# Architectural Sciences and Studies on
# Historical Stratifications
# and
# Multi-layered Cities

Edited by
**Şirin Gülcen Eren**
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## Architectural Sciences and Studies on Historical Stratifications and Multi-layered Cities
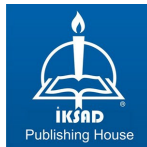
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## PREFACE

The editors of this book believe that a more livable world can be created by conducting interdisciplinary studies of spatial planning and design disciplines together under the umbrella of "Architectural Sciences." In this context, the "Journal of Architectural Sciences and Applications (JASA)," which is a pioneer in the collective studies of related disciplines, was published for the first time in 2016. JASA Editors make significant contributions to the creation of various books containing original works and to bring the latest developments in the field to the reader. This book, "ARCHITECTURAL SCIENCES AND STUDIES ON HISTORICAL STRATIFICATIONS AND MULTI-LAYERED CITIES," consists of eight chapters. The first chapter, **'Multi-layered Historical Cities'** by Şirin Gülcen Eren, analyses the concept of a multi-layered city in all its dimensions to contribute to the concept. This is believed to fill an essential gap in the urban planning literature. The conceptual framework and several case studies from the city and regional planning perspective were discussed here in detail.

The second chapter, **'Cultural Mapping as a Tool for Spatial Planning'** by Ayşenur Özdemir Minareci, is a valuable study in the context of cultural mapping. This chapter explains the conceptual chaos of cultural mapping and evaluates the issue from the city planning point of view. This study's most important component is connecting Turkish law and cultural mapping/urban planning.

The third chapter **is 'Recommendations for the Post-earthquake Multi-layered Antakya (Antioch) Conservation and Planning'** by Mehmet Tuncer and İrem Yurday. This study aims to provide recommendations for the post-earthquake conservation and planning of Antakya affected by the February 2023 Earthquakes. Additionally, it focuses on the efforts made to preserve Antakya's ancient civilization and culture, exploring possibilities to draw inspiration from similar experiences and help the city recapture its historical spirit.

The fourth chapter; **'Interpreting Historical Stratification through the Context of Collective Memory; Kayseri Talas American School for Boys'** by Bahar Elagöz Timur and Özlem Kevseroğlu is on a multi-layered historical city with rich archaeological and historical urban values. Talas City and the American School are traced in the students' collective memories, revealing the collective layers of Talas in the past and giving us clues about past lifestyles.

**'The Planning Process and Spatial Development of the Historic City Center of Izmir: Kemeraltı'** is our fifth chapter by İlayda Anaç Türker, which is a case study research on a multi-layered historical city center. The study aims to explore the planning history and spatial development process of İzmir Kemeraltı by implementing a multi-layered methodological framework based on the detailed analysis of written sources and visual materials.

**'Suggestions for the Facade Typology and Preservation of the Antalya Kaleiçi Architecture'** by Özlem Özkan Önür is the sixth chapter, which discusses the significance of historical structures as

reflections of cultures and civilizations, emphasizing their role in conserving and developing nations cultural heritage. The research focused on Antalya Kaleici historic buildings, particularly from the 18<sup>th</sup> and 19<sup>th</sup> centuries.

'**A Research on Traditional Housing Culture: Student Fieldwork in Gesi, Kayseri**' by Vacide Betül Kurtuluş is the seventh chapter of this book. The research assessed the physical characteristics and daily life uses of traditional buildings in Southern Gesi through a student field survey.

'**Social Houses as the Socio-Spatial Layer of Urban Housing Formation: Türk-İş Blokları Aydınlıkevler (Ankara) Case**' is the final Chapter by Kübra Cihangir Çamur, Nilgün Görer Tamer, and Fatma Erdoganaras. The research principally assesses the housing inventory constructed between 1960 and 1970 within the framework of the contemporary housing policies. Its objective is to communicate crucial historical details pertaining to the planning and execution phases, utilizing archival research. The study seeks to enrich existing literature by capturing the physical and social attributes of the neighborhood through firsthand observations and surveys, with the overarching goal of bridging the past to the future.

This book, is published in English in 2023 with 279 pages covering valuable and high quality academic studies. The prepared book will be delivered to you in e-book format.

We would like to thank the Architectural Sciences and Applications Academic Platform and all those who contributed to the completion of the book; the authors, the referees of the chapters,

IKSAD Publishing House, and Professor Atila GÜL, who is the General Coordinator of the Architectural Sciences book series.

We hope that our book "ARCHITECTURAL SCIENCES AND STUDIES ON HISTORICAL STRATIFICATIONS AND MULTI-LAYERED CITIES" will be useful to readers.

December 14, 2023

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Assoc. Prof. Dr. Şirin Gülcen Eren
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### MULTI-LAYERED CITIES IN THE MODERN ERA

Cities are the accumulation of historical layers formed through a complex, chaotic, and divergent process as a phenomenon. These layers carry to the present day the traces of past civilizations' spatial layouts and ways of life. A multi-layered historical city has continuous or successive layers of development, occupation, and cultural influence throughout history. These layers might appear in various forms, such as urban physical patterns, architectural designs, building types, cultural customs, and historical events.

The idea of a multi-layered city acknowledges that cities are dynamic areas that evolve over time. Each layer, which reflects the interactions and contributions of various civilizations, cultures, and periods, represents a particular stage in the city's history. These layers might be apparent, like the traces of cultural practices and historical narratives that continue to influence the city's identity, or they can be intangible, like the coexistence of ancient and more modern structures in the urban fabric.

Numerous subjects and academic fields, such as urban planning, archaeology, architecture, history, anthropology, and geography, have been studied in relation to historical multi-layered cities. These studies seek to comprehend and analyze the intricacies of cities with lengthy periods of continuous occupation and growth, leading to layers of history and many cultural influences. Studies on historical multi-layered cities aim to understand the intricacies

and relevance of these urban environments and their cultural heritage. These studies are generally multidisciplinary and involve a wide range of research methodologies.

This book aims to contribute to current discussions on historical stratifications and multi-layered urban areas. And it remains focused on the methods, tools, and policies valid for historic environments of multi-layered cities. The importance of multi-layered historical cities is discussed in the book, along with innovative approaches and methodologies. Current issues related to various forms of cultural heritage, including urban cultural heritage, rural heritage and landscape, multilayered cities, and modern heritage, were discussed throughout this book. The studies provided here are thought to help move away from conventional and pre-packaged solutions, aiming for a meaningful and creative urbanism that is sensitive to diverse values of historic settlements and city planning.

We are sincerely grateful to our colleagues in architecture, city planning, and landscape architecture who have contributed to this book and who, in various ways, identify as urban researchers of urban and planning history. We dedicate this book to respected beloved professors Gönül Tankut, Sevgi Aktüre, and Emre Madran, who have consistently invested time and energy in academic research, writing, and production on the city and its history.

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# Multi-layered Historical Cities

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## 1. Introduction

Cities have always been complex and dynamic phenomena (Gargiulo & Papa, 2021), constantly evolving and adapting to changing social, economic, and environmental conditions. As a form of human settlement, cities are regarded as symbols of progress and modernization (Nas, 2011). These changes and advancements make them multi-layered in character. However, this is invalid for cities or city parts that are created through urban plans, urban design, or architectural projects within a short time.

Multi-layered cities differ from multi-layered historical cities. To be classified as a multi-layered historical city, the dimension of time must exert an impact on the city itself. Multi-layered historical cities have borne witness to the passage of time and have undergone continuous habitation, change, and development over extended periods. Furthermore, these cities are a synthesis of history and both tangible and intangible cultural heritage (UCLG, 2018; Nilson & Thorell, 2018), embodying the imprints of patterns, forms, textures, and designs from past civilizations (Yüksel, 2021; Belge, 2023). In simpler terms, historical cities bear the vestiges of diverse civilizations (LHC-S, 2023; Wolf, 1967) shaped by various cultural influences. Because of the development of human settlements throughout different historical epochs, traces of the past remain noticeable in the contemporary era (Doxiadis, 1970).

It is important to acknowledge that the transformations occurring in different cities manifest in varied forms, often leading to the erasure of prior traces and the dismantling of the layers they once encapsulated

(Massey, 2001; Aydeniz, 2009; Cihangir Çamur, Erdoğanaras, & Demirbilek Çardak, 2022).

Over the past two decades, the concepts of multi-layered cities and multi-layered historical cities have emerged and garnered attention within the field of urban planning. It is worth noting that the examination of multi-layered cities represents an exploration into urban complexity (Rapaport & Hawkes, 1970; Boeing, 2018). In the same vein, studies on multi-layered historical cities aim to understand and interpret the complexities of cities in historical terms (Aydeniz, 2009). Both areas of study provide a framework for comprehending the intricate and interwoven layers that constitute contemporary urban environments, architectural structures, and urban morphology.

Belge (2023) highlights the socio-spatial continuity within multi-layered historical cities and identifies two distinct strands of thought in the urban history literature. One of these approaches centers on a particular period within multi-layered cities. The second approach involves studies carried out within well-defined geographical boundaries. In these studies, specialized research is conducted within specific geographic or political contexts, rather than primarily emphasizing the overarching continuity of cities.

Despite the growing body of knowledge about multi-layered cities and the increasing number of studies aimed at harmonizing cultural heritage with development initiatives in urban areas, research concerning this concept and its interconnectedness with other concepts remains limited. Existing studies often lack a concentrated exploration of what constitutes a multi-

layered city, as well as other research conducted in this field. These studies frequently lack a comprehensive and shared perspective, frequently relying on case studies. Furthermore, there is a lack of consensus and a universally accepted definition for this concept. In light of these factors, there exists a necessity to thoroughly examine the notion of multi-layered cities within the framework of the pertinent literature in urban planning. The research questions encompass several key aspects:

1.    **Definition and Significance**: What defines a multi-layered city?

2.    **Characteristics and Attributes**: What are the distinctive features and attributes of multi-layered cities? How do these cities differ from other urban forms?

3.    **Academic Exploration**: Why should these cities be academically studied? What insights can such studies provide about urban development, history, and cultural heritage?

4.    **Challenges and Limitations**: What challenges and limitations are inherent in the study and management of multi-layered cities? How do these challenges affect their preservation and sustainable development?

5.    **Potentials and Opportunities**: What potentials and opportunities do multi-layered cities offer? How can their historical and cultural layers be leveraged for sustainable urban planning?

6.    **Related Concepts and Literature**: What other concepts are intertwined with the notion of multi-layered cities? What existing literature sheds light on their complexities and practical considerations?

By addressing these research questions, scholars can deepen their understanding of multi-layered cities, explore their nuances, and develop strategies to balance historical preservation with modern urban needs.

In regard of these questions, the major aim of this analysis is to explain the concept in order to establish a consensus on its definition and content. Understanding this concept is necessary to express its role in comprehending the evolution of cities and preserving their historical values. Other aims include clarifying the relevant concepts, identifying the characteristics, potentials, and challenges of multi-layered historical cities, as well as exploring their complexity and significance, with a focus on the urban heritage they represent.

The fundamental objective is to contribute to the appropriateness and applicability of using the relevant concepts and literature. Additionally, creating awareness and consciousness about the concept and the studies conducted within or related to it, as well as defining the role and responsibilities of urban planners, are other key objectives of this research. In this chapter, following the problem statement and the aims and objectives of the study, the materials and methods used in the study will be detailed. Subsequently, the conceptual meaning, characteristics and factors contributing to their evolution, key aspects, related concepts, challenges, opportunities, and strategies, along with examples of multi-layered cities, will be explored.

The rationale for studying multi-layered historical cities, its significance for researchers and urban planners, and related academic considerations will also be addressed. The chapter will then delve into collaborative

approaches involving urban planners, policymakers, and citizens to foster resilient, sustainable, and inclusive historical cities. The concluding section provides a critical discussion.

## 2. Material and Method

The subject of this chapter is multi-layered historical cities. The required data for this study has been extensively researched from relevant sources, meticulously evaluated, and thoughtfully interpreted. The research follows a qualitative approach, utilizing pertinent literature and online sources. Additionally, a literature review conducted using artificial intelligence has been further refined and included as an appendix (Appendix A).

The conceptual analysis study comprises three stages:

During the first stage, multi-layered cities and related concepts commonly employed in the literature were identified. This search was conducted in the SCOPUS Database, focusing on four distinct time periods (Table 1).

And, a new era began in the preservation of historic cities and cultural and natural assets with the signing of multilateral agreements (Venice Charter (1964), the Ramsar Convention on Wetlands (1971), the World Heritage Convention (1972), the Convention on International Trade in Endangered Species (1974), the Framework Convention on the Value of Cultural Heritage for Society (Faro Convention, 2005)) starting from the mid-1960s. As academic studies on the outcomes of implementations and organizational efforts have increased since the 1970s, the period from that time to the present has been examined.

As of August 11, 2023, there have been no publications found in Scopus containing the keyword 'multi-layered city' for the year 2023. However,

using the search criteria 'multilayered' AND 'City,' there are 21 documents available for the same time period. Expanding the search to 'multi-layered' AND 'city' yields a total of 43 documents.

**Table 1.** SCOPUS Database Conceptual Search Results, 1970-2022

| Concept-Number of Publication /Year | Total Number of Publications (1970-2022) | 1970-1992 | 1993-2002 | 2003-2012 | 2013-2022 |
|---|---|---|---|---|---|
| Multilayered ('Multi-layered cities') | 17 | 0 | 0 | 3 | 14 |
| Multi-layered City (Multi-layered AND city) Studies start by 1987 | 522 | 5 | 17 | 83 | 417 |
| Multi-layered cities | 5 | 1 | 0 | 0 | 4 |
| Multi-layered Historical Cities (1Multi-layered' AND 'Historical Cities') | 4 | 0 | 0 | 0 | 4 |
| Multi-layered Historical Towns | 0 | 0 | 0 | 0 | 0 |
| Multiplicity (Multiplicity AND city planning) | 4 | 1 | 0 | 0 | 3 |
| Historical Cities | 1,622 | 91 | 133 | 354 | 1,044 |
| Historic Cities | 10,506 | 386 | 594 | 2,413 | 7,113 |
| Historical Stratification | 1,651 | 5 | 9 | 482 | 1,155 |
| Historical stratification (Historical stratification AND urban planning) | 22 | 0 | 1 | 6 | 15 |

Based on the search values provided in Table 1, it has been determined that the concept of multi-layered cities is indeed present within the literature of urban planning. However, it is worth noting that the terms 'Multi-layered' and 'Historical stratification' are not as frequently employed as 'Historic cities' and 'Historical cities'. This discrepancy could potentially be attributed to the prevalence of case-study based research. Furthermore, the analysis revealed an increase in the number of studies focused on the concepts of 'Multi-layered Cities' and 'Historical stratification' during the 2013-2022 period, in contrast to previous time periods.

During the second stage, in addition to the SCOPUS search, a literature search assisted by artificial intelligence was performed. The details of this search are provided in Appendix A, encompassing pertinent literature concerning multi-layered cities. This provides articles pertaining to multi-layered historical cities, as well as those addressing theories on the subject, along with various studies centered around multi-layered historical cities. Notably, a trend emerged in this literature wherein theoretical studies experienced a decline after a certain date, while case-study based research gained momentum.

In the third stage; an examination of multi-layered cities and related concepts within the field of urban planning was conducted to establish the contextual framework. The concept of "multi-layered city" and academic studies, the importance of the concept, their potentials, challenges, and limitations of study, and related problems and considerations of study are analysed.

The concept of multi-layered cities, the scope of related literature studies, and its relationship with sustainable urban planning have been evaluated from a critical perspective.

## 3. Multi-layered Cities

In this section, the conceptual meaning, characteristics, and factors contributing to their evolution are discussed. Key aspects, related concepts, challenges, opportunities, and strategies are given in this seciton. Examples of multi-layered cities are provided. This section also covers the reasons for studying these historical cities and their multiplicity.

### 3.1. The Multi-layered Historical City

Every city, unless newly built from scratch in recent times, holds a multi-layered nature. Within multi-layered cities, history and archaeology represent just one layer among many. The layers that accumulate gradually over time define these cities as multi-layered historical cities. While the term 'historical' might not always accompany the concept of multi-layered cities in the literature, it generally pertains to such multi-layered historical cities. Multi-layered historical towns" is another term used in place of "multi-layered cities.

In the perspective of Belge (2023), the notions of multi-layered cities and multi-layered historical cities stand as prominent and contemporary topics in the discourse of urban history and conservation planning. In the domain of urban planning for multi-layered historical urban areas, a variety of disciplines, encompassing architecture, history, and archaeology, assume crucial roles. As a result, diverse definitions arise from the vantage points of these individual disciplines.

A multi-layered historical city represents an urban settlement shaped by multiple historical strata, as highlighted by Aydeniz (2009). Meanwhile, multi-layered cities are those that have sustained continuous habitation from their inception to the present day, as noted by Bilgin Altnöz (2002). Aydeniz (2009) further characterizes 'multi-layered cities' as settlements where physical remnants and evidence from various epochs are interwoven horizontally, vertically, or obliquely.

The juxtaposition of cultural strata in these urban centers enables the discernment of different phases and facilitates the study of modern transformations. This illumination contributes to an understanding of societies and ways of life that may no longer exist, as underscored by UNDESA (2020).

Similarly, as noted by Belge (2023), historical cities embody a wealth of cultures, memories, traditions, and functionalities. The complex strata of these cities are a direct outcome of the interactions between these diverse cultures, traditions, and social dynamics, as emphasized by Yüksel (2021). However, within the concept of multi-layered historical cities, subsurface archaeological and above-ground cultural layers are intertwined both horizontally and vertically.

Every city and town undergoes a continuous evolution, each layer reflecting its unique history from its inception, as described by Belge (2023). Multi-layered cities encompass not only architectural artifacts or discoveries, but also incorporate elements such as land organization, urban layouts, textures, architectural configurations, streetscapes, and landscapes.

Layering emerges through the construction of distinct structures and settlements across various time periods, either built atop one another or through the repurposing of existing edifices (EPSON, 2020). With its buildings, roads, and inhabitants interwoven to create a vibrant tableau of life, the city has evolved into a multifaceted, intricate organism (Musso & Marco, 2008; D'Acci, 2021). This dynamic leads to cities possessing a diverse array of architectural styles, structural elements, and textures. For example, remnants from the Medieval era, Industrial era buildings, and modern-era structures can harmoniously coexist within a single city. These layers might encompass ancient ruins, medieval walls, renaissance palaces, and contemporary skyscrapers, all intermingling within the urban fabric.

Cities have historical layers that reveal information about the city culture and identity (Yüksel, 2021). The concept of layering allows cities to carry the influences and spatial and social characteristics of those civilizations, contributing to the formation of their identities and characters. The coexistence of the old and the new shapes the character of the city.

The preservation and interpretation of the historical traces are significant for understanding and safeguarding the city history and transmitting historical values and possessions to future generations (Nilson & Thorell, 2018; Kartopu, 2016). Furthermore, conserving cultural heritage ensures the preservation of a society's identity and collective memory (Assman & Czaplicka, 1995; Nilson & Thorell, 2018).

Historical traces eloquently mirror the lifestyles, social structures, artistic endeavors, and architectural accomplishments of past civilizations and

communities within the city. As highlighted by Etyemez Cıplak (2018) and Yüksel (2021), the conservation of a city's multi-layered character necessitates the preservation of historical continuity by seamlessly integrating remnants from previous eras into the present context. Through interpretation and assessment of these layers, the city's continuity can be effectively maintained (Yüksel, 2021).

What sets these cities apart is their ability to provide both a tangible and intangible bridge between the past and present, showcasing the multifaceted histories and cultures that have played a role in their evolution. Yet, these very cities also stand vulnerable to the pressures brought about by modernization and development, posing a threat to their invaluable heritage and distinctive identity (Taşçı & Akyüz Levi, 2018).

### 3.1.1. Characteristics and factors contributing the evolution of multi-layered historical cities

Multi-layered historical cities do not neatly fit into a single standardized category; instead, they encompass a varied range of urban environments that share specific similarities. A multi-layered historical city cannot be intentionally constructed; it emerges naturally and gradually over time through various interventions and influences.

A fundamental characteristic of these cities is their extensive and uninterrupted history, which has indelibly shaped their urban fabric. The strata of history within a multi-layered historical city manifest in various forms, including archaeological remnants, historical edifices, monuments, thoroughfares, and neighborhoods.

Another defining trait of multi-layered historical cities is their inherent complexity and diversity. These cities often exhibit a marked urban density, a blend of land uses, and intricate urban layouts. Such intricacy emerges from the gradual accumulation of diverse urban strata throughout history, compounded by the influence of various cultures and traditions, as elucidated by Belge (2023). These cities also embrace diversity across their social, economic, and cultural aspects, mirroring the multifarious identities of the inhabitants who have dwelled within them across time (UNESCO, 2011).

Among the most captivating attributes of a multi-layered city is its remarkable capacity to adapt and embrace change. Much like a living organism, the city dynamically responds to the aspirations and necessities of its residents (D'Acci, 2021), perpetually transforming itself to confront novel challenges and seize fresh opportunities (Yawer et al., 2023). The city stands as a testament to human resilience, having withstood the trials of time, weathered numerous crises, and emerged even more robust (Miroudot, 2020).

Furthermore, the multi-layered city serves as a living embodiment of the diverse spectrum of human experiences (Brzoska et al., 2021). It amalgamates cultures, traditions, and ways of life, acting as a magnet for individuals from various backgrounds. This diversity weaves a vibrant mosaic of ideas and creativity, positioning the city as a hub for innovation and advancement (UNESCO, 2020).

Numerous settlements have endured continuous habitation since their inception, evolving through layers of time. Various factors have played

pivotal roles in shaping historical cities with multi-layered narratives. These factors have contributed to the development of the cities. Firstly, these cities occupied strategic positions along trade routes, becoming vital crossroads of trade and culture throughout history (Khan Academy, 2023). Secondly, the amalgamation of diverse cultural and social dynamics within these urban spaces contributed to the emergence of distinctive urban forms and architectural styles (Jabareen, 2006). Thirdly, the course of history, marked by events such as wars, revolutions, and migrations, imprinted their indelible influence on the built environment of these cities (UNESCO, 2016).

## 3.2. The Key Aspects of a Conceptual Framework

The conceptual framework for multi-layered cities entails a theoretical model elucidating the intricate evolution of urban areas molded by multiple historical strata. This framework offers a perspective for scrutinizing and comprehending the diverse historical, social, cultural, and economic influences that have intricately woven together in the development of these cities.

Some of the primary aspects typically addressed in related studies on multi-layered historical cities encompass:

Historical Layers: Multi-layered cities are marked by the accumulation of diverse historical strata over time. These layers frequently mirror the various cultures, traditions, and social dynamics that have contributed to shaping the city's distinct identity (Taşçı & Akyüz Levi, 2018; Yüksel, 2021).

Social Dynamics: The social fabric of multi-layered cities is molded by the interplay among various communities, cultures, and traditions. These interactions give rise to conflicts, collaborations, and integrations, all of which find tangible expression in the city's built environment (Lawrence & Low, 1990).

Socio-economic Dynamics: Research delves into the socio-economic dimensions of multi-layered cities, encompassing diverse communities that have resided within them, their social structures, economic pursuits, and cultural interactions (Bontje & Musterd, 2008).

Urban Morphology: The urban morphology of multi-layered cities is a product of the interplay between historical layers and social dynamics, culminating in a multifaceted and varied built environment. This urban morphology encompasses various building typologies, spatial arrangements, street configurations, public areas, and architectural genres, all serving as reflections of the diverse historical strata and cultural influences (Lehner & Blaschke, 2019). Researchers meticulously dissect the physical layout, composition, and evolution of multi-layered cities, tracking the changes that have unfolded over time.

Historical Context: Studies delve into the historical context of multi-layered cities, meticulously exploring their origins, expansion, periods of decline, and epochs of importance. This endeavor encompasses in-depth research and interpretation of historical manuscripts, maps, and archaeological findings (Orser, 2017).

Archaeological Excavations: A pivotal role is played by archaeological investigations in comprehending the intricate layers of habitation within a

city. These excavations yield insights into the material culture, lifestyles, and endeavors of past residents, shedding light on the urban evolution and metamorphosis.

Identity and Cultural Heritage: An important resource for improving the livability of urban environments is urban heritage (UNESCO, 2013). In a changing global environment, it promotes economic growth and social solidarity. Urban heritage, both tangible and intangible, is an inherited source of social cohesiveness, a contributor to variety, and a catalyst for innovation, creativity, and urban renewal (UNESCO, 2013).

The identity and heritage of multi-layered cities are inextricably intertwined with the historical strata and social dynamics that have molded them (Yüksel, 2021). This identity finds manifestation in the city's architecture, traditions, and cultural rituals, while its heritage is tangibly embodied through the preservation of historical sites, remnants, and structures. Furthermore, the heritage encompasses intangible facets like cultural practices, beliefs, and traditions (Belge, 2023).

The heritage of multi-layered historical cities is a valuable resource for understanding the past and present of urban societies. Researchers focus on safeguarding and managing multi-layered cities as cultural heritage sites. This entails identifying pivotal features, formulating conservation strategies, and contemplating sustainable urban development within the backdrop of the city's historical fabric (Tweed & Sutherland, 2007). It contributes to and shapes the identity and quality of life of urban communities and image of a city.

The heritage of multi-layered historical cities is also a source of pride and inspiration for urban communities (Bontje & Musterd, 2008), as it represents their shared history and cultural identity. Urban heritage also has economic and touristic value, as it attracts visitors and investment to the city.

Challenges and Strategies: Multi-layered cities encounter an array of challenges (Refer to: Section 3.4.1.). Approaches to address these challenges encompass urban regeneration, safeguarding historical sites and structures, fostering community involvement, and promoting sustainable development (Tweed & Sutherland, 2007).

Urban Revitalization: Scholars and urban planners delve into strategies for rejuvenating multi-layered cities, seeking to harmonize preservation with contemporary necessities. This endeavor involves repurposing historic buildings, spearheading urban renewal initiatives, and seamlessly integrating cultural heritage into urban planning and tourism (Chen et al., 2018; Wong, 2017; Erdoğanaras, Cihangir Çamur & Terzi, 2023; Cihangir Çamur & Bozkaya Yetkin, 2019).

Comparative Studies: Researchers frequently compare diverse multi-layered cities across various regions and time periods to discern shared patterns, influences, and urban planning strategies. Comparative studies facilitate an enhanced comprehension of the expansive context surrounding multi-layered cities and their profound significance within the urban physical and social structure.

A conceptual framework detailing multi-layered historical cities offers a theoretical model for scrutinizing and comprehending the intricate

complexity and evolutionary trajectory of cities molded by multiple historical strata. Through the examination of the aforementioned key factors, a more profound insight into the distinctive and diverse nature of these cities can be attained.

## 3.3. Related Concepts

Literature on multi-layered cities covers the concepts of multiplicity and historical stratigraphy.

### 3.3.1. Multiplicity in cities

According to the Merriam-Webster on-line dictionary (2023), the term 'Multiplicity,' as a concept, pertains to the quality or condition of being manifold or diverse, or the count of elements within a system (such as a multiplet or a set of energy levels). Multiplicity signifies a significant quantity or extensive scope of something (Latham & Layton, 2023). This notion diverges from the multi-layered concept and pertains to the entirety. Despite discussions about the multiplicity of the city, the term 'multi-layered city' is intended.

The idea of multiplicity (or layering) pertains to the concept that cities bear the remnants of the civilizations that have inhabited them, undergoing a constant and evolutionary transformation (UNESCO, 2016). Multiplicity arises from the construction of different layers of structures and settlements on top of one another or the reuse of existing buildings (Wong, 2017). This condition allows cities to possess diverse architectural styles, structural characteristics, and textures. As stated before, multiplicity shapes the identity and character of cities (Nilson & Thorell, 2018;).

### 3.3.2. Historical stratigraphy

For Feilden and Jokilehto (1998), historical stratigraphy represents a restoration approach directed towards reestablishing or reconstructing an object in a manner (style) that once existed but has since disappeared, assuming that time is reversible. They assert that a significant portion of historical posessions have been altered by human actions and natural forces; these alterations stem from the layers within their history (Feilden & Jokilehto, 1998).

Accordingly, Etyemez Çıplak (2018) notes that this stratification is fundamental for sustainability of the historical continuity and the identity. Etyemez Çıplak (2018) cites Biddle's (1980) statement expressing that the stratified urban structure and the many historical artifacts should be systematically understood, respected, and methodically included into conservation and design plans.

The challenges the multi-layered historical cities face, and the strategies that can be employed to protect and preserve the unique heritage of cities are explained in the following section.

### 3.4. Challenges, Opportunities, and Strategies of Multi-layered Cities

Multi-layered historical cities face various challenges and opportunities in the contemporary context.

### 3.4.1. Challenges

Multi-layered cities also present significant challenges for urban planners, policymakers, and citizens (Bibri et al., 2020). Some of the key challenges include:

- Complexity: The sheer number and diversity of layers in a multi-layered city can make understanding and management challenging. Balancing the needs and interests of various stakeholders, while ensuring that policies and decisions align with the city's broader goals, can be a complex task (Bibri et al., 2020).

- Inequality: Multi-layered cities can intensify pre-existing social and economic inequalities (Brown, 2011; Smets & Salman, 2016), especially when certain layers remain inaccessible or excluded from decision-making processes. For instance, marginalized communities might experience disproportionate effects from shifts in transportation infrastructure or environmental deterioration.

- Sustainability: Multi-layered cities can demand substantial resources and exert a notable environmental footprint. Striking a balance between urban development requirements and the imperative to safeguard natural resources and counteract climate change impacts can pose difficulties. Multi-layered historical cities frequently encounter risks such as physical deterioration, urban expansion, and gentrification, all of which could undermine the city's heritage (Vaz et al., 2012).

- Resilience: Incorporating resilience into urban systems and structures is essential for enabling cities to confront these challenges and achieve swifter recovery.

- Urban Heritage Protection: Preserving and managing urban heritage stands as a primary challenge. The influences of modernization and development, including urban sprawl (Tamer

Görer, 2009a; 2009b) and decay, social tensions, and gentrification, pose threats to heritage and identity. Furthermore, the heritage of multi-layered historical cities can be at risk from natural disasters, climate change, and social conflicts (Vyshkvarkova & Sukhonos, 2023). The physical infrastructure of these cities is often delicate and susceptible (Eren, 2021).

### 3.4.2. Opportunities

Multi-layered historical cities have opportunities for revitalization and renewal. The heritage of multi-layered historical cities can be a source of creativity and innovation, as it provides inspiration for new cultural and artistic expressions (UNESCO-WB, 2021).

Multi-layered historical cities can benefit from the economic and touristic potential of their heritage, as well as from the social and cultural exchange that takes place in the city. Moreover, multi-layered historical cities can be a laboratory for sustainable urban development. These cities offer many other benefits, such as diversity and cultural richness.

The preservation and interpretation of historical values are also significant. Historical buildings and artifacts offer visitors an attractive and intriguing experience (UNESCO, 2023a).

### 3.4.3. Strategies

Despite these challenges, there are many strategies that urban planners, policymakers, and citizens can use to build more resilient, sustainable, and inclusive multi-layered cities. Strategies for building multi-layered cities can be listed as follows:

- Participatory planning: Engaging citizens and stakeholders in the planning process can help to ensure that different layers are represented and that policies and decisions are aligned with community needs and values (Dalal-Clayton & Dent, 1993).

- Integrative design: Designing buildings and infrastructure that are integrated with natural systems, such as green roofs and water management systems, can help to reduce the environmental impact of urban development and enhance the resilience of the city (Ramyar et al., 2021; Tamer Görer, 2021).

- Interdisciplinary collaboration: Encouraging collaboration and information-sharing between different disciplines (Johnston et al., 2020), such as architecture, engineering, and social science, can help to build a more holistic understanding of urban systems and identify more effective solutions to complex urban problems.

- Adaptive governance: Developing flexible and adaptable governance structures that can respond to changing conditions and incorporate feedback from citizens and stakeholders can help to ensure that policies and decisions are effective and equitable (Craig et al., 2017).

Several strategies can be employed to protect and preserve multi-layered historical cities. Firstly, there needs to be a comprehensive inventory of the historical sites and structures in these cities, which can help to prioritize areas of intervention (Myers, 2016). Secondly, there should be a balance between development and preservation, with new development being sensitive to the historic context of the city (Appendino, 2017). Thirdly,

there should be a focus on community engagement and participation, with local communities being involved in the decision-making process (Oktay Bayazit & Ulusoy Binan, 2023).

### 3.5. Examples of Multi-layered Cities

There are numerous examples of multi-layered historical cities around the world, each with its unique heritage and identity. Few of these cities are stated below:

Rome, Italy: Rome is one of the most famous multi-layered historical cities in the world, with a history that dates back over two thousand years. The city's architecture and monuments are a testament to its long and diverse history, including the Colosseum, the Roman Forum, and the Pantheon. The city has been inhabited for over 2,000 years, and as a result, has a rich history and a variety of architectural styles. The city's layers also include medieval churches and buildings, Renaissance palaces, and modern structures. The city's layout and infrastructure have also evolved over time, with layers of roads, aqueducts, and public spaces still visible today (Britannica, 2023).

Jerusalem, Israel/Palestine: Jerusalem is a city that is holy to Jews, Christians, and Muslims, and has been a center of religious and cultural significance for thousands of years (Denova, 2023). The city's architecture and urban form reflect its diverse religious and cultural heritage, with ancient walls, temples, churches, and mosques standing side by side (Denova, 2023).

Istanbul, Turkey: The city has been home to several civilizations throughout its history, including the Romans, Byzantines, Ottomans, and

else. Each of these civilizations has left its mark on the city's architecture and culture, resulting in a unique blend of styles and traditions. The city's architecture, food, and traditions reflect this diverse heritage, with ancient ruins, palaces, mosques, and bazaars scattered throughout the city. The city's layers include ancient Roman ruins, Byzantine churches and buildings, Ottoman mosques and palaces, and modern infrastructure (Elrich, 2023).

Tokyo: Tokyo is a city that has been rebuilt several times throughout its history due to natural disasters and wars. As a result, the city has a mix of traditional Japanese architecture, modern skyscrapers, and Western-style buildings (Eren, 2019).

Beijing, China: The city, on the other hand, has a history that spans over 3,000 years, with layers of ancient Chinese architecture, imperial palaces, and modern buildings (Changzhi, 2021).

Kyoto, Japan: Kyoto is a city that was the capital of Japan for over a thousand years, and its architecture, traditions, and culture reflect this long history. The city's temples, shrines, and gardens are a testament to its unique heritage and identity as a center of Japanese art, culture, and spirituality (Cary, 2023).

Fez, Morocco: Median of Fez is a city that has been a center of Islamic learning and culture for centuries, and its architecture and urban form reflect this rich heritage. The city's ancient walls, narrow alleyways, and beautiful mosques and madrasas offer a glimpse into the city's past (UNESCO, 2023b).

## 4. Academic Studies and Reasons for Studying Multi-layered Historical Cities

In this section the significance of such study for researchers and urban planners, and related academic considerations are presented. Academic studies, the importance of the concept, their potentials, challenges, and limitations of study, and related problems and considerations are stated here.

### 4.1. Academic Studies on Multi-layered Historical Cities

The study of multi-layered historical cities holds significant importance in the preservation of cultural heritage, the comprehension of urban development, and the promotion of inclusive and sustainable urban environments (Yüksel, 2021; Ssekatawa, 2016; Donald et al., 1998). This endeavor is essential for raising awareness among public officials, urban planners, other professionals, and the general populace (UN-HABITAT, 2015). By learning from the past, cities can tackle the complexities of contemporary urbanization (Bontje & Musterd, 2008) and create urban spaces that honor their historical foundations while embracing the challenges of the future.

