. The architectural role is identified by well-designed spaces, buildings, the creation of powerful forms, and immortal spaces. Therefore, creating a place has always been an essential concern of architecture, landscape architecture, and urban design. Well-designed places are recognized by three phenomenological aspects; buildings (a place of experiences, actions, and meanings of daily life), buildings as architectural atmospheres, and urban physical and spatial fields (sustainable environment and place wholeness) (Mikaeili, 2018). Consequently, the constant subject in architectural design is designing a place, creating of place, or Place-Making. Furthermore, today's place-making concept is a developed field in academic design research.

The concept of Place-Making is a multidisciplinary and interdisciplinary field with a dynamic social context. Place-Making is influenced by different disciplines such as architecture, urban studies, sociology, psychology, economics, public policy, and tourism (Sofield, et al., 2017).

The origin of the Place-Making concept dates back to the 1960s after World War II in USA urban areas. In these years, writers such as Jane Jacobs and William H. Whyte talked about the problems experienced in the multicultural cities of the USA and the necessity of a more comprehensive renewal of the cities to solve the urban problems. Jane Jacobs (1961) in her book "The Death and

Life of Great American Cities” argued that urban renewal does not respect the needs of cities. He explained in the description of urban problems sociological terms such as “Eyes on the Street” (p.54), “Social Capital” (p.138), “Mixed Primary Uses” and “Un-Slumming” (p.280).

The mentioned terms were later used as versatile approaches by researchers, planners, and designers from different aspects of the planning, design, and management of American urban public open spaces. The purpose of using these subjects is to integrate the development of design methods with management and aesthetics in urban public open spaces and to increase the quality of life and public satisfaction in these areas.

In addition to these terms, Norberg-Schulz (1980) emphasized in his book “Genius Loci” that every place owns a guardian spirit or Genius Loci that determines the characters of a place. According to Norberg-Schulz (1980); “Since ancient times the Genius loci, or “spirit of place” has been recognized as the concrete reality man has to face and come to terms with in his daily life...., and the task of the architect is to create meaningful places, whereby it helps man to dwell”.

The importance of Place-Making has created new views in urban open space design. After the American experience in Place-Making, European Societies occurs some activities on the Place-Making concept. In Europe, Place-Making activities came to the fore through the Bristol Accord (6-7 December 2005). It was an informal meeting in Bristol by the European Community (EC) and emphasized the importance of Place-Making. The substantial topics of the accord are the benefits of creating sustainable communities across Europe under the title “People, Space, and Well-being”. Bristol Accord affirmed the characteristics of creating sustainable communities. This agreement encouraged the formation of comprehensive Place-Making tools and their use in urban open spaces (ODPM, 2005).

According to the Bristol Accord (ODPM, 2005); “Cities play a key role in achieving the goal of sustainable communities. Cities with strong cultural identities offer sustainable communities across regional, national, and even international borders”. In Bristol Accord the Place-Making has been included under the heading “Skills for Sustainable Communities” by emphasizing “well designed, quality built and a natural environment”. This article emphasized that the formation of original public open spaces requires well-designed public open spaces in cities, good and quality design of urban areas, and the creation of a sense of place. Place-Making should be included in the designing of urban public

open spaces to ensure long-life cities, creation of sustainable communities, and solve the livability problems of cities.

Cities' Public open spaces are known as multidimensional spaces by their particular nature. Successful public open spaces are utilized by different groups of people for various purposes. They are intersection points of local and global issues. Urban public open spaces are recognized as places where various activities take place, people communicate, and share common emotions and experiences.

The concept of Place-Making enables the collective reimagining and remaking of public open spaces in cities. The Place-Making concept refers to urban open spaces that strengthen the connection between people in urban areas, maximizing shared values, shaping urban fabric, and formation of creative models of mix used. Place-Making provides cities' physical and socio-cultural identity by defining, developing, and sustaining the life of public open spaces (PPS, 2022). The first meaning of the Place-Making concept is closely related to the sense of place. Sense of place means the impact of cultural values, perceptions, memories, traditions, and their meaning (Lew, 2017).

