CONSERVATION OF ARCHITECTURAL HERITAGE

SOUL OF HISTORY

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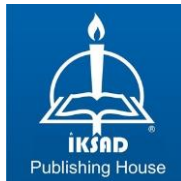
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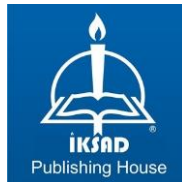
All events throughout human history contribute to a cultural accumulation from a societal standpoint, revealing experiences that ultimately shape cultural heritage. This accumulation and these experiences together constitute cultural heritage, which serves as a crucial indicator of a community and its surrounding environment.

Heritage has existed throughout history, even if not explicitly termed as such; it has adapted to contemporary challenges and circumstances. Conservation has gained significance through destructions in the historical environment after the industrial revolution and the great destructions caused by world wars in these environments, the concept of conservation inherent in human nature has gained an important place on the world agenda as a policy. Since the beginning of the 20th century, international regulations, declarations, laws and agreements, have ensured that the concept of conservation is included in the fundamental rights and responsibilities of contemporary societies, although their scopes, perspectives and methods have changed.

Cultural heritage is the concrete indicators of material as tangible and immaterial as intangible aspects. The enrichment of cultural heritage and its transfer to new generations is possible through conscious cultural heritage conservation. The basic assumption regarding the concept of conservation revolves around identifying values that enhance with the cultural assets. These values are multidimensional, encompassing historical, cultural, aesthetic, social, symbolic, spiritual, educational, scientific, economic, and other aspects.

The conservation is a process to sustain and transfer cultural heritage to further generations as a trust that become a world policy with national and international agreements, laws, statutes and regulations since the last century and every step taken in this regard has been an indicator of modernization. The conservation of cultural heritage is a universal issue that many initiatives have been taken by world states. Transfer of this approach to further generations undoubtedly plays an important role in the success of actions aimed at conservation. However, it is not possible to continue the conservation action with only experts, who are important stakeholders in these steps, but also individuals should be considered as the actors. This incorporation of individuals to the

progression is a sustainable solution to contemporary challenges. Since the conservation of cultural heritage is a multidimensional task, it requires interdisciplinary and even transdisciplinary studies. Since the Venice Charter (1964), ICOMOS has recommended the use of all science and techniques that can help with conservation. Additionally, in 1995, the Council of the European Union issued a draft resolution on culture and multimedia. The principles published by ICOMOS looks for the best resolutions according to the conditions of the day, encourage the use of current technologies in conservation. In other words, it is inevitable that the concept of conservation will keep pace with the changing, developing and transforming world. An additional objective of heritage studies should enhance the comprehension and interpretation of heritage beyond the conventional tangible and intangible implications associated within the framework of UNESCO.

An additional objective of architectural heritage studies should be to broaden the comprehension and interpretation of heritage beyond its typical tangible and intangible meanings as defined by UNESCO. In contemporary discourse, heritage is increasingly recognized for its significance in human development. Consequently, the safeguarding and application of heritage are viewed as vital forces that influence identity formation and foster peace. Therefore, the conservation and utilization of heritage must align with principles of sustainable development. This entails a collective and responsible engagement from all stakeholders involved in these efforts. Individuals and groups participating in the process can contribute to shaping the future with the role of heritage. Within this transformative process, architectural heritage studies also adopt an epistemological stance. Explicitly responding to the evolving realities faced by diverse populations globally are characterized as a critical discipline that formulates research questions and themes from an interdisciplinary or transdisciplinary perspective. Mentioned approach involves situating epistemological inquiries within the context of global diversity, reflecting cultural variety through the methodologies of architectural heritage studies without becoming arbitrary. Ultimately, it aims to formulate future strategies for sustainable heritage management. Thus, the focus shifts from a mere abstract accumulation of knowledge to the deliberate development of architectural heritage studies as a framework for promoting human development. In light of these insights and methodologies,

recognizing the necessity of preserving the heritage inherited from previous generations and respond to contemporary challenges for the benefit of future generations, an academic book titled Conservation of Architectural Heritage has been planned.

Journal of Architectural Sciences and Applications (JASA) started its publication life in 2016. Since 2021, highly valuable e-books have been published and are being published under the editorship of JASA Editorial Board Members. In 2024, under the editorship of JASA Editorial Board Members and within the scope of the cooperation with IKSAD Publishing House, English language and refereed international e-book studies that will serve the field of architecture have been carried out. We set out with the book called 'Conservation of Architectural Heritage' with the aim of increasing awareness of cultural heritage, highlight the importance of protection and conserve to create a concrete book in academic terms. There were many applications in the call for writing the book chapter. To publish, 39 of these applications were critically selected. Hereby, we wish to extend our sincere gratitude to all individuals and organizations who contributed to the completion of this book, including the authors, the chapter reviewers, IKSAD Publishing House, and Prof. Dr. Atila Gül, the General Coordinator of the Architectural Sciences book series.

In the face of this intense participation, it was decided to collect the 39 valuable studies accepted in two books. 19 of the valuable academic studies were published in the book titled **C**onservation of **A**rchitectural **H**eritage: **S**oul of **H**istory edited by Prof. Dr. Kağan Günçe and Assoc. Prof. Dr. Damla Mısırlısoy, and the other 20 were published in the book titled **C**onservation of **A**rchitectural **H**eritage: **T**races of **H**istory edited by Prof. Dr. Kağan Günçe and Prof. Dr. Atila Gül.

Books named **C**onservation of **A**rchitectural **H**eritage: **S**oul of **H**istory and **C**onservation of **A**rchitectural **H**eritage: **T**races of **H**istory address significant aspects of the discourse surrounding cultural heritage but do not aim to cover every conceivable issue within cultural heritage theory. Their primary objective is to clarify the concept of cultural heritage and its related ideas in order to address contemporary challenges. By presenting certain arguments and categories, these texts assist readers in refining common notions. These categories serve as conceptual tools for navigating a complex reality. The main aim is to equip readers with new

instruments for their intellectual knowledge, though it is important to note that these new conceptual tools do not necessarily need to replace existing ones. Additionally, the books may be beneficial for those who prefer to maintain their traditional paradigm; the reflections offered can help to keep this framework relevant and effective. Ideally, the arguments presented will inspire readers to reconsider established ideas or even to develop and strengthen their existing perspectives. Moreover, by exploring the varied meanings of the term cultural heritage and creating a more nuanced ontological classification, these studies challenges conventional views and provides a framework to better understand the theoretical and practical intricacies of this compelling concept. **C**onservation of **A**rchitectural **H**eritage: **S**oul of **H**istory and **C**onservation of **A**rchitectural **H**eritage: **T**races of **H**istory represent a stimulating and valuable addition to the existing literature, written in an engaging and accessible style for scholars, students, and heritage professionals alike.

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Exploring Contemporary Paradigm on Heritage Studies: Review on the Apostolos Andreas Monastery

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1. Introduction

Preserving heritage guarantees its transmission to future generations; rather than being destroyed or forgotten, these structures need to be maintained since they serve as both tangible and intangible records of the lifestyle and culture of the individuals who inhabited or resided nearby (Mısırlısoy & Günçe, 2016). Cultural heritage is essential in shaping a community's identity, cultivating a deep sense of pride and belonging among its inhabitants (Nijkamp, 2012). However, constantly changes in society, politics, and technology shape the way of understanding and preserving heritage. In a developing world, cultural heritage undergoes a transformation process. Cultural heritage must adapt the situations from fixed and unchangeable range to active process. The traditional methodologies of heritage studies were disregarding non-Western countries by the impact of colonial legacies. This impact was influenced by professionals like historians, archaeologists, and conservators and it has caused the detriment of cultural values and local heritage during colonial times (Munoz-Vinas, 2023).

Developments in culture has changed the notion of heritage over time. Beyond traditional limits, heritage studies have adopted broader, cooperative and diverse methodology. Challenges and demands of contemporary society has shaped the understand of heritage with the evolving process with both tangible and intangible components. By these developments being accepted around the world, it helps to highlight the importance of engaging communities in safeguarding their own heritage. The Apostolos Andreas Monastery in North Cyprus provides a fascinating opportunity to investigate these contemporary paradigms of heritage.

Cyprus is an island with great cultural and religious significance and Apostolos Andreas Monastery embodies the detailed interaction among history, identity, and recognition. The Orthodox Christian community perceive it as a central place for pilgrimage, devotion, and cultural preservation. It stands as evidence to the wider historical developments that have shaped Cyprus.

Heritage is a continuous process that adapts the evolves alongside society rather than an fixes artifact from the past. Study explores heritage studies from traditional to contemporary paradigm and applying theoretical framework with practical observations. The approaches utilised aimed to link theoretical frameworks with empirical findings, enabling a thorough examination of the cultural, religious, and historical dimensions of the monastery within the advancing discipline of heritage studies.