The ability to read, understand, and study the multi-layered structure is a complex matter that extends beyond the scope of a single discipline. As a result, research on multi-layered historical cities encompasses a diverse array of subjects and fields, including archaeology, urban planning, architecture, architecture, cartography, epigraphy, history, sociology, anthropology, conservation, civil engineering, economics, and geography. The study of multi-layered historical cities is essential for several reasons:

1.      Urbanization and Population Growth: As the global population continues to grow, more people are moving to cities. Multi-layered cities, with their vertical and compact design (Lin & Gamez, 2018), offer a potential solution for accommodating a large population within limited urban space (Bontje & Musterd, 2008).

2.      Efficient Land Use: Multi-layered cities make efficient use of land by maximizing the vertical dimension (Haque & Asami, 2014). This approach reduces urban sprawl and preserves natural areas on the periphery, which is crucial for environmental conservation (Hérivaux & Le Coent, 2021).

3.      Infrastructure and Resource Management: Studying multi-layered cities helps researchers and urban planners optimize infrastructure and resource management. Efficient design and utilization of energy, water, transportation, and waste management systems are critical to sustainability (Nižetić et al., 2019).

4.      Economic Growth and Development: Multi-layered cities often become economic hubs, attracting businesses, creating jobs, and promoting innovation and entrepreneurship. Understanding the factors that contribute to their economic success can inform strategies for fostering economic growth (Bontje & Musterd, 2008).

5.      Social and Cultural Diversity: Multi-layered cities are often melting pots of diverse cultures, bringing people from different backgrounds together. Studying these cities can help understand how cultural diversity influences social dynamics and community interactions (Grant, 2014).

6. Resilience and Adaptability: Multi-layered cities can demonstrate increased resilience to various shocks and stresses. Learning from these cities can inform strategies for building resilience in other urban areas (Sharifi, 2019).

7. Sustainable Development: With growing concerns about climate change and environmental degradation, studying multi-layered cities offers insights into sustainable urban development practices. These insights can be applied to create eco-friendly and climate-resilient cities (Donald et al., 1998; OECD; 2016; Freeman & Yearworth, 2017; EPSON, 2020; Eren, 2021).

8. Urban Planning and Design: Research on multi-layered cities can inform urban planning and architectural design principles, leading to innovative interventions and functional urban spaces that prioritize human well-being and quality of life (Barton, 2017). Preparing inventories that demonstrate how historical traces, intended to be integrated into modern life, will interact with their urban surroundings, and become part of the city, and establishing principles regarding archaeological posessions both underground and aboveground are essential aspects of urban planning (Madran & Özgönül, 2011).

9. Transportation and Mobility: Efficient multi-layered cities often have integrated transportation systems that promote walkability (Tekel & Tamer Görer, 2016), cycling, and public transit (Mitchell et al., 2016). Understanding these models can help improve mobility and reduce reliance on private vehicles.

10.     Policy Formulation: Policymakers can benefit from research on multi-layered cities to design effective urban policies that address the unique challenges and opportunities presented by these complex urban environments (Antonini et al., 2015).

The academic reasons for the study of multi-layered historical cities are as follows:

1.     Cultural Preservation: Multi-layered historical cities are repositories of cultural heritage, reflecting the evolution of human societies, architecture, and urban planning over time. Academic studies can help in documenting and preserving this cultural wealth for future generations (Nilson & Thorell, 2018).

2.     Understanding Urban Evolution: Studying multi-layered historical cities provides insights into how urban settlements have grown and adapted over centuries. This understanding can inform contemporary urban planning and development practices, promoting sustainable and resilient cities (Jabareen, 2013).

3.     Architectural and Artistic Appreciation: These cities often showcase a diverse range of architectural styles and artistic achievements from different historical periods. Academic research allows for a deeper appreciation and analysis of these artistic and architectural masterpieces (Mizia, 2014).

4.     Tourism and Economy: Multi-layered historical cities are often major tourist attractions, contributing significantly to local economies (Bock, 2015). Academic research can guide tourism management

strategies, ensuring responsible and sustainable tourism practices that preserve the city's authenticity.

5.      Social and Cultural Anthropology: These cities offer a unique opportunity to study the cultural and social dynamics of past societies (Gulick, 1975). Academic research can shed light on historical social structures, religious practices, economic activities, and everyday life of inhabitants.

6.      Heritage Management: Academic studies help in formulating effective heritage management and conservation strategies and connection with and support to tourism activities. Understanding the challenges and successes in preserving these cities can guide policymakers and stakeholders in making informed decisions (UCLG, 2018; Nilson & Thorell, 2018, Erdoğanaras et al., 2023).

6.      Interdisciplinary Perspectives: The study of multi-layered historical cities requires an approach that integrates knowledge from various fields. Collaboration between different disciplines in academic research leads to comprehensive and well-rounded insights (Johnston et al., 2020).

7.      Urban Resilience: Examining how historical cities have endured and adapted to various challenges, such as wars, natural disasters, and social transformations, economic downturns, or pandemics can provide valuable lessons in building urban resilience (OECD, 2016).

8.      Policy and Governance: Academic research on multi-layered historical cities can influence public policies and urban governance,

promoting heritage conservation, sustainable development, and community engagement (Antonini et al., 2015).

9.      International Cooperation: As multi-layered historical cities often have global significance, academic collaboration and research can foster international cooperation in cultural preservation and exchange of knowledge.

## 4.2. Potentials, Challenges, and Limitations of Study

There are potentials, challenges or limitations that researchers and urban planners might encounter when studying or designing multi-layered cities:

- Complexity: Multi-layered cities involve intricate systems and interactions between different levels, such as underground infrastructure, ground-level spaces, and skyscrapers. Understanding and analyzing these complex relationships can be challenging and may require advanced computational tools and expertise.

- Infrastructure and Engineering: Creating multi-layered cities requires sophisticated engineering and construction techniques to ensure stability, safety, and efficient use of space. Constructing buildings with multiple levels can be costly and may involve regulatory hurdles.

- Social and Cultural Aspects: Introducing multi-layered structures may affect the social dynamics of communities, and it is crucial to consider the impact on local residents and their way of life. Studies should consider how multi-layered cities can foster inclusivity and a sense of community.

- Environmental Impact: Introducing high-rise buildings and underground spaces can have implications for the environment. It is essential to assess the ecological footprint, energy consumption, and potential disruption of natural habitats in multi-layered urban environments.

- Governance and Planning: Multi-layered cities may involve multiple stakeholders with differing interests and priorities. Coordination and effective governance mechanisms are vital to ensure that urban planning and development align with the needs of the community.

- Aesthetics and Design: Balancing functionality, efficiency, and aesthetics in multi-layered cities can be a challenging task. The design should not only be practical, but also visually appealing and culturally appropriate.

- Safety and Security: With multiple levels and complex infrastructure, safety measures become crucial to prevent accidents and address potential security threats.

## 4.3. Related Problems or Considerations

Key academic problems or considerations related to studying multi-layered cities include;

1.    Interdisciplinary Nature: Multi-layered cities encompass a wide range of disciplines. Integrating knowledge from these diverse fields can be complex, and is essential for a comprehensive understanding.

2.    Lack of Comprehensive Data: Gathering data about multi-layered cities can be difficult due to their size, complexity, and the involvement of

multiple stakeholders. Researchers may face challenges in obtaining accurate and up-to-date data on various aspects, including infrastructure, population, land use, and economic activities.

3.    Scale and Scope: The scale and scope of multi-layered cities can be vast, especially in megacities or metropolitan regions. Analyzing and interpreting data at such large scales requires advanced analytical tools and computational techniques.

4.    Methodological Issues: Researchers must develop appropriate methodologies to analyze the multi-layered city's characteristics, interactions, and complexities effectively. Choosing the right research methods and data analysis techniques is critical for generating meaningful insights.

5.    Comparative Studies: Conducting studies of multi-layered cities in different regions or countries can be challenging due to variations in culture, governance, and urban development history. Ensuring the comparability of data and findings is crucial for drawing valid conclusions.

6.    Dynamic Nature: Multi-layered cities are constantly evolving, making it difficult to capture their dynamic nature through traditional static analysis. Longitudinal studies and dynamic modeling may be required to understand the changing patterns and trends in these urban environments.

7.    Policy Implications: Research on multi-layered cities should aim to provide practical insights for urban policymakers and planners. Translating academic findings into actionable policy recommendations can be a challenge, considering the complex and interconnected nature of urban systems.

8.     Accessibility and Equity: The multi-layered nature of cities can create disparities in access to resources and opportunities. Researchers need to consider the social and economic implications of these disparities and explore ways to promote equity and inclusivity within the urban fabric.

## 5. General Evaluation

Multi-layered cities are an important aspect of the city planning discipline as well as the urbanism and urban planning. The multi-layeredness in cities creates a rich and complex environment from historical, cultural, and architectural perspectives. Understanding this concept can help us understand the evolution of cities and the preservation of their historical values, possessions, and heritage.

A multi-layered city is a city with a history which has been structured by different civilizations in time. Historical cities are multi-layered cities and a significant component of our collective heritage. These cities offer a unique blend of history, culture, and architecture, creating a diverse and dynamic urban morphology. In other words, their multi-layers present the evolution of urban areas over time. They provide a composition of various cultures, traditions, and social forces that have influenced their evolution and set a concrete link to the past. The pressures of industrialization and progress, which jeopardize their culture and identity, are a challenge to them as well.

The multi-layered city is more than just a collection of physical and spatial components; it is a living entity with profound significance. It symbolizes the journey of a city and its inhabitants through time, embracing diversity, fostering connections, and inspiring all those who visit or reside within it.

Urban planners and city authorities should be keenly aware of this concept and its importance for today's cities.

Multi-layered cities present several challenges for urban planners and city authorities. They also provide opportunities for preservation, innovation, and creativity in urban design and planning. They allow for a diverse and vibrant urban environment. And, these cities can lead to urban decay, as older structures may not be well-maintained or may not meet modern standards due to financial limitations. Additionally, it can be difficult to implement new infrastructure or make changes to the urban environment, as there may be historical or cultural considerations to take into account. For achieving the sustainability and livability of multi-layered cities, not to loose the urban heritage and identity, implementing new techniques and technologies into planning and design potentials, challenges and limitations defined in this Chapter must be taken into account by city authorities and urban planners.

As Belge (2023) asserts, successful urban conservation efforts for multi-layered cities necessitate the development of effective policies, precise urban planning decisions, and meticulous analyses to ensure the continuity of the urban fabric. It is imperative to analyze cities with regard to their heritage, spatial data, distinctive features, and unique conditions. In essence, the formulation and implementation of urban planning and design decisions rely on the availability of a comprehensive cultural inventory and a robust database encompassing archaeological sites, possessions, and the characteristics of urban areas and their multiple layers.

To address the need for the study on multi-layered cities and academic problems stated here, researchers may collaborate across disciplines, leverage advanced data analytics and modeling techniques, engage with stakeholders and local communities, and adopt a systems thinking approach to understand the interdependencies within multi-layered cities. Overcoming these challenges will contribute to a deeper understanding of urban complexities and inform more effective urban planning and development strategies. In order to ensure that the history and identity of these distinctive cities is not lost and transferred to future generations, multi-layers must be preserved. Strategies must be developed and used to safeguard and preserve them.

It is essential for researchers, architects, and urban planners to address these challenges and study multi-layered cities holistically. By considering social, economic, environmental, and cultural factors, they can create sustainable and resilient urban environments that enhance the quality of life for their inhabitants. In summary, studying multi-layered cities is crucial for the discipline of urban planning to develop sustainable, resilient, and inclusive urban environments, capable of meeting the future needs of our rapidly urbanizing world.

The knowledge gained from studying multi-layered cities can inform urban planning, policy formulation, and infrastructure development, leading to the creation of thriving cities. By understanding the multi-layered city, valuable insights can be gleaned into the true essence of urban life and the role of citizens within it.

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## Appendix A. Major Literature on Multi-layered Cities

## Literature on Multi-layered Cities

Literature list specifically focusing on historical city layers:

1.      'The Timeless Way of Building' by Christopher Alexander - While not exclusively focused on historical cities, this book explores the principles of creating enduring and meaningful urban spaces, emphasizing the importance of layers of history and cultural significance in the built environment.

2.      'Palimpsests: Biographies of 50 City Districts' by Michel Ragon - Ragon delves into the historical layers of 50 different city districts worldwide, revealing the diverse influences and transformations that have shaped these urban areas over time.

3.      'The Fabric of Cities: Aspects of Urbanism, Urban Topography and Society in Mesopotamia, Greece and Rome' edited by J. Bintliff and K. Sbonias - This collection of essays explores the urban fabrics of ancient cities, focusing on their historical layers, topography, and societal aspects.

4.      'The City Assembled: The Elements of Urban Form Through History' by Spiro Kostof and Greg Castillo - This book examines the historical layers of cities, exploring the elements that contribute to their form and structure over time, including architecture, infrastructure, and cultural influences.

5.      'The Historical Ecology of Cities: A Comparative Approach' edited by J.R. McNeill and E.W. Stromberg - This collection of essays offers a comparative perspective on the historical ecology of cities, highlighting the interplay between human activities and natural environments in shaping urban layers.

6.      'The Urban Apparatus: Mediapolitics and the City' by Reinhold Martin - Martin explores the complex relationship between media, politics, and the urban environment, examining how layers of media infrastructure and technological advancements shape the historical urban development.

7.      'Layers of Perception: Visualizing Historic Urban Landscapes' edited by Andrea Nanetti and Francesca Picchio - This book explores the visualization and interpretation of historic urban landscapes, focusing on the layers of perception and meaning embedded within these cities.

8. 'The Urban Transformation of the Developing World' by Josef Gugler - Gugler explores the urban development of cities in the developing world, emphasizing the layering of historical, colonial, and contemporary influences in shaping their urban fabric.

9. 'The Archaeology of Urbanism in Ancient Egypt: From the Predynastic Period to the End of the Middle Kingdom' by Nadine Moeller - Moeller offers a comprehensive study of the development and layering of urban settlements in ancient Egypt, providing insights into the historical evolution of these cities.

10. 'Rome: An Urban History from Antiquity to the Present' by Rabun Taylor, Katherine Wentworth Rinne, and Spiro Kostof - This book traces the historical layers of the city of Rome, from its ancient origins to the present day, exploring its urban development, architecture, and cultural transformations.

11. 'The Historic City: Urbanism, Ecology, and Preservation' by Robert E. Stipe - Stipe examines the concept of the historic city and its preservation, discussing the layers of history, architecture, and cultural heritage that contribute to the identity of these cities.

12. 'Medieval Cities: Their Origins and the Revival of Trade' by Henri Pirenne - Pirenne explores the development of medieval cities in Europe, examining the layers of economic, social, and political changes that shaped these urban centers.

13. 'The Making of Urban Europe, 1000-1994' by Paul M. Hohenberg and Lynn Hollen Lees - This book offers a comprehensive overview of urban development in Europe over a millennium, delving into the historical layers of cities and the forces that influenced their growth and transformation.

14. 'The City in History: Its Origins, Its Transformations, and Its Prospects' by Lewis Mumford - Mumford's influential work provides a broad historical perspective on cities, discussing their evolution and the layers of civilization that have shaped urban environments throughout history.

15. 'The Archaeology of garden and Field' edited by Naomi F. Miller and Kathryn L. Gleason explores the landscape cultivated from prehistoric

times to the nineteenth century in terms of techniques, casts of root cavities, and hydrology.

16.     'Historical Layering and Historical Preservation in Relation to Urban Planning and Protecting Local Identity: City Study of Nanjing' by Mengjia Wang is a thesis on Nanjing case and formation of different development phases of the city are searched and explores ways to connect historical preservation with urban planning.

These books and disertations explore the historical depth and complexity of cities, shedding light on the multiple layers of civilizations, cultural influences, and architectural transformations that have shaped these urban spaces over time.

**Some articles that delve into the topic of multi-layered historical cities:**

1.     'The Multi-Layered City: The Value of Old Urban Profiles' by Marco Bontje & Sako Musterd- This article is based on Amsterdam and Leipzig ruled by different state regimes and having a rich cultural heritage. The article analyses characteristics and developments and how these development pathsemerged mainly from 1990s onwards have an impact upon current perspectives.

2.     'Urban Layers: Understanding and Visualizing Historical Urban Evolution' by Stefan Müller Arisona, et al. - This article explores the concept of urban layers and presents a method for visualizing the historical evolution of cities using 3D urban models and data.

3.     'Unearthing Urban Layers: A Spatial Analysis Approach to Historical Cities' by Eleonora Borsacchi and Paolo Ciuccarelli - The authors discuss the challenges and opportunities in analyzing the layers of historical cities, presenting a spatial analysis approach to understand the complexity of urban development over time.

4.     'The Palimpsest City: Mapping the Historical Layers of Urban Landscapes' by Jeremy Whitehand - This article discusses the concept of the palimpsest city, exploring the layers of historical traces and their significance in shaping contemporary urban structure.

5.     'Layers of History: The Role of Archaeology in Documenting the Multi-layered Urban History of Rome' by Darius Arya - The article

highlights the importance of archaeological research in uncovering and understanding the multiple historical layers of the city of Rome.

6.      'Time, Space, and the Shape of Urban Infrastructure: Exploring the Temporal Layers of Cities' by Michael Batty - Batty examines the temporal layers of urban infrastructure and how they contribute to the form and function of cities over time.

7.      'Layers of Meaning: Archaeology and Historic Urban Landscapes' by John Schofield and Steve Trow - The authors discuss the integration of archaeological methods and techniques in studying historic urban landscapes, uncovering the multiple layers of meaning embedded within them.

8.      'The Stratigraphic City: A Model for the Historical Urban Landscape' by Daniel D. Arreola - This article presents the concept of the stratigraphic city, which emphasizes the layered nature of urban landscapes and the importance of understanding their historical context.

9.      'Visualizing the Historical Urban Landscape: Inferring Urban Patterns Through Historical Maps' by Stephen Sheppard - The article explores the use of historical maps to visualize and interpret the historical layers of urban landscapes, providing insights into the development and transformation of cities.

10.     'Mapping the Historical Urban Landscape: GIS Approaches for Analysing the Spatial and Temporal Dimensions of Urban Change' by Richard Harris and Peter Larkham - The authors discuss the application of Geographic Information Systems (GIS) in analyzing the spatial and temporal dimensions of historical urban landscapes, revealing their multi-layered nature.

11.     'Layers of History: Investigating the Archaeology of Urbanism' by David L. Clarke - This article examines the archaeological study of urbanism and the layers of history that can be uncovered through systematic excavation and analysis of urban sites.

These articles provide useful information on the study of ancient multi-layered cities, presenting many strategies and approaches for comprehending the complexity and historical evolution of urban landscapes.

**Literature list that explores theories related to multi-layered historical cities:**

1.      'The City Shaped: Urban Patterns and Meanings Through History' by Spiro Kostof - This book examines the theories and patterns of urban development throughout history, highlighting the multi-layered nature of cities and the social, cultural, and environmental factors that shape them.

2.      'The Memory of Place: A Phenomenology of the Uncanny' by Dylan Trigg - Trigg explores the concept of place and its connection to memory, examining how historical layers and the uncanny nature of urban spaces contribute to our understanding of cities.

3.      'Theories of Urban Design' by Alex Krieger and William S. Saunders - This book presents a collection of essays that discuss various theories of urban design, including those that address the multi-layered nature of historical cities and their impact on contemporary urbanism.

4.      'Urban Morphology: An Introduction to the Study of the Physical Form of Cities' by Peter J. Larkham and Mark Boyle - Larkham and Boyle explore theories and methods of studying the physical form of cities, including the historical layers and patterns that contribute to urban morphology.

5.      'The Image of the City' by Kevin Lynch - Lynch's influential work examines how people perceive and experience cities, emphasizing the role of historical layers and urban legibility in shaping the imageability of urban environments.

6.      'The Birth of the Modern City: An Introduction to Modern City Planning and Design' by Leonardo Benevolo - Benevolo explores the theories and historical development of modern city planning and design, addressing the multi-layered nature of cities and the transformative forces that have shaped them.

7.      'The New Urbanism: Toward an Architecture of Community' by Peter Katz - Katz discusses the theory and practice of New Urbanism, which emphasizes the creation of diverse, walkable, and multi-layered urban communities that draw inspiration from historical city forms.

8.      'Layers of Time: A History of Ethiopia' by Paul B. Henze - Henze provides a historical account of Ethiopia, including its ancient cities and

the layers of civilization that have contributed to the urban form and cultural heritage of the region.

9.      'Cityscapes of Modernity: Critical Explorations' edited by David Frisby and Mike Featherstone - This collection of essays explores the theories and debates surrounding modern urbanization, addressing the multi-layered nature of cities and their cultural, social, and political dimensions.

10.     'The Urban Revolution' by Henri Lefebvre - Lefebvre's seminal work examines the social and spatial transformations of urban environments, discussing the multi-layered nature of cities and the production of space in historical and contemporary contexts.

These books offer theoretical frameworks and perspectives to understand the complexities of multi-layered historical cities, providing insights into the social, cultural, spatial, and temporal dimensions that shape urban environments over time.

**Several Turkish studies on multi-layered historical cities:**

1.      'An Evaluation of Multi-layered Settlements in Turkey [Türkiye'de Çok Katmanlı Yerleşimler Üzerine Bir Değerlendirme]' by Burak Belge (Sketch, 2023) examines the multi-layered settlements in Turkey that have been continually inhabited from antiquity and are still inhabited today. It also evaluates the socio-spatial continuity and planning choices in these settlements.

2.      'Çok Katmanlı Tarihi Kent Merkezlerinin Yönetimi: Kentsel Arkeoloji ve Planlama' by Burak Belge addresses successful approaches in managing urban archaeological heritage and the aesthetic possibilities in urban centersto expand our vision. Considering the localization movement in cultural heritage preservation and the contributions that can be provided through the European Union harmonization process, methods and solutions that can facilitate the reconsideration of our multi-layered historic city centers have been proposed.

3.      'The Development of the Urban Archaeology Concept in the World and its Reflections in Turkey [Kent Arkeolojisi Kavramının Dünyadaki Gelişimi ve Türkiyedeki Yansımaları]' by Nağme Ebru Aydeniz states that conservation concepts and applications must be developed.

4.      'Layers of Istanbul: Historical development of a multi-layered city' by Şengül Ertürk and İclal Dinçer - This study examines the historical layers of Istanbul, exploring the city's development from ancient times to the present day, including its Byzantine, Ottoman, and modern periods.

5.      'The Multi-Layered Urban Landscape of Edirne: Historical and Cultural Transformations' by Zeynep Kesgin - This research focuses on Edirne, a city in northwest Turkey, and investigates its multi-layered urban landscape, considering the historical and cultural transformations that have shaped the city over time.

6.      'Layers of the Past: Historical Urban Transformation in Trabzon' by Ebru Şirin and Seda Kundak - This study explores the historical urban transformation of Trabzon, a city on the Black Sea coast of Turkey, analyzing the layers of civilizations and the spatial changes that have influenced the city's development.

7.      'Historical Urban Layers of Bursa: Transformations and Preservation Challenges' by Çağla Caner and Özge Yalçın - Focusing on the city of Bursa, this research investigates the historical urban layers of the city, examining the transformations it has undergone and the challenges faced in preserving its historical heritage.

8.      'Layers of the Past: The Multi-layered Urban Landscape of Antalya' by Derya Oktay and İsmail Hakkı İşler explores the multi-layered urban landscape of Antalya. They analyzed historical development, architectural heritage, and cultural layers.

9.      'Antakya Eski kent Dokusunda Gazipaşa Sokağının Mekansal Analizi [The Spatial Analysis of Gazipaşa Street at the Pattern of teh Old City of Antakya]' by Mert Nezih Rifaioğlu is a master thesis (Çukurova Üniversitesi Fen Bilimleri Enstitüsü) and presents a typholical analysis of traditional Antakya houses and Street pattern.

10.      'The Roots of Land Arrangement in the Pre-Pottery Neolithic Age – The Akarçay Tepe Plaque C (Nizip Old City' by Şirin Gülcen Eren and Emine Seda Arslan (Journal of Planning, 2020) focuses on the archaeological site of Akarçay Tepe and specifically examines Plaque C, which is a significant artifact from the Pre-Pottery Neolithic Age. The research explores the land arrangement and settlement patterns in the Nizip Old City area, shedding light on the multi-layered history of the region.

11.     'Assessment of Historical Stratification in Multi-layered Towns as a Support for Conservation Decision-Making Process; A Geographic Information Systems (GIS) Based Approach Case Study: Bergama' by Ayşe Güliz Bilgin Altınöz (METU, Unpublished PhD Dissertation, 2002) has the content defined as multi-layered towns. The stdy aims to contribute to the conservation of the multilayers a settlement has by determining the most applicable tool and medium.

12.     'A framework for sustainable urban mobility in historic urban landscapes: A proposal for Antalya Kaleiçi' by Aynur Uluç Keçik (METU, Unpublished master thesis, 2014) on the mobility systems in historic urban landscapes. In this respect, the aim of the thesis is to provide 'a framework for Sustainable Urban Mobility (SUM) in Historic Urban Landscapes (HULs)' together with the process, principles and tools that will solve the mobility problems while contributing to conservation and promotion its values and significance.

13.     'Assessing the sustainability of historical continuity in multi-layered historic towns: The Case of Amasya, Turkey' paper in Beyond All Limits Congress (2018) by Dr. Leyla Etyemez Çıplak is about the sustainability of historical continuity in multi-layered historical towns which are the outcome of continuous inhabitation process that is reflected in current town by physical remains belonging to different periods. This study provides a basis for searching the strategies and tools for their reintegration with the current urban context, consequently, for the sustainable conservation.

14.     Introduction, Pergamon and its multi-layered cultural landscape [Booklet] by Ayşe Güliz Bilgin Altınöz (2014) is on the historical multiplicity of the Pergamon city.

15.     'Çok katmanlı kültürel mirasın korunmasında kapasite geliştirme yaklaşımı ve katılım: Bergama (Pergamon) kenti [Capacity Building Approach and Participation in the Conservation of Multi-Layered Cultural Heritage: The Case of the City of Bergama (Pergamon)]' by Demet Ulusoy Binan is a thesis on the multi-layered Bergama city.

16.     'Approach and recommendations for identification-preservation in multi-layered settlements in Turkey: The Case of Bergama [Türkiye'de Çok Katmanlı Yerleşimlerde Tanımlama-Koruma Yaklaşımı ve Öneriler:

Bergama Örneği]' by Demet Ulusoy Binan (Tasarım+ Kuram, 2013) is an article on the multi-layered nature of Bergama city in terms of its urban fabric, cultural possessions, and relevant legislation and proposes a conservation approach for multi-layered cities.

17.     'Capacity building and participation in conserving the multi-layered cultural heritage of Bergama [Bergama'nın Sahip Olduğu Çok Katmanlı Kültürel Mirasın Korunmasında Kapasite Geliştirme Yaklaşımı ve Katılım]' by Gülce Güleycan Okyay Bayazit and Demet Ulusoy Binan (Planlama, 2023) focuses primarily on the urban centre of Bergama (Pergamon), a UNESCO World history Site, and its multi-layered cultural landscape, where daily life and, consequently, relationships between the community and its history continue to develop.

18.     'Determination of presentation principles for multi-layered historical towns based on cultural significance case study: Tarsus' by Pınar Aykaç is on the principles for the presentation of historical stratification. It does this by analyzing the historical continuities, interruptions, and alterations in light of the multilayeredness's cultural relevance.

19.     'A framework for settlement history studies: Case of Antakya [Yerleşme tarihi çalışmaları için bir çerçeve: Antakya örneği]' by Saadet Tuğçe Tezer Çılğın aims to develop a flexible framework for settlement date analysis that takes various settlements' conditions and constraints into account. It is a critique of the static structure that is shown in studies of the history of settlements and which makes it difficult to comprehend the settlement and make predictions about its future. It aims to find an alternative framework to solve this issue.

20.     'Challenges in Achieving Sustainable Urban Development: The Relationship between Spatial Planning and Historic Environment Conservation in the Historic Peninsula of Istanbul [Sürdürülebilir Kentsel Gelişmenin Sağlanmasındaki Zorluklar: İstanbul Tarihi Yarımada'da Mekansal Planlama ve Tarihi Çevre Koruma İlişkisi]' by Adem Erdem Erbaş. The research examines the development of the historical environment as a tangible and intangible heritage site and the factors that determine it retrospectively in the Istanbul Historical Peninsula.

21.     'Analysis of Stratification and Conservation Issues in Urban Archaeological Sites: The Case of Foça [Kent İçi Arkeolojik Alanlarda

Katmanlaşmanın Analizi ve Koruma Sorunları: Foça Örneği]' by Burcu Taşçı and Eti Akyüz Levi explores historical multilayers of Foça which is a city treatened by summer housing. The study explores multi-layered cities, the stratification of a historical city, and the problems of protection.

22.    'Evaluation of Historical Layers in the Context of Spatial Continuity: The Case of Antakya' by Şen Yüksel analysis different layers of the city and compares in urban and architectural scales, in order to preserve the cultural continuity. Historical common points and differences in the city were also determined. By identifying the causes and circumstances of those common events, the study hopes to provide insight into the city's potential future expansion.

23.    'Documentation of Historical Starification and Evaluation of Natural and Physical Values in the Context of Conservation: Case of Cappadocia Region, Niğde City [Tarihsel Katmanlaşmanın Belgelenmesi, Doğal ve Fiziksel Değerlerin Koruma Bağlamında Değerlendirilmesi: Kapadokya Bölgesi, Niğde İli Örneği]' by Emel Efe Yavaşcan and Zehra Gediz Urak. The authors explore the Region in order to establish the historical continuity of the long-term preservation of all of the standing, well-known, subsurface values with Nide-specific characteristics.

24.    'GIS-based approach to urban planning, archaeological inventory and geology structure in multilayered cities: The case of Tahtakale in Istanbul' by Bedel Emre and Adem Erdem Erbaş (ITU A|Z, 2020). The authors seek to alter how urban planners think about three-dimensional space and offers a model for fusing decisions based on the preservation plan with archaeological evidence.

These studies emphasize the importance of multi-layered historical cities in Turkey, such as Istanbul, Edirne, Trabzon, Bursa, and Antalya. They illuminate these cities' distinctive historical, cultural, and architectural characteristics, offering insights into their layers of history, transformations, and preservation challenges. These contributions enhance the comprehension and recognition of their abundant heritage.

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# Cultural Mapping as a Tool for
# Spatial Planning

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## 1. Introduction

Cultural mapping allows us to understand and share the city's culture, rethink history and encourage creativity and development in the city. Cultural mapping is the most effective way to ensure the protection, improvement, and planning of cultural resources, possessions and to transfer the city and its identity and spatial memory to future generations. However, this method is not currently considered as a tool in the discipline of urban planning (Özdemir, 2022).

In Turkey, problems such as the treatment of culture within the framework of tourism, the preparation of cultural maps as a guide for tourists, the disregard of culture-oriented studies by local governments and administrators, and urbanization based on rent are present in practice. In the planning discipline, it is insufficient to regard culture merely as input for conservation development plan studies and/or to protect and preserve the cultural heritage of the city (Karaca, 2012). The cultural mapping method is not used due to lack of awareness and consciousness. There is generally no administrative and legal regulation regarding the obligation to prepare and implement it and its scope. Therefore, cultural mapping should be studied within the scope of the discipline of urban planning (Özdemir, 2022).

Within the scope of the study, firstly the concept of cultural mapping is examined. The concept of cultural resources that constitute the database of cultural mapping is included. In the second part of the study, material and method are discussed. The third part of the study explores the relationship between the concepts of cultural mapping and spatial planning, and it

elaborates on the utilization of cultural mapping in spatial plans. Finally, the study is concluded with the conclusion section.

## 1.1. Cultural Mapping

Cultural mapping was first mentioned in the keynote speech by Clark, Sutherland, and Young during the Cultural Mapping Symposium and Workshop in 1995. The primary purpose of cultural mapping is to assist communities in recognizing, celebrating, and supporting cultural diversity for economic, social, and regional development. UNESCO (United Nations Educational, Scientific and Cultural Organization) recognizes cultural mapping as a crucial tool and technique for safeguarding the world's intangible and tangible cultural possessions (UNESCO, 2019). Cultural mapping has various definitions;

- It is a tool and technique used in planning and policy studies with unique features such as understanding the history of local people, identifying traditional activities, integrating and preserving cultural diversity, identifying the spatial connections of culture, and making the invisible parts of society visible (Porello, Talone, & Tommarchi, 2010).

- Local histories, customs, connections, memories, and rituals can turn a location into significant spaces for urban design, cultural sustainability, and community growth. This is accomplished through a research process and methodological tool. Additionally, it is a methodological intersection that supports social practice, academic research, cultural policy, artistic approach, regional

administration, and social transformation (Duxbury, Garrett-Petts, & MacLennan, 2015).

- It is the process of collecting, recording, analyzing, and synthesizing information in order to determine a community's or group's cultural resources, networks, connections, and uses (Stewart, 2010).

- It is the process of collecting analytical and synthesizing information and understanding the patterns of this information, revealing the differences specific to the area of focus, visualizing and using cultural resources. It is a systematic approach that identifies and classifies cultural resources (Anonymous, 2012).

- It is the activity and process of researching, exploring, documenting, studying, analyzing, interpreting, presenting and sharing knowledge about people, societies, places and urban culture and the products associated with people and human communities living in the city. It is also a preferred method for building and accumulating socially created values by collecting cultural capital through participatory processes (Cook & Taylor, 2013).

- It is a community-based and community-driven process of identifying, recording, and valorizing local cultural values, including both tangible and intangible possessions (Map, 2019).

- It is a useful methodology for sustainable development when local resources and community participation are sources of development and financial income (Cabeça, 2018).

- It is a comprehensive analysis study that brings together the cultural resources and needs of the community as a result of a broadly participatory collaboration (Parlak, 2010).
- "Cultural mapping is a set of processes, tools, methods and approaches created to research, analyze and document the local cultural resources of the city in general" (Özdemir, 2022).

When analyzing the literature, cultural mapping has been defined as a process, tool, methodology, and strategy. In essence, cultural mapping is the process, tool, methodology, and approach used to document and analyze cultural characteristics and cultural resources within a specific geographical region or community.

According to Özdemir and Eren (2021), cultural mapping is "a guide that is integrated into urban planning practices and processes in order to create, protect and utilize the cultural values, identity and memory of the city, which includes the cultural knowledge of the individuals that live in the city and enables them to rediscover and own the spaces they live in."

The purpose of cultural mapping is to build a comprehensive understanding of the cultural landscape and values of a particular region or community. It helps to preserve and promote local culture, strengthen community identity and inform cultural policy and development initiatives. Cultural mapping is undertaken by individuals, organizations or governments interested in studying and supporting cultural diversity, heritage conservation, urban planning, community development and tourism. The cultural mapping process is as given in Figure 1.
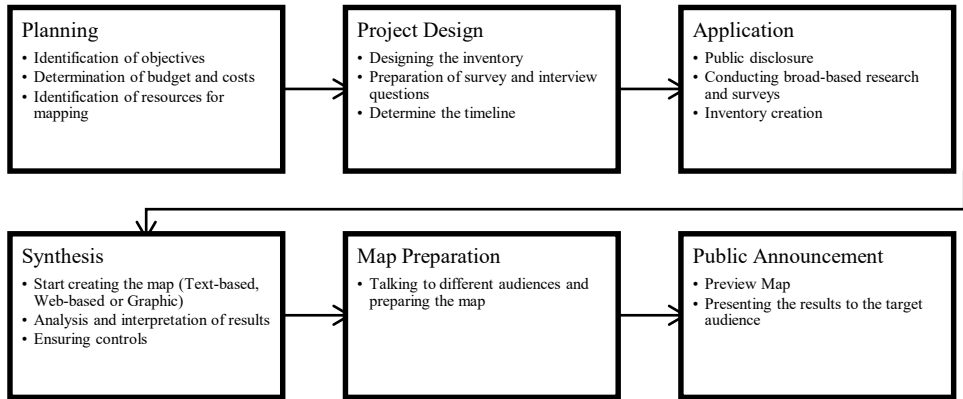
**Figure 1.** Cultural Mapping Process (Stewart, 2010)

Cultural resources serve as the foundation for cultural mapping and are critical for understanding, protecting, and transmitting cultural heritage to future generations. They are useful for comprehending cultural variety, community identity, and cultural evolution.