Numerous studies have tried to explain the meaning of the Place-Making concept. Various explanations put forward for place-making and community livability concepts. In this context, various terms such as space in urban design, space identity, space creation, quality space, and public spaces have been included under the Place-Making concept (Grabow, 2016).

Place-Making is the ability to access and participate in urban public open spaces to create well-being and life opportunities. Place-Making is a growing movement where citizens participate in creating and transforming urban public open spaces. The main goal of Place-Making is to create a strengthened connection between people and urban open areas (Toolis, 2017). Place-Making is a people-centered process that emphasizes collaboration and community engagement to improve the livability of cities (Markusen and Gadwa, 2010). Place-Making is an effort to revitalize urban public open spaces, promoting development, and investment, focusing on the aesthetics, cleanliness, and renewal of public open spaces (Toolis, 2017).

In fact, the meaning of Place-Making is to create the "Creative City" concept. The place interprets more than a location. A place has an identity, a certain atmosphere, or different qualities. Place-Making is a concept that gives identity to the city's public open spaces, providing residents with opportunities to have a good time, a rich experience, and a sense of belonging, meaning,

enjoyment, reflection, and appreciation of cultural and environmental diversity (Shaw and Montana, 2014). The Place-Making concept is an understanding of the art of making places for people and includes the way places work and create safe communities. Place-Making creates connections between people and places, movement and urban form, and natural and built urban fabric (Sepea and Pitt, 2014). Furthermore, according to Wyckoff (2014), Place-Making refers to the process of creating “Quality Places” for people to live, work, leisure, and learn in a space according to their desires.

Generally, people recognize places with a strong sense of place as “Quality Places”. Quality places are known as places that are functionally active, uniquely located, attractive, visually appealing, accommodating for public art and creative activities, people-friendly, safe, connected, walkable, and suitable for mixed uses. Key elements of quality places are mixed land use, quality public spaces, multiple transportation alternatives, and multiple housing options, preservation of historic buildings, historical heritage protection, arts, culture, creativity, and green spaces.

According to Wyckoff (2014), quality spaces have good forms that are the result of quality design and should have the following characteristics;

- The architectural form should be appropriate to the site in terms of architectural scale and density,
- Human scale,
- Walkable and pedestrian-oriented (pedestrian and bicycle use).

Spaces with these characteristics are known as “Quality Spaces”. Quality Spaces facilitate the following facilities in the public open spaces of the city for the people living in the city;

- Safe,
- Connected,
- Pleasing,
- Allowing for real experiences,
- Accessible to the public,
- Comfortable (areas that influence perceptions of cleanliness, and attractiveness),
- Quiet,
- Areas that strengthen people’s social relations,
- They are spaces that encourage and facilitate civic engagement (Wyckoff, 2014).

In addition, in a study conducted by the Land Policy Institute at the University of Michigan School of Planning, Design, and Construction (2014), an introductory classification was created on the concept of Place-Making. In this classification, there are four semantically and functionally different groups.

- 1- Standard Place-Making
- 2- Strategic Place-Making
- 3- Creating Place-Making
- 4- Tactical Place-Making

Figure 1 presents the classification of Place-Making and their interrelationships in society. According to the figure, the common intersection point of the four Place-Making groups determines the area that carries the characteristics of quality space in urban public open spaces. Places create opportunities based on people's desires, business, finances, and mobility. In fact, the Place-Making concept appears to place attractiveness, a host of spatial, organizational, and temporal considerations.