2. Material and Method

Heritage comprises artifacts that may be transmitted over generations, preserved, and inherited, which has historical or cultural significance to the community (Feilden & Jo Kilehto, 2003). Cultural heritage includes artifacts, structures, objects, rituals, or cultural practices that hold historical or cultural importance and are transmitted from one generation to the next. Instead of being demolished, these buildings should be conserved as they serve as empirical documentation of the way of life and cultural practices of the individuals (Mısırlısoy & Günçe, 2016). The cultural heritage plays a vital role in defining the character of a community, fostering a profound sense of pride and belonging among its residents (Nijkamp, 2012). In order to ensure the transfer of beliefs, values, and traditions to future generations, religious heritage includes sacred books,

rituals, architecture, and art (Olsen, 2006). Monastery heritage is important because it provides to preserve the historical and traditional aspects of the communities (Gilchrist, 2020).

Cyprus is positioned in the middle of Europe, Asia, and Africa. It has a rich history and diverse culture. It has hosted many civilizations over thousands of years, including the Greeks, Romans, Byzantines, Venetians, Ottomans, and British. This varied culture is reflected in the religious heritage of Cyprus, as evidenced by the buildings and traditions.

Research includes a thorough review of existing materials and an on-site observation of the monastery. Literature review investigates traditional and contemporary paradigms of heritage in order to understand what has been and what it is now. It provides a base for understanding the theoretical frameworks and apply the approaches Apostolos Andreas monastery in a broader context of heritage management on the island.

Evaluation review criteria for Apostolos Andreas monastery are developed based on the book *A Theory of Cultural Heritage: Beyond the Intangible* by Salvador Muñoz-Viñas (2023) (Muñoz-Viñas, 2023). The site visit adhered to this framework of criteria, allowing to observe and assess the monastery's ability to maintain the contemporary paradigm.

Current state of the monastery as building, surrounding and also interactions among various stakeholders, including tourists, religious groups, and local residents' data collected during the visit of site observation. During the site observation; architectural integrity of the structure, the state of preservation efforts, and how different groups utilized the site was being observed and photographic documentation was collected.

The methodologies employed sought to connect theoretical frameworks with practical observations, ensuring a comprehensive analysis of the cultural, theological, and historical aspects of the monastery within the evolving field of heritage studies.

3. The Phenomenon of Heritage Studies and Monastery

To respond to contemporary issues in a changing world, it is essential to study the historical development of cultural heritage to highlight the need for a more comprehensive and reliable heritage strategy in the modern complex world. In the exploration of cultural heritage, it is necessary to cover the concept's changing or shifting borders. Though it is granted that cultural heritage includes everything from ancient ruins to oral traditions, what should be kept, should be preserved and respected as heritage has evolved over time. At first, experts were primarily concerned with carefully curating the material objects (monuments, paintings, and artifacts). Experts selected these items based on their historical, artistic, or scientific significance. These items reflect the values and ways of thinking of a small, authorized elite in Western societies. The process of selecting heritage was fundamentally axiological, as it involved determining what was deemed valuable or worthy for preservation. Its consistency of limited exclusivity, which refers to only a small group of people, restricted this initial discourse about heritage.

Non-Western societies were being ignored with their rich cultural expressions or intangible cultural practices, which included rituals, languages, and traditional craftsmanship. The colonial and elitist ideologies of that era mirrored the concept of cultural heritage, positioning

the civilized world as the guardians of cultural treasures, while neglecting and undervaluing the heritage of others.

It is not possible to just choose and keep what is thought as important any longer in the age of contemporary world. It is the current geological era with humans having most important effect on Earth's ecosystems. It follows with new problems, requires more reliable approach on heritage. As these conditions being experienced such as damage to the environment, social upheavals and climate change it shows heritage is not just a unite to perceive as tradition but it is a connection, a web of cultural, environmental and social elements. Heritage is not a set of objects, it is living, evolving and shifting while people and the world is changing. Heritage should respond to changing demands, circumstances in any case to have a sustainable meaning.

In this section of the study explores evolving origins of the cultural heritage discourse from Enlightenment to how it lighted from traditional to contemporary idea of heritage with its process and reasons. It is essential to consider the transformation over time for more dynamic understanding of heritage today. This new framework highlights that heritage practices are not only comprehensive but it is multidimensional, it is deeply aligned with the linkage between human and environmental history.

This part of the study consists of three subsections with 3.1. Traditional Approaches on Heritage Studies, 3.2. Contemporary Paradigm on Heritage Studies and 3.3 Traditional to Contemporary Paradigm of Monastery Heritage. Monastery heritage has a significant place in both traditional and contemporary heritage studies.

3.1. Traditional Approaches on Heritage Studies

To discover the complexity of heritage, the research should start on before heritage. In this section exploration goes step by step for a comprehensive understanding of the study. Cultural heritage is the study, conservation, and safeguarding of significant artifacts from historical periods. It has undergone several stages of evolution, each characterized by its own subtleties. The term "heritage" can encompass three distinct meanings: inherited objects, cultural legacy, and the concept of cultural heritage itself (Harrison, 2010). The concept of cultural heritage is based on the recognition of features that make specific cultural objects sufficiently distinct to be categorized as their own. While certain objects have existed since the inception of human civilization, the notion of their distinctiveness is not as ancient. The notion of classifying specific cultural object as components of the collection referred to as cultural heritage is a relatively recent advancement (Munoz-Vinas, 2023).

An ideal theoretical framework for cultural heritage should give priority to the conceptual aspect of cultural heritage, highlighting its delineating features. The collection and conservation of rare and valuable artifacts have a long-established practice in human history, accompanied by the intrinsic appeal towards ancient and unusual objects referred to as antiquarianism (Eriksen, A. 2014). This enduring culture of reverence, exploration, and preservation of ancient structures and artworks has persisted in many manifestations up to the present day. Over the following few centuries, antiquarianism changed in Europe, adopting methods that became resembled those utilized in the sciences. Words like archaeographia became more common, as did the field of study that

reflects at the past by studying objects which have been found (Munoz-Vinas, 2023).

The increasing popularity of scientific inquiry rendered early antiquarianism irrelevant and subsequently, antiquarianism and history separated (Eriksen, A. 2014). The concept of cultural heritage, which involves academic research and inquiry, emerged during the Enlightenment and was greatly influenced by Zeitgeist ideologies (Forouharfar, 2019). This firm belief in logic and democratic ideals had a significant impact on the domains of science, arts, and modern Western society. Spon's concept of "archaeographia," which defined the interpretation of monuments as a means by which ancient civilizations communicated their religion, history, politics, and other kinds of arts and sciences, may be traced back to 1685, the year that cultural heritage was first distinctly expressed (Miller, 2013).

The evolution of cultural heritage was a systematic and prolonged process, commencing with the inception of the concept of cultural heritage in 1792. French authorities were faced with the challenge of determining whether to deconstruct or protect the rich cultural and historic heritage of French nobility and the Catholic Church in a volatile social and political environment (Vassiliadis & Belenioti, 2017). Father Henri Grégoire played a crucial role in protecting cultural heritage by making it clear that artworks and monuments were of great importance to all citizens as educational resources and sources of information. His discoveries introduced essential principles that were later used as a basis in numerous subsequent debates on cultural preservation (Munoz-Vinas, 2023). These

are valuable because they are important records of a civilization and represent the best examples of that culture.

The concept of cultural heritage has evolved over time, adapting to historical, social, and political factors. It gained prominence through the development of the Western creative canon and Baumgarten's aesthetics. The French Association expanded its influence, leading to the emergence of museums and legislation protecting cultural heritage. The early discourse on conservation gained importance. From the late 18th century to the second part of the 20th century, cultural heritage artifacts were treated as scientific specimens, offering valuable insights to historians, archaeologists, and ethnographers (Silva & Roders, 2012). The development of strict scientific methods for preserving culturally significant objects during the 20th century has increased their significance as important historical or archaeological data.

It took a few decades for to accept that cultural heritage objects have subjective value and serve nebulous purposes. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has had a big impact on the conversation about cultural assets and helped it grow. In 1972, the Convention Concerning the Protection of the World Cultural and Natural Heritage was signed in Paris, marking the completion of a cultural enterprise that began over two centuries earlier. The "World Heritage List," a compilation of artifacts of exceptional universal interest included in the 1972 Convention, has played a key role in protecting and promoting remarkable monuments and sites around the world (Rodwell, 2012). These efforts, known as conservation and restauration are founded on the concept

of cultural heritage and the belief that exceptional artifacts should be distinguished from ordinary ones (Munoz-Vinas, 2023).

After World War II, a sequence of economically, politically, socially, militarily, and culturally significant events accelerated the development of political and cultural analysis among intellectuals (Prott, 2008). Philosophers unveiled hidden cultural mechanism that had a vital part in the operation of Western civilization. The conceptual basis for a non-axiological understanding of cultural heritage was developed by expanding on a well-established non-axiological notion of culture, which highlights the shared norms and beliefs adopted by individuals in a community (De Monticelli, 2018). The philosophy of structuralism aims to understand the subjects of study as integral parts of a system, rather than analyzing each constituent independently. The 1982 World Conference on Cultural Policies placed great importance on the concept of equal dignity for all civilizations and the necessity of demonstrating respect for all diverse cultures (Alasuutari & Kangas, 2020). Anthropologists, particularly in the later half of the 20th century, adopted a non-axiological approach to comprehending a society (Munoz-Vinas, 2023).