## 1.2. Cultural Resources

According to Gökalp (2019), culture is defined as "a harmonious whole of a single nation's religious, moral, legal, intellectual, aesthetic, linguistic, economic, and scientific lives." Within this scope, the culture defines the entirety of an entire civilization (Aktan & Tutar, 2007; Oğuz, 2011). Aktan and Tutar (2007) have defined culture as "the totality of tangible and intangible values of a society, including all possessions such as traditions, customs, art, thought structure, historical accumulation, and social institutions." In summary, culture is a broad concept that encompasses the common values, beliefs, behavioral patterns, language, art, history, traditions, and other cultural elements of a society or a group of people.

Culture is defined with different components and concepts in various civilizations: Cultural possessions, natural possessions, cultural heritage, registered building that needs to be protected, protected area, etc. cultural and natural values are frequently encountered concepts (Madran & Özgönül, 2005; Özdemir, 2022). Culture defines a system that lives together with the environment and society and finds a place in daily life through symbols. Cultural heritage, which is a living proof of past values, traditions and lifestyles and a part of the cultural experiences that people continuously add to life, is one of these symbols (Günay, 2012). Heritage is divided into two categories as cultural and natural.

The International Council on Monuments and Sites (ICOMOS) (1999) defines heritage as including landscapes, historic sites, sites and built environments, as well as biodiversity, collections, past and ongoing cultural practices, knowledge and life experiences; heritage that forms the basis of various national, regional, indigenous and local identities, tells and records long historical development processes; an integral part of contemporary life.

According to the UNESCO's 1972 "Convention Concerning the Protection of the World Cultural and Natural Heritage", cultural heritage (kültürel miras) is defined as follows;

- "Monuments: Architectural monuments, monumental works of sculpture and painting, archaeological artefacts or buildings, inscriptions, cave dwellings, and combinations of elements of exceptional universal worth in history, art, or science;

- Groups of Buildings: Separate or linked groups of buildings with exceptional global worth in history, art, or science owing to their architecture, consistency, or location in the landscape,

- Sites: Areas containing human artifacts or combination natural and human artifacts, as well as archaeological sites of exceptional universal worth from a historical, creativity, ethnological, or anthropological perspective."

Only tangible values are included in UNESCO's definition of cultural heritage. However, with the inclusion of the term of intangible cultural heritage in the Convention for the Protection of the Intangible Heritage, accepted by UNESCO signatory countries in 2003, the definition of cultural heritage has expanded.

Cultural heritage is classified in two categories: tangible (tangible cultural possessions such as buildings, structures, paintings, sculptures, etc.) or intangible (public domain concepts, practices, beliefs, values, traditions, literature, and music) (Barrére, 2016).

According to the UNESCO's 2003 "Convention On the Safeguarding of the Intangible Cultural Heritage"; "Intangible cultural heritage means practices, representations, narratives, knowledge, skills and related tools and cultural spaces defined by communities, groups and, in some cases, individuals."

The areas covered by intangible cultural heritage are listed below:

a) "Oral traditions and narratives together with language, which serve as a carrier for the transmission of intangible cultural heritage,

b) Performing arts,

c) Social practices, rituals and feasts,

d) Practices related to nature and the universe,

e) Handicraft tradition".

Natural heritage (doğal miras) is defined in UNESCO's (1972) "Convention Concerning the Protection of the World Cultural and Natural Heritage " as follows:

- "Natural monuments comprised of physical and biological formations or assemblages of such formations which are of exceptional universal aesthetic or scientific value,

- Geological or physiographic formations of exceptional universal value for science or conservation and strictly designated areas where animal and plant species threatened with extinction grow,

- Natural sites or natural areas of exceptional universal value for science, conservation or natural beauty."

The concept of heritage is used in international legislation and academic literature. Cultural resources, which constitute the basic data set of cultural mapping, embody the concept of heritage.

Madran and Özgönül (2005) classify cultural and natural values (kültürel ve doğal değerler) in need of protection as follows:

- Cultural Possessions
- Natural Possessions
- Protection Area
- Single Buildings in Need of Protection
  - Anıt Yapı
  - Environmentally Valuable Structure

- Protected Area

- Archaeological Site

- Historical Site

- Natural Protected Area

- Urban Conservation Area

- Urban Archaeological Site

- Areas without Definition in Existing Legal Regulations
  - Complex Protected Area (Madran & Özgönül, 2005; Eren & Çabalar Bayrak, 2021)
  - Rural Protected Area
  - Cultural Landscape Areas

Giddens (1993) and Özkul (2015) state that the beliefs, habits and traditions that societies use to express their identities also constitute their cultural values. While Madran and Özgönül (2005) consider cultural values as concrete, Giddens (1993) and Özkul (2015) claim cultural values as intangible. However, according to Çokal (2015), the concept of cultural heritage can be used synonymously with cultural value.

In Turkey, the distinction between cultural and natural assets/possession (Kültür ve Tabiat Varlığı) is used, not the conceptual distinction between cultural and natural heritage. According to the definition stated below, cultural and natural possessions are considered as tangible.

In the Article 3 of the Act No. 2863 on the Protection of Cultural and Natural Possessions (published in the Official Gazette dated 23.07.1983 and numbered 18113) are defined:

1) " 'Cultural possessions' are all movable and immovable possessions above ground, underground or under water which are related to science, culture, religion and fine arts from prehistoric and historical periods or which were the subject of social life in prehistoric or historical periods and which have unique scientific and cultural value.

2) 'Natural possessions' are above-ground, underground, or underwater values from geological, prehistoric, and historical periods that should be preserved due to their rarity, characteristics, and beauty."

Altınöz (2012) expands the concept of cultural property to include "possessions of different scales and qualities such as building materials, objects, building remains, structures, open spaces, cities, rural settlements, archaeological sites, cultural landscapes, and all tangible and intangible components without historical limitations" (Altınöz, 2012). With this definition, it is stated that cultural possessions have tangible and intangible components.

Atılgan (2011) states that in the relationship between cultural heritage and cultural property, cultural heritage is a broad concept that also includes cultural property. According to Atılgan (2011), cultural heritage has meaning beyond tangible objects. In this regard, he contends that cultural heritage is an understanding, and cultural values are a cover over it.

Cultural resources are sub-components of the concepts of cultural industry and cultural places. Cultural industries, according to Yıldırım and Öz (2021), are cultural industries that depend on individual creativity, skill, and ability and have the potential to generate income and employment through the development and utilization of intellectual property. Cultural

industry is the concept used for activities and organizations in areas such as Print and Visual Media, Festivals, Theatre, Dance, Music, Architecture, Fine Arts, Museums, Art Galleries, Literature, Crafts, Fashion, Design, Cultural Tourism, etc. that make up popular culture (Anonymous, 2012). Aydemir et al. (2004) define cultural spaces and cultural buildings as spaces and building types that define the building-city relationship well in the urban fabric and contribute to the urban appearance.

Cultural resources are the elements that make up the cultural heritage of a society and shape people's identities, values and traditions. As indicated in Table 1, cultural resources are divided into tangible cultural resources and intangible cultural heritage.

**Table 1.** Types of Cultural Resources (Jeannotte, 2016)

| Tangible Cultural Resources | Intangible Cultural Heritage |
|---|---|
| Cultural Industries | Values and Shared Beliefs |
| Cultural Occupations | Stories |
| Community Cultural Organizations | Customs, Traditions, Rituals |
| Cultural Facilities and Venues | Traditions and Heritage |
| Cultural and Natural Heritage | |
| Cultural Events and Festivals | |

The concept of cultural resources is included in the national legislation in the Article 4, paragraph (e) of the "National Parks Regulation" published in the Official Gazette dated 12.12.1986 and number 19309: "...sites and regions that document historical, archaeological, mythological, anthropological, ethnographic, sociological events and bear the traces of these events, and places that bear the traces and memories of great events

and people in history, places that collect examples of architecture and fine arts, objects and exceptional examples of cultural heritage and scientific values related to them".

Parlak (2010) defines cultural resources as:

- "Activities and institutions related to the arts and media;
- Youth, ethnic minority and other organizations for the common good;
- Heritage, including archaeology, food culture, dialects, and rituals;
- The image of the city and how it is perceived (how the course of history has changed and how this is reflected in different groups of the population);
- The natural and built environment, including public spaces;
- The variety and quality of recreational, cultural, dining, and entertainment activities;
- The local social environment, intellectual and scientific institutions, including universities and private sector research institutions;
- Local products, crafts, production and services, including local food and design traditions."

Özdemir (2022) categorized cultural resources as follows:

- Cultural Heritage
  - Cultural Possessions
  - Intangible Cultural Heritage
- Cultural Industries
- Culture Venues

- Cultural Communities and Organizations
- Natural Heritage
- Festivals and Events

In s cultural heritage refers to the totality of cultural elements that a society or region values from the past, while cultural resources refer to the documents and sources that contain information and data on this heritage. Cultural resources are important tools for understanding, protecting and transferring cultural heritage to future generations.

## 2. Material and Method

Interest in cultural studies has increased in the world and so in Turkey. Among these studies, cultural planning and cultural mapping are of paramount importance, with countries such as Canada, known for their high levels of prosperity, placing significant emphasis on these endeavors. In the author's exploration of cultural and planning studies, it was observed that there is a limited body of research and articles on cultural mapping in Turkey.

Within the framework of this study, the initial phase involved a comprehensive conceptual examination through an extensive literature review. A thorough search was conducted across various sources, including books, theses, reports, articles, congresses, symposiums, seminars, laws, regulations, and more, utilizing both online and library resources. This investigation encompassed an exploration of key concepts such as culture, cultural and natural possessions, cultural resources, the cultural dimension of planning, conservation, and the practice of cultural

mapping. Additionally, the study identified related research and explored the relationship between cultural mapping and spatial planning.

To assess the existing scholarly work on the subject, a keyword search for "cultural mapping" was performed on the Council of Higher Education (YÖK) website within the realm of master's and doctoral theses since 2018. It is the same thesis this study is based upon. Furthermore, two papers were identified: The first one is titled as "Morphological Comparison of Cultural Mapping of Memory Landscapes: The Case of Kayseri Derevenk, Gesi, and Koramaz Valley Villages," and the other one is titled as "Three Different Samples in Cultural Mapping."

However, when conducting a more extensive search in Scopus Preview, one of the most comprehensive thesis search platforms globally, no references were found for this term. In contrast, a search for the same term in the Web of Science thesis search center yielded 643 results in the field of cultural mapping and related areas.

It is evident that cultural mapping is an emerging field of study with varying levels of recognition in different academic databases and research contexts.

## 3. Findings and Discussion

In this section, the relationship between cultural mapping and spatial planning, the areas of use of cultural mapping in spatial planning, cultural planning and the use of cultural mapping in the spatial planning discipline in Turkey are presented.

### 3.1. Cultural Mapping and Spatial Planning

Cultural mapping plays a pivotal role in informing various aspects of spatial planning. It aids in the identification of culturally significant areas that warrant protection, such as heritage sites and traditional neighborhoods. Additionally, cultural mapping assists in recognizing potential sites for cultural development, including cultural centers, creative communities, and public art installations. By gaining insight into the cultural possessions within a region, planners can effectively shape urban spaces and ensure that new developments harmonize with and enhance local cultural identity.

Furthermore, cultural mapping contributes significantly to sustainable tourism development. It achieves this by pinpointing cultural attractions and creating tourism routes that showcase a place's unique heritage and traditions. Cultural mapping also serves as a valuable tool for formulating cultural policies, aiding in resource allocation and investment in cultural infrastructure and programs. In essence, cultural mapping provides a comprehensive approach to spatial planning by seamlessly integrating cultural values and heritage into decision-making processes.

Spatial planning and cultural mapping, while pursuing different objectives, frequently intersect and complement each other, playing integral roles in the development of communities and cities that prioritize cultural aspects. Spatial planning entails making decisions about the future that are created as a result of addressing both the physical and non-physical (social, economic, cultural, etc.) dimensions of space, a "place" in today's conditions (Karadağ, Demiroğlu, & Cengiz, 2018). Spatial planning

focuses on the organization and development of physical space in a given area. It involves making decisions about land use, infrastructure, transportation, zoning and the general arrangement of buildings and public spaces. The main objective of spatial planning is to create sustainable, functional and well-designed urban environments that meet the needs of residents and promote economic, social and environmental well-being.

The relationship between spatial planning and cultural mapping stems from their mutual consideration of cultural aspects in urban development. Cultural mapping informs spatial planning processes by providing valuable data on cultural possessions, heritage sites and community aspirations.

Conversely, spatial planning can seamlessly incorporate the findings of cultural mapping into its strategies and policies. For instance, cultural mapping data influences decisions related to the designation of cultural districts, the preservation of historic sites, the design of public spaces, or the promotion of cultural tourism. By embracing cultural considerations, spatial planning can create inclusive and culturally vibrant environments that celebrate and sustain local traditions, arts, and heritage.

In summary, the relationship between spatial planning and cultural mapping involves a reciprocal exchange of knowledge and information. The integration of cultural mapping into spatial planning processes is instrumental in ensuring that urban development remains culturally sensitive, encourages community participation, and enhances the overall quality of life within a given locale.

Obtained through cultural mapping:

- Population structure

- Migration structure

- Ethnic groups

- Culture-oriented industries

- Existing cultural facilities

- Cultural institutions and organizations

- Quality of life, etc.

It interprets what the quantitative information obtained on issues related to quality of life etc. means and how it can constitute data for the planning process (Parlak, 2010).

## 3.2. Uses of Cultural Mapping in Spatial Planning

Cultural mapping serves as a crucial tool for incorporating cultural elements into spatial planning and preserving and fortifying the community's cultural identity. Consequently, the utilization of cultural mapping data within the planning process plays a pivotal role in shaping spaces that are more inclusive, sustainable, and aligned with society's needs.

Numerous related fields of research, including cultural and artistic studies, architecture and urban design, geography, sociology, cultural policy, and urban planning, employ cultural mapping to represent spatial transformations (Anonymous, 2014). Consequently, cultural mapping serves as an integration of both cultural and spatial planning.

Cultural mapping is a method usually used in the assessment and analysis phases of spatial planning. Spatial planning is a process that guides the future development of an area or region, taking into account a variety of

factors. These factors include environmental, economic, social and cultural elements.

Cultural mapping is utilized as an objective in planning of all types and scales, or as input to conservation and use efforts (Cook & Taylor, 2013). This is because, at a practical level, cultural mapping practices and products provide cultural data for planning and project management, including the creation of inventories for resource audits, financial analysis of possessions, long-term cost estimates, and responses to sustainability issues (Cook & Taylor, 2013). Additionally, cultural mapping enables local governments and administrations to improve their cultural database and input it into planning decisions (Ottawa Valley Culture, 2019).

Cultural mapping also plays vital roles in urban planning:

Identifying Cultural Possessions: Cultural mapping is used to identify areas and structures of historical and cultural value.

Preservation of Historical and Cultural Heritage: To the extent that cultural, tangible and natural values that need to be protected are preserved and maintained, the profit from tourism, which develops, strengthens conservation activities and popularizes the phenomenon of conservation (Tolga, 2010). Cultural mapping helps to identify strategies for the protection of historical and cultural heritage.

Development of Cultural Tourism: Cultural mapping has been recognized as a significant tool in urban tourism, a components of cultural tourism (Savaşır, 2020).

Promoting Cultural Diversity: Cultural mapping helps identify and understand various cultural groups and communities within a city. This

facilitates accounting for diverse cultural needs and demands in the planning process, ultimately promoting diversity in the city. Cultural mapping also aids in comprehending the impacts of urban design and layout planning on cultural diversity. It prepares communities for the future by exploring identity and local privilege, fundamental elements in grasping cultural diversity (Cook & Taylor, 2013)

Enhancing Community Engagement: Cultural mapping encourages communities to share, identify common ground, collaborate for prosperity, and engage people in learning processes (Cabeça, 2018).

Cultural mapping enables the adoption of a sustainable approach to urban planning that values cultural values and the cultural identity of the community. Therefore, the use of cultural mapping by urban planners and local authorities contributes to the creation of better designed, livable and culturally rich cities.

### 3.2.1. Cultural planning

"Culture and the city are two concepts that cannot be separated. Culture, which draws its resources from society and returns to society through cultural services, must be included in planning processes and receive financial support in order to be accessible and participatory to all citizens" (Istanbul Foundation for Culture and Arts, 2016). Cultural planning should ensure the strategic and integrated use of cultural resources in urban and rural community development in national, regional and local development. Through cultural mapping, cultural resources can be planned and protected by identifying their potential (Teiwa & Mercer, 2011).

Public institutions more commonly use cultural mapping to integrate cultural planning into urban planning processes (Jeannotte, 2016). A comprehensive mapping of cultural infrastructure and the creative economy, along with its interpretation in terms of planning and society, serves as a strong foundation for resource and urban planning. It also takes into account the diverse stakeholders and the future development of the city (Aksoy & Enlil, 2010).

The first stage of cultural planning is "cultural mapping", which involves transferring existing data to maps. The second stage is "cultural needs assessment," which entails determining the cultural needs and demands of the city's inhabitants and visitors, as well as the city's changes and growth (such as housing, transportation, employment, local services, population forecasts, etc.). The third stage is the process of "cultural planning"; it includes topics such as the population service area for the determined areas, determination of user profiles, frequency of participation in cultural activities, and programming and management of the process (Karaca, 2012).

Dreeszen (1998) emphasizes that culture-oriented planning is a broadly participatory, consensus-based process necessary to address the needs of society and to develop an action plan guided by cultural and artistic resources to meet these needs.

Parlak (2010) defines cultural planning as "the use of cultural resources for urban and social development with a strategic and integrated planning approach".

Cultural planning is a participatory consultation and decision-making process involving a broad cross-section of society. This participatory process assists local governments in identifying cultural resources and developing strategies on how these resources can be used to achieve urban goals. Cultural planning can also be considered as a strategic approach that integrates the cultural resources of society with the various actions of local governments in relation to urban planning. A comprehensive mapping of cultural infrastructure and the creative economy, interpreted in terms of planning and society, provides a solid starting point for resource and urban planning, as well as for considering the city's various stakeholders and future developments (Aksoy & Enlil, 2010).

**3.2.2. The relation between cultural mapping and spatial planning discipline in Turkey**

Parlak (2010) states that cultural mapping work is carried out in the research phase of culture-oriented development plans, which consists of nine stages: preparation, research, analysis, organization, preparation of the plan, exhibition and discussion of the plan, corrections and amendments, publication of the plan, implementation, monitoring and evaluation.
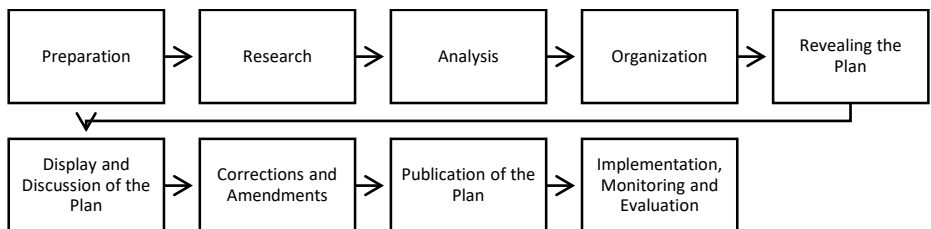


**Figure 2.** Cultural Planning Process (Parlak, 2010)

Keleş (2013) states that the urban planning process consists of five phases: determination of objectives, research and analysis, plan making and decision making, plan implementation, evaluation and review. In the research and analysis phase, data about the city are collected. The information collected as a basis for urban planning is put into a visual form that is easy to understand and follow in the form of maps, diagrams and graphics (Keleş, 2013; Suher, 1996; Gürel, 1970).

According to Keleş (2013), research on cities can be categorized into two clusters in terms of their objectives. The first cluster is conducted directly to help the preparation of urban plans. This includes researches aimed at getting to know the city and obtaining information on the needs of the urban population. The second cluster is research aimed at elucidating the population, economy, cultural and social structure, history or political structure of the city. He argues that research in the second cluster is conducted for other purposes but can also be utilized in the preparation of development plans. As mentioned, the cultural and social structure of the city is considered of secondary importance. Culture is often ignored in the preparation of development plans due to its secondary importance. This contradicts the principle of continuity of research on the changing city (Özdemir, 2022).

The place of cultural mapping in the national legislation on which spatial plans are based is given below;

The Article 5 of the "Development Act" numbered 3194 published in the Official Gazette dated 09.05.1985 and numbered 18749 defines

development plans and gives the principles for their preparation. According to this definition;

"Master Plan is a plan, which is drawn on the existing maps in accordance with the general spatial principles of the regional plans, if any, and the environmental layout plans, if any, with the cadastral status, if any, and which is drawn to show the general usage patterns of the land pieces, the development directions and sizes of the settlement areas, population densities and thresholds, transportation systems, and to be the basis for the preparation of the development plans, and which is a whole together with the plan provisions and report.

Development Plan is a plan drawn on the certified topography maps, with the cadastral status, if any, processed, according to the principles of the master plan and showing in detail the building blocks of various regions, their density and layout, roads and implementation stages and other information that will serve as the foundation of the implementation programs required for implementation."

In these definitions; it is mentioned in general that various information will be collected, but detailed information is given in the "Regulation on Preparation of Spatial Plans" published in the Official Gazette dated 14.06.2014 and numbered 29030. The purpose of the regulation is stated in Article 1 of this Regulation: "The purpose of this regulation is to establish the procedures and principles for developing and implementing spatial plans to protect and develop physical, natural, historical, and cultural values, to ensure a balance between protection and utilization, to support sustainable development at the national, regional, and city levels,

and to create healthy and safe environments with a high quality of life."
The said article defines the procedures and principles for the development and implementation of spatial plans that make land use and settlement decisions based on the protection of natural, historical and cultural values, as well as ensuring the balance of use, and states that spatial plans must identify and protect cultural values and possessions.

The Article 4 of the "Regulation on Preparation of Spatial Plans" includes the definitions of spatial strategy plan, master plan and development plan. In this article;

"...1) Spatial strategy plan: A spatial strategy plan that relates the country's development policies and regional development strategies at the spatial level, evaluates the economic and social potentials, objectives and strategies of regional plans by taking into account their transportation relations and physical thresholds, determines spatial strategies for bringing underground and above-ground resources into the economy, protecting and developing natural, historical and cultural values, directing settlements, transportation system and urban, social and technical infrastructure, establishing the relationship between spatial policies and strategies related to sectors, prepared using schematic and graphic language on 1/250.000, 1/500.000 or higher scale maps by using schematic and graphic language, can be made throughout the country and in the regions deemed necessary, and is complete with sectoral and thematic sheets and report,

i) Master plan: The plan is created on approved state-of-the-art maps at a scale of 1/5.000, in any scale between 1/5.000 and 1/25.000 in

metropolitan municipalities, on a scale of 1/5.000 scale, in metropolitan municipalities, at any scale between 1/5.000 and 1/25.000 in metropolitan municipalities, in accordance with the general principles, objectives, and decisions of the environmental layout plan, if one exists…

k) Development plan: In accordance with the master plan's guiding principles, taking into account the local environment, the general characteristics of the planning area, the building's use and need, accessibility, sustainability, and environmental impact; building islands, uses, building layout, building height, floor area coefficient, floor area coefficient or precedent, building approach distance, front facade line, division line, grade line, island separation line, vehicle, pedestrian and bicycle roads, transportation relations, parks, squares, urban, social and technical infrastructure areas, where necessary; a survey map that has been approved at a scale of 1/1.000, detailing the decisions made regarding construction and implementation, such as parcel sizes, parcel frontage and depth, rear façade line, road elevation and the number of floors below this elevation, the number of independent sections, the implementation stages that will serve as the foundation for the development implementation programs necessary for the implementation, and other information, including whether or not the cadastral status is processed. Development plan, completed in its entirety with the plan notes and comprehensive report.

According to these definitions, the spatial strategy plan should include a provision on the identification and protection of cultural values. Although there is no emphasis on identification and protection in the definitions of

Master and Development Plan, according to subparagraph (b) of the Article 8 of the Development Act, lower scale plans must be made in accordance with the upper plans. The same provision is regulated in the Article 6 of the "Regulation on Preparation of Spatial Plans". A similar provision is stipulated in subparagraphs (c) and (ç) of the Article 7 of the said regulation.

Paragraph (i) of the Article 7 of the "Regulation on Preparation of Spatial Plans" stipulates that the planning process consists of the following stages: the analysis stage, which is related to conducting research, identifying problems, collecting data and information; the synthesis stage, which is related to gathering and combining information and evaluating the results; and the formation of plan decisions.  According to the Article 8 Paragraph (1) on study and analysis, opinions should be gathered from pertinent institutions and organizations.  The Paragraph (8) of the same article states that depending on the status of the planning area, the size and scope of the area, whether it is a built-up area or a development area, and the nature of the problem on which the plan is based; studies such as sectoral and thematic reports for problem or need analysis, population analysis and projection, structure and texture analysis, urban risk analysis may be conducted. According to the Paragraph (9) of the Article, economic, social, cultural, political, historical, sectoral, and technological research based on scientific techniques, as well as physical studies such as threshold analysis and on-site surveys, and problems and potential analysis, should be conducted in order to determine the planning area and its immediate surroundings, as well as its position within the region or the city as a whole.

The Paragraph (12) of the same article states that "historical environment and traditional texture, cultural and natural heritage, social and economic structure, property status, urban, social, and technical infrastructure, building and street texture, transportation-circulation system, form of organization, and similar studies are carried out in relation to the entire city." The cultural dimension is only included in this article. Although there is no explicit statement that a cultural map is prepared for the preparation of spatial plans, a cultural map can be prepared within the scope of the paragraphs (8) and (12) of the Article 8 of the Regulation on Preparation of Spatial Plans.

The Article 15 of the "Regulation on Preparation of Spatial Plans" on the elements of the plan;

"(2) Sectoral and thematic decision sheets are prepared for settlement and urbanization systems, transportation systems, water, risk, infrastructure, economy, and special specialization zones, areas with restricted development or areas defined with special conditions, areas that must be planned in accordance with special principles, and other issues...

(4) The spatial strategy plan report shall be prepared in a way to include vision and priorities, principles, purpose, scope, objectives and strategies, sectoral and thematic decisions, plan provisions and action plan topics.

(5) The representation techniques to be used may be developed during the preparation of the plan according to the nature and scale of the sectoral and thematic sheets". Cultural maps can be prepared in accordance with the mentioned paragraphs.

Based on paragraphs (1) and (2) of the Article 19 on the preparation of the Environmental Plan, it is stipulated that it is necessary to collect information on cultural and natural values. The Article 22 of the seventh section titled "Principles Regarding Development Plans", which includes the principles regarding development plans, mentions the preparation of the Threshold analysis. In this article;

"(2) In threshold analysis; topographic, geological-geotechnical, hydrogeological structure features, agricultural and forest regions, drinking water basins, protected areas, sensitive areas, coastline, infrastructure, natural and physical data, and disaster threats are all analyzed and evaluated together.

(3) Threshold analysis is mandatory during the preparation of development plans and is used as a basic plan base for the formation of plan decisions".

Only some of the cultural and natural values such as protected areas, conservation areas and sensitive areas are mentioned in these paragraphs. Although there is no explicit information on cultural mapping, it can be prepared through threshold analysis.

Paragraph (6) of the Article 23 states that the data collected during the preparation of the Master Plan;

"...g) Ecological structure (ecosystem types, presence of flora and fauna).

ğ) Areas granted protection status, sensitive areas (protected areas, areas protected by international conventions, wetlands, special environmental protection zones, national parks, nature parks, nature monuments, nature reserves, wildlife development areas, wildlife protection areas, species protection areas, drinking water basin protection areas and others).

h) Forest areas, pasture, spring pasture, winter pasture areas.

ı) Culture and tourism development and protection zones, tourism centers". As stated, a certain part of cultural and natural values is addressed.

Paragraph (8) of the Article 24, which serves the basis for the development plan, states that natural and cultural possessions that are protected and registered in accordance with the relevant legislation, their integral parts such as annexes, garden courtyard walls, protection areas of registered single buildings, if any, integral elements such as street textures, and the boundaries of the protection area, if any, are shown in detail in the plans, and if any structures worthy of registration are identified, they should be notified to the relevant administration for evaluation.

Cultural values are mentioned in more detail in the aforementioned article. The Paragraph (10) of the same article mentions only "...registered monuments, monuments, etc., historical and cultural possessions" defined in subparagraph (h) as cultural and natural values among the data obtained during the preparation of the development plan. Only tangible cultural possessions are considered in the development of spatial plans. However, as demonstrated in this study, culture is more than just tangible possessions.

The principles for the preparation of Conservation Development Plans are defined in the Article 27 of the same Regulation:

"(1) The following principles shall be observed in the preparation of conservation development plans:

a) Conservation development plans shall be prepared by taking into consideration the interaction transition areas, if any, and covering the entire protected area or in stages deemed appropriate, by establishing relations with the settlement in which it is located.

b) Where natural possessions, natural, historical, archaeological, urban and urban archaeological sites, and other locations with protection status overlap, the relevant ministries' views on conservation and exploitation principles shall be sought.

c) To solve the problems identified during the preparation of conservation development plans and to protect the historical, cultural, and natural environment in a livable and sustainable manner, area-specific strategies and, where necessary, targets, strategies, and implementation principles for making the activities and building stock in registered cultural possessions and protected areas more resistant and safe against earthquakes, floods, landslides, and forest fires shall be determined.

d) Considering the qualities of the area where the conservation development plans are prepared, the uses and functions are determined, and construction conditions are determined by evaluating the researchers conducted on its historical, cultural and natural structure...

e) For conservation development plans for natural protected areas, the regional commission's decision shall be taken; and in areas where natural possessions and natural sites overlap with historical archaeological, urban, urban archaeological sites, and other protection statuses, the appropriate opinion of the relevant boards shall be taken.

f) During the planning phase, an inventory study on the cultural and natural possessions that are not registered within the boundaries of the protected area but may be subject to registration is carried out and submitted to the approval of the relevant boards or commissions.

g) In the event that renovation areas are designated in conservation development plans, it is essential that renovation projects are prepared in accordance with the decisions made in the plan.

h) In conservation development plans, no plan amendments can be made regarding new function transformations that will adversely affect the integrity of the protected area, disrupt or destroy the existing values that need to be preserved, and change the traditional urban texture characteristics in a negative way.

ı) Development plans shall take decisions to ensure the protection and renewal of existing historical buildings and street textures."

As can be seen, cultural and cultural planning is reduced to conservation development plans. Eren and Arslan (2020) argue that the data in conservation understanding and conservation development plans are reduced only to buildings and site boundaries, and that there should be different inputs. Cultural mapping is an area that is not regulated in the legislation. Data on tangible cultural heritage is processed in spatial plans. In the data collection phase prior to the preparation of spatial plans, data on cultural and natural possessions are required to be compiled. However, it is stipulated that data on cultural resources and places must be collected (Özdemir, 2022).

## 4. Conclusion and Suggestions

Within the scope of the study; the concepts that form the basis of the study on determining the relationship between cultural mapping and spatial planning are clarified and the definitions of culture and cultural resources are examined in academic literature and national legislation. The place of cultural mapping in urban planning discipline is questioned.

In the research conducted on national legislation, spatial planning, cultural mapping relationship and the preparation of the map, the following results were determined:

- Cultural mapping should be an input to the preparation and amendment processes of all types and scales of Spatial Plans, with a particular emphasis on Conservation Development Plans,

- One of the implementing regulations of which is the "Regulation on Preparation of Spatial Plans" of the Development Act No. 3194, can be leveraged as a basis for cultural mapping. However, to enhance the effectiveness of this tool, there is a need for the establishment of relevant legislation, administrative structures, and regulations. This should include clear definitions of duties, powers, and responsibilities within the legislation.

- The relevant legislation should include more detailed articles that address the research, identification, planning, and protection of cultural resources.

- Cultural mapping is indispensable for the protection, utilization and sustainability of cultural resources,

- Cultural mapping supports tourism and local development initiatives,
- That cultural resources do not only consist of tangible possessions and that cultural resources should be viewed holistically with a broader perspective,
- Cultural industries, cultural spaces, intangible cultural heritage, natural values, cultural communities and organizations should also be considered as cultural resources,
- Public Administrations (Local administrations + central administration and/or provincial organizations of central administrations) should adopt the cultural mapping approach and be involved in the process with a holistic and participatory approach,
- Raising awareness of urban planners, public administrations, civil society organizations and the public on cultural mapping is an essential complementary element,
- It is crucial to highlight the roles of urban planners in cultural mapping, particularly concerning the identification, protection, and planning of cultural resources that serve as data for cultural maps.

Cultural mapping in spatial planning and culture-oriented studies should be implemented within cities. Cities must acknowledge their historical fabric, cultural possessions, cultural industries, and intangible cultural heritage to prevent damage, ensure sustainability, and preserve their cultural inventory. Cultural mapping plays an indispensable role in promoting the sustainability of cities in terms of culture and spatial

planning. It also contributes to fostering a sense of ownership among citizens, decision-makers, and urban planners.

Cultural mapping, when integrated as an input in spatial plan preparation and amendment processes, becomes a necessity for cities, urban theory, and urban life in today's context. Without cultural mapping, the existing practice typically involves only the inclusion of buildings and areas slated for protection during the data collection phase of spatial plans, treating them as untouchable. The resulting output primarily consists of data collection and an inventory of cultural resources.

## Thanks and Information Note

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# Recommendations for the Post-earthquake Multi-layered Antakya (Antioch) Conservation and Planning

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## 1. Introduction

Antakya (Antioch) stands out as a city of great historical significance with its rich cultural heritage and multi-layered past. However, the devastating earthquake disaster that struck 11 provinces on February 6, 2023, has severely impacted the city, causing significant damage to its historical urban fabric. In the aftermath of this catastrophe, it becomes imperative to address the conservation and restoration of Antakya.

This study aims to provide recommendations for the post-earthquake conservation and planning of Antakya. Additionally, it will focus on the efforts made to preserve the ancient civilization and culture of Antakya, exploring possibilities to draw inspiration from similar experiences and help the city recapture its historical spirit. After the great earthquake disaster that hit 11 provinces on 6 February 2023, it is necessary to reconsider the "Historical Urban Texture" in Antakya (Antioch), where unfortunately the heaviest destruction took place, and where and with which "Special Package Projects" the repair/restoration works should be carried out.

The Chapter examines what is needed and offers suggestions on these issues. Our research method based on evaluations and examinations over the existing literature have been included. At the same time, various conferences and presentations with non-governmental organizations and academicians were used. Practices that need to be done as a requirement of national legal regulations and foreign examples are emphasized, and the concrete steps about what should be done are included in the city of Antakya.

In this study, which will also summarize the work being done for the preservation of the ancient civilization and culture of Antakya, which is an indicator of a multi-layered and multi-cultural civilization, it will be foreseen that decisions will be made considering the "Conservation-Purpose Development Plan in effect in Antakya", especially in the renovation of the places destroyed in the earthquake. Inventory studies and urgent handling of destroyed and damaged monumental buildings (Mosques, inns, baths, churches and residences) in line with the principles of the Venice Charter and the principles of restoration and repair for the protection of cultural assets will be addressed.

As an example, in this study, Warsaw and Dresden, which was almost completely destroyed after World War II, will be discussed. In Warsaw, what to do with the ruins of the building, how to restore the city to its originality and deal with it was a serious problem for the architects and city planners of the period. In order to create a continuity with the traumatic past of Warsaw, it was decided to use the excavation clusters, which reached incredible sizes, especially in the ghetto area, in the construction of new buildings. As a result, inspired by the Warsaw event, which has been recorded in the black pages of history, suggestions will be made on how the ancient city of Antakya can regain its spirit.