Figure 1. Classification of Place-Making (Wyckoff, 2014)

1. Standard Place-Making: Standard Place-Making or simple Place-Making is a universal term developed by the Public Spaces Project (PPS, 2023). The meaning of Standard Place-Making is the process of creating quality places for people to live, work, and for children to play. In this process, it is necessary to ensure the strong participation of people. Therefore, the activities target a wide range of public, voluntary, and private sector participation. The projects include neighborhood-based projects such as street and building façade improvement

in urban centers, residential area renovation, small-scale and multi-purpose projects, and park improvement. In addition, events are organized on sidewalks, streets, squares, and public spaces.

2. Strategic Place-Making: Strategic Place-Making aims to create Quality Places. In this direction, are planned to be done various activities at particular points such as city centers, nodes, and corridors. The activities aim to provide human-scaled places, quality, sustainable, pedestrian and bicycle-friendly, safe, mixed-use land, arts and culture, various transportation methods, various housing opportunities, historical area protection, public open and green areas, and public participation in urban areas.

3. Creative Place-Making: Creative Place-Making aims to shape the physical and social character of a neighborhood area, town, city, or region through the arts and cultural activities in partnership with public, private, and volunteers. Creative Place-Making revitalizes public and private spaces, buildings, and streets, improving local businesses, and public safety, and bringing people together. These require strengthening open cinemas, street exhibitions, art projects, open-air concerts, and children's ideas through artworks in planning projects, culture, and entertainment activities by creating quality and vibrant spaces.

4. Tactical Place-Making: Tactical Place-Making is generally known as a process of creating quality places through a fast, low-cost, short-term, and phased approach. Tactical Place-Making includes small-scale projects such as creating temporary event spaces, bicycle paths, sidewalk improvements, historic area walks, and outdoor music events.

Furthermore, in his 2016 book "Principles and Practice of Creating Place in the Community" Steven Grabow articulated the principles of Place-Making in the community. He created nineteen design principles in five variety functional areas to reflect a unique, particular, and powerful sense of place. Table 1 presents the proposed design principles for Place-Making in different functional areas. Under each of the proposed functional areas, there are various principles and approaches to creating space in cities that strengthen urban identity.

Table 1. Functional Areas and Principles in Place-Making Concept

| Functional Area | Principal and Approach |
|--|---|
| <p>Functional Area I:</p> <p>Effective and Functional Physical Configuration</p> | <p><i>Principle 1:</i> Compact Communities and Clear Urban/Rural Differentiation: (With approach: Community Edge and Green Belts, Farmland Preservation, Sustainability, Community Preference, Ideal City)</p> <p><i>Principle 2:</i> Strong Urban Centre Community: (With approach: Preference, Identifiable Centre)</p> <p><i>Principle 3:</i> City-cantered Redevelopment and Infill: (With approach: Preference, Reuse)</p> <p><i>Principle 4:</i> Integration of Housing and Employment: (With approach: Preference, Trends)</p> <p><i>Principle 5:</i> Vital, Distinctive and Varied Neighbourhoods: (With approach: Preference)</p> <p><i>Principle 6:</i> Avoidance of Low-density Residential Development on the Urban Fringe: (With approach: More Medium Density, Trends)</p> <p><i>Principle 7:</i> A Mix of Housing Types and Households with Different Income Levels: (With approach: Strengthened Civic Bonds, Ethical Pledge and Fairness, Economic Benefits)</p> |
| <p>Functional Area II:</p> <p>User-Friendly and Efficient Circulation</p> | <p><i>Principle 8:</i> Pedestrian and Bike-Friendly Environments: (With approach: Walkways and Design, Streets and Walkways, Community Liveability)</p> <p><i>Principle 9:</i> High Quality and Convenient Public Transit and Transportation: (With approach: Transit and Density, Community Preference, Roadways, Respect for Different Modes, Transportation Experience, Sound Circulation System Design)</p> |
| <p>Functional Area III:</p> <p>Preserved Natural and Cultural Resources and Environment</p> | <p><i>Principle 10:</i> Environmental Resources and Parks: Preserved and Consciously Integrated into the Fabric of the Community: (With approach: Relationship Between the Community and Natural Resources, Parks and Community Liveability, Community Preference)</p> <p><i>Principle 11:</i> Preserved Farmland and Related Open Space: (With approach: The Land Ethic, The Land Ethic, Framing the Challenge of Farmland Preservation, Environmental Corridors as a Preservation Consideration)</p> <p><i>Principle 12:</i> Historic and Cultural Resources Consciously Preserved and Integrated into Contemporary Settings: (With approach: Preservation Ethic, Quality of Historic Buildings, Contemporary Responses)</p> |