The early approach to cultural heritage in Europe was constrained, since it excluded a substantial extent of non-Western cultural expressions (Catalani, 2013). The emergence of the non-axiological discourse on cultural legacy acknowledges intangible cultural heritage as a significant and valued expression of culture. The Venice Charter, promulgated in 1964, proposes the recognition of intangible aspects of cultural heritage, emphasizing that artifacts possess significance and value. Initially published in the Australian mining village of Burra, the Burra Charter

underwent multiple changes and amendments, highlighting the subjective nature of cultural heritage principles (Hanna, 2015).

Considerable awareness and analysis of the notion of tangible cultural heritage emerged over the later half of the 20th century. Although material cultural heritage artifacts were originally categorized as cultural heritage because of their intangible qualities, the heritage field has lately begun recognizing intangible cultural expressions as cultural heritage in their own right (Munoz-Vinas, 2023). In 1985, UNESCO played a pivotal role in delivering a legislative framework to protect folklore, therefore facilitating this important transformation (UNESCO, 1985).

In 1993, Korea proposed the adoption of the 1989 World Heritage List in order to synchronize globally acknowledged intangible cultural heritage with tangible cultural monuments (Askew, 2010). The 2003 Convention established a thorough and non-axiological discussion on intangible cultural heritage. It provided a definition of cultural heritage that includes not only physical objects but also intangible cultural assets such as traditions, representations, expressions, knowledge, skills, instruments, objects, artifacts, and cultural spaces associated with them (UNESCO, 1985). This inclusive approach allowed every civilization across the globe to preserve its own cultural heritage, irrespective of their capacity or inclination to produce long-lasting, prominent sculptures, monuments, or objects similar to those seen in the Western world (Catalani, 2013).

As a consequence of de-axiologizing the cultural heritage discourse, the notion of cultural heritage has rapidly expanded beyond its original boundaries established in the 19th and 20th centuries. Certain academics argue for an expansion of the concept of cultural legacy to include natural

artifacts, such as an ecomuseum, which incorporates a specific geographic region, its inhabitants, and their particular way of life. Nevertheless, this all-encompassing viewpoint is not widely adopted and logically unfeasible (Munoz-Vinas, 2023).

The traditional paradigm of cultural heritage has started with materialism and followed with Western intellectual traditions that were born in the Enlightenment era. This technique was only to preserve tangible cultural heritage, as it has value in its historical, artistic or scientific importance. The elitist and Eurocentric worldview was reflected by the experts that are driving the discourse. This has emphasized reflectance for marginalized groups and non-Western societies (Byrne, 1991). This paradigm was selective and based on existing structures and discourse evaluation bought problems opened the need for more inclusive and comprehensive approaches in the contemporary era.

3.2. Contemporary Paradigm on Heritage Studies

Cultural heritage notion reacts to changing world in a developed way. Traditional paradigm of cultural heritage is through the perspective of tangible objects including monuments and artifacts but the world becomes more diverse and contemporary paradigm evolves into more dynamic and inclusive which makes it possible to recognize cultural heritage is way beyond objects itself. Heritage is a living, encompassing both tangible and intangible elements such as practices, languages, rituals, oral histories, traditional craftsmanship, social customs, and memories. Deserving for preservation of nonmaterial objects is insighted by the growing recognition of intangible cultural heritage. Bottom-up approach resulted more inclusively by the democratization of heritage discourse has shifted

(Agrusa et al., 2003). Focus has changed from experts to community involvement, who lives in it the one who talks about it first. Traditional boundaries challenged by globalization and this has influenced the evolution of cultural heritage (Labadi & Long, 2010). World develops, digital technology evolves and for sure it transforms heritage in making it more global and inclusive. These perspectives are helping to understand that heritage is not something that comes from the past but an ongoing process of expression and re-interpretation.

The contemporary classical, non-axiological cultural heritage aims to address these issues and be more inclusive than its axiological predecessor. This strategy incorporates aspects of non-Western cultural traditions, mainly Asian, into the Western discourse on cultural heritage (Holtorf & Högberg, 2015). The Eastern perspective focuses more on the intangible and ephemeral aspects, prioritizing intangible cultural heritage over tangible assets (Munoz-Vinas, 2023). The discourse of cultural heritage has extended outside its original cultural context due to the growing interest of non-Western cultural heritage experts and officials in adopting it (Harrison & Rose, 2010). This concept's universality is restricted by geographical borders, since it has been effectively communicated or shared with other civilizations, despite its Western beginnings. Creating a cultural heritage discourse that is both generally relevant and not exclusive to Western civilizations is difficult. Only by using a discursive technique of imposition can numerous groups be recognized to have cultural inheritance (Waterton & Watson, 2015). The notion that cultural conflicts deriving from comparative heritage develop as a result of differing interpretations of cultural heritage in comparison to our own is based on

the unfounded assumption that every civilization must have cultural heritage.

Cultural heritage is a complicated and multidimensional term that has sparked centuries of dispute. While Western conceptions of legacy exist in non-Western communities, they have been pushed through persuasion or seduction. The process of establishing a foreign cultural inheritance entail adjusting the receiving culture to the norms and values of another, often more dominant civilization (Wu & Hou, 2015). The contemporary non-axiological cultural heritage discourse is sometimes neglected because of its Western origins, which are sometimes concealed behind the guise of universalism (Munoz-Vinas, 2023). The Nara Document on Authenticity (1994) advocated a relativist approach to authenticity, arguing that the genuineness of a cultural expression may be impacted by factors other than its substance and may change among countries. Compromising is a tactic for facilitating cultural transmission by relaxing some Cultural Heritage norms to make them more acceptable to local communities. This can be accomplished by tailoring the cultural heritage discourse to each cultural setting, such as abandoning international sovereignty over cultural heritage assets or preserving them for the general public (Moody, 2015).

The Enlightened Western Cultural Heritage framework, which was first established for Europe, has resulted in cultural clashes. The cultural heritage discourse seeks to simplify criteria, allowing each community to claim its own distinct cultural legacy. The new rhetoric criticizes elitism and favors an egalitarian approach, extending cultural heritage designation requirements and acknowledging community power (Harrison, 2015).

Allocating resources to protect one building or cultural heritage site always prevents the preservation of other cultural heritage structures or sites. The notion of cultural heritage is inextricably linked to the concept of selection, which requires merging past events into present ones. The idea of cultural heritage may be purposely restricted, yet exclusion is a natural part of any selection process (Turk et al., 2019). The idea of heritage is subjective, involving the assessment of cultural things for their intended use. In cultural history, representativeness is determined by the interpretation and sender, and a non-selective or non-exclusive mindset can lead to absurdity. Recognizing and confronting the elitist bias in cultural history practice is critical to ensuring a representative and inclusive depiction (Munoz-Vinas, 2023). The field of cultural heritage encompasses the intricate and diverse practices of preserving, conserving, and safeguarding cultural heritage objects. However, adopting a non-axiological perspective can result in an overwhelming inclination to preserve everything, leading to two classifications: Cultural heritage that is not suitable for preservation and cultural heritage that is suitable for preservation (De Monticelli, 2018).

Authorized heritage discourse has acquired traction in the sector, signifying issues that cultural heritage practitioners aim to avoid and overcome. This comprises a preference for Western ideas, the promotion of a colonial mindset, the acceptance of physical cultural expressions while ignoring intangible heritage, and the imposition of a refined cultural standard based on superiority (Smith, 2015). Cultural heritage specialists develop their authority by popularizing the notion of cultural heritage in Western society. The current non-axiological cultural heritage paradigm aims to mitigate the hazards associated with hierarchical models of cultural

heritage designation by promoting a participatory approach driven by the community (Balakrishnan & Claiborne, 2017). However, experts continue to provide legitimacy to specific community, recognizing that these communities have the capacity to establish moral or practical authorship or ownership over particular cultural heritage objects (Santamarina-Campos et al., 2017).

Cultural heritage is an essential component of public frameworks, with experts playing a vital role in safeguarding the rights of various groups to recognition. Experts are involved in the decisions of which aspects are important enough to be recognized as cultural heritage. Evaluation and validation of community's assertions to decide what should be accepted as significant evaluated by them (Li et al., 2020). Experts are assigned the responsibility of assessing cultural manifestations and rendering educated evaluations regarding their importance.

There are numerous factors that shape how cultural heritage evolves over time. Experts study how cultural traditions are passed down and be visible to both experts and regular people. Creating knowledge is aimed by participatory action, for community involvement more in the process (Nared & Bole, 2020).

Cultural heritage comprises an intricate network of connections among individuals, culture, and technology. The notion of authenticity is notably complex and potentially deceptive, as evidenced by discussions on the criteria established by the UNESCO 1972 Convention for assessing whether cultural artefacts exhibit "outstanding value for humanity" (Smith, 2015). The Nara Conference on Authenticity in Relation to the World Heritage Convention was held in 1994 to alter several essential

concepts of the 1972 World Heritage Convention and the current World Heritage List (ICOMOS, 1994).

In the world of heritage, the idea of authenticity is complicated, with contradicting authenticities that might make it difficult to think about. In the field of cultural heritage, the term "authenticity" is frequently used to describe a variety of characteristics, including desirable, useful, aesthetically beautiful, and significance-laden (Farrelly et al., 2019). However, authenticity has significance if it is understood correctly. Authenticity evaluations are established by comparing a physical thing's historical history to our preconceived concept of its ideal condition, which is based on widely held subjective beliefs or expectations. The idea of authenticity stays constant when addressing intangible items, as seen in Japan, where official remembrance of historical value favors a certain interpretation of tradition above all others and fully precludes more visible forms of innovation (Akagawa, 2015).