The February 6 earthquake and aftershocks wiped out monuments of world heritage and religion in the city, an early cradle of Christianity and significant in the Roman Empire. Historical sites of Ottoman times throughout the region suffered (Figure 1).

**Figure 1.** Areas Destroyed during the Antakya Earthquake

Along with the earthquake, the historical city texture of Antakya destroyed and almost turned into a depression area. "Earthquakes have damaged structures spanning centuries and cultures, from Roman forts to historic mosques to holy churches of a number of Christian denominations," said Bénédicte de Montlaur, president and CEO of the World Monuments Fund, to National Public Radio (NPR).

"We have no doubt that it will take years to repair the heritage lost in these tragic events and that a broad international mobilization will be needed to support local efforts" (NPR, 2023).

The European countries that were destroyed in the World War II restored and improved all their cities in accordance with their original form and re-established them as an example to the world. For example, despite the fact that Dresden is the city of sadness left behind by besieged, wiped out, and plundered European cities, it still exists today, though in fairy tale form. After the destruction of the great earthquakes in California, Chile and Japan, the cities were rebuilt in a modern way, in the light of reason and science.

Conservation Plan / Recioration / New Construction: "Conservation Plan in Antakya" should be taken into consideration.

• Infrastructure and texture/structure inventory studies should be done urgently and

• Demolished and damaged monumental works (Mosque, inn, bath, church and residences) in line with the principles of restoration and repair must be addressed immediately.

During the earthquakes that occurred in Kahramanmaraş and Hatay on February 6, 2023, and February 20, 2023, Turkey once again bore witness to the insufficiency and incompleteness of preparations and actions taken before, during, and after such calamities. It became evident that severely flawed structures, illegally constructed buildings, unauthorized additional floors, haphazard renovations, and constructions lacking scientific grounding, driven by considerations of "rent," "bribery," and private interests, resulted in the tragic loss of life and property. These actions disregarded our constitutionally enshrined rights to secure housing and life.

In order to avert future disasters, it is imperative that we hold accountable those responsible, learn from our experiences, retain awareness of the mistakes made, and avoid repeating them. Rebuilding Antakya requires a contemporary vision that embodies environmental sensitivity, safety, human-centeredness, identity, and smart urban planning, all of which are resilient against disasters and contribute to the enhancement of the quality of life in Antakya.

To achieve this, it is of utmost importance that before embarking on construction endeavors, the completion of groundwork, site assessments, and comprehensive city planning be followed by the creation, sharing, and promotion of a 3D (Three-Dimensional) Model of the NEW ANTAKYA.

## 2. Current Challenges, Future Challenges, Planning, and Recommendations

The seismic events that struck the regions centered around Kahramanmaraş and Hatay on February 6, 2023, and February 20, 2023, revealed significant challenges in disaster response, urban planning, the preservation of cultural heritage, and the protection of constitutional rights. This section aims to delve more comprehensively into the intricate array of issues that emerged in the aftermath of these devastating occurrences. These challenges encompass critical concerns related to immediate post-disaster relief efforts, the fundamental causes of the destruction, and the necessity for a comprehensive approach prioritizing responsible actions, scientific knowledge, and the safeguarding of invaluable cultural assets. These challenges emphasize the urgency of adopting a holistic and well-informed approach in the reconstruction and protection of the affected regions, guided by expertise, collaborative efforts, and a commitment to both present and future well-being.

To avert future disasters, it is imperative that we hold those responsible accountable, extract lessons from our experiences, remain mindful of the errors committed, and prevent their recurrence. This imperative extends to the protection of life and property, upholding our constitutionally enshrined rights, and the overall enhancement of societal well-being.

"If we are to discuss the identified issues, it is crucial to focus on the array of challenges that have become apparent in the aftermath of the earthquakes centered around Kahramanmaraş and Hatay on February 6, 2023, and February 20, 2023. These challenges span various critical domains, including disaster response, urban planning, cultural heritage preservation, and the protection of constitutional rights."

Problem 1: In the region, debris has not yet been cleared, and issues such as temporary shelter, climate control, hygiene, food, infectious diseases, education, debris management, public health, vaccination campaigns, clean drinking water, and efficient public services remain unresolved. There is a lack of serious efforts and implementation aimed at identifying those responsible for the devastation, including evidence collection.

Problem 2: The primary causes of destruction in the region include 'soil-structure incompatibility,' 'high-rise development,' 'adjacent construction,' 'failure to adhere to setback distances,' 'use of inappropriate building materials,' 'construction technique errors,' 'column-beam faults,' 'aging building stock,' and similar factors. Given these circumstances, deploying construction companies immediately after the destruction for the construction of permanent reinforced concrete housing poses significant challenges.

Problem 3: Appointing a political figure to excavate underground historical artifacts, burials, and treasures without addressing surface issues, taking significant measures for the preservation of historical artifacts, and preventing illicit activities is not rational. The underground cultural assets, historical artifacts, burials, and treasures in Antakya have attracted the

attention of certain individuals. Separation and severe damage are observed in areas with post-addition construction parts to cultural assets and portions that underwent restoration due to earthquakes. Thousands of cultural assets are in dire need of significant restoration and reinforcement. Entrusting this task to universities, architects' associations, and experts in the field is imperative (KADOP, 2023a, Tuncer, Tezer & Parlar, 2023).

## 2.1. Principles, Assessments, and Recommendations for Disaster-Resilient Settlement Planning and Urban Conservation in Antakya

In the context of disaster-resilient settlement planning, design considerations that encompass factors such as soil geology, soil values, climate, wind, solar exposure, water resources, local materials, regional architecture, urban fabric, transportation, pedestrian networks and zones, streets, city planning, and urban conservation should prioritize "Conservation-Purpose Plans" over zoning plans and their implementation.

During restoration and strengthening efforts for cultural assets, it is essential to consider Antakya's existing Conservation-Purpose Zoning Plan, updating it as necessary while adhering to the 2863 Law on the Protection of Cultural and Natural Assets. Urgent inventory work should be initiated to commence restoration and strengthening projects for registered or unregistered cultural assets, including mosques, inns, bazaars, public baths, churches, synagogues, historic houses, neighborhoods, and other historical and monumental structures that have been destroyed or damaged (Tuncer, 2023b)

Policies aimed at safeguarding and enhancing the historical and cultural uniqueness and identity of Antakya's spaces, assets, and values should be formulated and implemented at every planning stage. The positive outcomes of these policies should be observable in relevant areas. In this regard, collaboration between professional teams experienced in Antakya, universities, and the Ministry of Culture and Tourism is of utmost importance.

Urban design serves as a crucial tool to achieve the objectives of city planning and urban conservation. Special project areas (urban design zones) should be identified in Antakya, and designs for preservation and renewal purposes should be developed and effectively implemented. Existing plans should be reviewed in line with conservation principles.

Ministries, municipalities, and the provincial special administration should jointly develop an "action plan" focused on conservation-driven plans and projects in Antakya, free from any concerns that may hinder preservation efforts.

Conservation-Purpose Framework Plans (at 1/5000 and 1/1000 scale) and Urban Design Projects (at 1/500-1/200 scale) should be prepared for urban conservation areas.

An "Archaeological Master Plan" for Antakya should be prepared, identifying significant archaeological data and ensuring its protection. The Archaeological Master Plan should be seamlessly integrated with the city's macro plan.

An efficient and continuous unit, established with the participation of Hatay Metropolitan Municipality and Antakya Municipality, supported by

relevant ministries, capable of planning and implementing preservation efforts, should be created. This unit should engage in organizational work for planning, project development, and implementation across the entire city and its conservation areas. Encouragement for collaboration among all public institutions, private sector entities, and civil society organizations is essential to create an "exemplary" city within this comprehensive framework.

## 2.1.2. General recommendations and situation assessment

In light of the current situation, several general recommendations and a comprehensive assessment are crucial. These recommendations aim to address the challenges faced and promote the preservation and revitalization of historical Antakya.

Collaborative Efforts: It is imperative to initiate collaborative efforts involving reputable national and international organizations, such as UNESCO, the United Nations, and various media outlets, to garner support for the restoration and revitalization of the historical environment. Establishing contacts, preparing necessary infrastructure, and conducting various initiatives will encourage and accelerate these efforts.

Inclusivity and Expertise: The design and planning of Antakya should involve representatives from various disciplines, including sociologists, archaeologists, economists, architects, geologists, and legal experts. A holistic approach, driven by their expertise, ensures a well-informed and comprehensive restoration process.

City Zoning and Heritage Presentation: A master plan should divide the city into zones, with a designated "Downtown" (city center) where an

open-air museum can showcase the historical richness, along with bazaars to present the culture and crafts of old Antakya.

Tourism Master Plan: A tourism master plan should be developed, creating distinct zones to position Antakya as a significant global tourism center with its rich historical past, cultural diversity, and unique interfaith harmony.

Unified Professional Cooperation: Establish a strong cooperation platform among NGOs, social platforms, professional chambers, and academic institutions. This unity ensures constant communication and collaborative efforts to address the significant challenges faced by Hatay.

Economic Recovery and Development: Given the recent earthquake disaster, economic recovery and development should prioritize investments in agriculture, industry, transportation, education, health, energy, and rural and urban infrastructure. Providing incentive loans, facilitating financing, and inviting domestic and foreign investors should be top priorities.

Return of Local Residents: Encourage the return of old and settled families (those residing in Antakya for at least 15-20 years) by implementing policies that increase their income, create employment opportunities, and provide social income support for a defined period.

Local Dynamics and Investment Incentives: Focus on local dynamics and internal potential in development policies. Provide attractive SME incentives, long-term, low-interest or interest-free loans for new investments, and establish special tax-free economic and export zones in Antakya.

Effective Coordination: Foster coordination and cooperation between central and local administrations, professional chambers, civil and social platforms, ensuring a harmonious approach during planning, programming, and implementation stages.

Differentiated Priorities: Prioritize aeas with high development potential and added value, adhering to urban development principles that focus on attraction centers and implement the smart city concept, while ensuring compliance with relevant zoning laws.

These general recommendations, supported by a comprehensive situation assessment, lay the foundation for the preservation and revitalization of historical Antakya, involving multidisciplinary expertise, community engagement, and strategic development policies.

Recommendation 1: In order to garner support for the revitalization of the historical environment, it is essential to reach out to respected individuals and organizations both locally and internationally. This should include UNESCO, the United Nations, the European Union, ICOMOS, prominent media outlets such as BBC, New York Times, and Wall Street Journal, universities, media platforms, ancient communities, and relevant funding sources. Collaborative efforts and awareness-building initiatives should be initiated with the goal of securing support for the restoration of the historical environment.

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 to approach cultural

heritage from a holistic perspective. In the 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).

Recommendation 2: Recognizing the desire of local residents to have a say in the future of their cities, it is imperative to involve the opinions of the local community, universities, NGOs, civic organizations, chambers, bar associations, and experts. These stakeholders should be consulted on matters related to site selection, urban design and planning, preservation of cultural values, and protection of property rights, sustainable construction methods, public health, and environmental concerns. Expert commissions and project implementation units should consist of genuine specialists who are actively engaged in the problem-solving process.

Recommendation 3: Global experts emphasize that the Antakya-Hatay region remains at risk of future earthquakes; therefore, haste in construction must be avoided. Ensuring meticulous adherence to all construction procedures and stages, including compliance with construction laws, is crucial to creating earthquake-resistant settlements. Authentic experts and practitioners with a proven track record should be involved in addressing various urban needs such as transportation, infrastructure, logistics, local services, urban economy, and disaster planning. If necessary, international support should be sought to ensure the

highest level of seriousness in all endeavors aimed at ensuring public safety.

Recommendation 4: Given the existing and considerable seismic risk in the region, it is essential to prepare comprehensive and reliable projects that preserve the original demographic, cultural, and architectural structure. This includes a complete prohibition on constructing buildings on the city's two-thousand-year-old historical sites, avoiding concrete pouring, and restoring suitable areas, even partially, as open-air museums.

Recommendation 5: We are actively involved in various initiatives aimed at establishing Antakya as a sister city to other global cities, capitalizing on the opportunities for international solidarity. These efforts encompass establishing essential contacts, preparing the necessary infrastructure, and executing diverse initiatives.

## 2.1.3. Principles and assessments for the conservation of cultural assets

We possess a significant spatial and cultural heritage. The earthquake demolished our spaces. Some elements of memories and cultural heritage have been lost, and some have migrated from life and the city. The city's cultural heritage and common property rights have been shaken, losing numerous custodians. Antakya is on the verge of losing its essence, its spirit- its culture. The treatment of the remains of cultural assets as rubble weighs heavily on the hearts of the people of Antakya.

What, why, and how should we preserve? There is hardly any study or statement left unexplored in the international arena on these matters. Therefore, we must focus on adapting them to the devastation we are

witnessing today without delay. Conservation can be succinctly defined as the "process of transferring without destruction." The act of preservation affects both the preserver and the preserved entities, shaping each other. In the conservation process, tradition and contemporaneity coexist. The crucial aspect is where the individual stands in the conservation process. Conservation involves creating historical environmental awareness, safeguarding cultural heritage, and carrying this concern. After all, cultural assets possess historical value, aesthetic value, impression and picturesque value, antiquity value, and utilitarian value.

Monumental structures may include religious, military, civilian, folkloric, written, industrial monuments, as well as public works and natural conservation areas. Antakya has both monumental and symbolic structures. These collectively form the city's memory. Historical accumulation, together with the corresponding physical structures, exists in Antakya. They all reside within the ancient culture of Antakya, both influencing and being influenced by daily life. Antakya's ancient culture is deeply intertwined with everyday life, and daily life is within the realm of the ancient Antakya culture. The people of Antakya draw nourishment from the ancient Antakya culture.

Recommendatıons: Therefore, Antakya must exist in Antakya, remain in its actual place. It should not be uprooted. For instance, the long bazaar is not just a simple market. Since its construction, the culture of Antakya thrives there. Various cultures, like the Ahilik culture, synthesize, and flourish there.

### 2.1.4. Inventory studies

One of the most vital components of the conservation process is inventory studies. These studies encompass identifying, registering, determining, and documenting cultural assets. Through these studies, a registry file is created for each structure. In our country, a national inventory of cultural assets has not been established, so most of these are not even registered with the Conservation Boards, meaning they are unrecorded. In the earthquake, they suffered significant damage. It is challenging to claim they are preserved in this situation. The first task is to conduct inventory studies and damage assessments. Protection based solely on registered structures is insufficient. Unregistered structures and remnants that harmonize with the context must also be safeguarded.
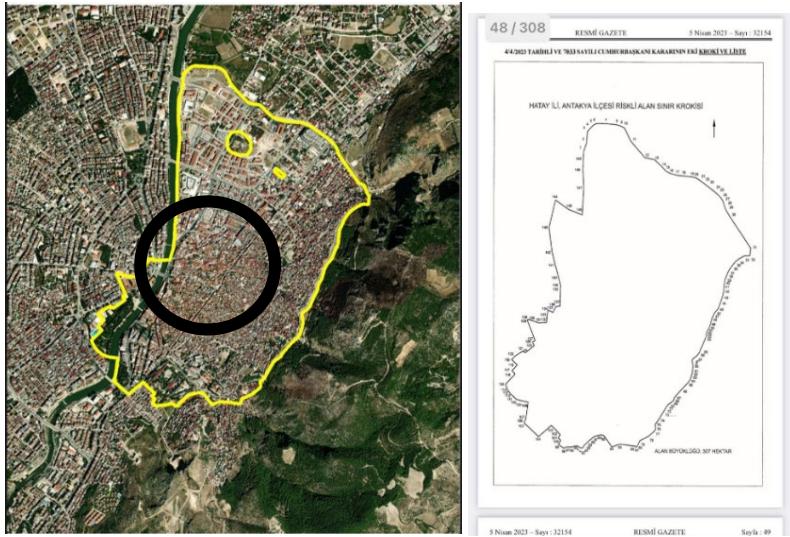


**Figure 2.** Risky-Urban Transformation Area According to the Article 2 of the Presidential Decree Regarding Some Measures Taken in the Field of Disaster and Emergency Management within the Scope of in State of Emergency No:7033

Inventory studies should be conducted urgently, and the restoration and repair of destroyed and damaged monumental works (mosques, inns, public baths, churches, and residences) should be immediately addressed in line with the principles of the Venice Charter and restoration principles for the preservation of cultural assets (Tuncer, 2023).

## 2.2. Legal Examination and Potential Legislative Proposals: A Critical Analysis

Principles and Assessment According to the Article 63 of the Constitution; the state ensures the preservation of historical, cultural, and natural assets and values and takes supportive and incentive measures for this purpose. The Law No. 2863 assigns this duty to the Ministry of Culture and Tourism (General Directorate of Cultural Assets and Museums) and, if applicable, to the General Directorate of Foundations.

### 2.2.1 Evaluation of the Declaration of Antakya's Historical City Center as an urban transformation zone

The area encompassing Antakya's historical city center, along with its 307-hectare territory, has been designated as a hazardous-urban transformation area in accordance with the Article 2 of Law No. 6306 on the Transformation of Areas at Risk, as stipulated in the Presidential Decree published in the Official Gazette dated April 5. This decision, contradicting both legal frameworks and the cultural fabric, tends to depreciate Antakya, aiming at a form of "gentrification," and must be revoked before implementation – legal actions have been initiated accordingly.

**2.2.2. Presidential Decree No. 7033 and Law No. 6306 on the transformation of areas at risk**

What does this law and presidential decree imply? In brief terms: The state, regardless of whether an area is under the threat of disasters (involving loss of life and property) or not, can ensure the transformation, improvement, liquidation, demolition, and renewal of plots and lands containing risky structures to create healthy and secure living conditions and designate new settlement (reserve) areas. In the application of this law, the authorized entities are the Ministry of Environment, Urbanization, and Climate Change (MEUCC), metropolitan municipality presidencies, and the municipalities granted authority by the Ministry or the Mass Housing Administration of Turkey (TOKİ).

In the case of immovable properties that have been transformed into land through the demolition of risk-bearing buildings, previously established condominium rights or property ownership shares are, without requiring consent from owners, removed by the relevant land registry office upon the request of the MEUCC Ministry and registered as land in the name of the owners in proportion to their shares. If necessary, urgent expropriation may also be pursued by the MEUCC Ministry, TOKİ, or the Authority.

The MEUCC Ministry holds the authority to carry out all types of map, plan, project, land and plot arrangement procedures, as well as land acquisitions concerning these areas and properties, to transfer the property ownership or zoning rights to another area, to construct or have constructions built, including the methods of construction for compensation or revenue sharing, to determine land shares, to partition,

separate, or consolidate shares, and is also authorized, without being subject to the State Tender Law, to lease and sell its proportionate immovable properties for the purpose of generating revenue under special accounts for transformation projects (Tuncer, 2023).

Actions against administrative decisions established under the Law No. 6306 may be pursued by filing a lawsuit within thirty days from the date of notification, in accordance with the Administrative Procedure Law No. 2577 dated Hanuary 06, 1982. Although it may be considered that this period will commence after the lifting of the State of Force Majeure (OHAL), it is advisable to initiate legal proceedings without delay.

In areas containing structures at a level of risk that requires demolition or areas with significant damage or the risk of significant damage, transformation applications can be made or commissioned by the MEUCC Ministry without the consent of property owners or interested parties (KADOP, 2023a, KADOP, 2023b).

### 2.2.3. Status of conservation areas

The declaration of the historical city center as a hazardous area and its subsequent inclusion in urban transformation, along with several concerning practices in this context, suggest that the urban planning process is being conducted with a commercial-orented approach open to profit, often influenced by political will at various stages.

During the implementation of Law No. 6306, when actions are taken in areas falling within the scope of the Law on the Protection of Cultural and Natural Assets, and the Law on the Renovation and Conservation of Dilapidated Historical and Cultural Immovable Assets, the protected status

of the area is taken into consideration, and the opinion of the Ministry of Culture and Tourism is obtained for the implementation. However, the preservation of historical and cultural assets is fundamentally mandated by Law No. 2863, international agreements, and relevant regulations.

The boundary of the risky area is determined with consideration for implementation integrity. Legal actions can be initiated against the decision on the hazardous area within thirty days from the publication date in the Official Gazette. Failure to do so renders it impossible to file a lawsuit against the hazardous area decision based on the implementation procedures of Presidential Decree No. 7033 and Law No. 6306.

All kinds of goods and services procurement and construction work carried out in designated risky areas using public resources are considered to be subject to the provisions stipulated in the Article 21/1-b of the Public Procurement Law (negotiated tender for urgent and simple procurement). Ministries have solicited and acquired scientific studies from faculty members of state-owned universities regarding earthquake zones, and assigned architectural firms (DB Architecture), chosen through the expedited procurement method (KADOP, 2023b).

This, to say the least, represents an unjust treatment towards faculty members who conducted scientific research on the region, and an undue privilege and gain granted to the selected architectural firm.

Presidential Decree No. 7033 must be cancelled before implementation: Because; before post-earthquake geological studies, micro-zoning studies, and updates have been conducted, the idea of relocating Antakya to mountainous areas with stable ground, constructing multi-story buildings

there, and presenting appealing proposals to the residents of Antakya, while acquiring lands in the old city center, particularly the historical core of Antakya, suggests a potential for substantial speculative gains (KADOP, 2023b). The boundaries of the urban transformation area have been proposed from a historical perspective. It has been emphasized that there are 1st, 2nd, and 3rd-degree protected zones in this area, highlighting the need to safeguard cultural heritage, the presence of liquefaction-prone grounds unsuitable for settlement, and the risks posed by unauthorized repairs initiated by property owners.

Attention has been drawn to the poor planning practices before the earthquake, accompanied by post-earthquake unplanned interventions. It was stressed that the preservation of cultural heritage should be carried out through architectural restoration projects, guided by the law on the protection of cultural heritage and the conservation board.

In the meetings, it was stated that sufficient and positive efforts could not be observed regarding the updating of regional plans and the implementation of conservation plans, the necessary explanations were not made by the authorities and the public was not informed. It has been stated that a disaster-resistant, holistic city model should be applied in accordance with the traditional-historical texture (Tuncer, Tezer & Parlar, 2023).

Insufficient and positive efforts towards updating regional plans and implementing conservation plans have been observed, with authorities failing to provide necessary explanations and information to the public. It was emphasized that a comprehensive urban model, combining earthquake

resilience and adherence to the traditional-historical fabric, should be implemented.

Concerns have been raised about the necessary legislation accompanying urban transformation, including demolition decisions for risky structures, valuation procedures, the reorganization of plots and parcels, the process of rebuilding, and the possibility of demolishing immovable properties where there is no actual risk. The potential for grievances and hardships was highlighted.

Evaluations on the Effects of Decree No. 126 on the Regions Affected by the Earthquakes and Some Principled Assessments in terms of Civil Engineering.

The Presidential Decree No. 126 dated February 23, 2023, and published to be applied in the regions affected by the earthquakes in Kahramanmaraş and Hatay on February 06, 2023, and February 20, 2023, allows actions to be taken without the requirement of timely planning and adherence to zoning regulations, facilitating rapid land allocation and construction in both rural and urban settlements. However, urban design cannot exist without planning, and earthquake wounds cannot be healed without planning. Preparation for new disasters cannot be made without planning. The absence of planning means deviating from scientific and ethical structuring, neglecting the public interest.

Without comprehensive, multidimensional, and holistic planning, a disaster-resistant city cannot be built. The protection of natural, cultural, and economic heritage of urban and rural areas, as well as the revitalization of agriculture and industrial production, form the foundation of planning

efforts. A successful planning approach should ensure that the local population remains in place, preserve the societal and spatial memory, protect cultural heritage, promote environmentally compatible, climate-resistant, production-focused structures for both urban and rural areas, and lay the foundation for economic revitalization.

According to the same decree, construction works can be tendered without acquiring land, completing ownership, expropriation, and necessary zoning procedures, and without implementing construction projects. The elimination of the urban planning process during the public announcement period implies the suspension of the legal and administrative objection rights of property owners in the region. This, in the mildest terms, restricts the constitutional right of private property.

Reducing urban design and construction after earthquakes to mere timing and building construction is an invitation to new disasters. Instead, for the urgent needs in Antakya-Hatay, temporary housing areas should be established to facilitate the return of temporary migrants and restore normal life, while simultaneously establishing the spatial, social, and legal infrastructure for long-term planning.

According to Presidential Decree No. 126, areas without cadastral surveys, without zoning plans, areas subject to the Forest Law, and areas subject to the Pasture Law are opened for construction in both temporary and permanent settlement areas under the jurisdiction of the Ministry of Environment, Urbanization, and Climate Change. The Cadastral Law, Zoning Law, Forest Law, Pasture Law, and the Civil Code (property rights) are suspended, and the authority to make administrative decisions

is transferred to the Ministry of Environment, Urbanization, and Climate Change. The Ministry will have the power to transfer the ownership and zoning rights of earthquake victims to other areas and change the type and shares of their properties. Urgent expropriation can also be carried out in earthquake zones in conjunction with TOKI.

The authority to dispose of debris and waste materials in the earthquake zone is given to the governor, and waste disposal sites are exempted from any documentation requirements. This situation, which ignores the participation and objection rights of professional chambers and the local population, confuses the issues of emergency housing needs and healthy and disaster-resistant urbanization policies, opening the door to unplanned and illegal construction through administrative decisions. This situation is in violation of our Constitution. New problems are being created without solving the problems caused by the earthquake. The genuine and sincere resolution of these problems requires mobilizing all social dynamics, implementing scientifically and legally sound planning, and multidisciplinary approaches to create synergy together.

Some Fundamental Assessments in terms of Civil Engineering:

Civil Engineering, a fundamental engineering discipline that encompasses a wide range of structures, began its origins in ancient civilizations such as Ancient Egypt and Mesopotamia, possibly between 4000 BC and 2000 BC, addressing the needs for shelter construction by integrating materials and techniques. Civil Engineering is the essential engineering field dealing with the planning, design, construction, and supervision of structures. Given its broad scope, it covers the planning, design, construction, and

supervision of various structures such as buildings, dams, airports, bridges, roads, water bridges, harbors, sewers, water networks, tunnels, conventional and high-speed railways, subways, etc., requiring specialized knowledge and research in various areas. Some of the major subfields include environmental engineering, geotechnical engineering, municipal or urban engineering, coastal engineering, surveying, structural engineering, foundation engineering, water resources engineering, materials science, transportation engineering, etc.

Due to its comprehensive nature, it incorporates various fields such as history, materials science, geography, geology, soil science, hydrology, environment, mechanics, making it a multifaceted profession. We are responsible for understanding and fulfilling the essential duties and responsibilities of Civil Engineering, which forms the basis for all these areas, as well as being responsible for what we do. At the heart of all these disasters and the resulting pain lies the inadequate understanding of the definition and significance of Civil Engineering, the prioritization of distorted systems driven by money and political will over this valuable concept, and irresponsibility.

Indeed, in this earthquake that has caused deep and enduring pain that will never be erased from our memories, Civil Engineering has been buried under the rubble due to the irresponsible and erroneous practices of individuals with insufficient knowledge, experience, and qualifications. The result is that the earthquake has led to the destruction of hundreds of thousands of buildings, causing the death of hundreds of thousands of people, injuries to hundreds of thousands of people, leaving millions of

people homeless, without a city, without jobs, leading to broken families, shattered homes, causing trauma to millions of people for many years, and resulting in an economic loss of 150 billion USD. All these pains will cease when engineering rules and laws are correctly applied by competent individuals. The reconstruction of Antakya, as envisaged by KADOP (Antakya Archaeological Heritage Protection Board), will hopefully come to fruition in the renewed Turkey that will be reborn on May 15.

In this regard, the following issues should be addressed and implemented in the name of responsible and principled civil engineering:

The existing system, which has destroyed engineering and science rules to facilitate unjustified gains, should be reevaluated and reorganized. The regulations, laws, and authorities that should never be compromised should be reinvigorated, and the Union of Chambers of Turkish Engineers and Architects (TMMOB) should be strengthened (Tuncer & Alpagut, 2023).

1) The Municipal Zoning Laws, which have violated all engineering rules due to the greed for money and have politicized everything, need to be reorganized. Incompetent individuals should not be appointed to critical positions such as the Directorate of Zoning, and positions should be selected with great care.

2) The authority to construct buildings should be exclusively reserved for civil engineers. Engineers with construction licenses should never rent out their licenses if they are not personally involved in the construction. A blacklist should be created for engineers who are determined to endanger their structures by disregarding engineering and science rules. Their

licenses should be revoked, and they should be prohibited from practicing their profession, and legal action should be taken against them.

3) Construction supervision companies should be able to provide a performance bond that is sufficient to cover the potential financial damage of the buildings they inspect, similar to the practice in countries that have best resolved this issue.

4) The master plan should divide the city into zones, creating a "Downtown" with open-air museums displaying historical treasures, traditional Antakya culture, and handicraft bazaars.

5) In the master plan to be developed, a "Downtown" (city center) should be created, where the city is divided into zones, including an open-air museum where history is showcased, bazaars presenting the ancient Antakya culture and traditional crafts.

6) Adhering to the architecture of the old Antakya houses, two-story projects should be built on the slopes of the mountain, outside the high-risk alluvial areas where proper ground surveys have been conducted. These houses should be built with sturdy lightweight building materials, utilizing structural systems similar to California/USA houses, combining steel and wood as load-bearing elements (Tuncer & Alpagut, 2023).

For areas designated as commercial zones, buildings designed in a common architectural style, limited to a maximum of 4 floors (exact floor heights determined through geotechnical and structural project studies), should be constructed in a dispersed layout, avoiding contiguous structures, and forming separate zoning islands.

Unplanned urbanization, which forms the basis of chaotic development, should never be allowed for the sake of politics.

To transform Antakya into one of the world's most significant tourism destinations, a tourism master plan composed of zones should be created, incorporating its magnificent historical background, the convergence of three Abrahamic religions, and the presentation of cultural and artistic values, along with its unique lifestyle. An organization called *"Antioch/Antakya Tourism Investors Association"* should be established to handle relationships with investors interested in tourism investments, resolve infrastructure and operational issues, and coordinate collaborative activities, with its structure and principles determined by our side.

To combat disease-carrying mosquitoes, integrated vector control efforts should be conducted in collaboration with a university, forming teams specialized in vector control.

Special emphasis should be given to preserving the natural state of Antakya. Within this context, a green infrastructure network and treatment facilities should be established to manage water rationally, create healthy urban environments, and address climate change challenges, utilizing vegetation, soil, and natural cycles to fulfill urban needs. Waste water from Antakya's lifeline, the Asi River, and all residential zones should be treated to a high standard, making it suitable for irrigation in parks, gardens, and landscaping of tourist and social facilities. This approach will help preserve underground water sources and the environment while generating economic benefits.

If a sustainable "nature and environment-friendly" project is prepared in all aspects, credit can be obtained from organizations such as the World Bank and the World Tourism Organization (WTO).

## 3. Rebuilding and Preservation of Dresden and Warsaw After World War II: A Tale of Dual Urban Transformation

The World War II inflicted devastating consequences on numerous European cities. Dresden, renowned as one of Germany's most exquisite cities, faced extensive ruin by the war's end in 1945. This article delves into the post-war recovery of Dresden, focusing on its sustainable reconstruction. Additionally, it examines how the city successfully preserved its cultural heritage and seamlessly integrated this effort with urban transformation initiatives.

Dresden bore the brunt of multiple air raids during World War II, resulting in the near-complete obliteration of its historical core. Thousands of structures were razed, invaluable artworks vanished, and the number of death was staggering. The city emerged from the war in a state of rubble and desolation.

In the post-war era, the citizens of Dresden, in conjunction with authorities, rallied to rebuild the city. Swift measures were taken to address immediate housing needs, and fundamental infrastructure was painstakingly restored. This initial phase played a pivotal role in the overall development of the city.

However, restoring physical structures alone proved inadequate. Dresden needed to reassert its cultural identity. Consequently, the preservation of historical and cultural heritage assumed paramount significance. The

partial survival of select historical buildings and museums presented an opportunity to rejuvenate this heritage. Additionally, the efforts to recover lost artworks significantly contributed to rebuilding Dresden's cultural richness.

During Dresden's post-war reconstruction, significant emphasis was placed on urban transformation and heritage preservation strategies. The city center was transformed into a harmonious space where contemporary architecture coexisted with meticulously preserved historical structures. Restoration projects and the protection of these iconic buildings demonstrated the city's unwavering commitment to its past, further enhancing its allure to tourists.

Nevertheless, the urban transformation process was not without its challenges. Reconstructed buildings had to blend seamlessly with the historical fabric while catering to modern needs, occasionally leading to conflicts. Additionally, a careful consideration of the social impact was essential during the urban transformation process. The revitalization of old neighborhoods served to strengthen community ties.

Dresden's remarkable journey from the ravages of war to a modern city that fiercely safeguards its cultural heritage stands as an inspiring example. Urban transformation and heritage preservation strategies have been pivotal in shaping the city's identity during the post-war reconstruction period. This process enabled Dresden to not only physically rejuvenate but also to revitalize itself culturally and historically. This experience can offer invaluable inspiration for other cities, highlighting the successful realization of sustainable urban transformation projects.

### 3.1. Rebirth from the Ashes: Warsaw

Warsaw, a city with a significant urban transformation story closely tied to its post-war reconstruction, experienced one of the most devastating impacts of World War II. During the war, the destructive attacks brought by the Nazis left Warsaw in ruins, causing extensive damage to historical buildings, artworks, and infrastructure. However, in the post-war period, Warsaw's reconstruction was not limited to merely restoring physical structures but also involved rebuilding the city's history, cultural identity, and social fabric.

The post-war recovery process of Warsaw was challenging and lengthy. The city's state near the end of the war resembled a complete wasteland. Yet, the people of Warsaw demonstrated remarkable solidarity and determination to preserve the city's uniqueness and cultural heritage. Temporary housing was constructed, essential infrastructure was rebuilt, and steps were taken to revitalize the city.

Perhaps the most noteworthy aspect was the meticulous reconstruction of Warsaw's historical center. The Polish people made significant efforts to revive the historical fabric and protect their cultural heritage. Historical buildings and monuments were meticulously restored, lost artworks and archives were reclaimed. Significant landmarks that evoked Warsaw's history came back to life, and the city became a symbol of Poland's national identity.

This reconstruction process extended beyond physical structures. While erasing the scars of war, Warsaw simultaneously focused on social and economic transformation. Rebuilt with modern urban planning, Warsaw

became an international hub and continues to hold a prominent place on Europe's cultural map.

Warsaw's post-war reconstruction is a story not just of physical restoration but also of cultural and societal transformation. This example narrates Warsaw's journey, overcoming challenges to preserve its historical identity while moving forward towards a modern future.

According to the UNESCO World Heritage Centre, Warsaw's historic centre was deliberately annihilated in 1944 by the Nazi troops as a repression of the Polish resistance. More than 85% of the city was destroyed, with the intention of obliterating the centuries-old tradition of Polish statehood.

After the war, a five-year reconstruction campaign by its citizens resulted in today's meticulous restoration of the Old Town, with its churches, palaces and market-place. It is an outstanding example of a near-total reconstruction of a span of history covering the 13th to the 20th century (UNESCO, 2023). (Figure 3)



**Figure 3.** Historic Centre of Warsaw
(Adrian Grycuk, 2019; WHC Narodowy Instytut Dziedzictwa, 2023)

The reconstruction project utilised any extant, undamaged structures built between the 14th and 18th centuries, together with the late-medieval network of streets, squares, and the main market square, as well as the circuit of city walls.

Two guiding principles were followed: firstly, to use reliable archival documents where available, and secondly, to aim at recreating the historic city's late 18th-century appearance.

The reconstruction of Warsaw's historic centre was a major contribution to the changes in the doctrines related to urbanisation and conservation of cities in most of the European countries after the destructions of World War II. To this day there is a heated discussion about the decisions made by the Warsaw Reconstruction Organization Office (WRO) about the scopes of reconstruction, demolition and reorganization of the urban tissue within the city (RTF, 2023).