| | |
|---|--|
| <p>Functional Area IV:</p> <p>Enhanced Local Identity and Sense of Place</p> | <p>Principle 13: Strong Local Character, Community Identity, and a Sense of Place: (With approach: Stimulating Places, People Places)</p> <p>Principle 14: Well-designed Public Buildings and Public Spaces Enlivened by Works of Art and Sculpture: (With approach: Distinctive Sites and Buildings, The Centre for Art and Culture, Art and Community Meaning, Art and Community Interaction)</p> |
| <p>Functional Area V:</p> <p>Attributes to Instinctively Draw Us to Places</p> | <p>Principle 15: Connectivity: (With approach: Corridors as Connectors, Street Connections, Transit Connections, Walking Connections,</p> <p>Principle 16: Drama and Dignity: Real Places: (With approach: Structure and Landmarks, Design Vocabulary and Visual Rhythm,</p> <p>Principle 17: Variety and Whimsy: (With approach: Variety and Complexity,</p> <p>Principle 18: Reflection of Local Values: (With approach: Integration with Surroundings)</p> <p>Principle 19: Many Choices and Many Things to Do with Sociable Settings: (With approach: Vibrant Mixed Uses, Multiple Functions, Sociable settings, A Feature in Successful Communities)</p> |

Adapted from Grabow, 2016

On the other hand, the Public Spaces Project (PPS, 2023) explains that the impact of many different factors is significant in embodying Place-Making. Public open spaces in cities cannot be measured only by physical characteristics. The services provided in urban public open spaces, the functions performed, and the shapes and design quality of these areas also constitute a quality of place.

The Public Spaces Project (PPS, 2023) reports recommend the utilization of more effective collaborative approaches to revitalize and recreate the community's public open spaces. Place-making aims to create an integrated vision focused on understanding, observing, listening, and asking the public about their needs and aspirations for public open spaces. Their slogan for implementation strategies of Place-Making in urban public open spaces is "Lighter, Faster, Cheaper".

Based on the concept of Place-Making, the four main factors that make a place successful are sociability, uses and activities, access and linkage, comfort, and image formation. Figure 2 presents the factors of the Place-Making concept in urban public open space.



Figure 2. Factors of Good Place-Making (Downtown Corridors, 2023).

More precisely, within the concept of Place-Making, all age groups with different abilities and various socio-economic levels not only access the place but also play a crucial role in identity formation, vitality, connectivity, security, and survival.

Place-Making consists of a myriad of marks of physical, social, ecological, cultural, and even spiritual qualities of a place intertwined. Table 2 illustrates the Place-Making contents due to the PPS (2023) Place-Making report. This table presents the Place-Making concept involving which factors.

Table 2. What is the concept of Place-Making?

| Concepts within the scope of Place-Making | Concepts not covered by Place-Making |
|---|--|
| <ul style="list-style-type: none"> - Community-driven - Formation of anticipatory functions before form formation - Adaptable - Included - Focused on creating destinations - Context-specific - Dynamic - Interdisciplinary - Transformative - Flexible - Collaborative - Sociable | <ul style="list-style-type: none"> - Top-down - Reactionary - Design-driven - A comprehensive solution or quick fix - Exclusionary - Car-centric - One size fits all - Static - Discipline-driven - One dimensional - Dependent on regulatory controls - Cost/benefit analysis - Project- focused |

Adapted from PPS, 2023

3. Intercultural Cities

Throughout history, encounters and interactions between different cultures have been inevitable for various reasons. In recent years, with globalization, migration, and the increase in population mobility between countries caused by political, cultural, and economic changes inside countries, the intermingling of different ethnicities, languages, religions, and cultures has accelerated, and intercultural interaction has increased.