The process of intangible cultural heritage brings a new viewpoint to cultural manifestations, altering their interpretation and approach. The preservation of cultural traditions entails technical and theoretical issues such as resource allocation, effect evaluation, and a knowledge of historical, artistic, economic, and symbolic relevance. The idea of authenticity does not apply to the identification and safeguarding of intangible cultural riches since cultural heritage processes sometimes include inventing and modifying the object's perception by the majority (Groschwitz, 2019). The idea of authenticity should be approached with caution because it represents a person's taste or preferences.

Western, colonial, and elitist perspectives have changed what should be preserved or not. The discourse on cultural heritage today has been shaped by the challenges. The idea of authenticity is to value what has remained unchanged over time and accept it as heritage but culture and heritage are evolving (Silverman, 2015). This idea of keeping heritage with its original version follows the process of fabrication. Reflecting dynamics and historical nature cannot be possible with the method. Cultural heritage should adapt what it means in the modern world and should not remain limited by the boundaries determined by colonial and elitist origins. Heritage is not only about the past but accepting its nonstop transformation and being a relevant and meaningful story for future generations. Honoring the past with the recognition of its power to evolve and change during and in the future.

Cultural heritage has evolved into two main discourses: the original cultural heritage discourse, which defines cultural heritage as physical artifacts of extraordinary historical or artistic significance, and the non-axiological discourse, which asserts cultural heritage encompasses both physical and intangible elements from both developed and popular cultures. A third discourse nullifies any specific limits, proposing that nearly anything, whether cultural or natural, is considered cultural heritage (Harrison, 2015). The original concept of cultural heritage discourse posited that cultural heritage items could only manifest as physical entities, establishing a singular mode of existence known as a single ontology. Alternative discourses propose that cultural heritage can possess many ontologies, including intangible cultural heritage, process, sensory expectation, and knowledge. Traditional craftsmanship, a pottery, a

tangible example of cultural heritage, is a related example of an intangible cultural heritage artefact. Tangible heritage, according to conventional ontological taxonomy, includes physical pots, vases or ceramics, while intangible heritage comprises the knowledge, techniques involved in creating pottery. The objective of this work is to provide alternative distinguishable entities within the cultural heritage realm, including physical intangible cultural heritage and metaphysical intangible cultural heritage.

Cultural heritage contains rules governing the execution of a performance or ritual, craft, festival, or any other type of performance. However, performances are intrinsically ephemeral by human standards and cannot be passed down through generations. Metaphysical intangible cultural heritage, which comprises oral traditions, languages, natural and cosmic knowledge, and literary works, exists independently of the physical domain and is not subject to any regulating principles (Alves, 2018).

Metaphysical intellectual property can manifest in two fundamentally distinct forms: intrinsically dynamic knowledge and a static collection of data. Cultural values such as beliefs, traditions and shared attitudes shapes communities' perspective and knowledge systems which refers to collective knowledge, historical information and documentation are two distinct types of intangible cultural heritage. Literary works are fixed collections of information, while attitudes, such as languages, crafts, traditions and rituals, can undergo transformation and development due to social migration. The concept of heritage and metaphysical intangible cultural heritage is complex and multifaceted, with different forms of intangible cultural heritage and attitudes that can be considered as distinct

forms of it (Munoz-Vinas, 2023). Rituals are a form of metaphysical intangible cultural heritage that convey ancient values and social customs, modifying them to suit societal needs (Alves, 2018). They are unstable and unable to resist transformation, elucidating the existence of the evolving understanding of cultural heritage between literary works and the regulations that govern a ritual (Table 1). Cultural values, on the other hand, represent intrinsically changeable information or abilities manifested in individuals rather than non-living entities.

Table 1. Evolution of Cultural Heritage

Period (Date)	Evolution
14th-17th Centuries	Renaissance Period
16th Century	Antiquarianism
1685	Archaeographia
1760-1794	Maturation of Cultural Heritage Concept & French Revolution's Impact (Paris)
1931	Athens Charter
1945	UNESCO
1954	Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict
1964	Venice Charter
1965	ICOMOS
1972	UNESCO World Heritage Convention (Paris)
1975	The Declaration of Amsterdam
1979	Burra Charter
1994	Nara Document on Authenticity
2003	UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage
2005	Faro Convention
2011	UNESCO Recommendation on the Historic Urban Landscape
2019	UNESCO General Conference Declaration on Cultural Heritage Protection

Contemporary paradigms are becoming more dynamic and inclusive, allowing us to see that cultural heritage extends well beyond the items

themselves. Heritage is a living concept that includes both tangible and intangible features such as behaviors, languages, rituals, oral histories, traditional crafts, social conventions, and memories.

The approaches listed below have been developed based on the book of *A Theory of Cultural Heritage: Beyond The Intangible* by Salvador Muñoz-Viñas (2023) (Muñoz-Viñas, 2023). These approaches will be used as evaluation review criteria in the '4.3. Reviewing Mentioned Approaches on Apostolos Andreas Monastery' section.

A. From Eurocentric to Inclusive and Global Perspectives

The heritage studies used to mainly focus on European views, in contemporary paradigm it has shifted to more global and comprehensive. This shift challenges to define, value and protect cultural heritage. As a result, it promotes cooperation around the world, helps to understand and respect different cultures.

B. From Tangible vs. Intangible Dichotomy to Integrated Ontological Models

Heritage studies now treat physical (tangible) and non-physical (intangible) categories interconnected instead of separating them. New approach values objects and traditions together, this emphasizes the important role of communities preserving and revitalizing. The idea of the ontological models is to reflect heritage is a living and evolving part of human society.

C. From Expert-Driven to Participatory and Community-Based Management

The management of heritage used to be mainly done by experts, now focus is more to involve local communities. It includes local people in

decision making on preservation of heritage, their views are considered. By this approach, heritage supports community control, strength the connection and protect cultural heritage between people and their culture.

D. From Static to Dynamic and Evolving Heritage Narratives

Heritage used to be perceived as fixed and unchanging in a changing world. Now by this approach it is understood that it evolves over time. If it can not answer today's challenges, it wouldn't have a meaning. Aim is to adapt heritage by the needs, stay important in the modern life and have a flexible view to face the challenges of globalization.

E. From Monument-Centric to Holistic and Contextual Approaches

Traditional paradigm of heritage studies was focusing on the monuments, but now bigger picture is perceived, including cultural, environmental and social aspects. It is now to value stories, memories, customs and traditions than only physical structures. To protect cultural environment, it was needed to promote sustainable ways to manage heritage, which is done by connecting historic preservation with broader planning and development.

F. From Conservation-Focused to Sustainable Development and Human Rights

The contemporary approach on heritage conservation goes beyond preserving what is old but it now focuses on respecting human rights for sustainable development. Aim is to balance with protecting the heritage with the needs of communities. By this approach it is possible to support heritage tourism, social and economic growth. Human rights are essential for communities' well-being. This approach makes top-

down method as traditional and working together with local people. Making sure to allow them to be part of this, help making decisions by this way conservation will fit the culture.

G. From Analog to Digital and Technological Integration

In a world with technology shifts the traditional paradigm of heritage. Using digital technology changes the preservation and reflection of cultural heritage. It is possible to document accurately of the sites, objects and buildings. Digital tools like virtual reality and augmented reality are now being used to make heritage easy to understand. More people are accessing the information from digital archives and databases and it promotes alternative ways to conserve heritage. Interactive learning through online exhibits is contemporary part of the paradigm and it is done by advanced photography and digital simulations available for everyone. Different cultures are appreciated by its being reachable for all individuals.

The contemporary methodology in heritage studies is transitioning from a Eurocentric perspective to a global framework, seeing cultural heritage as a dynamic notion that includes both tangible and intangible elements. The transition from expert-centric to participatory management in heritage studies represents a fundamental change in perception, valuation, and preservation. The emphasis is now on a more cohesive strategy that takes into account broader cultural, environmental, and social aspects. The methodology for historic conservation prioritises sustainable development and human rights, harmonising conservation efforts with community need. Digital technology has revolutionised the safeguarding and distribution of cultural artefacts, guaranteeing their conservation for future generations.

3.3. Traditional to Contemporary Paradigm of Monastery Heritage

During the recognition of religious heritage and religious buildings, monasteries became included. A monastery is a building or collection of buildings that houses monastics, either monks or nuns, and can range from a single building to extensive complexes. These structures represent sacred space and serve practical purposes, catering to the community's everyday activities and religious practices. They are associated with many religious traditions and exhibit common qualities.

Monasteries are considered holy due to their association with the symbolism of being the center of the universe. They represent a point of convergence, coordination, ordering, balance, and harmony (Harvey, 2012). They also serve as a manifestation of tangible and intangible history, serving practical purposes and carrying symbolic significance (Baker & Chitty, 2013). Monastery heritage as a distinct type of religious heritage, where both tangible aspects (the physical building, artwork, relics) and intangible aspects (monastic traditions, rituals, and pilgrimages) play a role in defining the significance of the site.