The time to rebuild Warsaw after the World War II varied depending on the area and the extent of the damage. The most iconic part of the reconstruction was the Old Town, which was completely leveled by the Nazi troops in 1944 as a retaliation for the Warsaw Uprising (History News Network, 2023).

The reconstruction of the Old Town began in 1945 and lasted until 1952, with the help of archival documents, paintings by Bernardo Bellotto, and bricks from the rubble (Figure 4). It was a remarkable feat of collective effort and historical preservation, as the Old Town was restored to its late 18th-century appearance (The Guardian, 2023).

**Figure 4.** Bernardo Bellotto's 18th century paintings of Warsaw were used to rebuild the city following its destruction in the Second World War (Andrzej Ring & Lech Sandzewicz, the Guardian, 2023)

Other parts of Warsaw, such as the Royal Route, the New Town, and the city center, were also rebuilt in the following years, but with more modern elements and styles. Some areas, such as the former Jewish district, were left in ruins for decades. The reconstruction of Warsaw was not only a physical process, but also a social and cultural one, as the city had to cope with the loss of its population, heritage, and identity (Quora, 2023).

**Figure 5.** Stare Miasto Square, Warsaw (Photo: Mehmet Tuncer, 2017)

The most beautiful corner of the city of Warsaw is the Stare Miasto Square, which they call the Old Town (Figure 5). This square, which was destroyed in the Second World War, was rebuilt in accordance with the original paintings of an Italian painter whose paintings were used in the reconstruction of Warsaw, Marcello Bacciarelli (Figure 6). It was built so successfully that it even managed to enter the UNESCO World Heritage List.



**Figure 6.** An Italian Painter Whose Paintings Were Used in the
Reconstruction of Warsaw, Marcello Bacciarelli (1731-1818)

## 4. Findings and Discussion

The studies carried out in Warsaw and Dresden after the Second World War are like a laboratory for Antakya. These works are in the nature of reconsidering the destroyed or completely destroyed city areas with their street texture and structures, and using the existing plans, photographs and paintings, surveys and restoration projects, memories and family photographs to handle the important historical monuments and textures of the city as "reconstruction".

For renewal of the historical texture of Antakya:

Re-establishment of Protection, Implementation, and Control Offices (KUDEB) in Hatay: KUDEB should be empowered to inspect, approve, and supervise repair and modification works for cultural and natural assets, ensure the use of suitable and original materials, and enforce conservation plans. They should work alongside local administrations to identify and report illegal constructions in protected areas while providing financial support to cultural property owners who need assistance.

Compliance with Conservation Regulations: Urban and architectural designs for urban and archaeological sites should adhere to the Conservation Development Plans specified in Law No. 2863 for the Protection of Cultural and Natural Assets.

Support for Cultural Preservation: Considering the risks to Hatay's culinary heritage due to earthquakes, it is recommended to offer gastronomy courses to earthquake victims, encourage the creation of recipe books under proper literary guidance, and protect and revive Hatay's

unique cuisine, especially given its inclusion in UNESCO's Creative Cities Network.

Preservation of Specific Areas: Priority should be given to iconic buildings and significant monuments, focusing on their protection and revitalization to maintain the spirit of Antakya's culture.

Restoration and Focus on Key Structures: Essential structures such as Hatay Old Parliament Building, Habib-i Neccar Mosque, St. Peter and Paul Eastern Orthodox Church, and other monumental buildings should undergo maintenance, repair, and rehabilitation projects. The surroundings of these structures, including Hans, Bedesten, and Bathhouses, should also be considered for restoration.

Urban Design and Development: Urban design projects should be based on faith tourism, religion, and the unity of religions. Key areas, such as Government Mansion surroundings, Ulucami surroundings, Uzun Çarşı and Square Bazaar, and Kurtuluş Avenue, require focused rehabilitation and urban design efforts. These projects should align with the historical and cultural significance of Antakya.

Preservation of Traditional Housing Areas: Focus on residential areas within Antakya's historical texture. Identify elements requiring protection, buildings for rehabilitation, infrastructure improvements, and create policies to ensure the preservation, renewal, and staging of these areas.

Coordination and Communication: Establish close coordination and cooperation between various entities, such as NGOs, social platforms, professional chambers, local municipalities, and central administration.

Promote communication and harmonious work to ensure effective urban planning and preservation efforts.

## 4. Conclusion and Recommendations

"At the end of the day, awareness and public opinion must be raised to counter problems, risks, and threats with a unified and participatory approach, advocating for rights. Priority should be given to the essential needs and agendas of disaster victims, particularly temporary housing and hygiene. The fact that elections are at the forefront of the country's agenda should not be neglected, and strategic actions should be taken in line with the election results.

Over time, within the framework of the law, in collaboration with professional chambers and NGOs throughout Turkey, activities such as large-scale demonstrations, panels, and conferences should be organized and conducted, after building the necessary infrastructure, to ensure broad participation. This should not only represent the voice of the people of Antakya-Hatay but also amplify the voice of all those affected in earthquake-prone regions. Allowing Antakya to fade from Turkey's agenda serves the interests of those with intentions of profiteering from it and those seeking to change its demographic structure.

It was emphasized that immediate legal action should be taken by individuals and professional chambers with properties within the urban transformation areas against the unjust and inequitable administrative practices that will lead to irreparable damages, seeking the cancellation of Presidential Decree No. 7033 (urban transformation). It was specifically emphasized that earthquake victims have the right to receive legal aid (they

will not have to pay a fee for lawyers and court costs) and they should contact the Hatay Bar Association (lawyers) for this purpose.

**Final Words:**

Presidential Decree No. 7033 should be revoked, and the ancient Antakya, which is a protected site, should not be subject to urban transformation. In fact, a sample petition that synthesizes the views of KADOP is published based on the points included in the lawsuit petitions prepared by the lawyers of the Hatay Bar Association (especially Mr. İbrahim Göçmen) to achieve this. Hundreds of separate lawsuits have been filed for the cancellation of Presidential Decree No. 7033. The filed lawsuits and petition content also hold a legacy for the future."

RECOMMENDATION 1: The historical environment can be resurrected by raising awareness and cooperating by sending it to reputable real and legal persons, including the UNESCO, United Nations, European Union, ICOMOS, BBC, NY Times, the Wall Street Journal, national and international organizations, funds, universities, media outlets and ancient communities (KADOP, 2023a).

The "Recommendation on the Historic Urban Landscape", prepared in cooperation with a large group of experts from various parts of the world, at the 2005 meeting of the UNESCO World Heritage General Assembly, was presented non-binding law (soft law) at the UNESCO General Conference in November 2011. In this context, the main goal of the Historical Urban Landscape approach is; to define the principles of application for urban preservation models that respect values and different cultural contexts, and 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. The Historic Urban Landscape approach draws attention to the role of historic cities as centers for the arts 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 (Dinçer, 2016).

RECOMMENDATION 2: It is natural for people to want to have a say in the future of their cities. For this, it takes the opinions of local people, universities, NGOs, civil society, chambers, bar associations, experts on a number of issues such as site selection, city design and planning, protection and preservation of cultural values, property rights, construction techniques, public health, and the environment. It includes the real experts of the subject in the commissions, project implementation units and studies, and actively participates in the solution process (KADOP, 2023; Tuncer, Tezer & Parlar, 2023).

RECOMMENDATION 3: Experts around the world are warning. Antakya-Hatay and its surroundings are under the risk of earthquakes for a while. Therefore, the construction in the region should not be rushed. It is imperative that every procedure and stage of construction works, including construction law, be implemented in a way that will not cause any more destruction, and all necessary measures must be taken to create earthquake-resistant settlements.

Real experts and real practitioners should be employed in matters such as transportation, roads, infrastructure, logistics, local services, urban economy, disaster planning, and all kinds of urbanism requirements. All

studies with international support when necessary; It should be carried out with the seriousness that will guarantee the safety of life and property of the people. On the 100th anniversary of our Republic, we need holistic projects, discourse and practices based on contemporary urbanism, science and technology, merit, knowledge, culture, common mind and expertise (KADOP, 2023a; Tuncer, Tezer & Parlar, 2023).

RECOMMENDATION 4: It is imperative that the original, holistic-reliable projects, which preserve the original demographic-cultural-architectural structure, are prepared completely and completely, and then implemented, taking into account the risk of new and major earthquakes existing in the region. Two thousand-year-old historical places of the city should not be built, concrete should not be poured, and suitable places should be restored as open museums, even partially.

RECOMMENDATION 5: In order for Antakya to benefit from the opportunities of international solidarity, various studies should be carried out, including making the necessary contacts and preparing the infrastructure, in order to declare Antakya as a sister city with other world cities.

RECOMMENDATION 6: For the preservation of Ancient Antakya Culture, the re-establishment of Antakya as a modern world city, and all sub-processes, a main working committee should be formed with practicing scientists, including foreigners, by mobilizing universities, including foreigners, and practicing scientists, who know the region. Also, city planning, urban design and park-landscape group, architectural design group, smart city design group, environmental management group,

working groups should be established. The work of the working groups should be shared with the public. The work of these boards and groups should be linked to a 'time-action plan'. First of all, coordination should be ensured by separating the duties and responsibilities between the authorized and authorized institutions in the field. Then, field and ground surveys, all kinds of planning and updates should be meticulously emphasized (KADOP, 2023a).

## Thanks and Information Note

## Author Contribution and Conflict of Interest Disclosure Information

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# Interpreting Historical Stratification through the Context of Collective Memory:
# Kayseri Talas American School for Boys

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## 1. Introduction

The continuity of time and the spatial features shape the urban identity. The continuity of cities, formed by the mutual interaction of nature and human beings formed by a specific cultural group over time, is possible with the continuity of the lifelong values of each layer in our memory. This continuity is composed of integrity and unique values related to that geography, which creates a sense of belonging to that place. Due to its location on trade routes from ancient times to the present, Talas has hosted many civilizations, and as a result, the traces of settlement date back to around 4000 BC.

Talas is an essential historical settlement where urban life continues with its archaeological and historical urban values. Talas had a settlement structure where non-Muslim and Muslim populations lived together during the period. The tradition of people from different origins living together for thousands of years, along with the cultural heritage values and the city's vital resources, are the essential elements that will help us understand Talas's settlement and living culture. The multi-layered culture and historical accumulation of Talas district from the past to the present is an area where different segments of society can find a place for themselves today.

While the historical Talas continues with its streets, mansions, traditions, and customs, the new Talas has been the meeting point of the dynamic structure of the society with the presence of the Erciyes University Campus. This study aims to reflect the layered stratification of Talas, to read this multi-layeredness in the historical process through the Talas

American School, and to understand Talas and the Talas American School from the memories of those who were once students there. The Talas American School, which was established in the late 19th century, was chosen as the case study area to reveal the life of the non-Muslim and Muslim populations in Talas, which was able to maintain their coexistence until the beginning of the 20th century, and as a result, the richness of tangible and intangible cultural heritage values.

Social, economic, and cultural factors have historically formed the mission of the Talas American School. In the 19th and 20th centuries, the non-Muslim community in Talas thrived, evident from the significant number of houses, shops, and churches. According to the 1831 population census, Talas was home to approximately 8,600 people, with 7,000 non-Muslims and 1,600 Muslims (Cömert, 1993). The total number of households was 2,303, and the male population was 5,308, including 2,240 Armenians, 2,395 Greeks, and 1,173 Turks. This resulted in a total population of 11,616 (Karpat, 1980; Cömert, 2010). "During this period, ABCFM initiated its missionary endeavors in Talas. However, the once diverse and populous environment experienced substantial transformations due to historical events such as the First World War, the War of Independence, the dissolution of the Ottoman Empire, and the establishment of the Republic of Turkey.

As a consequence of the Forced Immigration Law in 1915, Armenians were compelled to leave Talas, and later, in 1924-25, Greeks departed through the Population Exchange. These events led to a significant decline in the population, and by 1965, Talas was home to only 4,297 inhabitants (Cömert, 2010). Not only did this lead to a decline in the population, but it

also resulted in the disappearance of a diverse and multi-ethnic community and its social and architectural heritage. The ensuing gaps in the urban memory have caused a disjointed history.

The situation in Turkey led to the school's closure and the loss of ethnic diversity. Despite this, Talas and the school are traced in the students' collective memories. The traces in the collective memory, where communities of different origins were educated together, reveal the collective layers of Talas at that time and give us clues about past lifestyles. In order to reach these clues, archival documents related to the Talas American School, academic studies conducted until today, and the memoirs kept by the students of the school constitute the sources for this study.

## 2. Material and Method

### 2.1. Case Study Area

Kayseri, located geographically close to Central Anatolia, is between the south of Central Anatolia and the Toros Mountains. Talas, one of the central districts of Kayseri City, is divided into two Lower and Upper Talas. The part settled on the slopes of Mount Ali is known as Upper Talas, while the part settled in flatter areas is known as Lower Talas. As in Kayseri, it is seen that the continental climate is dominant in Talas. However, due to the higher altitude of Talas, the effect of east and southwest winds is seen more. The difference in altitude between Lower and Upper Talas also causes the climate to become severe at short distances. It is known that the water channels on the slopes of Mount Ali and the sheltered geographical location were influential in selecting the region as a settlement in ancient times.

In particular, the topographical structure of Upper Talas and the ability of the rock formations to be easily cultivated are among the factors that contributed to the region's preference as a settlement in the past. In all correspondence after the establishment of the Mission Station, it is emphasized that the city center of Kayseri is a suitable city to live in but that living conditions are difficult due to the extreme heat, especially in the summer. In the first reports in 1854, the advantages of living in these regions were mentioned, such as Talas and Develi, which were more suitable for summer living, where non-Muslims also lived, and which had a higher elevation and a mild climate than Kayseri (Figure 1).

In this context, according to Develi, which is behind Mount Erciyes, Talas has come to the forefront due to its proximity to the city and ease of transportation, and attempts have been made to settled in Talas since 1859 (Kozlu, 2019; Demir, 2008).



**Figure 1.** Silhouette of Talas, n.d.
(Talas Municipality Archive, n.d.)

Two distinct campuses for girls and boys were established in the late 19th century by American Board Missionaries in the Upper Talas region of Kayseri's Talas district to conduct educational activities. Following the establishment of Talas Station, American missionaries began their

educational work in rented buildings in the Lower Talas area. However, as students increased, they required larger structures for further development. Because of the increasing demand, the American missionaries responded by establishing the American School for Girls in Upper Talas in 1889, acquiring land to the south.

Subsequently, in 1907, missionaries established the American School for Boys in the same region by purchasing land to the North (Demir, 2012). Although the building groups in the campuses created with functions such as education, accommodation, hospitals, dispensaries, and workshops have undergone different uses in different periods, they have preserved their original conditions and have reached the current day. Figure 2. Today, the Kayseri Metropolitan Municipality owns the Talas American Boys' School Campus, and Erciyes University owns the Girls' School Campus.

Five buildings were built for education, accommodation, workshops, and sports halls in the American Boys' School Campus, which started to be built by the American Board Missionaries in Upper Talas in 1907. The Talas School, also known as "Wingate Hall" at the time it was built, has become an important image for the region with its architecture, location, and contributions to the social life of Talas and its surroundings, together with other mission institutions. Conceived as an art school, the school established a direct relationship with urban life with the different professional groups it trained. The teachers of the school, which had workshops with advanced technologies for its time, aimed to lead the country's vocational education with the books they prepared.
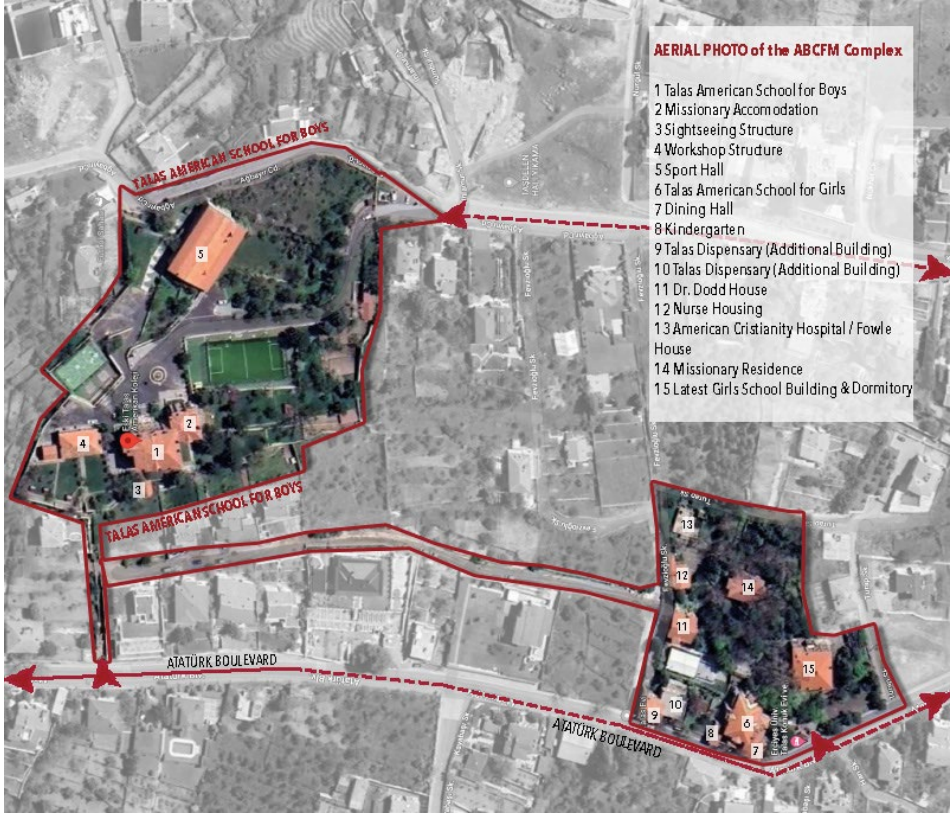
**Figure 2.** Aerial Photo of the ABCFM Complex,
(left) Talas American School for Boys,
(right) Talas American Scool for Girls, Hospital and Other Services

## 2.2. Method

According to the definition of the Turkish Language Association, memory is defined as "the power to store what has been experienced, learned subjects consciously, and their relationship with the past in the mind, repertoire, mind, memory, mind" (TDK, 2019). The Cambridge Dictionary (2019) defines it as "the ability to remember knowledge, experience, people or memories of the past." Collective memories formed by shared

images of societies ensure the reconstruction of the past and the continuity of memory through perceived symbols and various images (Connerton, 2019).

Collective memory is a concept that embodies the essence of a group or society, preserving diverse metaphors, traditions, or legacies (Nora, 1996). Halbwachs (1992) defined collective memory as "a set of historical monuments, beliefs, and traditions" shared by social groups across generations. The invisible story of memory places can be read through the dynamics of everyday life, the way time works, the relationships of meaning, intertwined personal and symbolic memories, and evocative codes (Halbwachs, 1992).

A society's collective memory is shaped by habitual behaviors resulting from the collective actions of its people. Nora emphasized the significance of the comprehensive connection between urban topography and memory, highlighting that memories are not spontaneous but acquire meaning when associated with narratives, rituals, or symbols. Halbwachs (1992) considers individual memory based on personal experiences and within the context of the social relationships established in that particular space. Remembrance, in which familiar images are formed through social connections, is possible by ensuring the continuity of values such as rituals, traditions, ceremonies, and habits. This space is a place where lived memories can be revived.

Common representations or symbols ensure the continuity of remembering, develop a sense of belonging, and form the basis of collective memory. Cultural symbols rooted in spaces contribute to collective memory. It fulfills the function of belonging to a group in a

social structure where similarity is established within equality and differentiation. For collective memory, which includes social codes, to exist, it needs to establish a relationship with the place that has meaning for individuals or society.

Places in collective memory have an evocative effect. Nora (2006) emphasizes that the roots of the sense of continuity lie in the physical space, and places referred to as memory sites are where memories are cultivated. Therefore, these places serve as laboratories creating an environment for traditions rather than being traditions themselves. Nora has described a wide range of uses of memory spaces, which are not limited to physically sensible spaces, but also include spaces that construct the past, present, and future and feel like "memories" with a soul.

Events recalled by people who share their memory and involve themselves in shaping it takes on a collective character as the number of people increases (Lewicka, 2008). Emphasizing the need for such common spaces to ensure the formation and continuity of social memory and the collective sharing of groups, Boyer argues that public spaces are essential in forming collective memory and identity (Boyer, 1996).

Examining historical layers chronologically and making sense of recent events through collective memories makes it possible to establish a link between the past and the future. This increases the meaning and value of the study and offers an essential approach to understanding the memory of historical processes and societies. In order to reach the traces of the historical stratification of Talas, readings were done through the Talas American School, which shed light on the history of Talas in the past, and archival documents from the past to the present were examined. The

memoirs kept by the students also have traces of the daily life of Talas and the Talas American School. The students' memories were based on the study "146 Steps" edited by Atamer and Kocabaşoğlu's memoirs published in the journal Kebikeç (2013).

## 3. Findings and Discussion

### 3.1. Talas American School in the Historical Context

Established in 1920, the American Board of Commissioners for Foreign Missions (ABCFM) was a voluntary organization that originated in 1810 through the efforts of students at the Andover Missionary School with the mission to propagate Christianity in foreign countries (Purney & Burlin, 2010). The Board's focus was not on Muslims, but on non-Protestant Christians. The ABCFM, that first mission was established in Israel and gained the support of the people, especially in the fields of education and health, soon spread to North America, Europe, Asia, Africa, and the Pacific.

Two ABCFM volunteers, Pliny Fisk and Levi Persons, chose the city of Izmir. After living there for three years and observing how to gain the support of the Ottoman people, the first Ottoman Mission was established in Izmir in 1823 (Addison, 1942; Uçar, 1988). The ABCFM, especially since the 1850s, has divided the Ottoman geography into eight regions, the first of which is the Western Turkey Mission, which covers Edirne, Trabzon, Sivas, Kayseri, Konya, and Izmir (Kılıç, 2022).

The first ABCFM school in the Ottoman territory was established in Beirut in 1824 (Kocabaşoğlu, 1989; Yücel, 2005). Encouraged by the establishment of the mission in Izmir and the official recognition of the

Protestant minority by the Ottoman Empire, many centers were established throughout the Ottoman territory.

One of these missions is the Kayseri Mission, initially established as a branch under Istanbul's jurisdiction but later became an independent entity. At the annual meeting of the American Board in 1850, the Kayseri region was listed as one of the regions that needed attention, and in 1854 it was established as a station of the Western Turkey Mission. As in other mission regions, the organization prioritized religious studies at Kayseri Station, and then the educational activities in which the missionaries were most effective began to constitute the most important fields of activity. As a result, Sunday schools and elementary schools were initially established at the Kayseri station.

Subsequently, a girls' school was founded, followed by a boys' school located in the Talas District of Kayseri Station. The first activity of the Talas Board was establishing the Girls' School in 1871 (Farnsworth, 2018). Established in 1882 for boys, the Argeus School for Boys, affiliated with the Kayseri mission, needed to be revised compared to what the Talas mission aimed to accomplish. By providing education at the high school level, they intended to appeal to a more significant number of young people at a later age. As a result, the Lion Mansion (Aslanlı Konak) in Upper Talas was purchased for the American Board Girls' School and became operational in 1888.

The land surrounding this mansion gradually transformed into a Board Talas mission campus consisting of a dispensary, hospital, orphanage, dormitories, residences, and service facilities. Among these schools

located in Kayseri Station, three schools stand out in terms of education: American Girls and Boys schools in Talas and kindergarten in Kayseri. With the arrival of a missionary named Henry K. Wingate in Talas in 1889, the story of what is now known as the Talas American School began. Although it was initially opened for Christian students, after the minorities left the region, the school continued its educational service with Muslim students and brought innovations to the region. Today, it can be said that the TAO building, known as the "school on the hill" (Figure 3), is still present in the memory of the city, instead of the Board campus, which included the hospital and the girls' high school and had established intensive relations with the urban community when it was built.



**Figure 3.** The location of the Talas American School for Boys in the Talas Skyline, n.d. (Talas Municipality Archives, n.d.)

In a short period, these schools significantly impacted the religious, social, cultural, intellectual, political, and economic structures of the Non-Muslims, primarily Armenians and Greeks, in Talas and its surrounding. In this respect, the Talas American School, which has an educational history of nearly a hundred years from the beginning of its educational

activities until the end of these activities, has a place that needs to be considered and emphasized in terms of our history of education in both the Ottoman and Republican Periods (Demir, 2012).

The Farnsworth family came to Kayseri in 1854, where they would spend half a century leading and establishing a Protestant community of around 100 people (Johnson, 2018). Over the years, the Farnsworths developed their work in the Kayseri mission and became crowded with new members. Although the Board began planning the boys' high school to be established in Talas in 1889, the school began in 1893 under the name "Talas Academy" in a building in the lower neighborhood (Farnsworth, 2018).

The Talas American School for Boys' secondary education lasted seven years. During that time, the following courses were offered to students: English, Armenian, Greek, Turkish, French, arithmetic, basic accounting, algebra, geometry, physics, botany, botany, zoology, geography, history, psychology, music, painting, and Bible. In seventh classes, trigonometry, higher algebra, and the art of eloquence are offered as elective courses instead of physics. This elective course was implemented for students who did not want to continue their education after high school.

Since students may prefer to engage in trade during their high school education, training was given in this direction. For instance, in the 1903-1904 academic year of Talas American Boys' School, the "Turkish Trade Types" course was given to the fifth grades, the "Turkish Trade Guide" course was given to the sixth grades, and the "Turkish Commercial Law" courses were given for seventh grades. This vocational education-based school continued its educational activities for 14 years. However, when the provisions of the Treaty of Lausanne came into force in Turkey and Greece

in August 1924, the years of the Exchange began, affecting the peoples of both countries.

People have been forcibly uprooted from their homes and their ancestors' lands under legal pretexts for centuries. Despite sharing so many years and being as close as brothers with their townspeople, even those from different nationalities and religions were left to part ways, never to meet again (Kılıç, 2022). With the beginning of the First World War, educational activities were interrupted in this school, as in other American Board's educational institutions.

Except the closure in between 1916-1926 due to political and ethnic structure changes and wars in the country, TAO continued its education until 1967 After the war, the buildings belonging to Talas American School for Boys were used as orphanages from 1919 to 1923. After 1923, orphan children were sent to other regions, and these buildings belonging to the Board remained empty until 1925. In this year, Poul E. Nilson from Tarsus American College came to Talas (Johnson, 2018).

After investigating the school buildings' condition, he applied to the Ministry of National Education and asked for the opening of a secondary school. This request was accepted on the condition that more courses in Commerce and Arts were offered, and in 1927, the second year of the school's inception, the Talas American School began. The school was reopened for the second time in 1928, with 25 students, as a five-year secondary school after elementary school. However, in 1967, the Talas American Boys' School was closed, ending its educational activities (Özsoy, 96).

During its 40 years of operation after its second reopening, 857 students received education at Talas American School. Based on the names of the students, the vast majority of these students were Muslim/Turkish (94.6%), Armenian 3% (28 students), and foreign or other non-Muslim students about 2% (19 students). Although their numbers were not very high, famous artists, economists, diplomats, journalists, journalists, trade unionists, faculty members, and high-level professionals were raised (Kocabaşoğlu, 2013).

Besides English, Turkish, history, civics, business, accounting, economics, commerce, vocational courses, mechanical drawing, mathematics, foundry, welding, milling works, carpentry, and practical training in trades and crafts were emphasized. In addition, heat and steam, electricity, mechanics, gas engines, and other industrial subjects were taught. In 2017, after the campus buildings transferred to Kayseri Metropolitan Municipality were restored, the campus started to serve again as an educational institution.

## 3.2. Talas American School in Memories

The memories of the students were drawn from the research presented in the publication "146 Steps," as well as from the memoirs authored by Atamer and Kocabaşoğlu and published in the journal Kebikeç. After World War I, the school continued its education only as a secondary school, leaving indelible moments in the memories of students from various parts of Turkey.

This section includes memoirs about the Talas American School and tries to convey the traces of the school in the collective memory. The moments reflected in the places in the memoirs are discussed through the narrator's

discourse. In this context, the places and their characteristics in the memories are first included, and then the daily lives in these places. In the memoirs after 1940, a student who was a student at the school describes the units within the boundaries of the school property in and around the school as follows:

"... Let us begin with the spaces; the "Main Building," you had to climb 160 steps to get there from the Street. Figure 4. It consisted of two parts, on the top floor of the larger part, there was the dining hall for the prep students, the room where the Turkish teachers slept, one of whom was always present every evening, and the school library.

The classrooms, study hall, and teachers' rooms were on the first and second floors. On the ground floor were the infirmary and the dining hall... On the top floor of the side of the main building, there was a place I had never seen before where the American professors stayed, and on the lower floors were the administrative units. At the entrance to the school's main building was the church bell, which announced the start and end of classes. Next to the main building was a stone-cut building used as a blacksmith's workshop and carpentry shop. Opposite of the main building were two or three additional buildings.
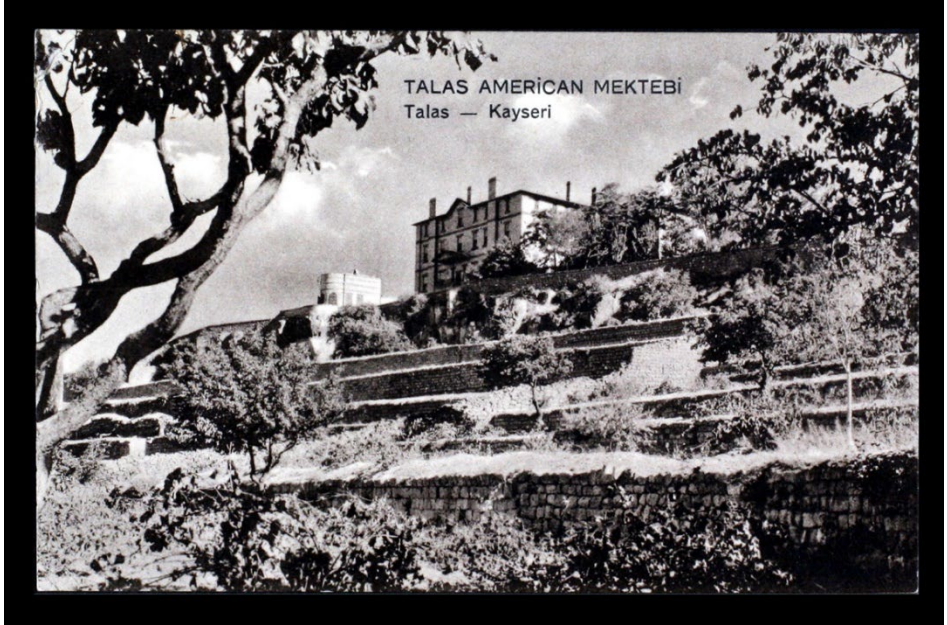
**Figure 4.** View of the Talas American School from the lower street, n.d. (SALT, 2023a)

One was a food storage locker where we kept dry food sent by our families, a cooperative where we shopped, and the other was a sports room... There was also a building used as a toilet. The mansion building was located on a small, walled campus. A kilometer or two from the main building, the campus included two student dormitories, a bath, two large houses for married professors, Dr. Nute's clinic for the local community, a laundry, a small two-story house, and finally, a house on the top terrace of the garden next to the pond. Between the principal's house and the clinic, there was a tennis court and a concrete floor.

Extracurricular activities were organized in "clubs" or societies. There was no compulsory participation in clubs, but every student could find a club or society where he or she could participate. The crafts club, which made

model airplanes or even Indian leather maco sens; the Turkish music choir that met every Saturday; the music club with instruments such as radios, tape recorders, and record players under the responsibility of the music chairman; the "Wood Club" where woodworking was done; the scout club; the photography club; the "bookmobile," a mobile library that lent books to schools in the surrounding villages; the Yearbook Committee;  the Red Crescent Society; the Talas News Wall Newspaper.

The school yearbooks show that students were involved in social life outside of their applied courses by engaging in various repair and construction activities in the region's villages, which were challenging. A carpentry workshop was added to the campus. Equipped with new tools and equipment, students produced stoves, shovels, tongs, buckets, folding chairs, toys, and wooden furniture made of sheet metal. They also undertook the maintenance and repair of the school's campus, such as constructing a 146-step staircase connecting the two campuses (Johnson B., 2018, p. 26). In the workshop, under the direction of an Armenian craftsman, preparatory students would take classes, become familiar with metal and woodworking by producing things like hammers and screwdrivers, and develop their manual skills. Figure 5. The grade received in this class was recorded in the report card like in other classes (Kocabaşoğlu, 2013).

Emphasizing the variety of educational and training activities at the school and the daily life there, one of the students, who started school in 1937, describes the TAO in the following moments: "... Living in a community, sleeping in dormitories, bathing in a bathhouse with a basin of water, changing beds, having dirty clothes washed in the laundry, dining hall

customs, working for the community, stage, theater, running away from school, traveling 36 hours by mail train from Izmir to Kayseri, trade, working in a workshop and sledding skis, I learned for the first time here how to make hangers, hand tools, carpentry, iron working, autopsy on a frog, painting, music, art, photography, radio, model airplane, mountaineering, scouting, not starving, fighting, struggle, sports and sportsmanship, leadership and many more...".



**Figure 5.** Male students producing in the school's carpentry shop
(SALT, 2023b)

For students from various places in Turkey, Talas is considered a distant place, and especially during the initial days of arriving at the school, they experience days filled with longing for their families. At that time, they

would go to the rocky areas at the westernmost point in the school garden. They would gather on a large rock overlooking the Kayseri Plain during sunset, and from that moment on, that place in their memories became known as "Kayabaşı." Figure 6.



**Figure 6.** View of Kayseri Plain and Mount Ali from *"Kayabaşı"*
(SALT; 2023c)

The area called "Kayabaşı," sometimes referred to as the "crying rock," where 147 steps lead from the school to the road below and at the exact point where they exit, a student who started school in 1947 expresses those moments in "Kayabaşı" as follows: "... In order to feel these longings, to hear these voices, it is necessary to witness those moments from Kayabaşı, and the person observing must be one of us, part of that collective "We"... Let us introduce ourselves... "We" are Ali, Ahmet, Bedri, Cengiz, Cem, Demir, İstifan, Engin, Faruk, Güngör, Manuel, from Ünver to Zeki, we are

us... The common characteristics that make us who we are the tiny tears that come from our identification papers and the inevitable tears that roll down our cheeks. Another common characteristic is our common longing. It is our mother, father, siblings, table, and the taste of our mother's food on our palates that we left behind in our home... We used to meet in Kayabaşı almost every day at sunset to fulfill these longings..." (Atamer, 2017).

Another tradition practiced at the Talas American School was to keep democracy alive in the memory. The "Hour of Criticism" was organized to teach what democracy is and how it should be practiced through experience, and the program was led by the "President of the Hour of Criticism." With the participation of the principal and 120 students, the meetings would take place in the evening in the Study Hall. In 1947, a student at the school remembered those years as follows: "... On the evening of the meeting, all the students would come to the study hall, all the teachers, especially Mr. Nilson, would sit in the front rows, and the session would begin. It was an example of self-government, of pure democracy. The students would take the floor and express all their wishes and complaints about the school without hesitation. Then the chairman would give the floor to the principal and other teachers and ask them to respond to the criticisms. I was amazed that they gave children the right to criticize their teachers without fear.

None of our teachers would get angry at us for our criticism; they would not fail us or feel resentment. In those hours of criticism, we learned our self-confidence and the habit of saying what we believe without fear." Democratization act was the election of the chief representative. A student

from that period describes the election of the chief representative as follows. "In the senior classes, there were two candidates. Election campaigns... Posters were hung, and propaganda speeches were made. It was also known who favored which candidate. The administrators would congratulate the winning candidate. What did the chief representative do? He would select people to head various activities (the head of the sports section, the head of the music section, and the head of mail delivery). In other words, he would form a kind of cabinet."