Today, living in a global village, it is almost impossible to have a homogeneous society. Urban areas own multicultural structures, and some neighborhood areas of cities have seen conversion into multicultural societies (Ulusoy, 2014).

Coming together of people with various cultures in urban public open spaces, the formation of multicultural societies, and the differences in the communication behaviors of these people affect the communication processes in the urban public open space. Due to these differences, the composition of the intercultural concept emerges as a significant topic in the utilization of the Place-Making concept in urban public open spaces. Consequently, the intercultural concept is a concept that has emerged in recent years in the multicultural cities of Western society.

According to UNESCO (2023), the Interculturality concept is explained as “establishing fair relations between people, communities, countries, and cultures”. The Interculturality concept is essentially an approach that envisages the coming together and interaction of different social groups and the impact of this interaction through cities and city administrations. The intercultural concept aims to create common urban open spaces to reduce prejudice between cultures in societies, bring various groups together, and create a basis for interaction (Eminoğlu, 2020).

The Intercultural Cities Program of the Council of Europe aims to ensure that policies are examined through an intercultural lens. The program aims to support the development of intercultural strategies by creating advantageous and inclusive governance in Interculturally diverse societies, taking into account the changing demographics and increasing cultural diversity of cities, especially in the wake of massive migration flows. At the same time, the Intercultural Cities Program is a platform where initiatives and practices in member cities are analyzed and shared as a source of inspiration for other cities, connecting cities and leaders around the world into a community (COE, 2023, Eminoğlu, 2020).

The Intercultural City has a diverse population including people with different nationalities, origins, languages, or religions/beliefs. Due to the Intercultural Cities Program, diversity is a resource, not a problem. All cultures change as they encounter each other in the urban public open spaces. The city officials publicly advocate respect for diversity and a pluralistic city identity.

According to the Council of Europe report (CEO, 2008), the Interculturality concept aims to ensure social cohesion in a society where different cultures “communicate and interact” with each other. The Intercultural Cities Program of the Council of Europe started in 2008 as a joint initiative of the Council of Europe and the EU Commission. The program constituted seven member cities in 2009 and today continues to work with 140 member cities.

Principally, the concept of Interculturality does not recognize the superiority of one culture over another, regardless of majority-minority relations. Interculturality concept refers to the exchange and equal communication relations between cultural groups that differ according to criteria such as ethnicity, religion, language, or nationality and aims to create a more democratic society. In fact, according to Eminoğlu (2020), Interculturalism is a concept for creating to break the negative perception of multiculturalism in societies.

More precisely, the input of the Intercultural Cities Program shapes the concept of migrant and minority integration and diversity management called intercultural integration. The program aims to establish a strong link between safety and care by defining safety solutions in urban public open spaces with public support on intercultural principles.

According to the Council of Europe (COE, 2023); Intercultural Cities are defined as areas that provide the following characteristics in urban public open spaces;

Real Equality: The aim is to prevent discrimination and adapt the city’s governance, institutions, and services of the city to the needs of a diverse population and ensure they are active.

Diversity: Political leaders and most citizens see diversity as a positive resource and understand that all cultures change as they encounter each other in the public sphere. They advocate the formation of a pluralistic urban identity built around shared visions and values.

Interaction: Meaningful interaction between various individuals and groups is designed through public policies that promote trust, build connections, and transform public open space to multiply opportunities for encounters, exchange, and dialogue.

Active Citizenship and Participation: Ensuring that no one is left aside and that even those who do not benefit from formal citizenship have a say in shaping their local communities.