Monasteries have a strong connection with natural components and surrounding regions, making them an integral part of the cultural landscape (McNeill, 2017). Monasteries are a symbol of sacred space and are connected to the environment, serving practical purposes and carrying symbolic significance. They attract tourists and religious followers due to their religious and cultural significance. Cultural heritage includes the creative output of artists, architects, singers, authors, scientists, and anonymous artists, as well as languages, rituals, beliefs, historical sites, literature, artworks, archives, and libraries.

Monasteries are seen as spiritual and cultural hubs, administrators of the land, and administrators of local economies. In the Middle Ages, monasteries were seen as administrators of the land, providing agricultural land and livestock, and offering job opportunities for local peasants (Harvey, 2012).

International organizations and safeguarding networks like UNESCO and global heritage networks provide funding, expertise, and collaboration for cultural heritage preservation. Sustainable tourism can balance economic needs with the integrity of culture and environment. Community involvement in preservation efforts can create opportunities for new methods of protecting monasteries and achieving larger goals like cultural and environmental survival. Digital technologies are improving understanding and inclusion of religious history, making it possible for people to perceive the environment in monasteries worldwide. Monasteries exemplify cultural and religious profundity via their architectural structures, with sustainable design methodologies to attain a state of ecological balance.

4. Soul of Apostolos Andreas Monastery

Understanding the spirit of monasteries requires a thorough understanding of their context, the historical past of the region, and the structure itself. This part of the study begins with first section of exploring history of Cyprus before giving details on Apostolos Andreas Monastery in North Cyprus and finally applying theoretical framework of contemporary paradigm approaches on the monastery.

4.1. An Overview of The History of Cyprus

Cyprus, situated in Southwest Asia, is the third-largest island in the Mediterranean and has served as a center for several civilisations throughout its history. Its strategic position has established it as a conduit for civilisations and faiths, with archaeological evidence tracing back to 10,000 BC (Smilden, 2007). The first recognised civilisation of Cyprus comprised the Persian-Phoenician and Hellenistic Egyptian Ptolemaic societies. The island was governed by the Romans, the Byzantine Empire, and the Syrian Muslim Arab community (Mısırlısoy & Günçe, 2022). Cyprus was seized by the crusaders in 1191 and subsequently handed up to the French crusader leader Guy de Lusignan (Hill, 1948). In 1489, the Venetian Empire ceded the island to King James II. Following the Ottoman invasion from 1570 to 1571, the feudal system was dismantled, and Anatolian settlers established themselves on the island. The Ottomans leased the island in 1878 pursuant to the Cyprus Agreement (Solsten, 1993) (Table 2). In 1974, a unilateral Turkish Federated State of Cyprus was founded in the north, resulting in the separation and migration of Greek Cypriots and Turkish Cypriots. The Turkish Republic of Northern Cyprus was founded in 1983; nonetheless, it remains unrecognised. The Republic of Cyprus attained full membership in the European Union in 2004. The Northern Cyprus region lacks international recognition as a sovereign government; Yet, European Union subsidies are allocated for the preservation of cultural heritage.

Table 2. Cyprus' Historical Periods (Solsten, 1993)

Time Period	Historical Era
7000 - 3000 BCE	Neolithic (New Stone Age)
3000 - 1500 BCE	Bronze Age
1500 - 1450 BCE	Ancient Egyptian Period
1320 - 1200 BCE	Hittite Period
1200 - 1000 BCE	Ancient Egyptian Period
1000 - 710 BCE	Phoenician Period / Establishment of Cypriot City Kingdoms
710 - 609 BCE	Assyrian Period
609 - 525 BCE	Egyptian Period
525 - 333 BCE	Persian Period
411 - 333 BCE	Persian and Ancient Greek (Hellenic) Period
294 - 58 BCE	Ptolemaic Period
58 BCE - 395 CE	Roman Period
395 CE - 1190	Byzantine Period
1190 - 1191	Crusaders Period (King Richard I)
1191 - 1489	Lusignan Period
1489 - 1571	Venetian Period
1571 - 1878	Ottoman Turkish Period
1878 - 1960	British Period

Cyprus, a nation with a profound cultural past, has seen substantial transformations since its accession to the EU in 2004. The island has been home to several civilisations, including Greek Cypriots and Turkish Cypriots, and possesses a rich architectural legacy from the earliest manifestations of Christianity and Islam. The initial monotheistic faiths on

the island originated during the early Christian era, while the subsequent monotheistic religion influences emerged in 1571 following the Ottoman Empire's annexation (Smilden, 2007).

The Orthodox Church, a denomination of Christianity, has been the predominant church on the island since the fourth century, during the period of Byzantine Empire dominion over Cyprus. Numerous ecclesiastical edifices, including cathedrals, churches, chapels, and monasteries, were constructed to expedite the Orthodox denomination (Papastephanou, 2005). Nonetheless, this circumstance was disrupted from 1191 to 1571 during the governance of Lusignan and Venetian authorities, thereafter falling under the dominion of the Latin Church.

In the Ottoman era, the Orthodox Church was reinstated, enabling Armenians, Nestorians, and Maronites to maintain and administer their own churches, as well as facilitate the building of new churches, monasteries, schools, and other necessary edifices (Jeffery, 1983). Numerous churches were constructed in the late nineteenth century, particularly in rural areas, and the British Government founded the Department of Antiquities in 1935 to compile inventory of ancient edifices and undertake restoration projects for some dilapidated structures (Hyland, 1999).

Following 1974, the division of two significant ethnic groupings resulted in the destruction of religious edifices in Northern Cyprus and Southern Cyprus. Christian groups residing in the south must seek authorisation from Turkish Cypriot authorities to conduct services at a church or monastery in Northern Cyprus. This process involves assessing the

pertinent date, physical condition, and granting authorisation for religious leaders to officiate ceremonies.

Monasteries in Cyprus have been constructed from the early years of Christianity, commencing their operations following the Christianization of the populace and the formation of the Church of Cyprus (Mısırlısoy & Günçe, 2022). The monastic life on the island started as a retreat from communities towards the conclusion of the first century, intended for fasting and solitude.

4.2. Apostolos Andreas Monastery

The monastery is situated at the edges of the Karpasia Peninsula in Iskele and is dedicated to Apostolos Andreas. It holds significance as a religious site for both Greeks and Turks. The church of the aforementioned monastery, dedicated to Apostolos Andreas (St. Andrew), is adorned with the titles of Creators of Miracles, the Dominant of the Winds, and the Protector of Travellers. Its spectacular architecture, along with striking chandeliers and icons, enhances the mystique of the location. In addition to rituals, guests have the significant chance to participate in the oblation. Individuals, regardless of their Orthodox affiliation, who believe in the potency of Apostolos Andreas, may light a candle at the entryway and express a desire (Bağışkan, 2015).

The monastery structures and the church are contemporary, however the veneration of St. Andrew is of recent provenance in Cyprus. Adjacent to the sea, the cliff houses the original Gothic chapel from the fourteenth century, which is approximately square in shape and has a central round pillar devoid of a capping, from which the square ribs of the ceiling emanate. This may have been the crypt of the ancient church. The

enormous contemporary church lacks notable features, although it attracts thousands of pilgrims each year. The miraculous image of St. Andrew is adorned with silver-gilt, and the curtain that conceals it is adorned with several silver offerings, symbolising hands, legs, fingers, eyes, or whatever bodily part the afflicted individual wishes to be healed. The primary historical significance of the monastery stems from the event in which Isaac Comnenus capitulated to Richard Coeur de Lion in 1911 (Gunnis, 1936).

Following the division of Cyprus in 1974, visitation to the monastery has diminished due to the migration of the majority of Greeks to the south. Following the inauguration of the checkpoints in 2003, the influx of tourists began to rise progressively. Particularly on August 15 and November 30, several tourists frequent the monastery. Many Muslims contend that the monastery is the site of an Islamic saint rather than a Christian saint. In this regard, the monastery is frequented by Turkish Cypriot Muslims (Hakeri, 1992). The monastery is a significant religious heritage of the island due to its location and architectural characteristics, have been accessible to visitors for many years.

The conservation efforts of the monastery are managed by the United Nations Development Programme Partnership for the Future (UNDP-PFF) and the Cultural Heritage Technical Committee. The restoration initiative was split into two phases. The initial phase of the restoration commenced in September 2014 and include the refurbishment of both the interior and exterior of the church, as well as several ancillary structures. Alongside the building renovation, 58 icons were cleaned and preserved. The initial phase of the conservation efforts was concluded in 2016, followed by the

restoration of the fountain, chapel, and structures in the northern section, along with landscaping, which commenced in 2017.