Another memorable activity at the "Taş Mektep" was keeping the republic alive in the memories. Every year, "T.C." and "the Age of the Republic" were written in Roman numerals on the slope of Ali Mountain, visible from the center of Kayseri. The two letters and the number written on the stone, which could be seen from Kayseri, was an activity that took place every year on the weekend before October 29th with all the students and teachers of the school. For this activity, they would climb the mountain with buckets of lime, brushes, and rations and first brush and repaint the face of the letters of the Republic of Turkey, then rewrite the number in Roman numerals, indicating the age of the Republic on the stones and whitewash them. In this way, we were taught to protect the republic and to keep it alive and memorable.

A student who started TAO in 1952 describes those moments in his memory. "...At the end of October, we climbed Mount Ali as we do every year (Figure 7). Every October 29th, we will again write the year of the founding of the Republic in Roman numerals on the slope of Mount Ali overlooking Talas with those who came before us. The previous year it was easy to change from 27 to 28 (XXVII-XXVIII) by adding a single line. Nevertheless, this year, we will write 29 (XXIX). Old ones will be moved, new tones will be laid, and the whole thing will be painted with lime. We take a path that zigzags up the steep slope. The lime cream tins are tied to the backs of the mules on both sides; the muleteers pull them out by their halters." Figure 7.



**Figure 7.** Students Celebrate Republic Day
(Talas Amerikan Koleji, 2023)

The garden of school was a realm of freedom eagerly waiting to be explored by the students, its boundaries defined by the natural surroundings. Students describe the school garden: "The school had no walls but was bordered by stone terraces built to prevent soil erosion. Inside, it contained hills, valleys, lonely almond trees that once belonged to well-maintained vineyards, abandoned and half-ruined stone structures. With a radius within the range of the church bell's sound, the entire circular area of almost a kilometer was our playground."

Within the school's property boundaries, the garden with its terraces and the "Maymunlu Bahçe" (Monkey Garden) showcased the diversity of the region's flora and fauna. The rugged rock formations on three sides made the area almost like a sheltered sinkhole, providing a secure space for various sports activities. Kocabaşoğlu (2013) describes the importance of sports during the school period: Basketball baskets on a dirt field called "Maymunlu Bahçe" and a volleyball court in a depression under the main building. In Konak, tennis was played on the court next to the director's residence. In the main building, there were ping-pong tables on each floor. The fight for these tables between classes was a sight to witness. Wrestling and boxing competitions were organized on primitive wrestling mats under the old dormitory in Konak. Badminton, which is played in singles or doubles and is based on passing a feathered ball over a net; tetherball, in which a volleyball-sized ball tied to an iron pole with a rope is wrapped around the pole by hitting it with your hand; horseshoe, which is played by throwing giant horseshoes from a distance against an iron nailed to the ground; pull-ups and parallel bars in the Monkey Garden; skiing, sledding and ice skating in winter; high and pole vaulting, shot put and discus

throwing in the sandpit in the spring; and softball, a form of baseball played with a giant ball on a smaller field. Fixtures for team games, sports such as tennis, table tennis, wrestling, boxing and boxing, and skiing competitions were drawn up by the Head of Sports and adhered to." (Atamer, 2017).

There was a general atmosphere of tolerance in the school. Being in an international environment, it was necessary to respect the rituals of each religion. During Ramadan, anyone was allowed to fast if they wished, and if the cannon firing did not coincide with the meal time, the iftar table was set accordingly, and a sahur meal was organized simultaneously. A student who started school in 1956 described the atmosphere of tolerance at that time as follows. "... In the first year, when Ramadan was approaching, the directorate would send out a list to determine who wanted to fast. I put my name on the list, and they wrote a letter to my father for approval. In the letter, they informed him that I wanted to fast, the facilities the school would provide for iftar and sahur, and asked if he would allow it. When my grandfather read the letter, he not only gave his approval for me to go to a school for non-Muslims but also sent Mr. Nilson a 50-kilogram candy chest of mulberries, plums, dried apples, pears, and the like, which was available in every household at the time, as a Ramadan gift." (Atamer, 2017).

The memory places of Talas American School students are unique places where their memories are concentrated. They attach meaning to and experience unforgettable moments. These places create strong emotional connections for the students within the school and its surroundings, and they cherish these places throughout their lives. The places where the

students spent their daily lives that stand out in their memories of the school, and Talas are shown in the figure below (Figure 8). Among the places mentioned in most of the memoirs; Study Hall, Maymunlu Garden, 146-147 steps, Mansion, Ali Mountain, Talas Center, Kayseri Train Station, Sports Fields, Kayabaşı, Workshop, Carpenter's Shop, Infirmary.



**Figure 8.** The Memory Places of Talas American School

## 4. Conclusion and Suggestions

The Talas American School is an institution that sheds light on the city of Kayseri and the whole of Turkey with its mission and vision. It has educated many students during the periods in which it actively carried out its educational activities. The education and training it provided included an understanding and effort far ahead of the conditions of the time. It is an

institution that has taught students not only the learning of knowledge throughout their school life but also the balance of social life and unity among students and instilled a sense of brotherhood and friendship in their memories. Suppose Talas American School students still come together every year, reminisce about those times, and visit their school every year. In that case, it is undoubtedly thanks to the sense of being "One" that the school has given the students.

In order to ensure the continuity of a community's roots or cultural ties, places of memory must be preserved and sustained. If the places, spaces, and landscapes familiar to society and constantly used in their daily lives are interrupted, memory becomes a cycle of forgetting. It is necessary to identify the existence of memory places that will trigger familiar images in the memories of societies and transfer them to future generations. Every community needs places to establish their collective memory, feel a sense of belonging, strengthen their coexistence, adapt to changing living conditions, experience together, maintain what is remembered, and revitalize what is forgotten. Spaces should be considered as an element that forms the physical environment and a cultural code bearer, a reflection of personal and collective memory.

As an approach, it is necessary to preserve these layers that have come from the past and are constantly articulated on top of each other to ensure the continuity of the traces of life without diminishing. The articulation of collective memory and its transfer to future generations will strengthen the ties between the past and the future and give the community the consciousness of being an urbanite. Therefore, it will be possible to keep the memories alive by identifying the topographies of remembrance of the

places that exist with the spirit of shared consciousness in the memory of the city dwellers and by including the physical environment in the planning processes in this direction.

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# The Planning Process and Spatial Development of the Historic City Center of İzmir: Kemeraltı

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## 1. Introduction

Cities are settlement areas that bear the imprint of social, cultural, and economic structures from the past to the present. Evolving cities, shaped by myriad historical events and interactions, encompass diverse functions, structures, and regions of varying scales. These urban constructs have organically developed in proximity to or atop the sites of their initial settlements. The planning of cities is driven by the aspiration to enhance living conditions and establish societal order.

In this meticulous planning process, the organization of spaces to fulfill accessibility, social, recreational, and communication needs takes on paramount significance. As an integrated and cohesive entity, a city emerges through harmonizing various infrastructure components, thereby influencing the physical spatial arrangement and its resultant form. Moreover, these constituent elements enable residents and users to cultivate a heightened awareness of their immediate surroundings (Eren, 1995).

Historic city centers are situated at the core of a city, distinguished by their cultural heritage that has been preserved and carried forward from the past to the present. These city centers have historically served as focal points for trade, culture, and social life, profoundly shaping the regional identity. However, with modernization and urban expansion, historic city centers have faced the dual challenge of transformation and preservation. These centers can be likened to open-air museums, boasting unique architectural structures, narrow winding streets, historic squares, and iconic edifices. These areas give visitors an immersive historical journey, bearing the

indelible marks of bygone eras. Nonetheless, the risk of structural decay, unplanned urban development, and environmental pressures looms large, posing a threat to the preservation of historic city centers and jeopardizing their intrinsic character. In historic cities, modernization, and urban growth inevitably necessitate careful consideration of transformation and urban planning.

When examining the historical development of the city of İzmir, the earliest settlements date back to the Neolithic period. It is known that the settlement in the Bayraklı region was established around 3000 BC. The selection of Bayraklı as the settlement site adequately addressed the concerns of that era. The city's strategic location vigorously defended against external attacks (Akurgal, 1983).

Kemeraltı, situated in İzmir, serves as the historical city center and has been the hub of trade and cultural activities for centuries. Numerous historic buildings, narrow streets, traditional markets, and trade centers characterize this area. However, urbanization and modernization have revealed the imperative for physical and functional transformation within Kemeraltı. In this context, the planning and spatial development of Kemeraltı aims to preserve its historical and cultural values, enhance infrastructure, and improve the overall quality of urban life.

This book chapter explores the planning history and spatial development of İzmir's Kemeraltı. The study adopts a methodological framework rooted in the comprehensive analysis of written sources of the physical development and transformational process of Kemeraltı in İzmir.

Additionally, it includes comparative assessments of visual materials encompassing contemporary maps, zoning plans, and explanatory reports. Kemeraltı, the historic city center, emerged in the 12th century alongside a castle built to defend the port entrance (Şala, 2013, p. 87). The remnants of ancient Smyrna, situated on the slopes of Pagos (Kadifekale), approximately 4 km away from the old Smyrna in Bayraklı, began to be identified in the 17th century (Tanrıver, 2017).

Kemeraltı is characterized by its archaeological, urban, and natural significance, all contributing to preserving its cultural and morphological identity. The entire Kemeraltı, including Kadifekale, was designated as an Urban Conservation Area in 1984. Additionally, archaeological areas such as Kadifekale, Agora, Ancient Stadium, and Ancient Theater surrounding the Kemeraltı market were declared Grade I Archaeological Conservation Areas in 1991 (Çırak et al., 2015). Figure 1.

Kemeraltı and the market, located in the Konak district of İzmir, span from the Mezarlıkbaşı neighborhood to Konak Square, which is the focal point of commercial activities. Fevzipaşa Avenue and Eşrefpaşa Avenue define the land boundaries of the market. The primary thoroughfare within the market is Anafartalar Avenue, which follows a pronounced curve. This curvature is a vestige of the inner harbor along the street in previous centuries. Over time, as the harbor gradually filled up, new residential and commercial areas were developed, and these areas saw the construction of new buildings. Due to the presence of covered streets extending from Şadırvan Altı Mosque to Havra Street, the Market area earned the name "Kemeraltı" (İzmir Büyükşehir Belediyesi, 2022b).
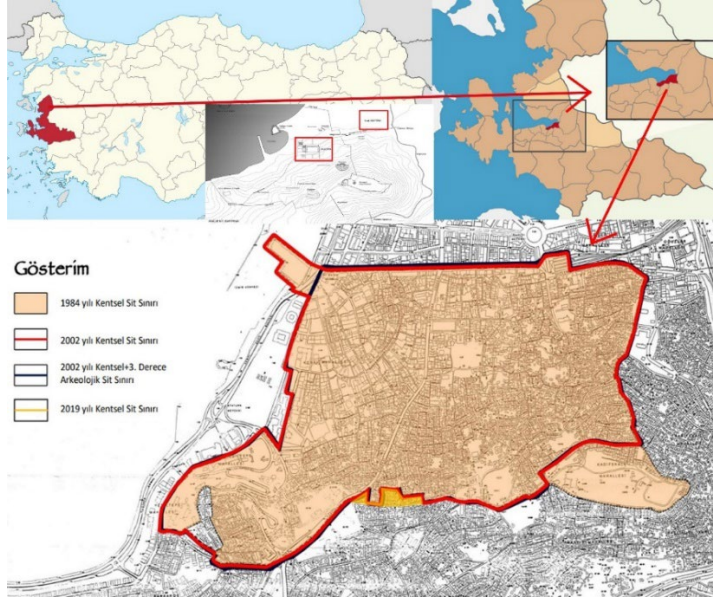
**Figure 1**. Location of the Historic City Center Kemeraltı, İzmir

The inception of urban planning strategies in the history of İzmir can be traced back to the 18th century. Following the approval of the initial spatial plan known as the Graves Map in 1836, a range of physical plans of diverse types and scales have been formulated for İzmir, encompassing the Kemeraltı urban conservation area.

## 2. Material and Method

In this study, urban planning documents spanning from 1836 to 2022 in İzmir, specifically within the historic city center of Kemeraltı, have been meticulously examined. The research encompasses a conceptual analysis and a comprehensive literature review focused on Kemeraltı Historic City Center. The investigative process involved keyword-based searches on the internet, scrutiny of national and international articles, review of thesis studies, analysis of book reports, exploration of congress and symposium

proceedings, and examination of seminar publications pertinent to urban planning legislation. Moreover, interviews were conducted with representatives from private-sector urban planning and architectural firms and local government officials. The information, documents, and urban planning maps derived from these interviews and data obtained from internet sources and libraries were meticulously utilized.

Within the framework of this study, an initial conceptual analysis was undertaken through a comprehensive literature review. Multiple sources were thoroughly examined, including internet platforms, articles, thesis studies, libraries, books, reports, congresses, symposiums, laws, and regulations. The scope of this examination encompassed concepts related to conservation, urban identity, identity values, historic city centers, and urban morphological characteristics, focusing on identifying relevant scholarly works.

## 3. Findings and Discussion

İzmir, in addition to its role as a prominent port city and its evolving commercial identity, has established itself as the coastal and port city of Western Anatolia, enriched by its cultural heritage (Derin et al., 2009).

The inaugural scientific planning study for İzmir was undertaken by Thomas Graves, who arrived in the city between 1836 and 1837 to chart the Gulf map (Atay, 1998). Figure 2. According to this plan from the 19th century, the city extended from Eşrefpaşa Park in the south to the Turkish-Jewish Cemetery and from Kadifekale Turkish Cemetery in the southeast to the vicinity of Melez Creek (Beyru, 2000).

**Figure 2.** Thomas Graves Map (APİKAM Archive, 2022)

### 3.1. The Storari Plan of 1854

In 1841, Luigi Storari, tasked with organizing areas devastated by a fire in İzmir, initiated his initial urban planning endeavors. By 1848, he had formulated a fire site plan for the Armenian Quarter (Basmane), and in 1854, he developed a comprehensive urban plan at a scale of 1/5000, which encompassed road arrangements for the entire city of İzmir (Bilsel, 2009). Figure 3.

The organic street patterns were transformed into perpendicular road schemes, as illustrated in the Storari Plan (Özcan, 2006). Subsequent urban planning efforts in İzmir concentrated on identifying flat coastal areas and establishing new quays. The first comprehensive study was undertaken by Lamec Saad in 1876. The 1/5000 scale plans generated during this period found wide use in various tourist guides, with notable landmarks included (Atay, 1998).
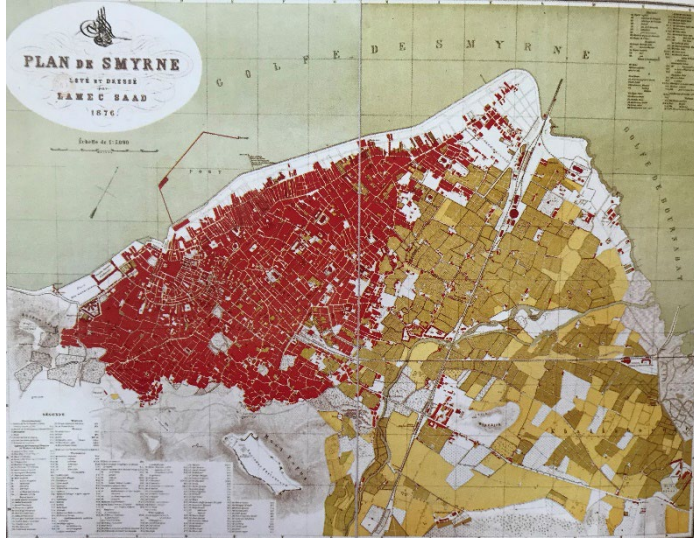
**Figure 3.** 1854 Storari Plan (APİKAM Archive, 2022)

### 3.2. The 1905 Insurance Plans

In 1905, Charles Goad formulated insurance plans to safeguard areas characterized by a high risk of fires and substantial insurance potential while preserving the urban core. Notably, the Turkish neighborhoods, despite being recognized as some of the most fire-prone zones within İzmir, were excluded from these plans due to the low likelihood of obtaining insurance, thus reflecting the morphological structure of the era (Atay, 1998). Figure 4.

Following the devastating Great Fire of İzmir in 1922, a comprehensive urban planning approach was adopted due to the extensive destruction of a significant portion of the city. The primary concept behind these plans was introducing a ring road system reminiscent of those observed in early 20th-century European cities to steer İzmir's economic development (Atay, 1998).

**Figure 4.** 1905 Goad Insurance Plan (APİKAM Archive, 2022)

One of the significant challenges encountered during the planning process was the construction of the proposed wider roads. Expanding roads incurred higher costs, necessitating greater cooperation from property owners. The layout of new parcels diverged from the old ones, leading to resistance from the owners. Such complex issues were recurrent in İzmir's planning history often met with opposition from officials. A clear illustration of this can be observed during the implementation of plans by the Danger brothers after 1922 (Atay, 1998).

### 3.3. The Danger-Prost Plan

After the 1922 fire, Henri Prost, along with two brothers, René and Raymond Danger, finalized İzmir's urban plan in 1924 and entered into a contract with İzmir Municipality. The 1/2500 scale "Future Shape of İzmir City" plan was officially approved in 1925 and subsequently implemented (Güngördü & Güner, 2019). Figure 5.

*Danger-Prost planı (Apıkam Arşivi)*

**Figure 5.** 1925 Danger-Prost Plan (APİKAM Archive, 2022)

The Danger-Prost Plan took a comprehensive approach to the entirety of İzmir. A commission comprising İzmir doctors, engineers, and architects was established to define the plan's objectives, aimed at revitalizing the city's economy by reconstructing areas damaged by the fire. Figure 5. This plan reflected a modern approach rooted in the French planning tradition, which involved reshaping the fire-affected region by introducing intersecting radial boulevards (Çırak et al., 2015).

Within the Danger-Prost Plan, the boundaries of the Kadifekale Archaeological Site were delineated, designating the northeastern part of Kadifekale as a residential area. Geological research identified the immediate vicinity of Kadifekale as a high-risk area for natural disasters, and it was accordingly designated as an afforested space in the plan. The segment of the Agora Archaeological Site that had previously served as a Muslim cemetery was incorporated into the plan as a green area. At the

same time, the remaining portion was organized as building blocks (Çırak et al., 2015).

### 3.4. The Le Corbusier Plan

In the 1930s, İzmir deviated from the Prost-Danger Plan with the enactment of the Building and Roads Act and the Municipalities Act. These new laws brought about changes in zoning conditions, leading to the initiation of new zoning plans for İzmir. Towards the end of 1939, an agreement was reached with Le Corbusier, but due to the outbreak of World War II, his visit to the city was postponed until 1948. In 1949, Le Corbusier submitted his proposed Master Plan and plan report for İzmir (Bilsel, 1999).

The proposed plan, characterized as a "Green City," advocated a transformation of the entire historical fabric of the city, with little regard for the concept of property ownership. While his proposal for "multi-story blocks within green areas" around Konak Square was not fully implemented, it left a lasting impact on subsequent planning decisions (Bilsel, 1999). Figure 6. Le Corbusier's spatial proposals, formulated according to Western modernist criteria, were deemed unrealistic and impractical due to their lack of alignment with the conditions of İzmir, and they were often seen as utopian (Göksu, 2011).
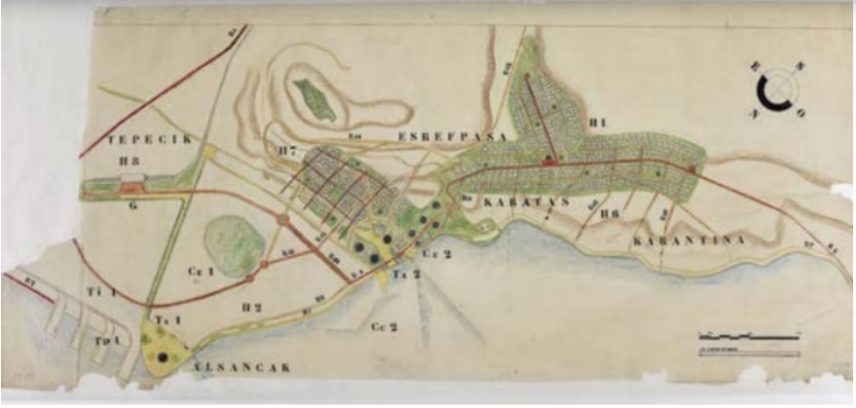
**Figure 6.** 1939 Le Corbusier Plan (APİKAM Archive, 2022)

### 3.5. The Aru, Özdeş and Canpolat Plan

In 1950, the İzmir Municipality announced an international competition in response to the need for organized urban development (Çırak et al., 2015). According to the competition's specifications, the projected population, which stood at 23,000 then, was anticipated to reach 400,000 within 50 years. The assessment of the urban area was based on this projected population growth. The principal objectives of the new city plan included the development of the existing commercial center within the area that would become vacant with the demolition of Sarıkışla, as well as the improvement of traffic flow on intercity roads within the city and the creation of new roadways around the city's periphery (Bilsel, 2009).

The competition was developed by Kemal Ahmet Aru and his associates Gündüz Özdeş and Emin Canbolat, and the 1/2000 scale plan received approval from both the İzmir Municipality and the Governorship in 1955. The plan envisioned commercial usage as the primary function for the facades along Atatürk and Cumhuriyet Boulevards (Çırak et al., 2015).

Unlike prior plans, the Aru, Özdeş, and Canpolat Plan introduced a significant change by demarcating the boundaries of archaeological sites, such as the Ancient Theater and Ancient Stadium in İzmir, through their drawings in 1943 (Çırak et al., 2015). Figure 7.

This plan laid the groundwork for the structure of İzmir's city center, determining the current density and height of buildings (Göksu & Çırak, 2012). However, despite several revisions, the plan quickly became outdated due to inconsistencies in urban development foresight (Bilsel, 2009).



**Figure 7.** 1951 Aru, Canpolat, and Özdeş Plan (APİKAM Archive,2022)

## 3.6. 1959 Bodmer Plan

In response to the city's growth, the Aru Plan needed to be revised due to the expanding population and rapid urbanization. The demands for

increased density posed challenges to implementing the planned green space system (Bilsel, 2009).

Towards the late 1950s, it was deemed necessary to commission a new plan for İzmir, undertaken by Bodmer. Figure 8. This plan delineated the future boundaries of the city, extending beyond the existing municipal limits. Its objectives included defining development axes for industrial and residential areas, as well as establishing critical transportation connections (Kemeraltı Kentsel Sit Alanı Koruma Amaçlı İmar Planı Revizyonu, 2002).
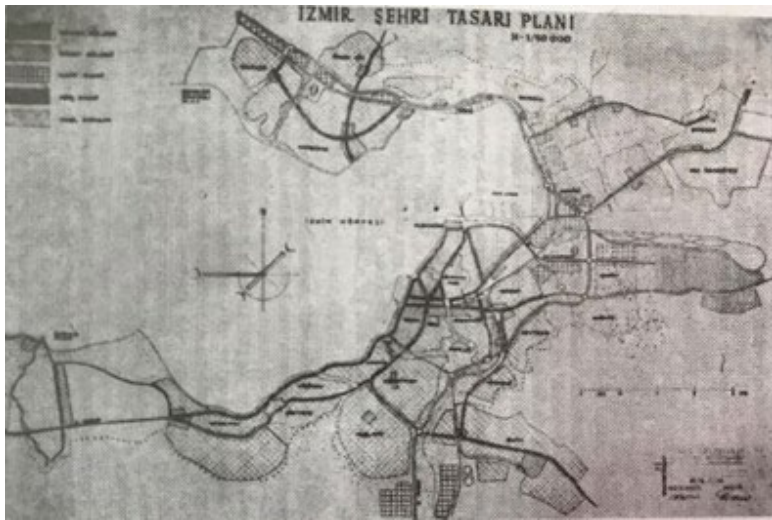


**Figure 8.** 1959 Bodmer Plan (APİKAM Archive, 2022)

## 3.7. İzmir Metropolitan Area Master Zoning Plan

During the 1960s, following World War II, Europe's welfare state model and the planning study were carried out at three different spatial levels: The Regional Area, the Metropolitan Area, and the entirety of İzmir Metropolitan Municipality. The plan aimed to preserve and restore areas

with historical and cultural values, such as the Kadifekale, Alsancak, Kemeraltı, Bayraklı, and Güzelyalı districts (Arkon & Gülerman, 1995).

The city's development was envisioned with a linear macro form, prioritizing easy and convenient access, low infrastructure costs, and other relevant factors. The decisions of the Greater Metropolitan Area Plan included interventions to facilitate this form (Bulut, 2016).

The 1973 Master Plan was the first plan produced by the İzmir Master Plan Office, and due to the office's attempt to create a plan without completing its analysis work, there were some issues in its implementation. Consequently, a revision plan was prepared in 1978 (Altınçekiç, 1987, p. 109). Figure 9.



**Figure 9.** 1973 İzmir Metropolitan Area Master Plan
(APİKAM Archive, 2022)

**3.8. 1/1000 Scale Kemeraltı and Its Surrounding Conservation Development Plan**

The 1/1000 Scale Kemeraltı and its Surrounding Conservation Development Plan received approval from the İzmir Municipality in 1984. However, despite its intent as a conservation-oriented plan, it failed to develop a comprehensive conservation approach and instead focused on accommodating new construction demands and addressing transportation issues (Çırak et al., 2015).

The plan did not adhere to the requirement of preparing a conservation plan within two years for the designated conservation areas, as stipulated by Act on the Conservation of Cultural and Natural Possessions No. 2863 of 1983. Instead, it adopted a conventional urban planning approach (Kemeraltı Koruma Amaçlı İmar Planı Revizyonu, 2003).

The plan designated Agora as a protected area within narrower boundaries than its current state, with its surroundings as an activity center and parking area. Notably, the ancient theater was excluded from the plan, and its area was partially designated for roads, residential use, and green space (Çırak et al., 2015). Figure 10.

The proposed multi-story parking lots, three of which have been implemented to date, demonstrate a lack of harmony with the historical fabric of Kemeraltı. The scattered green areas remaining in the area are mainly underutilized, some being transformed into small parks containing transformers.

The plan includes the addition of new roads, parking facilities, and tall commercial buildings, reflecting a conventional urban planning approach

rather than an urban design or conservation-oriented approach (Kemeraltı Koruma Amaçlı İmar Planı Revizyonu, 2003).



**Figure 10.** 1984 Kemeraltı Conservation Area Development Plan
(Konak Belediyesi, 2022b)

The plan has faced criticism, primarily due to the expansion of roads, the introduction of green spaces, and the allowance for multi-story constructions alongside historic buildings. Recognizing these issues, revision requests emerged in 1987, yet the plan remained in use until 2000 (Dokuz Eylül Üniversitesi, 2001).

### 3.9. 1/5000 Scale Kemeraltı and its Surrounding Conservation Master Plan

In 1991, Kadifekale, Agora, the Ancient Stadium, and the Ancient Theatre archaeological sites were designated as Grade 1 archaeological sites. Approximately ten years later, based on the boundaries of the ancient city of Smyrna, the area stretching from Kadifekale to present-day Eşrefpaşa Avenue, Fevzipaşa Boulevard, and Gaziler Avenue was declared an Urban

and Grade 3 Archaeological Site by the İzmir 1st Regional Cultural and Natural Conservation Council on January 30, 2002 (Çırak et al., 2015). Figure 11.



**Figure 11.** Conservation Purpose Master Plan Boundaries
(Konak Belediyesi, 2022b)

Following the alteration and expansion of the character of the protected areas in the Kemeraltı region, the İzmir Metropolitan Municipality formulated the 1/5000 scale Kemeraltı and its Surrounding Conservation Master Plan in 2002. This plan aimed to safeguard, preserve, and develop the city center of Kemeraltı while ensuring its integration with archaeological sites such as Agora, Theatre, Altın Yol, Stadium, and Kadifekale, as well as the surrounding urban fabric (İzmir Büyükşehir Belediyesi, 2002). Subsequently, phased development plans were initiated. In the Kemeraltı and its Surrounding Conservation Master Plan, Kadifekale, the Ancient Theatre, and the Ancient Stadium areas were

labeled as the "Special Project Area." Simultaneously, the boundary of Agora was extended following the Conservation Board's decision on January 30, 2002, and marked as an "Excavation Area," with the surrounding vicinity designated as green space. It is evident that decisions aimed at enhancing the accessibility of these areas and ensuring their integration with the city have not yet been generated. Altınyol has been designated as a Grade 1 Archaeological Site (Çırak et al., 2015).

## 3.10. 1/1000 Scale Kemeraltı 1st Phase Conservation Development Plan Revision

The planning areas are divided into two phases during the plan revision phase: The area, encompassing the Variant that extends southwards along Fevzipaşa Street to İkiçeşmelik Street in the north and concludes at Mithat Paşa Street, is designated as the 1st Phase. Figure 12. The 2nd Phase of the planning area includes the eastern side of İkiçeşmelik Street, which also incorporates Agora (Kemeraltı Koruma Amaçlı İmar Planı Revizyonu, 2003).

The revision of the Kemeraltı Conservation-Oriented Zoning Master Plan became necessary following the declaration of the boundaries of the Ancient Smyrna city as a 3rd Degree Archaeological Conservation Site Area. The first phase, covering the southern part of Eşrefpaşa Street, is based on the principles outlined in the 1/5000 scale Kemeraltı and Surroundings Conservation Purpose Master Development Plan, which received approval in 2002. The 1/1000 scale Kemeraltı 1st Phase Conservation Purpose Revised Development Plan was subsequently approved by the İzmir Metropolitan Municipality in 2004. This plan

encompasses the Kemeraltı Bazaar Area and the Varyant road, with Altınyol situated within its boundaries, designated as a 1st Degree Archaeological Site Area (Çırak et al., 2015).



**Figure 12.** 1/1000 Scale Kemeraltı 1st Phase Conservation Development Plan Revision (İzmir Büyükşehir Belediyesi, 2022a)

## 3.11. 1/1000 Scale Agora and Its Surrounding Conservation Development Plan Revision

The Agora and its Surrounding Conservation Development Plan Revision received approval from the İzmir Metropolitan Municipality in 2005 (Çırak et al., 2015).

The other islands to the south and the areas to the east were designated as 2nd-degree Archaeological Sites, with existing decisions regarding residential and educational facilities preserved (Çırak et al., 2015).

Under the Act No. 5366, the Kemeraltı Urban and 3rd-degree Archaeological Site were declared as a "Renewal Area" by the Council of Ministers in 2007 (Çırak et al., 2015).

## 3.12. 1/1000 Scale Kemeraltı II. Stage I. Zone Conservation Development Plan Revision

The Agora and its Surrounding Conservation Development Plan Revision received approval from the İzmir Metropolitan Municipality in 2005 (Çırak et al., 2015). The other islands to the south and the areas to the east were designated as 2nd-degree Archaeological Sites, with existing decisions regarding residential and educational facilities preserved (Çırak et al., 2015). Under the Act No. 5366, the Council of Ministers declared the Kemeraltı Urban and 3rd-degree Archaeological Site as a "Renewal Area" in 2007 (Çırak et al., 2015).
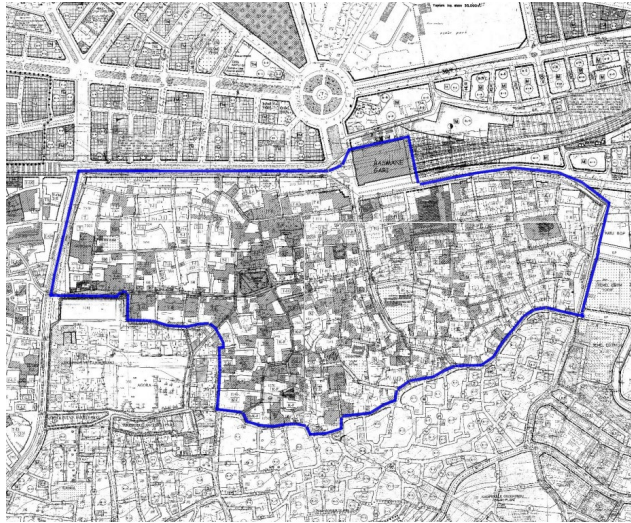


**Figure 13.** 1/1000 Scale Kemeraltı 2nd Stage 1st Zone Conservation Development Plan Revision
(İzmir Büyükşehir Belediyesi, 2022a)

During this period, the necessity of preserving historical, cultural, and natural values was recognized, leading to the emergence of conservation-oriented urban planning. Subsequently, many areas underwent significant destruction and reconstruction processes. Historical urban fabrics were extensively demolished due to increased building heights and road expansions. However, the importance of preserving historical and architectural values has been acknowledged in recent years, and efforts to identify and register heritage sites have been accelerated. Areas have been declared as conservation zones and conservation-oriented urban plans have been prepared to safeguard these valuable assets (Gülersoy, 1990).

Today, conservation-oriented urban planning is widely employed both nationally and internationally. Conservation-oriented urban plans are formulated in areas with historical and cultural values protected by UNESCO and ICOMOS. These plans aim to preserve historical and cultural heritage, promote sustainable urban development, and encourage an environmentally sensitive approach. In Turkey, the preservation of historical and cultural heritage is outlined in the Article 63 of the 1982 Constitution of the Republic of Turkey: "The state shall ensure the protection of historical and natural possessions and values and take supportive and encouraging measures for this purpose." This is achieved through the "Act on the Protection of Cultural and Natural Possessions" No. 2863 and other legal regulations.

## 4. Conclusion and Suggestions

The aim of this study is to provide a comprehensive understanding of the planning history and spatial development of İzmir's historic Kemeraltı district and evaluate the planning history of İzmir, with a focus on Kemeraltı, serves to provide a comprehensive understanding of İzmir's urban development and the preservation of its historical and cultural heritage. The study's choice of Kemeraltı as a case study is driven by its rich historical significance and the need to balance preservation with modern urban development, making it an ideal subject for analyzing the broader context of urban planning in İzmir.

In Turkey various ministries and institutions are working towards preserving historical, natural, and cultural heritage. For instance, the Ministry of Culture and Tourism is involved in conserving, restoring, and repairing historical monuments. The Ministry of Interior ensures the security and protection of historical monuments. The Ministry of culture and tourism responsible importance on preserving historical and cultural heritage in urban design and planning. These efforts involve a coordinated approach to safeguarding the country's valuable heritage for present and future generations.

More collaboration and coordination are needed for preservation to be more effective and sustainable. In addition to public authorities, local governments, non-governmental organizations, academics, and the public should actively contribute. Preserving historic city centers is essential to achieving sustainable urban development, along with social consciousness and sensitivity.

Furthermore, reviewing and updating existing legislation and policies, adopting new technologies, and considering international best practices can enhance the effectiveness of preservation efforts. Taking care of their historical and cultural heritage is a responsibility to preserve their identity and the richness of their past. Therefore, all stakeholders must work together actively to preserve historic city centers.

Taking action today is crucial to safeguard their unique and valuable heritage for future generations.

## Thanks and Information Note

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# Suggestions for the Facade Typology and Preservation of
# the Antalya Kaleiçi Architecture

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## 1. Introduction

Historical structures are the most important works that reflect the cultures and civilizations that hold a mirror to the past and have survived until today. The protection of historical buildings also demonstrates the preservation and development of the culture of the country. Buildings constructed in different periods of history are of cultural significance and reflect many characteristics of the era they were built in and have the ability to tell the story of that era. Architectural elements constructed within the possibilities reflect the technology, culture and lifestyle of a particular place and time.

In international evaluations, UNESCO provides support for cultural assets, which are universal cultural heritage, by ensuring all kinds of support for the preservation of cultural heritage left by humanity to the next generations, shedding light on cultural assets for the future. However, restoration work requiring a budget in economic terms for historical buildings and damage to buildings due to incorrect interventions also prevent restoration processes from achieving their goals. In this regard, protection efforts should be made to ensure that our historical and cultural heritage does not cause significant problems.

Antalya Kaleiçi, which has been home to many civilizations from ancient times to the present day, is an important settlement and known as one of the oldest port cities. Today's Kaleiçi settlement consists of the Selçuk, Tuzcular, Kılıçarslan and Barboros neighborhoods. The primary building material used in the various forms of Kaleiçi architecture is wood. The structures have a facade typology featuring decorative elements in

different shapes such as plant-based, geometric, muqarnas, and figurative ornaments.