3.1. Intercultural Cities in the Republic of Türkiye

Throughout history, due to Anatolia's particular geographical location, surrounded by seas on three sides that create an easy connection between Europe and Africa by sea and land, fertile soil, favorable climatic conditions, and abundant water resources, various civilizations, races, beliefs, and ethnic groups have been living in the region. The Ottoman Empire spread over three continents and provided good opportunities for rich and diverse ethnic groups to live together. According to Kaya (2013); for some scholars, the diversity experienced in the Ottoman Empire and the living and working relations between Muslims and non-Muslims is an early form of multiculturalism.

The Ottoman Empire provided a society where people of different religions and ethnic origins lived together. Tolerance and multiculturalism were a significant part of the social fabric of the Ottoman Empire. Respect for diverse beliefs enabled religious minorities to live their beliefs freely.

Globalization not only the economic structure but also creates significant changes in the physical structure of cities and culture. Changes in the physical structure of urban areas mean the changes observed in the architectural texture, physical planning of the city, and the entertainment, consumption, and living spaces of different social groups. On the other hand, the major crisis in today's global world is massive cross-border migrations, which stem from violence, internal turmoil, security problems, economic collapse, and disasters. The Republic of Türkiye has no exception to the impact of the forced migration.

The Republic of Türkiye has been one of the "founding members" of the Council of Europe¹ since 1949 and one of the participant members in the Intercultural Cities Program of the Council of Europe with three cities.

These cities, Bursa-Osmangazi, Selçuk-Ephesus, and Çanakkale-Kepez, are included in the list of member cities of the Council of Europe's Intercultural Cities. Bursa-Osmangazi and Selçuk-Ephesus added to the International Intercultural Cities Network list, and Çanakkale-Kepez is only in the Intercultural Cities Index.

¹ The Council of Europe is an international organization established in the wake of World War II to uphold human rights, democracy, and the rule of law in Europe.

Bursa-Osmangazi: Bursa City was the first capital of the Ottoman Empire and has an affluent cultural heritage. The city was one of the trade centers during the Ottoman Period and after it. Besides the historical and architectural richness, various ethnical groups and religions have lived in Bursa during history. Christian and Jewish communities had been living in Bursa since the Byzantine Empire. After Bursa came under the control of the Ottoman Empire, non-Muslim communities continued to live in Bursa. For instance, the Armenian community was brought to Bursa by Orhan Gazi, the second Ottoman Sultan, and it is an indication that the Ottoman Empire did not interfere in the religious affairs of minorities (Bursa Provincial Directorate of Culture and Tourism, 2023).

Since the 1880s and due to the wars in Russia, Bursa had been subjected to an intense influx of immigrants, and then, as of 1923, it became the living space of the Mübadele immigrants.

In recent years and according to TURKSTAT (TÜİK) data; Bursa is one of the provinces receiving migration in the South Marmara Region. Osmangazi is the center and populous district of Bursa. One of the most well-known aspects of Osmangazi, named after Osman Bey, who founded the Ottoman Empire, is Uludağ and its many historical monuments.

On the other hand, in 2016, Bursa was 28th in the “World Liveable Cities” ranking and 1st in Türkiye. Due to the city’s geographical situation, besides possessing its natural and historical assets, it’s one of the most economically developed cities in the country. The historical trade center of the Hanlar District, which is on the UNESCO World Heritage list, is located in the Osmangazi region. Recently, Bursa has transformed into one of the focal points of the movement of migrants from inside and outside the country due to its industrial and business position.

According to the Osmangazi-Bursa Municipality Intercultural Report (2018), “The vast majority of Bursa’s inhabitants were either themselves or their parents were born elsewhere. Bursa should held in high esteem for providing jobs, housing, and education to a large number of people while at the same time giving them an identity and maintaining social order”.