Following the restoration efforts, the church and other ancillary structures are accessible for usage and visitation. Greek Cypriot Orthodoxes are occasionally worshipping at the church with special permission from the authority in Northern Cyprus. Although the inhabitants of this location reside in one section of the monastery, the remaining areas remain unutilised.
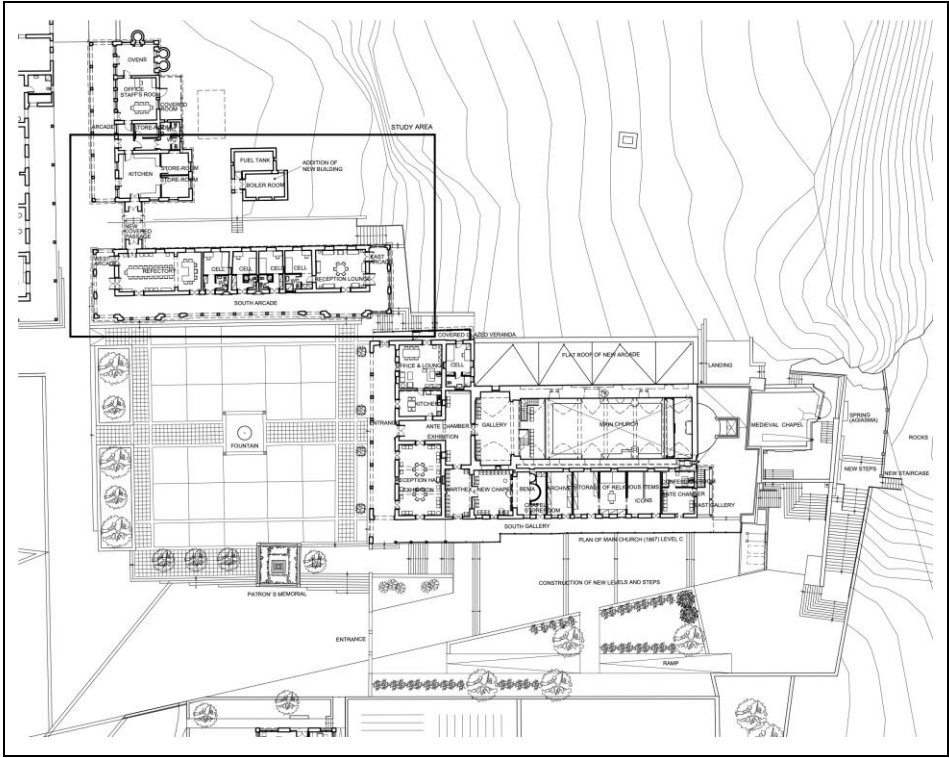
Figure 1. Ground Floor Plan Drawing of the Monastery (UNDP, 2016)
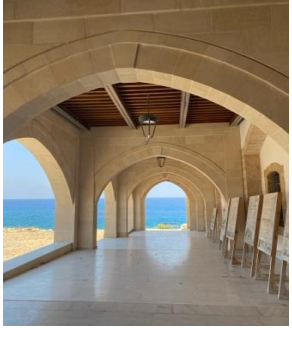
The architectural ensemble of the Monastery encompasses a vast expanse that begins at sea level, where the most ancient structures are situated, and stretches to the west where the most recent resorts were constructed. The

architectural ensemble comprises a neoclassical church constructed in 1867, accompanied by many extensions that were added subsequent until 1914 (UNDP, 2016). This church is situated just above the western wall of the mediaeval chapel, which was constructed, together with its adjacent extensions, most probably during the Frankish reign in the 15th Century (Mesaritou, 2023) (Figure 1). A belfry was built on the southeastern corner of the church, perhaps in the late 19th Century or, at the latest, in the early 20th Century, before 1906. In 1930, an extensive restoration was carried out using durable cement plaster to address the substantial deterioration of the stone that was exposed to the sea (Mesaritou, 2020).

The Apostolos Andreas Monastery is an intricate architectural composition that integrates religious, community, and practical areas. The center courtyard, which includes a fountain, provides a tranquil environment for monks and tourists, encouraging social engagement while preserving a meditative ambiance. The church, situated in the courtyard, is partitioned into areas such as the nave, altar, and galleries displaying religious icons and artefacts. This design highlights the monastery's function as a pilgrimage destination, where relics and icons possess considerable spiritual significance.

Exterior of the Monastery	Arch of Study Area of the Monastery	Exterior Entrance to Main Church
Interior space of Main Church of the Monastery	New Arcade Next to Main Church of the Monastery	Medieval Chapel of the Monastery

Figure 2. Architectural Features of Monastery

The church is linked to a mediaeval chapel, which presumably holds historical importance (Figure 2). A stairway descends to a sacred spring (agiasma), deemed holy and drawing pilgrims in search of benefits. To the left of the courtyard, monastic cells and living rooms accommodate monks, exemplifying the simplicity and practicality inherent in monastic life. Supplementary facilities, including a kitchen, storage rooms, and staff quarters, facilitate the everyday operations of the monastery.

The design harmonises the spiritual and pragmatic dimensions of monastic life, guaranteeing that the fundamental requirements of the monks are

fulfilled inside the complex. New features like a reception hall and exhibition space have been added and this shows it adapts the challenges but stay significant as a religious heritage and cultural site (Figure 2). The design balances religious functions with community use, conserving old parts with practical spaces for monks and visitors.

Visitors Praying in the Church of the Monastery	Monk Guiding Visitors in the Main Church	Tourist Attraction to the Monastery
Visitors Praying in the Church of the Monastery	Visitors Praying and Making Wishes	Monk in Relation with the Communities Around the Monastery

Figure 3. Spiritual Features of the Monastery (Photos: B. Kalkan, 2024)

The sacred spring and configuration of religious areas illustrate the significance of the monastery in North Cyprus' spiritual life, while the

design embodies the community's principles of simplicity, contemplation, and hospitality (Figure 3).

Construction of the repair project commenced in September 2014 following the signing of two historical contribution agreements by UNDP with the Church of Cyprus and the EVKAF Administration. Consequently, the Apostolos Andreas Monastery has emerged as the first historical preservation project in Cyprus to have full finance from both entities. Sponsored by the United States Agency for International Development (USAID) and supported by a bicommunal network of heritage professionals from both communities, the Apostolos Andreas Monastery has emerged as a pivotal effort for promoting trust in Cyprus (UNDP, 2016). The Apostolos Andreas Monastery has historically been a prominent landmark of the island. For several centuries, the monastery has functioned as a locus of religious devotion for both Cypriots and tourists to the region. The bicommunal restoration project positions the structure as a symbol of peace and cooperation between the Greek Cypriot and Turkish Cypriot communities in Cyprus (Figure 4).

| Celebrating Apostolos Andreas' Name Day on 30 November 2016 After the Restoration Works (UNDP, 2016) | Serenade Performed by the Visitors (Photo: B. Kalkan, 2024) |

Figure 4. Attraction/Spiritual connection of Monastery

The restoration of Apostolos Andreas Monastery, supported by both Greek and Turkish Cypriots, is a powerful example of how religious heritage can play a role in fostering dialogue and cooperation, bridging cultural divides, and preserving the island's rich, shared history.

4.3. Reviewing Mentioned Approaches on Apostolos Andreas Monastery

Apostolos Andreas Monastery in North Cyprus, it is a tangible cultural heritage with its physical buildings including architectural features and religious icons. These are objects that can be seen, touched and preserve for future generations but the ones cannot be seen or touched such as religious practices, ritual and serenades are intangible cultural heritage. It is a religious center for different religious communities and the traditions in it are intangible. It is not only a structure to preserve but it is where both tangible and intangible heritage coexists. In the building is where physical and spiritual worlds meet as it exists in the realm of belief, faith and religious experience which makes it metaphysical intangible cultural heritage. What shapes monastic life, gives the building opportunity to live is the intangible and metaphysical.

Application of inclusive, participatory, and dynamic heritage management can transform Apostolos Andreas Monastery into a site that fosters cross-cultural collaboration, sustainable development, and long-term preservation of both its physical structure and living traditions. This integrated approach would not only benefit the monastery but also contribute to the broader goal of cultural reconciliation in Cyprus.

Following approaches applied on Apostolos Andreas monastery are mentioned in the 3.2. Contemporary Paradigm on Heritage Studies section.

A. From Eurocentric to Inclusive and Global Perspectives on Apostolos Andreas Monastery

In the traditional view, Apostolos Andreas Monastery was preserved mainly through a Eurocentric lens, focusing on its importance to Greek Orthodox Christians. This perspective emphasized its role as a religious site for the Greek community and often overlooked the broader cultural context of the island.

The contemporary approach reflects the view of monastery is important to the Turkish Cypriot communities just like to the Greek Cypriot communities because it is in Northern Cyprus. The history is shared but at the same time divided in the place of monastery, it is a symbol of all Cypriots, not only for Orthodox community. By perceiving it as a shared heritage both communities are coming together for management. This is a part of reconciliation, healing political and cultural divide in the island. Monastery can come as a symbol of unity and peace by the efforts of coming together for shared heritage, it is not only a religious landmark.

B. From Tangible vs. Intangible Dichotomy to Integrated Ontological Models on Apostolos Andreas Monastery

Traditionally, Apostolos Andreas Monastery was valued for its tangible aspects of religious heritage building. Now conservation of heritage also values intangible aspects like rituals, pilgrimages and oral traditions. For the monastery of Apostolos Andreas, the annual pilgrimage on St. Andrew's feast day and the associated religious practices are crucial parts of its living heritage. During the site observation visit, tourists performed religious serenate and it was the prove of monastery still can give the atmosphere of belonging. There is a strong spiritual connection between

the communities and the building. Apostolos Andreas Monastery is a good example of how physical building and spiritual practices made a whole and make the place meaningful. Involving the local community and keeping the traditional alive is as much as important to preserve physical building.