As part of the study, fieldwork was conducted on the architecture of Antalya Kaleiçi, which was designated as the sample area. The structures were examined on site and documented through photography. Investigations were conducted on the facade typology of the structures and details, workmanship and building materials used were researched to propose recommendations for the conservation of the architecture through technically sustainable interventions.

## 2. Material and Method

### 2.1. The Physical Structure of Antalya Kaleiçi

In the north, Cumhuriyet Avenue, in the west, the Mediterranean, in the east, Atatürk Avenue and in the south, Karaalioğlu Park and a part of Antalya Kaleiçi that runs parallel to these streets are currently limited by walls (Avcı, 2015).

The streets and islands of Kaleiçi, shaped according to topography, ground and castle walls are not regular and designed according to the grid pattern of the Roman period. There are a few dead-end streets and the lengths of the islands are planned back to back accommodate two houses (Bektaş, 1980). The pavement of the settlement's streets is covered with paving stones (Kocaboyun, 2009). The street roads are surrounded by houses and garden walls (Kösa, 2019). Figure 1 shows street views of Antalya Kaleiçi settlement.

**Figure 1. a., b.** Street Views of Antalya Kaleiçi Neighborhood
(Özkan Önür, 2023)

## 2.2. Front Formation Characteristics of the Antalya Kaleiçi Architecture

Buildings are generally two story structures with a stone foundation and ground floor. The material used is adobe filling between wooden frames. The preservation status of the buildings is good. The original and current function of the buildings located in the settlement is mostly residential.

### 2.2.1. Protrusions

The protrusions that create illuminated and airy spaces enrich the sofa and provide shelter.

It is built to provide a comfortable place.

Furthermore, the upper floor area has been increased and the facade has been animated in order to emphasize the spaces from the outside.

Elements of structure that arise from the reflection of spaces such as sofas and couches onto the facade.

Generally, the protrusions in the buildings belonging to Antalya Kaleiçi settlement have a closed protrusion feature.

There are flat linteled wooden narrow windows on both sides of the closed protrusions.

The protrusions are located on the second floor of the buildings and there are multiple protrusions at the same time.

The protrusions are supported by wooden beams. As shown in Figure 2, the facades of Antalya Kaleiçi houses are given.



**Figure 2.** Facade Views of Antalya Kaleiçi Houses (Özkan Önür, 2023)

### 2.2.2. Doors

The doors in the old houses are usually double leaf wooden ones with openings ranging from 120-130 cm and heights ranging from 210-230 cm. There are cage-like openings on top of the doors to allow air and light to enter.

Generally, doors are either plain rectangular or arched. In Figure 3, different types of door designs belonging to the Antalya Kaleiçi houses are presented.

**Figure 3.** Door Views of
Antalya Kaleiçi Houses (Özkan Önür, 2023)

### 2.2.3. Windows

The windows of the buildings in Antalya Kaleiçi are made of flat or arched wooden materials. Generally, examples of two part flat windows are seen. They are designed with two sash windows that are equal to each other. The upper sash is fixed and the lower one is movable.

Wooden sash windows are designed with decorative iron grilles, which give an aesthetic feature to the facades.

Additionally, there are also examples of three-part flat sash windows with sashes that are equal to each other.

Examples of wooden sash windows belonging to Antalya Kaleiçi houses are given in Figure 4.



**Figure 4.** Window Examples of
Antalya Kaleiçi Houses (Özkan Önür, 2023)

### 2.2.4. Roofs

In the research conducted in the research area of Antalya Kaleiçi, it was observed that the roof forms of the buildings vary according to the plan type.

Buildings with a feature of a middle courtyard have a pitched roof with Turkish tiles, and those with a feature of outer and inner courtyard have a hipped roof with Turkish tiles.

The roof views of Antalya Kaleiçi houses are given in Figure 5.
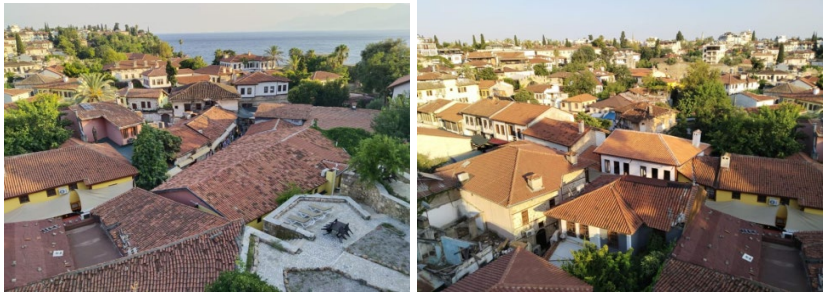


**Figure 5.** Roof Views of Antalya Kaleiçi (Özkan Önür, 2023)

## 2.3 Deterioration Occurring in Facade Elements of Antalya Kaleiçi Houses

The current physical conditions of some deteriorated structures in the workspace have been examined.

Figure 6 shows the deterioration that has occurred in the facade elements of the structures located in the settlement. In the structure shown in Figure 6 (a), the load bearing elements in the load bearing system have worn out and suffered mass loss. Plaster peeling has occurred within the walls. The straight lintel wooden windows and double leaf wooden doors are in good condition. However, the wooden window glasses are broken. Many problems that have arisen in the structure are due to the roof.

Due to the damage caused by atmospheric reasons in the structure construction, breakages have occurred in tiles of the roof. The wooden windows of the structure shown in Figure 6 (b) are in good condition. However, there are broken glasses in the window material. Plaster peeling

is observed in the wall structure and upper floor. As shown in Figure 6 (c), there are broken wooden windows in the structure, and the double leaf arched wooden door is in usable condition. Plaster peeling has caused deterioration in the wall surfaces of the structure.

The wooden facade elements such as doors and windows of the structure shown in Figure 6 (d) are in good condition. Color changes have occurred in the ground floor stone material due to atmospheric reasons. As shown in Figure 6 (e) and 6 (f), there is deterioration in the wooden structural elements of the structures, but they are in usable condition. Plaster peeling has occurred in the wall structures of the buildings due to atmospheric reasons. Since there are generally no serious damages in earthquakes, there are no collapses and destructions. The load bearing elements in the structures have not suffered mass loss because the load bearing systems have not been worn out.

## 2.4. Recommendations of Protection

Preserving historical buildings and passing them on to future generations has an important place in the development of human civilization. These structures provide valuable insights into the construction techniques and culture of the period in which they were built, significantly influencing the sustainability of architecture.

**Figure 6. a., b. (top), c.,d. (middle), e., f. (bottom)**
Views Related to the Deteriorations Occurred in the Facade Elements of
Antalya Kaleiçi Houses (Özkan Önür, 2023)

In the conservation efforts of historical buildings, analysis studies related to the building's carcass system should be conducted and necessary construction elements for preservation should be identified to ensure their reuse. Wood material has been used in every aspect of life since it forms humanity's living space.

It has superior properties compared to other building materials, such as high strength, easy shaping, and easy assembly. It stands out with its properties such as resistance to chemical and biological effects. However, its low resistance to humidity and easy deformation by biological organisms, and its susceptibility to fire can also be considered as disadvantages.

The life of wood material can be extended by taking some measures against its disadvantages. Wooden building materials deteriorate over time due to physical, chemical, biological and human caused reasons. At the same time, wood structures are significantly damaged under static and dynamic loads, reducing their resistance to excessive loads. It is necessary to increase the strength and reinforcement of wooden building elements.

In restoration works biological factors that occur over time in some areas of wooden structural systems cause the elements of the structure to separate from the system, leading to damages and an increase in cost and labor. Rather than completely replacing the structural elements, reinforcing them is a more economical approach.

One of the most important problems with wooden materials is decay. And, pressure is applied to wooden materials to prevent decay. During application, plastic capsules filled with organic compounds are combined between the wooden fibers on a nano scale to prevent the negative effects

of metallic salts used during the process on human health and the environment. Environmentally friendly wooden materials are produced that control microorganisms such as bacteria, fungi, algae, mold, or yeast. In addition, methods such as impregnation, brushing, coating, and adhesive use are applied to improve the physical and mechanical strength of wood.

With technological advancements, composite materials have been produced to eliminate all or some of the disadvantages of wood materials. Glass fibers, which are among the high-quality composite materials, are the most important reinforcing construction materials with high mechanical properties. (Şahin et al., 2023). Composite materials can overcome the shortcomings of the obtained new materials (Şahin et al., 2022). For the reinforcement material to be used in structural applications, it must have high strength, elastic modulus, and low density. In another study in the literature, there are studies similar to the development of new porous ceramic bricks from zeolitic tuff and tea wastes as building materials (Topçu & Şahin, 2023; Ibrahim et al., 2023).

In academic studies, successful results have been achieved in strengthening the joining areas using glass fiber reinforced plastics (GFRP) in the reinforcement of curved and scarf jointed elements (Sarıbıyık & Akgül, 2010).

Composite materials are comprehensively characterized using a variety analytical techniques. XRD analyses are used to investigate the microstructure and morphology of composite materials, while scanning electron microscopy (SEM) is used to determine their chemical

composition and distribution using energy dispersive spectroscopy (EDS) (Şahin et al., 2023).

It is possible to improve the physical and chemical properties of traditional materials used in architectural applications or to produce new materials Thanks to the development of nanotechnology in many disciplines, the production and use of nanomaterials have the most significant impact on the construction industry.

The use of nanotechnological materials in current structural systems improves the chemical, physical and mechanical features of traditional wood materials. It is effectively used on wood surfaces to prevent water from penetrating into the wood. It prevents wood materials from getting dirty and provides resistance to UV rays. Nano titanium dioxide ($TiO_2$) and nano aluminum oxide ($Al_2O_3$) particle-added varnishes are applied to wood surfaces used in outdoor areas in restoration and conservation works, enabling wood materials to be used for longer periods of time (Aksu, 2020).

Different nano particles with various factors are used to improve the characteristics of wood. Some of the nano products, such as zeolite and montmorillonite, aluminum oxide, zinc oxide, copper oxide nano particles, and carbon nanotubes, are used to improve different aspects of wood. Coating wood with nano particles is an effective method for extending the lifespan of historical buildings that require restoration. Nano technology used in construction can change the molecular structure of wood into a solar energy storage medium by injecting zeolite crystals into the wood material. In recent years, zeolites, which are a developing composite material, have been defined as non-mechanical minerals that form from

volcanic ash deposits and are found in tuff rocks. Zeolite material contributes to the country's economy, prevents environmental pollution that threatens humanity, and provides significant benefits. It extends the lifespan of wood structures by providing long-term protection against environmental effects and reducing maintenance costs.

## 3. Conclusion and Suggestions

Antalya Kaleiçi is a special settlement area with its historical city core and traditional texture. The wooden structures in Antalya Kaleiçi that have survived to the nowadays are 18th and 19th century buildings that have given the city an architectural character (Oral, 1996).

Preserving the historical structures of Antalya in the best way possible while reflecting its characteristic features is important for passing them down to future generations (Okka, 2020). Conservation of wooden structures is important for extending the lifespan of culturally valuable structures through interventions applied to wooden materials. The interventions performed are activities that allow for examination of the structures (Akyıldız et al., 2016).

Nano technological materials that provide long term protection against environmental effects reduce maintenance costs by extending the lifespan of wooden structures. Treatments with nano varnishes can smooth wooden surfaces and reduce dirt and dust accumulation.

With these applications, material resistance against climate conditions such as wind, rain, and frost can be increased, while fading and color changes caused by climatic factors are minimized, resulting in more effective protection of wooden material surfaces in conservation

processes. In addition, resistance to biotic hazards such as fungi and bacteria can be increased.

Restoration and conservation work can provide financial gain by being repeated for longer periods of time through the use of nano-enhanced varnishes applied to surfaces. The advantages provided by nano particles on material surfaces result in more durable wooden material surfaces under atmospheric conditions.

In order for registered historical buildings to have a longer lifespan, factors that cause the deterioration of building materials should be investigated and applications should be made according to the necessary protection methods (Özkan, 2009).

The wear and tear caused by natural factors on these historical buildings during the historical process reveal the need for restoration work due to decay in the joint areas of wooden building elements.

Careful restoration of wooden structures requires the development of an appropriate strengthening method through experimental studies before restoration work.

The use of developing modern technological materials in historical locations and preserving traditional architecture is important for the sustainability of historical urban areas and the transfer of our environmental and cultural values to future generations. (Özkan Önür & Yerli, 2019). Active participation of traditional settlement residents in conservation efforts and raising conservation awareness is crucial for historic environments that need to be preserved (Özkan Önür et al., 2022).

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# A Research on Traditional Housing Culture: Student Fieldwork in Gesi, Kayseri

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## 1. Introduction

Gesi, situated in the Kayseri province, is renowned for its captivating natural landscapes and a history that spans centuries. The region has been home to both Muslim and non-Muslim communities, as evident from land registry records in the 1500s and 1520s, which indicate that 75% of the population in Gesi were non-Muslim. The population census records from 1831 to 1860 also reveal the presence of Muslim Armenians and Greeks in the area Gesi's history is intertwined with that of Kayseri, and its fertile soil and strategic location have attracted various civilizations throughout time. The ancient city of Kaniş in Kültepe, located 6 km away from Gesi, stands as the oldest settlement in the region. Over the years, the Hittites, Late Hittite Kingdom, Roman Empire, Byzantine Empire, Seljuk Turks, and Ottoman Empire have all exerted their influence over the region. The remnants of this rich and ancient culture can still be observed not only in Gesi but also in other parts of Kayseri (İmamoğlu, 2010; İnbaşı, 1992; Eravşar, 2000).

Historical houses constitute an integral part of the historical fabric, contributing to the overall cultural and architectural heritage of a region. Gesi is a settlement located above an underground city, which is said to extend all the way to Cappadocia, like other rural areas in the region. However, the present reality reveals that some of houses have been left abandoned. Among the houses that remain in use, there are two distinct patterns of utilization. While some are employed seasonally, serving as occasional retreats, a few households have chosen to make these houses their permanent residences throughout the year.

The literature on Kayseri traditional houses includes valuable contributions by Vacit İmamoğlu and Gonca Büyükmıhçı. İmamoğlu's book, Geleneksel Kayseri Evleri [Traditional Kayseri Houses], examines selected houses in Kayseri. After a general overview of the physical characteristics and lifestyle of Kayseri, the book discusses the general character of the houses and how it varies according to religion. It also provides information on interior spaces and architectural elements (İmamoğlu, 1992).

Büyükmıhçı, on the other hand, focuses on natural-social-economic-cultural determinants and the culture-space interaction system in Kayseri in her book, in Kayseri'de Yaşam ve Konut Kültürü [Life and Housing Culture in Kayseri]. She compiles information on traditional texture and housing architecture. In addition, Armenian houses are examined in a separate section in this book (Büyükmıhçı, 2005).

İmamoğlu also examines the characteristics of more specific houses and publishes the book Kayseri Bağ Evleri [Kayseri Vineyard Houses], which provides information on houses that are part of the Bağ (vineyard) culture in Kayseri. After providing information on the history and importance of viticulture in Kayseri, the book discusses the spatial features and architectural elements of the houses (İmamoğlu, 2001). Additionally, İmamoğlu publishes the book Gesi Evleri: Mimar Sinan'ın Yetiştiği Yöredeki Köyler ve Geleneksel Evler [Gesi Houses: Villages and Traditional Homes in the Region Where Mimar Sinan Grew Up] in 2010. This study examines the village settlements and selected houses. As a result, general information is provided about the villages, and information

is provided on the spatial features, architectural elements, and infrastructure elements of the houses (İmamoğlu, 2010). This study takes this book as a basic reference.

The works of İmamoğlu and Büyükmıhçı provide a comprehensive overview of Kayseri traditional houses. İmamoğlu's work is particularly valuable for its in-depth examination of the architectural features of the houses, including their spatial layout, materials, and construction techniques. Büyükmıhçı's work, on the other hand, provides a more holistic view of Kayseri traditional houses, considering their cultural and social context.

## 1.1. Aim and Scope of the Study

This study focuses on investigating traditional houses in Gesi as part of the "Traditional Housing Culture in Anatolia" course at Abdullah Gül University. The course consists of two parts: understanding traditional housing culture in different regions of Turkey through literature resources and conducting a site visit to a selected region as a case study. In the 2022 Spring Semester, the case study aims to examine traditional life in the historic settlement of Gesi by evaluating its traditional houses in Southern Gesi. The study involves three groups of students, two with six individuals and the other with five individuals, who spent three days studying.

The Gesi Region comprises a separate settlement, which is distinguished by its southern part, referred to as Southern Gesi. Traditional houses can be observed in both Southern and Northern Gesi. Figure 1. Most of these houses are abandoned today, with only a few still inhabited. The study was conducted in Southern Gesi, focusing on traditional houses that have

remained largely unaltered by modern interventions. These houses were meticulously selected under the guidance of the headman of the village and architect Büşra Çelebi."



**Figure 1.** Top View of Gesi (Apple Maps, 2023)

The selected houses are Sadık Elgün House, Güler Fidan House, and Aslanoğulları House. Sadık Elgün House and Güler Fidan House are actively occupied, while Aslanoğulları House remains abandoned. Sadık Elgün resides in the house year-round and currently lives alone in the house that most of its spaces inactive in daily life. Güler Fidan and her family utilize the house during the summer season. Seasonal use is a prevalent practice in the region.

Despite the presence of an abandoned house among the selected sample, the study revealed the continued use and adaptation of traditional housing in Gesi, as evidenced by the occupied houses. Students investigated the

physical characteristics and daily usage of three houses and their surroundings. The students collected information on spatial arrangements, architectural elements, local terms, and aspects of everyday life routines related to the examined houses. Students created drawings to document the architectural features of the historic urban settlement and traditional houses, and they interacted with residents to gain insights into the regional lifestyle.

The main purpose of the fieldwork was to learn the physical information about the spaces of the houses and their place in daily life. In addition, since the study was conducted in a limited period, a restricted amount of information could be collected. The tools used in daily life routines and the practices of traditional life in relation to the spaces are among the information expected to be collected in the study of each house in line with the interviews with the residents.

The study showed that traditional houses in Gesi typically consist of two stories and feature a central courtyard. Many of them have a door that opens to a rock-carved cave section, which is currently utilized as a storage area and is part of an underground city. While a significant part of life takes place in the courtyard, the spaces connected to the courtyard serve purposes such as production, storage, or animal breeding. The courtyard serves as a significant area for daily activities, while the spaces connected to the courtyard are used for purposes such as production, storage, or animal breeding. Other living areas can be found on either the ground floor or the first floor, depending on the specific house.

Historical settlements and spaces in the houses have undergone changes today. The investigated houses exhibit various modifications undertaken by users to adapt them to modern living conditions. While local terminology remains in use, the purpose of some spaces has evolved, and the utilization of certain everyday items has ceased. Among the studied houses, the abandoned ones have experienced the least alterations. Due to the inability to communicate with potential occupants of that house, inferences were drawn from information gathered from sources and field observations.

## 2. General Characteristics of Gesi Southern Neighbourhood

Gesi Southern Neighbourhood is accessible by passing through the Northern Neighbourhood and is entirely an independent settlement. The southern neighborhood of Gesi is named after its location, which faces south. The number of Greeks and Armenians living in the southern neighborhood used to be considerably less compared to the northern neighborhood. This was because these groups did not like the neighborhood. It is higher and more rugged than the northern neighborhood. The streets are steeper, and the layout of the houses and streets is more complex. The main road runs parallel to the slope, and there are a few other roads that go up and down according to the slope. These roads are narrow and twisty, and sometimes they pass through underpasses or end with stairs. Most of them have a watercourse next to them (İmamoğlu, 2010). Figure 2.

Houses are lined up on both sides of the streets. Buildings are sometimes attached to each other, and sometimes they are separated by courtyards.

Each courtyard is surrounded by high stone walls and is completely cut off from the street in front and next to it. Trees, vines, and flowers are planted in the courtyards, and gazebos or awnings are set up to provide shade. In addition to courtyards, some houses have terraces or balconies, which are shaded by vines and sometimes overlook the street (İmamoğlu, 2010).



**Figure 2.** Gesi Southern Neighbourhood (Apple Maps, 2023)

Although a significant portion of the structures built on the rugged terrain has undergone renovation, there are still authentic traditional buildings that have maintained their original character. Some of these buildings have been restored and are currently in use, while others remain in their original state. The village square, which includes the village grocery store, serves as a central meeting place for the local community. According to the questionaries made with the local community, the village square is also used for wedding ceremonies.

Traditional structures in the area are mostly built with cut volcanic stone, two-storey buildings with flat roofs. Each dwelling consists of a living unit and a courtyard, with a significant part of daily life taking place in the courtyard. Local production is quite important, and it is a part of lifestyle.

## 3. Site Studies of the Students

The objective of the study was to explore the traditional way of life in the historical settlement of Gesi by evaluating the traditional houses located in Southern Gesi.

Students collected information on the physical characteristics of the houses, such as their spatial arrangements and architectural elements. They also learned about the daily life of the residents, paying attention to how the spaces were used and including their local terms and customs. The students created drawings of the houses and interacted with the residents to gain a deeper understanding of the regional lifestyle.

In the field study, the houses examined can be listed as Sadık Elgün House, Güler Fidan House, and Aslanoğulları Mansion. The outputs of the study conducted by 3 student groups are different from each other since the structural status, usage status and accessibility to the user are not the same. While Sadık Elgün house was in use at the time of the study, Güler Fidan house is used seasonally and was not in use at the time of the study. Aslanoğulları mansion is completely abandoned. For this reason, the student group that studied this house did not have the opportunity to meet with the residents of the house and received information about the use of the spaces from Sadık Elgün, who knew the traditional life in the house.

As an outcome, the students produced a poster and a short film. In the poster they collected their sketches and notes about the house they investigated. In the short film, they are expected to perform like they are the residents and demonstrate daily life in the house.

### 3.1. Studies of Group 1: Sadık Elgün House

Sadık Elgün House was studied by a group of 6 students. The students first schematically drew the plans of the existing spaces and took detailed photographs. Then they interviewed Sadık Elgün about how the spaces in the house were used. In the poster, the students give information about the spaces and their uses in the house.

Sadık Elgün House consists of rooms surrounding a courtyard and a two-storey building. The construction technique of the house is cut stone masonry. The entrance to the house is from the courtyard. Upon entering, the two-storey building is first visible. Sadık Elgün lives on the ground floor of this building today. The upper floor is not in use today, but its spatial features can still be read. There is a toilet and a barn on the right side of the entrance. Next to the barn is a living room whose interior reflects the traditional way of life. Next to it is the kitchen space called "*tokana*". Even this part is not seen in the students' drawings, as in many houses in the region, there is a rock-carved space that can be accessed from the kitchen and is part of the underground city. This section is mostly used for food storage. Figures 3-4.
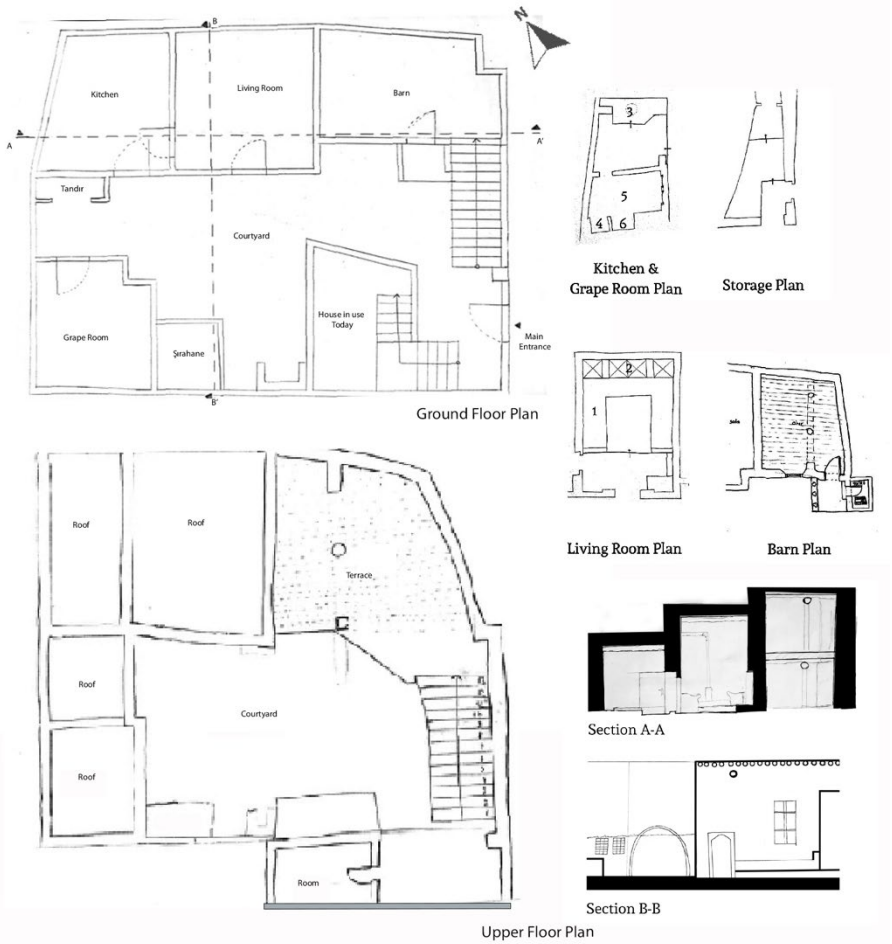
The "*tandır*" [tandour] for baking bread is located outside the kitchen. Directly opposite the tandoor is the entrance to another room. Based on the interviews with Sadık Elgün and the architectural elements in the interior,

it can be said that this room was previously used as a sleeping and living space. There are also some details on the ceiling of the room for hanging grapes. Today, Sadık Elgün uses this space for hanging grapes. Figures 3-5. Other uses of the space are not continuing today.

The living room is a typical living space which is flexible and used for a variety of purposes. There is an immovable sitting element the divan which was made of stone and covered with wood. The wardrobe-like element had different functions than it does today. It had a *gusulhane* [shower] inside, and it was also used to store various items. Since all the rooms were flexible and multifunctional, in all rooms it is possible to observe a niche to store beddings. This niche is called *yüklük*. The *ça* was where people performed ablutions.

Sadık Elgün occupies the first floor of the two-storey stone masonry building, which formerly served as a residential space for multiple households. Presently, the second floor remains unoccupied and suffers from significant deterioration.

In a short video, the students played a family and used local terms in their dialogue. There are important local terms and usages mentioned in the content of the short film at Sadık Elgün house. One of them is two different knockers located at the entrance door. One of these knockers is for women and the other is for men. The mallet designed for women produces a higher pitched sound, while the hammer designed for men produces a fuller sound. In this way, the residents can understand whether the guest is male or female. Figure 6.

Ground Floor Plan

Kitchen & Grape Room Plan

Storage Plan

Living Room Plan

Barn Plan

Section A-A

Section B-B

Upper Floor Plan

Name of the Students: Asya Gizem Gürbulak, Betül Ağrıgelir, Mohammed Albanna, Mustafa Ehven, Rabia Şeybek, Şevki Dabbit

**Figure 3.** Sketches of Sadık Elgün House

**Figure 4.** Sketches of Sadık Elgün House



**Figure 5.** Photos of Sadık Elgün House



**Figure 6.** Screenshots from the Short Film in Sadık Elgün House

Other important elements mentioned in the video can be listed as a locked closet used to store special items in the living room, a shower in the closet (*gusulhane*), a *tandır*, a fountain in the courtyard (*ça*) and a "*şırahane*" used to make molasses.

## 3.2. Studies of Group 2: Güler Fidan House

Güler Fidan House was studied by a group of 5 students. The students first drew the house plans and photographed them. Then, they received information about the daily use of the spaces from the resident, Emel Çelebi.

The main entrance to Güler Fidan House is through the courtyard. It consists of a two-storey residence and service areas surrounding the same courtyard. As soon as you enter the courtyard, there is a vine on the right and a seating area underneath. Emel Çelebi stated that most of the residents' time passes here during the day. The house is only used during the summer season. Emel Çelebi lives in her house in Northern Gesi in the winter, while Güler Fidan lives in the city center.

The most important feature that distinguishes this residence from other residences is that the two-storey structure in the courtyard is a hybrid structure. The rear facade of the building is entirely made up of rocks. The existing tuff rocks were used on one side and the other facades were built as a continuation of it. The two-storey structure is the main living unit. It has two basic rooms. The residents have named these rooms the small room and the large room.

There is a window opening on the left side of the entrance to the structure, facing the entrance to the small room. Emel Çelebi mentioned that this

opening was also used by the residents to enter and exit the small room. Although the small room is not used today, there is a water reservoir called "ça" in the local language, which was used for bathing in the past. It is possible to see another water reservoir right next to the entrance of the small room. Çelebi stated that this water reservoir was used more for washing hands or performing ablution. Figures 7-8.

At the end of the corridor, there is a cupboard used for storing items. This cupboard is located on the rocky side, so it is a cupboard created by covering a niche in the rock with a lid. At the end of the corridor, the large room is entered on the right. The large room is the room where guests are hosted. It is surrounded by three sides of the couch. Çelebi said that the room was also used for sleeping at night.

The kitchen, which is accessed from the large room, was previously used as a barn outside, but later it was added to the interior of the house due to the need for wet spaces and converted into a kitchen.

Later, the residents needed a bathroom and carved the rock behind to create an additional space. Today, the newly added space is used as a bathroom with access from the kitchen.

The service facilities in the courtyard are a barn, a barley field, a hayloft, a bakery, a fireplace [*tandır*], a coop [*pinlik*] and a toilet. The toilet in the courtyard is no longer in use. The *tandır* has been converted into a kitchen by adding a closed area around it. Another service area that is visible in this courtyard but not in every house's courtyard is the bakery. The household members bake bread here for their own needs.
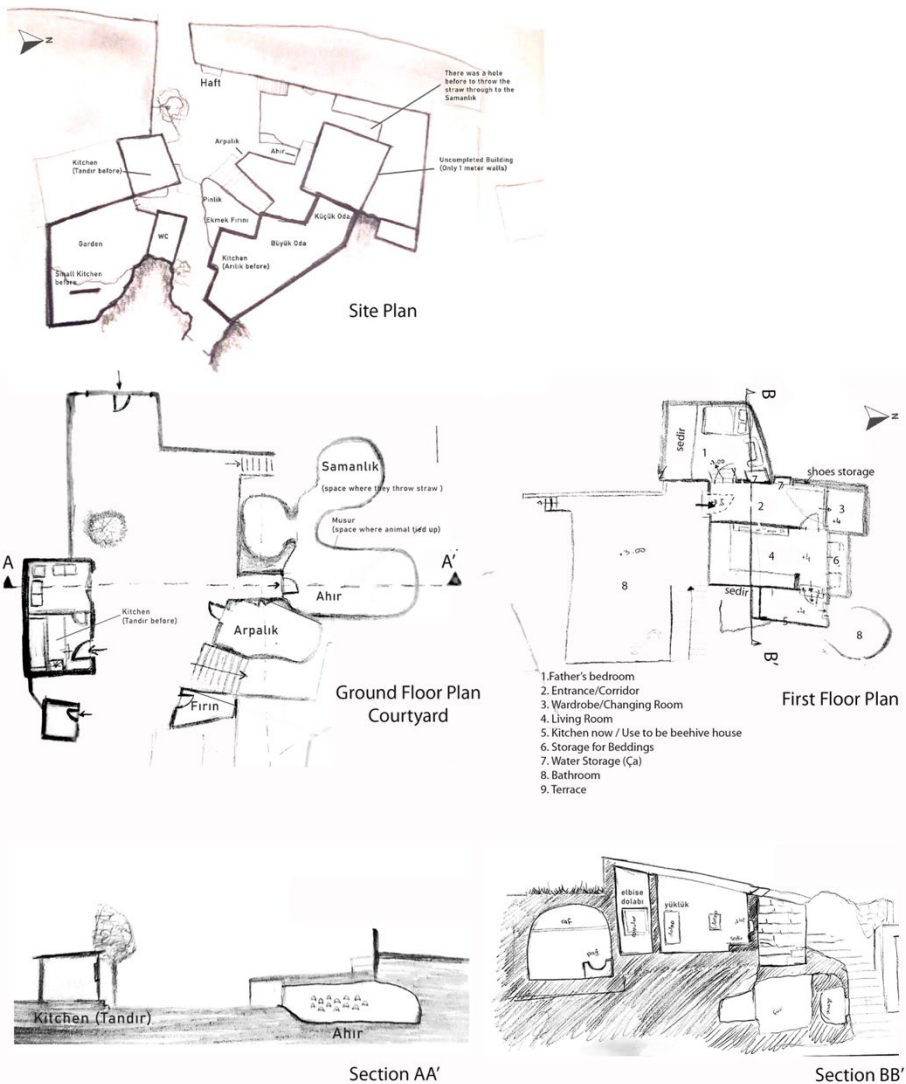
Name of the Students: Mustafa Berat Demir, Omama Zayat, Mustafa Altun, Ichraq Sarkadi, Promesse Abumwungeri

**Figure 7.** Sketches of the Güler Fidan House

**Figure 8.** Photos of the Güler Fidan House

The courtyard pavement is made of *Sal Taşı* [raft stone], a local stone that is commonly found in the region. *Sal Taşı* is a type of limestone that is lightweight, durable, and easy to work with. This makes it an ideal material for courtyard floors. *Sal Taşı* gives the courtyard floor a natural look and will last for many years.

Equipped with their recent insights into the household's dynamics, students crafted a short film that demystifies the daily routines of its residents, using local vocabulary extensively. Figure 9.



**Figure 9.** Screenshots from the Short Film in Güler Fidan House

### 3.3. Studies of Group 3: Aslanoğulları House

Aslanoğulları Mansion is an important example of Gesi Houses. The house has important architectural elements that reflect the local culture. It was studied by a group of 6 students. The plan scheme and architectural elements were documented by the students. This house has been abandoned, so the information about the living spaces was obtained from Sadık Elgün. In addition, this house was examined as an example in the book Gesi Houses, published by Vacit İmamoğlu in 2010. The students who conducted the research also benefited from this source.

The entrance to the courtyard is reached through a narrow corridor that can be reached from the street. There are two inscriptions at the street entrance. One of these inscriptions has the date 1250 (H 1834) and the other has the date 1310 (M 1892). It is thought that the first construction date of the building is 1250 and it was added in 1310 when the inheritance was divided and the street doors were rearranged (İmamoğlu, 2010).

The entrance of the house opens to the courtyard. There is a two-storey building and service units in the courtyard. The building is damaged in some parts because it has been abandoned. There is a sofa and two more rooms on the ground floor of the two-storey building. Stone benches are observed along a single edge in the rooms. In the sofa, the stone bench turns along 3 edges. Figures 10-12.