Ephesus-Selçuk: Selçuk is a town in İzmir Province in the Aegean Region of Türkiye. It is located 2 kilometers northeast of the ancient city of Ephesus, which was once home to the Temple of Artemis, one of the Seven Wonders of the Ancient World. On the other hand, Şirince Village, and the House of the Virgin Mary settle in Selçuk.

The first establishment of the ancient city of Ephesus-Selçuk dates back to 6000 BC and is an uninterrupted settlement area in history. It has been the birthplace of many cultures from ancient times until now. It is home to the highest-level architectural examples from the point of urbanization, architecture, and religious history. It has a cultural heritage where pagan cultures, monotheistic religions, and Anatolian cultures are intertwined. In 2015, it was added to the World Cultural Heritage list by meeting UNESCO criteria of outstanding universal value.

During history, Selçuk City was a social settlement for ethnic, religious, cultural, and social groups. Today, based on being a member city in the World Intercultural Program, Selçuk Municipality attempts to utilize socio-cultural activities to ensure visibility and equal representation for various people.

Besides this historical heritage, during history until now, Turkish Yoruks, Balkan immigrants, Lausanne immigrants, Macedonian immigrants, Roma and Bulgarian immigrants, and internal migrants from the Black Sea, Eastern Anatolia, Southeastern Anatolia, and Central Anatolia are also located in the demographic structure of Selçuk. Selçuk Municipality carries out Intercultural city activities to develop a common life based on mutual understanding and respect, free from all kinds of discrimination, and to consciously create solutions to the problems of the Selçuk society with different identities.

The aim and motivations of the Ephesus Selçuk Intercultural Cities Program are to ensure social integration throughout the city, encourage intercultural socio-economic interaction on a neighborhood basis, raise awareness of all residents of the city about the value and importance of the historical geography they live in, planning associate policies regarding the cultural and social life of the city and public spaces.

Kepez-Çanakkale: Çanakkale, known as Hellespontos and Dardanel in ancient times, has been a settlement area since 3000 BC. Çanakkale is one of the two gateways connecting Anatolia and Europe and the Mediterranean and the Black Sea through the Dardanelles. Particular geographical location provided economic and military superiority to the contemporary communities in the region and surpassed in civilization. On the other hand, it made the area the target of various migration and invasion movements. On different dates, the part was the scene of people who came for settling or plundering, and both of them intensified the cultural exchange. This cultural interaction continued for centuries and created a very colorful cultural mosaic (Çanakkale İl Kültür ve Turizm Müdürlüğü, 2023).

Kepez is located 4 km from Çanakkale and 25 km from the ancient city of Troy ancient city on the northern coast of the Aegean Sea. Kepez was the only land belonging to the Ayşe Sultan Foundation in 1810. In the early 18th century, it is rumored that Kalabaklı Village had a location called “Kepez Altı”. After the 1877-1878 Ottoman-Russian War which was called the 93 War, a group of 28 families migrating from Bulgaria to Türkiye settled in Kepez, and Kepez Village was established. Kepez was known as Hamidiye for many years. With the signature of Hamidi Alaca Mustafa Efendi, the owner of the Mahmut Pasha neighborhood in Istanbul, the property and rights of Kepez were distributed to the immigrants here. The village was named Hamidiye after this person. In official records, this work was used as a subordinate of Kalabaklı Village. After the proclamation of the Republic, it was named Kepez, which means the big rock reaching to the sea and traveling. Kepez also means “bridal veil”. Kepez became a municipality in 1991 and turned into a town (Kepez Municipality, 2023).

Kepez is inhabited by Muhajir (Muslim immigrants from Balkan countries who migrated in the late 19th and early 20th centuries), Turkmen, Kurdish, Gypsy, Meskhetian, and Pomak ethnic groups. However, the population size is unknown. According to the data provided by the Çanakkale Provincial Migration Administration, 37 various nationalities live in Kepez.