C. From Expert-Driven to Participatory and Community-Based Management on Apostolos Andreas Monastery

In traditional paradigm local religious communities were deeply connected with Apostolos Andreas Monastery but they were not involved in the decision process, experts were the ones deciding. Now it has changed to including the communities to protect spiritual significance in conservation processes. This approach ensures their values and traditions are being respected for more sustainable management plan.

The restoration involved cooperation between different groups, like the UNDP, the Greek Orthodox Church of Cyprus, and Turkish Cypriot authorities. This work ensured honored monastery heritage by the communities that are involved.

D. From Static to Dynamic and Evolving Heritage Narratives on Apostolos Andreas Monastery

Traditionally, Apostolos Andreas monastery was being kept as unchanging relics, like frozen in time. There was no attention on challenges might change the meaning or significance of the monastery. With the contemporary approach it has been recognized that heritage is not fixed, it evolves with challenges. As people interact with the monastery, both the physical site and the stories, traditions, and meanings attached to it continue to change. Shared identity between the communities and its situation all influence how the monastery is experienced and understood.

To adapt the changes, evolving traditions should be recorded and documented. Join of young people from both of the communities would be beneficial to keep the stories of monastery alive. Ensuring that it is a living heritage and stays relevant to reflect its changing role in a divided yet connected island.

E. From Monument-Centric to Holistic and Contextual Approaches on Apostolos Andreas Monastery

Traditionally, the efforts of preservation focused on the building of Apostolos Andreas monastery but a monastery without its community cannot reflect its being a spiritual place. Preservation without the consideration of its connection to the environment or the communities is old method. Contemporary approach is more holistic, accepting that the monastery is of a cultural and environmental landscape. In this case Karpas Peninsula is included, as whole image it has cultural and ecological importance. Building is not standing by its surrounded wall only but with spiritual practices and local traditions. It is important to integrate preservation efforts with the wider context of the region.

F. From Conservation-Focused to Sustainable Development and Human Rights on Apostolos Andreas Monastery

Traditional approaches on conservation of Apostolos Andreas monastery were to keep building structure in good condition, without considering its social and economic benefits for the communities. The contemporary approach is about respect human rights and support a sustainable development. This is achieved by the monastery to boost the local economy and improved the well-being of the communities. Promoting

cultural tourism can bring income to local residents but still respecting and not disturbing the monastery's spiritual importance.

Involving locals in sustainable tourism practices can also be beneficial to encourage peace between the communities while managing the site together, promoting shared history and respect everyone's rights. By this way monastery remains as symbol of cultural unity and power social and economic progress.

G. From Analog to Digital and Technological Integration on Apostolos Andreas Monastery

Traditional methods were to record manual documentation and gathering together in the preservation process. These methods are working but its limited, not everyone could access to the monastery's history and traditions. Contemporary paradigm has shifted the management of monastery with digital technology. Tools like 3D modeling, virtual tours and digital achieves makes it possible for monastery to be documented and experienced online from all around the world. New paradigm allows people from anywhere to learn about and experience the monastery unlimitedly, without the need of visiting in person.

This method could preserve both tangible and intangible aspects for future generations. Digital tools can be used for virtual pilgrimages and interactive learning for protecting and reflecting cultural and spiritual heritage.

Utilizing all these mentioned methods on Apostolos Andreas monastery can make it become a model for how heritage sites can promote cultural understanding, support sustainable development, adapt the changes and use technology to present it worldwide. During the visit, it has been

observed that monastery has potential in means of tangible and intangible integration. Applying these comprehensive modern approaches on Apostolos Andreas monastery could guarantee its physical and spiritual heritage is preserved, respected, valued by diverse communities in contemporary era and in the future.

5. Conclusion

The application of the contemporary paradigm of cultural heritage to Apostolos Andreas Monastery reflects a broader shift in how heritage sites are understood, preserved, and managed today. Consideration of all these approaches maintains the monastery to honour its past, adapt to the contemporary era and preserve it for future generations.

Both tangible and intangible aspects of Apostolos Andreas monastery represent the power of how a place can build reconciliation, promoting cross-community collaboration. Everything is connected like a chain, without the tangible building, communities would not feel this spiritual sense to belong to a place and without this intangible involvement a building would face to neglections and demolish.

The monastery is part of a living cultural ecosystem, interconnected with local pilgrimage routes and the natural environment. A conservation focused approach aligns with sustainable development goals and human rights, promoting cultural tourism and economic stability. This approach promotes long-term protection while fostering a more inclusive and equitable future. Digital and technological integration is essential for making the monastery more accessible and ensuring its long-term preservation. Tools like 3D modeling, virtual tours, and digital archives

allow the monastery to reach a global audience, safeguarding both tangible and intangible elements for future generations.

The general study emphasizes the importance of evaluating monastic heritage, one of the most significant components of cultural heritage, within the framework of today's paradigm. This study evaluated monastic heritage within a contemporary framework. There is a research gap in this topic and this study has the potential to serve as a foundation for studies in social, cultural, economic, and political fields. This academic study, which aims to shed light on them, contains content that will contribute to interdisciplinary and transdisciplinary studies.

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Rural Architectural Heritage: Wooden Mosques of the Black Sea Region

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1. Introduction

Cultural heritage is the totality of the material and spiritual elements of shared values that societies have possessed throughout the historical process and that binds them together. In the ICOMOS Turkey Architectural Heritage Protection Declaration (2013), cultural heritage is defined as "all tangible and intangible assets that have survived from the past to the present are depicted as a reflection of people's values, beliefs, knowledge, and traditions, constantly changing without being under a bond of ownership." Cultural heritage encompasses all physical and spiritual elements resulting from human interaction with the environment over time within a social framework. In summary, cultural heritage can be considered the tangible and intangible expression of a society's culture.

Architectural heritage, referring to the structures of a society worth safeguarding, is a crucial element of cultural heritage. The Amsterdam Declaration (1975) emphasizes that architectural heritage includes not only superior buildings and their surroundings but also all urban and rural areas with historical and cultural characteristics. In the ICOMOS Architectural Heritage Protection Declaration (2013), architectural heritage is defined as "traditional buildings, building groups and settlements that reflect vernacular construction traditions and local identity with local materials and techniques in a world that is rapidly losing its diversity with the development of technology and communication opportunities". The declaration also underscores the necessity of protecting architectural heritage, with all its values, by the

principles of integrated conservation, which provide a comprehensive approach to preservation.

Buildings, building groups, and settlements within the architectural heritage scope convey information about human relations, life culture, technical knowledge levels, and aesthetic understanding of the societies they belong to. Madran and Özgönül (2005) state that architectural heritage should be considered not only as a tangible product but also as a product, but also as a product of the environment and intangible cultural heritage such as collective memory and historical details, shared belonging, and cultural identity.

Rural architecture constitutes an essential part of the architectural heritage and is a living example of adaptation to geographical conditions/nature and local construction techniques. Rural architectural heritage is not only an element of communal memory but also a valuable source of inspiration for contemporary architectural practices. Preserving rural life, culture, and architecture, which are an essential part of our cultural heritage, is crucial to ensuring cultural continuity (Aras & Efe Ziyrek, 2019).

Türkiye is a country that is rich in cultural and architectural heritage. Rural architectural heritage, diverse with its unique textures in different geographical regions, is also an essential part of this heritage. Geographical features impact not only the building materials used but also the construction techniques and spatial structure that determine their use. The Black Sea Region, with its wooden construction tradition, is an important part of this rural architectural heritage.

The Black Sea Region is famous for its rainy climate and dense forest areas. Since wood is easily accessible and abundant in the Black Sea Region, it has been used extensively in architectural structures. In the local architecture, houses, warehouses, serander, bridges, mills, mosques, and madrasahs were generally built as wooden structures.

In contrast to the stone works and rich examples of stone workmanship that we see in many regions of Anatolia, works in which prominent wooden construction is seen in the Black Sea Region. Among these structures, wooden mosques are significant with their architecture and decorative features (Zorlu, 2017).

Ayverdi (1966) states that many wooden mosques with regional characteristics were built in the Black Sea Region to continue a tradition extending from Central Asia to Anatolia (Ayverdi, 1966, pp. 120-122). These wooden mosques are among the most important examples of the region's wooden construction tradition, extending from the past to the present. Mosques built in the traditional wooden masonry system are an important part of our wooden architectural heritage as a whole, using wooden materials, construction techniques, spatial structure, relationship with the environment, and history (Yücel, 2022).

Studies show that mosques built entirely of wood (*çantı/çandı* mosques) are more common in the Black Sea region. Wooden mosques, wholly shaped by the geographical conditions and needs of the area, are essential elements of both cultural heritage and rural architectural heritage as important documents showing the technical knowledge and aesthetic understanding of the period in which they were built. In the Principles for the Protection of the Wooden Architectural Heritage (2017) of the

International Council on Monuments and Sites (ICOMOS), wooden cultural heritage is evaluated as part of the world cultural heritage, emphasizing that it has intangible and tangible cultural values. Özen and Aksakal (2014) emphasize that historical mosques in rural settlements are, in many ways, site-specific buildings built according to local needs. Due to these features, it is important to understand their artistic and architectural values and shed light on future designs. However, today, their number is gradually decreasing due to reasons such as deterioration caused by environmental/climatic conditions, unconscious interventions due to the lack of understanding of the value of these structures, difficulty in repairing them, or demolition and construction of reinforced concrete mosques because there is no other land to build mosques. For this reason, preserving the original features of wooden mosques is crucial.