There is a winery in the courtyard today, whose original location has been changed. The other parts of the building are single storey. When you enter the courtyard from the right, there is a toilet, next to it there is a tandoor, a carpet workshop, next to it there is a biro and a kitchen (*tokana*) section.
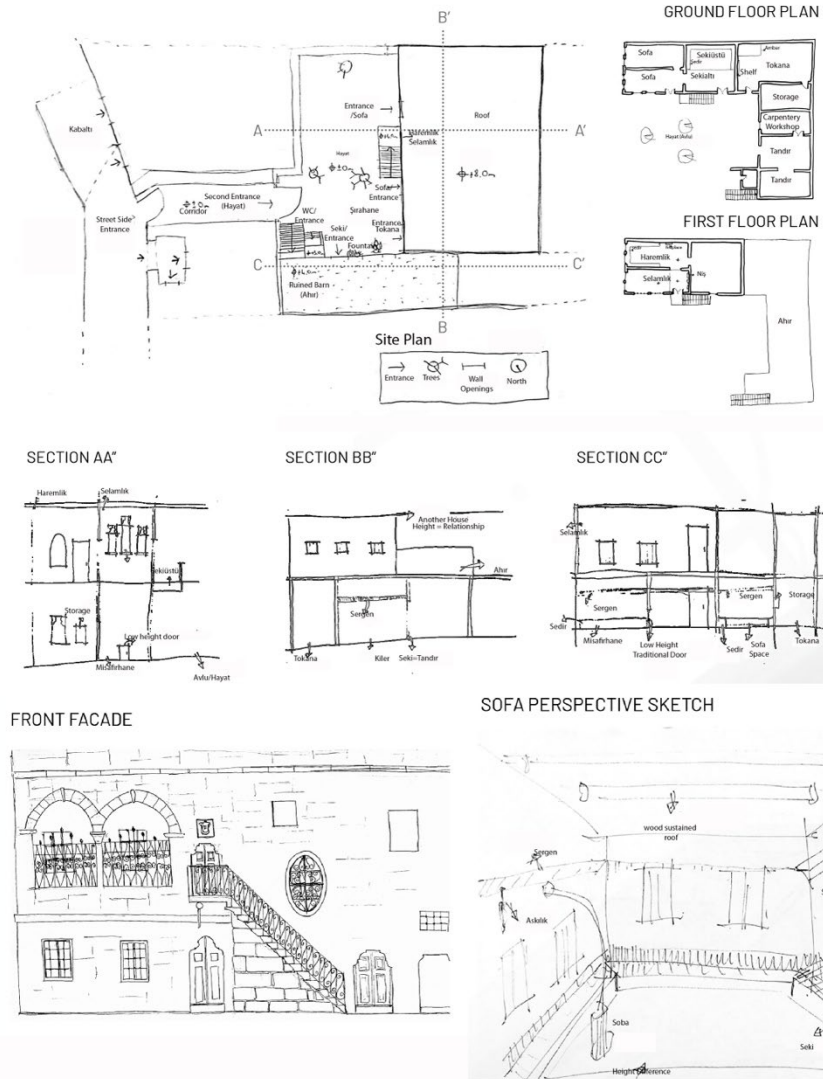
Name of the Students: Dilara Pamuk, Ozan Fatih Emul, Şükrü Durak, İsmail Özalp, Buse Akay, Melikenur Akyüz

**Figure 10.** Sketches of Aslanoğulları House
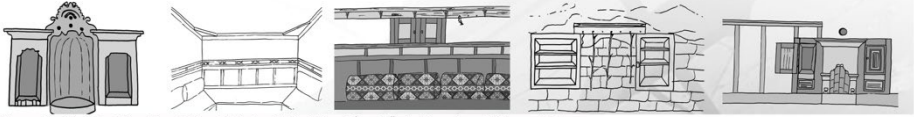
**Figure 11.** Detail Sketches of Aslanoğulları House


Name of the Students: Dilara Pamuk, Ozan Fatih Emul, Şükrü Durak, İsmail Özalp, Buse Akay, Melikenur Akyüz
**Figure 12.** Photos of Aslanoğulları House

There is a semi-open space and a room on the upper floor of the two-storey building. There is a warehouse and a barn that can be reached from the room. The semi-open area on the upper floor is called "*Selamlık Köşkü*" because it is a place where male guests are welcomed, as expressed by the local dialect.

Today, since the house is empty, no information has been obtained about its use. However, İmamoğlu (2010) stated in his study on the same house at that time. The house was used by one person only during the summer season and all the spaces on the ground floor served as storage, and the main living area was the upper floor.

Informed by their acquired knowledge of domestic life, students crafted a short film that illuminates the daily routines of the household, utilizing local terminology throughout.

## 4. Evaluation

Gesi Houses are traditional residences located in the Gesi district of Kayseri. These houses were built in the 19th and 20th centuries and reflect the traditional architecture of Kayseri.

Students had the chance to explore the interiors of traditional buildings in this geography, understand the spaces, and interact with the local people. Although the information expected from students to be collected during the study was the same, the results changed according to the available data. Based on these three analyses, what can be said about Gesi Housing is limited. However, because of the studies, the common features of the houses studied are as follows:

Entrance to the house is from the courtyard in all three examples. It is understood that one of the structures in the courtyard is two-storey while the other structures are single-storeyed. The single-storeyed structures consist of a sofa and service areas. The sofa has stone benches on three sides in the lower floor, as well as cabinets with various storage elements. The service areas are mostly made up of kitchens, barns and storage rooms called "*tokana*". There is a tub called "*şırahane*" in the courtyard where grapes are processed. Nails are seen on the ceiling for drying grapes in a place used as a warehouse or room on the lower floor. There are closed and semi-open areas used as living space on the upper floor in the two-storey structure.

As well as the common feature of the houses studied, there are also their own unique spaces. Güler Fidan House has a bread oven in the courtyard. Aslanoğulları House has a carpet workshop. These functions are shaped

according to the needs of the people living in the house. Although it is difficult to distinguish today in Aslanoğulları House, there is also a garden where the household members grow their daily food in the courtyard.

The study of traditional houses in Gesi, Kayseri, provides valuable insights into the region's cultural heritage and the lifestyle of its people. The houses are typically two-storey structures with a central courtyard, and they are made of cut volcanic stone. The courtyard is an important area for daily activities, such as cooking, eating, and socializing. The houses also feature a variety of spaces for production, storage, and animal breeding.

The traditional houses of Gesi have undergone changes over time. Some of the changes are due to the migration of people to urban areas, while others are due to the changing needs of families. However, many of the houses still retain their traditional character, and they continue to play an important role in the community.

The residents of Gesi have a strong sense of attachment to their traditional houses. They see the houses as a symbol of their history and culture, and they are committed to preserving them. The traditional houses of Gesi are an asset to the region, and they should be protected for future generations.

## 5.  Conclusion

The study highlights the importance of conducting fieldwork to gain a deeper understanding of local cultures. By spending time in Gesi and interacting with the residents, the students were able to learn about the history and culture of the region in a way that would not have been possible through books or articles.

The analysis of traditional houses in Gesi provides a valuable contribution to comprehend the region's cultural heritage and the lifestyle of its people. The study also highlights the importance of preserving traditional houses, as they play an important role in the community and are a symbol of the region's history and culture.

Finally, the study is a valuable resource for anyone interested in learning more about traditional Turkish architecture. The descriptions of the houses and their features provide a unique glimpse into a disappearing way of life.

## Thanks and Information Note

## Author Contribution and Conflict of Interest Disclosure Information

There is no conflict of interest.

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# Social Houses as the Socio-Spatial Layer of Urban Housing Formation:
## Türk-İş Blokları Aydınlıkevler (Ankara) Case

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## 1. Introduction

This research unveils the socio-spatial dynamics of urban housing formation through an examination of foundation, planning, development, and the environmental features, social amenities, and elements contributing to livability of Türk-İş Blocks neighbourhood in Aydınlıkevler, Ankara. The text primarily addresses the neighborhood planning process of a cooperative, with a focus on affordably solving housing concerns for members of the largest labor confederation in Türkiye, the Turkish Confederation of Trade Unions, known as Türk-İş.

In the realm of urban research, particularly delving into Ankara neighborhoods during the 1960-1970 rapid urbanization period, Altındağ takes center stage with studies emphasizing 'squatter neighborhoods', overshadowing the limited research on Ankara's inaugural planned social housing area. This article sheds light on a less-explored facet of Ankara – its systematically developed housing stock. Situated on the city's northern periphery as part of the Yücel-Uybadin Plan, Aydınlıkevler Türk-İş Blocks emerges as an early example of worker cooperative collective housing. It gains significance for its experimental character as a residential environment applying neighborhood unit design principles envisioned for community construction in the 1960s.

The study aims to assess the historical background of urban housing stock formation, contextualized within the 'planned period' social housing policy and worker cooperative housing production, and neighborhood unit design. It concurrently reveals the formation process, distinctive structure, and basic values of a planned neighborhood.

Seyfi Demirsoy Neighborhood in Ankara's Aydınlıkevler is a residential area constructed through the initiative of the Confederation of Turkish Trade Unions (known as Türk-İş), organized by a workers cooperative. Roots of planning this neighborhood dates back to 1963. In an Ankara Municipality official document dated 03.12.1963 regarding the finalization of the boundaries of planned golf area (Aydınlıkevler Golf Club, known as Americans), it is stated that "a workers housing plan" is being carried out on a field adjacent to this club (Gök, 1983). The organization, financing, and settlement plan of the housing area involve numerous pioneering experiences and practices in various aspects according to the period.

Despite these distinctive features, the Türk-İş Blocks in Ankara have not been the subject of inventory studies or documentation, such as planning history and neighborhood research. The examination of social housing areas should focus not only on the architectural elements of individual structures but also on the contribution of the settlement layout, the interaction of housing typologies, the arrangement of structures, and the designed living environment to daily life. In response to the high demand generated by the Aydınlıkevler project, Türk-İş completed a cooperative initiative comprising 3,500 worker housing units in the Karakusunlar region near the ODTÜ campus in the southwest of the city between 1974 and 1984. However, the 100.Yıl İşçi Blocks are more widely known and attract the attention of researchers as a cooperative worker housing area.

The Türk-İş Blocks in Aydınlıkevler have been declared a risky area according to Article 2/c of Law No. 6306, with a decision dated April 22,

2013, numbered 2013/4634 by the Council of Ministers. After the neighborhood became an urban transformation area, it has drawn limited attention from researchers (Erdoğanaras et al., 2018; Cihangir Çamur et al., 2018; Kahraman & Özdemir, 2017).

In this context, this article primarily evaluates a housing stock realized during the 1960-1970 period in conjunction with housing policies in its temporal context. It aims to convey significant historical information about the planning and implementation process through archival studies and contribute to the literature by documenting the physical and social values of the neighborhood through on-site observations and surveys, aiming to carry the present into the future.

The concept of social housing policy gained prominence after World War II. From the post-World War II era until the planned period, worker housing began to dominate housing policies. The role of unhealthy living conditions in squatter areas leading to epidemic diseases was a significant factor in this public interest (Eren, 2021a) shift. Foreign experts conducting investigations on behalf of the United Nations in Turkey, including Manson and Wagner, emphasized the issue of worker housing. In the mid-1940s, various legal regulations were attempted under the leadership of the Social Insurance Institution to provide credit for worker housing. However, high interest rates and challenging payment conditions made it difficult for low-income workers to benefit from these funds. The Constitution of 1961 included the provision, 'The state takes measures to meet the housing needs of poor or low-income families in accordance with health conditions.' The government program of the İnönü Administration

within the constitutional framework stated that a social housing policy focusing on the needs of low-income families would be pursued (Sey, 1985).

Keleş (1966) defines social housing policy as 'a set of goals, measures, and rules within national development plans that have some priorities based on social class, income, or housing standards and must be compatible with the urban, land, and regional development policies of each country.' Accompanying the transition to a democratic and pluralistic society in the 1960s, the economic model emphasizing industrialization suggested that investing heavily in housing during the first decade of the five-year development plans was an 'idle investment.' It suggested allocating a budget for housing investments that did not exceed 4% of the gross national product.

During this period, the Condominium Law was enacted in 1965, and the Social Insurance Institution ceased distributing housing funds through the Real Estate Credit Bank, choosing to distribute them only through its organization to housing cooperatives. These conditions, especially the phenomenon of condominium ownership, allowed the middle class to share the increasing land values within the city, facilitating their payments (Tekeli, 1982).

The Housing Bill prepared in 1963 defined housing as a public service. In 1964, a minimum housing size standard of 69.3 m2 was determined for social housing production, but Türk-İş succeeded in changing the housing size to 100 m2, citing the family structure and size, to meet the need for a healthy living space (Adam et al., 2009, p.272).

In its General Congress held in Bursa in 1966, the Turkish Confederation of Trade Unions emphasized that directing housing loans towards social housing production, highlighting a model of healthy urban development achieved through 'mass housing to be realized by the state and cooperatives of unions.' This claim of the union is based on the initiative of the Ankara Workers Unions Confederation Members Housing Cooperative, which started planning studies in 1964. Initially aiming for a mass housing implementation with 3000 housing units, the cooperative had to reduce its target during the planning process.

The cooperative area was acquired with the registration on behalf of the Social Insurance (S.S.) Ankara Workers Unions Federation Members Housing Cooperative in the Squatter Prevention Area owned by the State Treasury. Due to the financing being carried out by the Social Insurance General Directorate, an easement was established in the name of the administration in accordance with Article 660 of the Civil Code in 1968 and 1970. The annotation stating that the area is subject to Law No. 775 was removed in 1983 and allocated to the beneficiaries in the cooperative.

## 2. Material and Method

This study is based on the approach that cities are indispensable laboratories for urban planning and aims to highlight the irreplaceable values while also contributing to Ankara's urban memory.

In urban researches focusing on Ankara neighborhoods during the 1960-1970 period, Altındağ is more prominently featured with studies on 'squatters neighborhoods' while research on the Ankara's first planned social housing area has been quite limited. The only research titled 'Civil

Architectural Heritage of Ankara between 1930-1980: Research, Documentation and Conservation Standards Developing Project' by Bayraktar (2014) represents a significant inventory and documentation effort focusing on individual buildings with architectural characteristics.

This article focuses on these less explored parts of Ankara: Türk-İş Blocks (Aydınlıkevler). It is located on the northern periphery of the city in the Yücel-Uybadin Ankara Plan and, realized by the Turkish Confederation of Trade Unions, stands as an early example of a worker cooperative collective housing.

Beyond its uniqueness, its experimental nature as a residential environment relating the neighborhood unit design principles envisaged for community building in the 1960s, makes this research historically significant. The aim of this study is to assess the historical layer of the urban housing stock formation within the framework of the "planned period" social housing policies, workers cooperative housing production, and neighborhood unit design while revealing the formation process, unique structure, and values of the neighborhood through archival research, on-site observations, aerial photographs, Google Earth images, and documentation based on planning studies for the area.

Since the neighborhood was declared a "Disaster Risk Housing Area" in 2013, this distinctive neighborhood, which we can describe as the 'first example of collective social housing cooperative', is on the verge of disappearing. This research systematically investigates the establishment, planning, development, and characteristics of Aydınlıkevler Türk-İş Blocks' social housing environment. The focus of the study is primarily on

the foundation and neighborhood planning process of a cooperative dedicated to addressing housing challenges for members of the Türk-İş.

## 3. Findings and Discussion: Planning Process and Living Environment Features of Türk-İş Blocks Neighborhood

The Turkish Confederation of Trade Unions (Türk-İş) was established in 1952 and played a significant role in the emergence of workers social housing cooperatives as an effective component of the housing production process in the 1960s and 70s. In Aydınlıkevler district, beyond market conditions, a homogeneous building typology, open spaces, social facilities, and a central neighborhood unit that constitutes a physical whole were achieved through the use of housing, credits from the Real Estate Bank, Social Security Institution (SSI) loans, and cooperative members' fees.

To address the housing issues of Türk-İş member workers and facilitate them in becoming homeowners, the Confederation President Seyfi Demirsoy played a prominent role in the establishment of the cooperative in 1964. Seyfi Demirsoy, who served as the general president of Türk-İş Confederation from 1960 to 1974, passed away in 1974. The neighborhood where the Türk-İş Blocks were developed was named after him. Urban planning and construction activities took place in Seyfi Demirsoy Neighborhood between 1968 and 1974. The initial social housing complex, consisting of 281 blocks and 2566 apartments, known as Türk-İş Blocks, was realized as Seyfi Demirsoy Neighborhood.

### 3.1. Planning Process of Türk-İş Blocks Neighborhood

Upon analysing the development process of Türk-İş Blocks, it becomes apparent that the acquisition of affordable land and housing for cooperatives, particularly in the outskirts of the city, was considered compatible with the infrastructure of social housing, as indicated in Aydınlıkevler case.

The first site development plan for the cooperative dates back to 1964. At this time, the Yücel-Uybadin Plan was in effect. The 1957 Yücel-Uybadin Plan, identified through a competition in 1954, remained in effect from 1958 to 1968. The plan lacked the ability to predict and direct future developments in the city and was considered a plan that internalized current developments (Kayasü, 2005, p.175). The Yücel-Uybadin Plan initiated the expansion beyond the Ankara basin for the first time, shaping the urban space with cooperative housing developments (Cengizkan, 2005, p.47-48). The 1965 1/50.000 scale Ankara Master Plan, including recommendations for the water infrastructure of Ankara Water Administration, features Türk-İş Blocks as a site plan. The western neighbor Altınpark is designated as a golf club area, while the eastern neighbor Siteler is highlighted as Woodworkers and Carpenters Cooperative. Figure 1.

Focusing on the north axis of the city where Samsun and Esenboğa-Çankırı Roads intersect, four aerial photographs from the 1942-1976 period are evaluated to shed light on the urban development in this region through the Türk-İş Blocks social (mass) housing cooperative.
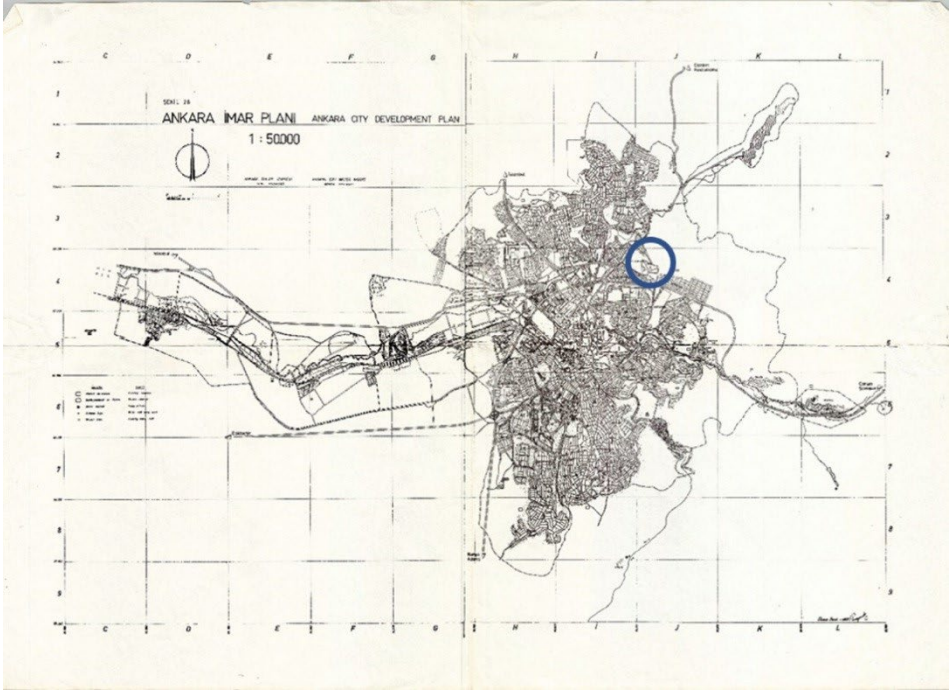
**Figure 1.** Ankara Master Plan 1/50.000 Scale
(Ankara Metropolitan Municipality Archive)

Examining images from each decade allows for a reading that reveals the nature of urban development, particularly north of Samsun Road.

Looking at the 1942 aerial photograph of the area where Türk-İş Blocks are located and its surroundings, sparse construction is observed near the School of Agriculture (Aysal, 2007) and Ankara Çubuk Stream. The traces of Çankırı-Esenboğa Road and Samsun Road on Figure 2, suggest the development of the Ziraat neighborhood in the early 1940s. Except for the Golf Club included in the 1937 1/5000 scale "Plan of the Surroundings of Kalaba Village (Keçiören)" by Jansen, most of the area is wheat fields (Figure 2).
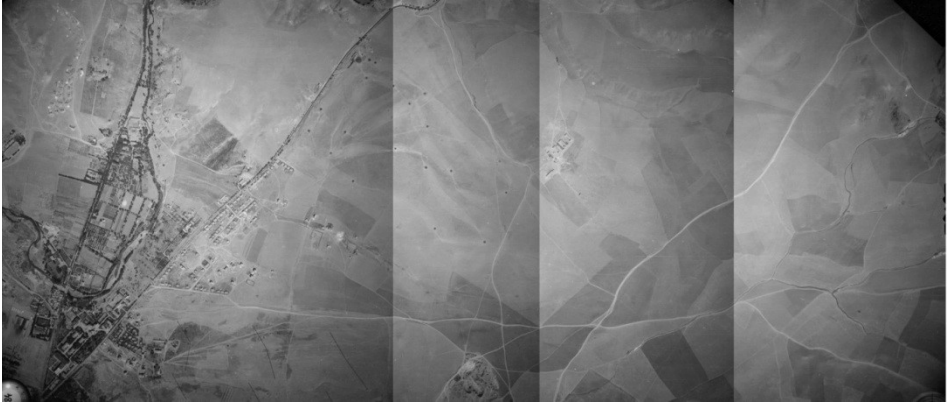
**Figure 2.** 1942 Aerial Photographs of the Study Area and Its Surroundings (Obtained from the General Command of Maps and Merged to within the Scope of this Study)

In the aerial photograph from 1957 (Figure 3), it can be observed that the Esenboğa-Çankırı Road widened; there was an increase in construction around the Faculty of Agriculture; Aydınlıkevler neighborhood started to take shape as a formal and parcel-based housing stock south of the Golf Club area; squatter housing developments continued around Cebeci Cemetery south of Samsun Yolu; and Türk-İş Blocks neighborhood and the industrial area of Siteler still retained the characteristics of fields.

Comparing the 1966 and 1976 aerial photographs obtained from the General Directorate of Maps, it is seen that rapid urban expansion occurred north of Samsun Road within a decade. In the aerial photograph from 1966 for the study area, after the expansion of Samsun Road transformed into a significant axis for the city, Aydınlıkevler and the industrial areas of Siteler were developed, squatter areas formed to the north, and construction began for the existing primary school in the Türk- İş Blocks area. Figure 4.

**Figure 3.** 1957 Aerial Photographs of the Study Area and Its
Surroundings (obtained from the General Command of Maps
and Merged within the Sscope of this Study)
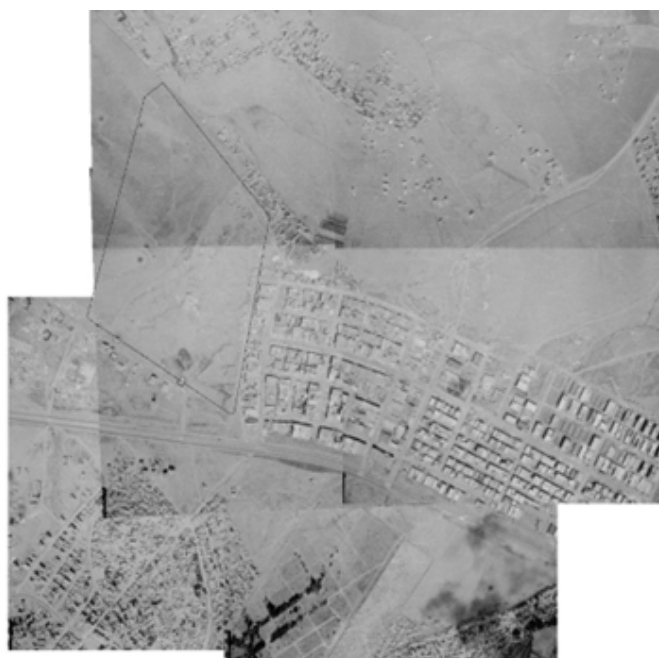


**Figure 4.** 1966 Aerial Photographs of the Study Area and Its
Surroundings (obtained from the General Command of Maps
and Merged within the Scope of this Study)

The increased squatters around Cebeci Cemetery and its surroundings south of Samsun Yolu is also visible. In the aerial photograph from 1976, it can be seen that construction in the Türk-İş Blocks mass housing area is completed, and it has more open space creating a liveable housing area, compared to the surrounding parcel-based developed residential fabric. Figure 5.



**Figure 5.** 1976 Aerial Photographs of the Study Area and Its Surroundings (obtained from the General Command of Maps and Merged within the Scope of this Study)

The first plan for Türk-İş Blocks Cooperative, organized and financed by the Confederation of Trade Unions, was prepared in 1964 by Architect Sedat Çağlar. The plan included two types of blocks and building arrangements: star-shaped blocks and regular blocks. A shopping block

was also featured in the plan. The plan notes envisioned 1944 units, with provisions for blocks to gain floors due to the slope. The initial plan, approved by the Ankara Municipality Planning Directorate in 1964, proposed the placement of 5-story blocks, 12-story star-shaped blocks, and a 10-story shopping block, totalling 2000 housing units. Figure 6. However, this plan was cancelled in 1965.



**Figure 6.** 1964 First Site Development Plan of Türk-İş Blocks, Cancelled in 1965 (Ankara Metropolitan Municipality Archive, 2018)

After a revision in the local plan in 1968, the applied plan featured block arrangements according to the cluster house typology based on heat centers, and it was decided that blocks would be 4 and 5 stories tall. The absence of star-shaped blocks in the plan raises the assumption that the cancellation of the 1964 plan was due to the preference for star-shaped

blocks. In the cluster house arrangement, common areas of blocks were designed as children's play areas and socialization areas, gardens, and parking areas. The central market structure included cinema use and also housed a nursery, elementary school, middle-high school, mosque, and children park. The neighborhood, with 281 blocks and 2566 residences, is planned on an area of 32.7 hectares as a neighborhood with commercial and social facilities. Assuming an average family size of 4-5 people, the design includes residential clusters around a central area consisting of a market and basic educational facilities, capable of meeting the daily needs of 10,000-12,000 people. The area comprises four to five-story residential blocks with a gross floor area of 99 m², grouped around a central heating system. Eight building blocks are designated for the operation of the central heating infrastructure and distribution center. Figure 7.



**Figure 7.** 1968 Second Site Development Plan of Türk-İş Blocks
(Ankara Metropolitan Municipality Archive, 2018)

As of 2018, one heat distribution center is in use, and the other seven were closed in the 1990s when natural gas infrastructure reached the neighborhood. Some of these distribution structures were used for mushroom cultivation, and two of them have been demolished today.

The arrangement of residences within building blocks stands out as a design feature of the neighborhood. The building blocks are designed in a cluster housing layout. The innovation of organizing these clusters around common heating centers represents a pioneering approach for the period in which the residential area was realized. The neighborhood aligns with the housing planning principles of the 1960s, creating a self-sufficient neighborhood unit with adequate facilities based on population size and an internally closed road network.

## 3.2. Social Housing Living Environment Features in the Context of Türk-İş Blocks

The Türk-İş Blocks, chosen as the study area, are located within the boundaries of Altındağ district in the north of Ankara, as a product of the planned economy and social welfare state housing policy during 1960s and 70s. It is situated between Altınpark green area and Siteler small industrial zone, with Aydınlıkevler neighborhood to the south, which developed in a planned way in the 1950s, and Güneşevler (Hasköy) residential areas to the north (Figure 8), which had previously developed as squatter and transformed into apartments through improvement plans. When compared to the residential areas surrounding Türk-İş Blocks, it is evident that the neighborhood has been planned with an emphasis on creating a more

liveable environment, not only in terms of houses but also in terms of the surrounding environment. Figure 9.



**Figure 8**. Location of Türk-İş Blocks within the City
(Google Earth Imagery, 2018)



**Figure 9.** Türk-İş Blocks and the Surrounding Urban Fabric
(Google Earth Imagery, 2018)

Sunlight, clean air, and open spaces were emphasized in the 1960s for the creation of a healthy environment in residential areas. Furthermore, the design of non-residential spaces that influence people's behaviors is also considered important in the design of social housing areas. In the framework of the design, the approach expressed as, 'an architect building a house or designing a site plan decides where the roads will go, where

they will not go, in which direction the house will face, and how close it will be,' the spatial organization of open areas has been emphasized.

Traces of this approach can be observed in the patterns of how structures come together. The residential structure of the study area consists of 13 building blocks designed as 'independent clusters', surrounded by vehicle access roads and/or pedestrian paths. The entry to residential structures is mostly through common open spaces of cluster groups. These building blocks are fundamental physical structures in forming the social climate of the neighborhood and the neighborhood unit. Figure 10. Closer residential arrangements, an alternative settlement layout approach bring houses together more effectively, providing more open spaces for recreation and increased social interaction areas. In short, it offers a better opportunity to create a social community and shared neighborhood.
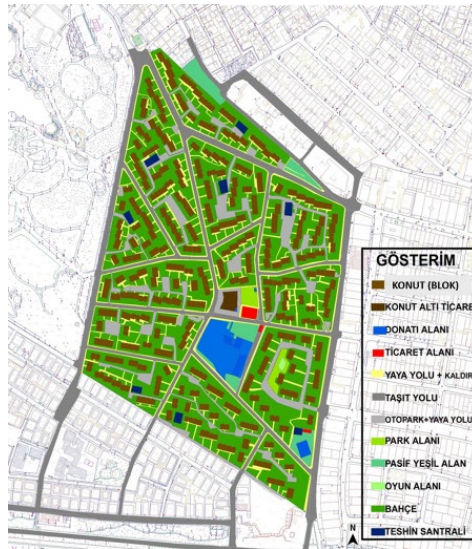


**Figure 10.** Land Use of Türk-İş Blocks (Erdoğanaras et al., 2018)

The design and implementation process of today's residential areas are focused on obtaining the highest value from land and lots (profit-oriented). They are characterized by high density, high-rise structures that disregard the human scale, exceed the scale where neighborhood relationships can be established, and are isolated from their immediate surroundings and the city as a whole. The solutions to mitigate the negative impacts of these structures are still hidden in neighborhoods like Türk-İş Blocks within our cities.

'The neighborhood unit, known as one of the important building blocks of spatial organization, is a concept developed in Western countries in the late 19th and early 20th Centuries to address the problems arising from industrialization and rapid urbanization' (Barlas, 2012: 281). The population of the study area is 7160. Basic needs and social facilities for the population are within a five-minute walking distance. Daily necessities can be met in this area. The focus of this unit is suitable for retail trade, social activities, and recreation. Engaging in and performing daily activities within walking distance provides independence in movement for everyone, especially the elderly and other disadvantaged individuals, groups. The calm traffic within the neighborhood is associated with a planned gradual circulation system. The appropriate scale of streets positively affects pedestrian circulation and ensures the community safety.

Out of the total 281 blocks in Türk-İş Blocks, 43.4% are four-story and 56.6% are five-story blocks. The height of the floors provides an

environment for human-scale living where relationships with the surroundings can be sustained.

Evaluating Türk-İş Blocks in terms of cluster housing typology, it consists of structures where transportation roads pass through their surroundings, with 39.8% (112 units) having entrances from the outside facade of the cluster, and 60.2% (169 units) having entrances from common areas within the clusters. Predominantly, structures are designed at the human scale, meaning that the dimensions, structures, and proportions of residences defining common spaces are perceptible and facilitate human movements. As is known, the human scale is defined as the visual ability to perceive an object as whole, distinguishable parts that can be modularly read. The spatial open area network within large gardens and common areas provides an opportunity for residents to live in harmony in the residential fabric. Figures 11-12.



**Figure 11.** Cluster Housing Common Use Area

**Figure 12.** Cluster Housing Central Heat Distribution Center

The listed features are planning and design contents that have shaped social life in the neighborhood, keeping it together for over 50 years. This situation is also reflected in the demographic structure of the neighborhood. A significant portion of the neighborhood population consists of retirees above middle age, and the median age increased from 36 in the year 2000 to 41 in 2010, according to TSI 2018 data. This indicates an aging trend in the settled population.

In-depth interviews conducted by Erdoğanaras and colleagues (2018: 329) with neighborhood residents emphasize, 'with a high rate of homeownership; considering the age groups of individuals living in Türk-İş Blocks, the median age is 41, and those aged 65 and over are represented most in the area, in short, it is highlighted that it is a neighborhood where the elderly population is concentrated'. Their finding also reveals that the average length of residence in the neighborhood is 31.5 years; moreover,

this elderly group has been living in the area for 40 years, everyone knows each other, meets frequently, and thus, social networks are very strong in the area.

The argument that the economic life of the building stock has been completed stands out as the primary justification for designating the housing stock as an urban transformation area today. One of the key factors initiating the transformation process in the neighborhood is the inability to allocate the necessary budget for physical maintenance and repair. Additionally, the absence of common areas fostering cooperative collaboration can be highlighted. In 1992, all common heating centers were closed except for one, signifying the end of the unity under the cooperative organization. Subsequently, the market operated by the SAISKO consumption cooperative, along with the post office and bank branch, located in the commercial area of multi-story buildings, underwent redevelopment through a change in the zoning plan in 2006. Figure 13.

Türk-İş Blocks, located within the boundaries of Altındağ Municipality, was administratively identified as a neighborhood named after Seyfi Demirsoy, the president of the Turkish Trade Union and a pioneer in cooperative housing production, until 2014. In the process of renaming 33 neighborhoods in the Altındağ district in 2014, the name and neighborhood boundary of Seyfi Demirsoy Neighborhood were also altered. As a result, a significant part of the neighborhood was included in Altınpark neighborhood, while the remaining part was incorporated into Ali Ersoy neighborhood. This resulted in a shift in the administratively defined boundaries, disrupting the homogeneous structure and weakening the close

social ties within the neighborhood that originated from its historical formation.



**Figure 13:** View of the Multi-Story Building in the Center

## 4. Conclusion and Suggestions

Housing cooperatives provide immense community and social benefits to residents and their towns as a whole, and fully deserve initiatives and actions to protect and enhance their viability (MAHC, 2023).

In the context of the presented area, as in the Turkish planning and implementation experience as a whole, Turkey has the ability to produce urban environments with urban quality and value. It possesses unique and successful organizational and financial experiences. In the case of Türk-İş Blocks, the socio-economic and spatial homogeneity in the residential

environment carries positive socio-psychological effects, such as human scale, walkability, intensity of face-to-face relationships, and a sense of security. Preserving and sustaining design principles and components such as these is crucial for the health and identity of living environments, including the cluster housing typology, shared open spaces created by this structure, gardens, greenery, various levels of open and green areas offering different levels of privacy, housing heights that do not exceed human scale, and a controlled and perceivable living environment shaped by shared spaces.

The transformation process produces the threat of losing these 'design and planning components'. Among these components are the cluster housing typology, the residential structure formed by this typology, shared open spaces, gardens, and greenery that it enables, controlled and perceivable living environments shaped by housing heights that do not exceed human scale and shared spaces. The potential loss goes beyond the physical texture and functioning of the city; it also signifies the untying of social networks formed by those living in this neighborhood, sharing life together.

In the upcoming transformation process, it is crucial to protect the physical and social structure of the neighborhood while preserving its values and characteristics. Urbanization processes necessitate sustainable and adaptable solutions to prevent the deterioration or transformation (Eren, 2021b) of significant components of city identity, which are integral parts of cities.

This includes supporting cluster housing patterns that encourage social relationships in the proximity of residential areas, preserving shared open and green spaces with landscaping elements, maintaining accessible social facilities within the neighborhood unit, reducing homogenous housing designs and user groups while supporting the safety of the area, activating supporting mechanisms considering the socio-economic features of the residents, and integrating policies and planning decisions that nurture existing social relationships without disrupting them. In areas where the elderly and retired population is predominant, a transformation process should be implemented to ensure their happiness and hopeful living, without displacing them to other areas of the city and disrupting their social relationships.

In conclusion, as neighborhood transformations take place with a destructive impact that may lead to the loss of spatial and socio-cultural memory, societal disintegration becomes inevitable, fundamentally changing the social fabric of residential areas.

Given that protecting every social housing area as a representative of urban identity may not be realistic expectation, formulating a spatial vision that carefully navigates the delicate equilibrium between the preservation of historical fabric and urban development could contribute to making decisions regarding transformations in aged yet socio-spatially and culturally significant urban areas.

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Cities are the accumulation of historical layers formed through a complex, chaotic, and divergent phenomenon. These layers carry to the present day the traces of past civilizations' spatial layouts and ways of life. A multi-layered historical city has continuous or successive layers of development, occupation, and cultural influence throughout history. This book contributes to current discussions on historical stratifications and multilayered urban areas.