4. Conclusion

Urban public open spaces in cities are common living spaces for various groups of people regardless of their age, language, religion, race, and socio-cultural levels. Urban public open spaces allow the community to meet, play, chat, connect, and social needs. The mix of public open spaces can be formal or informal, natural or man-made, active or passive. One of the substantial roles of urban open spaces is to create a sense of place or belonging to a place as one of the people’s social requirements.

Renovation and quality improvement of public open spaces in cities is one of the significant factors in the creation of the city’s image and city’s identity. The urban public open spaces with a rich historical past are the foundation elements of giving identity to urban areas.

The foundation of the place-making concept is the formation of quality spaces that are suitable for the use of all people living in cities, regardless of their culture, language, religion, race, and other characteristics. However, the formation of quality and identity spaces is only possible with the participation of all people and all cultures.

Urban Public open spaces as multidimensional places are used for different purposes. Urban Public open spaces are shaped based on the concept of People-Place-Connection. They are places of communication and interaction between various groups of people. Within the scope of People-Place-Connection, two subjects emerge in solving the problems of urban public open spaces in order to ensure communication between people: Place-Making and Interculturalism concepts.

Throughout history, due to Anatolia's particular geographical location, and easy connection between Europe and Africa by sea and land, fertile soil, favorable climatic conditions, and abundant water resources, various civilizations, races, beliefs, and ethnic groups have been living in the region. On the other hand, the Ottoman Empire's vast realm and its political approaches created a multiculturalism context for living, working, and trading with various people Muslims and non-Muslims.

In a global world with multicultural and intercultural societies, the essential requirement in urban public open space designing is to create places that respond to the various cultural requirements of people. In recent years and due to the increasing migration Council of Europe has provided the Intercultural Cities Program. The program foundation is based on the Place-Making concept to create an action plan for designing qualified places for all people in urban public open spaces.

Three cities from the Republic of Türkiye are included in the members list of the Intercultural Cities Program of the Council of Europe. The historical background of these cities carries out a historical and cultural richness and values. Throughout history, these areas owing to their location in cultural crossing points have been the living space of various people from different cultures, religions, and races. The participant cities are Bursa-Osmangazi, Selçuk-Ephesus, and Çanakkale-Kepez.

In the analyzed cities with valuable historical heritage the use of four factors is significant in the design of urban open space to create qualified and identified places:

- Formation of social common areas based on various cultural values in urban public open spaces,
- Mix use and activities in urban public open spaces,
- Ensuring access and connectivity of all people to urban public open spaces,

- Creation of a comfortable place, quality images in the people's memory, and a sense of place.

In addition, the first step in creating intercultural urban public open spaces is to determine the functional areas and then to design based on principles. In this context;

- In Functional Area I, principles 1 and 2 are based on activating the functionality of spaces and the creation of intercultural city centers or the regeneration of old city centers. Accordingly, quality and well-designed spaces can ensure inclusiveness, equality, and interaction for the population.

- In Functional Area II, based on Design Principles 8 and 9, the main aim is to create a safe pedestrian area, cycle routes, and strong connectivity between public spaces, based on the creation of user-friendliness.

- In Functional Area III, the restoration, protection, and quality improvement of historical monuments, parks, and green areas on the basis of principles 10, 11, and 12, protecting natural and cultural assets will increase the interaction of the urban public open spaces.

- In Functional Area IV, strengthening human-space relations based on principle 13 in urban public open space is essential to create a sense of place, and improve the city identity. Within the scope of Principle 14, the foundation is good design of the urban public open spaces and revitalization of these spaces with sculpture and artistic works and functions. In this way, interaction will increase with an inclusive design for the whole community.

- Within the scope of Functional Area V, applying all the principles (15-19) in the urban public open spaces design, street, and road insurance connectivity creates more lively and effective areas.

In line with the proposed design principles, it is aimed to provide diversity, mixed-use, equality, and effective interaction for all people in the public open space design of intercultural cities.

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