Wooden mosques are classified into two groups: mosques built entirely of wood, known as wooden masonry (*çantı*) mosques, and mosques with wooden pillars (Tuncay&Yavuz,2023). This study examines the wooden (*çantı*) mosques in the Black Sea Region, which are an essential part of the rural architecture and wooden architecture heritage that is gradually disappearing within the scope of cultural heritage. It aims to evaluate the characteristics and local differences of the region's wooden (*çantı*) mosques from a typological perspective.

2. Material and Method

This study was conducted based on the analysis of on-site detection data, documents obtained from the archive, and a literature review. In document analysis research, academic sources such as articles, books,

and theses, as well as information and images from relevant websites, were collectively evaluated to assess the cultural inventory of the region. This study focuses on qualitative data analysis of wooden mosques in the Black Sea Region. It examines mosques in the provinces of Düzce, Zonguldak, Kastamonu, and Sinop from the Western Black Sea Region, as well as Çorum, Samsun, Ordu, Giresun, Trabzon, Rize, and Artvin from the Central and Eastern Black Sea Region, using information available in the literature. The study's analyses and evaluations are based on academic research accessed and reviewed within the study's scope without claiming to encompass all literature.

Numerous studies analyze mosques constructed using the wooden masonry (*çantı*) technique in the Black Sea Region. Some of these studies describe wooden mosques' architectural and decorative features, either as individual structures or within specific settlement areas. The first researcher to mention mosques built using the *çantı* construction technique was Ekrem Hakkı Ayverdi. Ayverdi (1966) stated in his book titled "Osmanlı Mimarisinin İlk Devri" that they examined 22 wooden mosques in the Sakarya-Kocaeli Düzce region and that out of the 7 mosques still standing, 5 mosques that have preserved mainly their original features (Büyük Kaynarca Village Şeyh Müslihiddin Mosque, Küçük Kaynarca Village Şeyh Müslihiddin Mosque, Büyük Tersiye Village Orhan Gazi Mosque, Emi Ali Village Orhan Gazi Mosque, Geriş Village Orhan Gazi Mosque, Kaymas Divanı Orhan Mosque) were included. Can (2004) provided information about the construction techniques, architectural, and decorative features of wooden mosques in the Samsun region. Bayraktar (2005), in his doctoral thesis, obtained

detailed information about 20 wooden mosques in the Samsun region. Yıldız (2011),Bayraktar (2012), Bayraktar (2013) and Nefes, Can & Gün, (2017) are other studies in this scope. There are also studies in which wooden mosques in Samsun province are considered as a single structure (Şahin, 2004; Nefes, 2010a; Nefes, 2010b; Nefes, 2012; Nefes & Gün, 2016a; Nefes & Gün, 2019). In their studies, Bayhan (2006) (2009) (2019) and Seyfi (2017) examined the *çantı* mosques in Ordu province at the settlement scale and provided information about the plan schemes, architecture, ornamentation features, and construction systems of the mosques. Studies that have addressed the *çantı* mosques in the Ordu province on a single-structure scale have also provided detailed information about the mosques (Bayhan, 2005; Bayhan, 2014). The study on wooden mosques in Çorum province (Nefes & Gün, 2016b; Koşan, 2016; Gündoğdu, 2024) included information about nine different mosques in the region. The sole existing study on wooden mosques in Zonguldak province is the research carried out by Mısırlı (2022), focusing on the Çaycuma Akçahatipler Village Mosque. This study summarized the research on wooden mosques, and information about the Akçahatipler Village Mosque was provided. Can (2003) gave information about four mosques in the region in his publication titled "Sinop ve Kastamonu Yöresinde Bulunan Ahşap Camiler". The article by Nefes (2009) discusses wooden mosques and the features of the Tahtalı Mosque in Çaldağ Town in Giresun province. Research on mosques constructed using the wooden masonry technique in the Eastern Black Sea Region primarily centers on individual architectural entities. The first study of wooden mosques in Trabzon province was authored by

İren (1983), and it included the mosque in the Dernekpazarı Güney Kondu neighborhood. Haşim Karpuz conveyed the architectural and ornamental characteristics of 7 different buildings located in the districts of Of, Dernekpazarı, and Çaykara in various publications (Karpuz, 1989; Karpuz, 1990; Karpuz, 1995; Zorlu, 2010). In their study of cultural assets from different building types in Trabzon, Sümerkan and Okman (1999) provided information about 14 wooden masonry mosques in the section dedicated to mosques. Demir (2004) evaluated 14 mosques in his study and included the general characteristics of wooden mosques in the Trabzon region. There are recent studies (Aydın and Peker, 2017; Sarı, 2021; Çalık and Konak, 2021) that individually examine and present the mosques in the region. Studies on the *çantı* mosques in Rize province, such as Karpuz (1993), Sav (2012), Butasım (2018), and Gökler & Köşklü (2023), are generally focused on individual structures. In the study of Azizsoy and Özkurt (2021), 17 mosques from the districts and villages of Rize were evaluated, and their overall architectural and decorative features were described. Coşkun and Çelebioğlu (2020) provided details about four wooden mosques situated in the Borçka region of Artvin province in their research. Apart from these studies, there are also examinations of the general characteristics of mosques built using the *çantı* technique, as well as analyses of regional or periodical differences, and discussions addressing problems related to their preservation.

On-site detection studies regarding wooden mosques were conducted during my time at the Trabzon Foundations Regional Directorate. Among the mosques covered in the study, the Fındıklı Meyvalı Village in Rize,

the Hüseyin Hoca Village mosques in Kalkandere, the Of Bölümlü Hacımiktat, Of Serindere Mosques, the Çaykara Uzungöl Filak Neighborhood, Çaykara Taşkıran, Dernekpazarı Günebakan, Akköse, Güney Kondu, Taşçılar mosques, the Hayrat Dereyurt Village mosque in Trabzon and the Borçka Düzköy, Muratlı and Camili Village mosques in Artvin were seen in situ.

Based on on-site detection and information obtained from written and visual literature, wooden masonry (*çantı*) mosques in the Black Sea Region were evaluated in terms of their architectural features, and their differing features depending on the period and region in which they were built were revealed.

3. Findings and Discussion

3.1. Wooden Mosques in the Black Sea Region

The Black Sea Region has a long-standing tradition of advanced wooden construction dating back to ancient times. This is due to its rich forests and wood materials, which make wooden construction easily accessible and abundant in the region. Many wooden mosques in the rural settlements of the Black Sea Region have survived to the present day and have been identified by researchers and added to the literature. The oldest of the wooden masonry (*çantı*) mosques, whose construction continued until the 1950s in the region, dates back to 1206 during the Anatolian Seljuk period. The region has a rich inventory of wooden mosques, and the mosques that have survived to the present day and are in the literature are located in the rural areas of Bolu, Düzce, Sinop in the Western Black Sea Region, Kastamonu, Çorum, Samsun, Ordu in the Central Black Sea Region, and Trabzon, Rize, and Artvin in the Eastern Black Sea Region.

Sakarya, Kastamonu, Sinop, Ordu, and Samsun are the provinces where mosques made entirely of wood using the wood masonry (*çantı*) technique are concentrated.

Bayraktar (2005) categorizes wooden mosques into two groups in the historical process: early and late. The first group includes those built between Çarşamba/Gökçeli Mosque, the earliest of which was built in 1206, and the 15th century. The second group, known as the late period mosques, includes the Kavak-Bekdemir Village Mosque, with the earliest one built in 1596, although most of them date back to the 18th and 19th centuries. While mosques from the early period are mainly found in the Çarşamba district of Samsun province, late-period examples can be seen throughout the entire Black Sea region, particularly in areas with dense forest cover. The mosques built during the early and late periods exhibit distinct differences in spatial structure, facade layout, and decorative features. Furthermore, there are variations in the architectural characteristics of mosques constructed in the Western Black Sea, Central Black Sea, and Eastern Black Sea regions.

Location

In the region, wooden (*çantı*) mosques were generally built together with a burial area outside residential areas. Due to the sloping topography, there is a scattered settlement, especially in the eastern part of the region. In addition to the centers of the settlement areas, mosques are strategically positioned to serve several villages collectively. Regarding the subject, Ayverdi (1966) emphasizes that there was not a mosque in every village in the past, but the number increased in the following years. These mosques, used jointly by the people of several villages, are called

"Friday mosques". Friday mosques are not only places of worship for those living in nearby settlements but also centers that mediate the establishment of social and economic relations between villages and neighborhoods very far from each other. For this reason, the last prayer halls in Friday mosques are arranged to allow those who come to sit and chat before or after prayer/worship.

Architectural Features

Spatial Arrangement

The spatial arrangement of wooden mosques in the Black Sea Region is determined by elements such as the *harim*, the *mahfil* (gallery), the last prayer hall, the rewaqs, and the *harim* cover. When planning a wooden mosque, the *harim* typically has a square or rectangular layout. In the main place of worship, known as the *harim* section, there is a minbar to the right of the mihrab and a preacher's platform in the left corner (Figure 1).
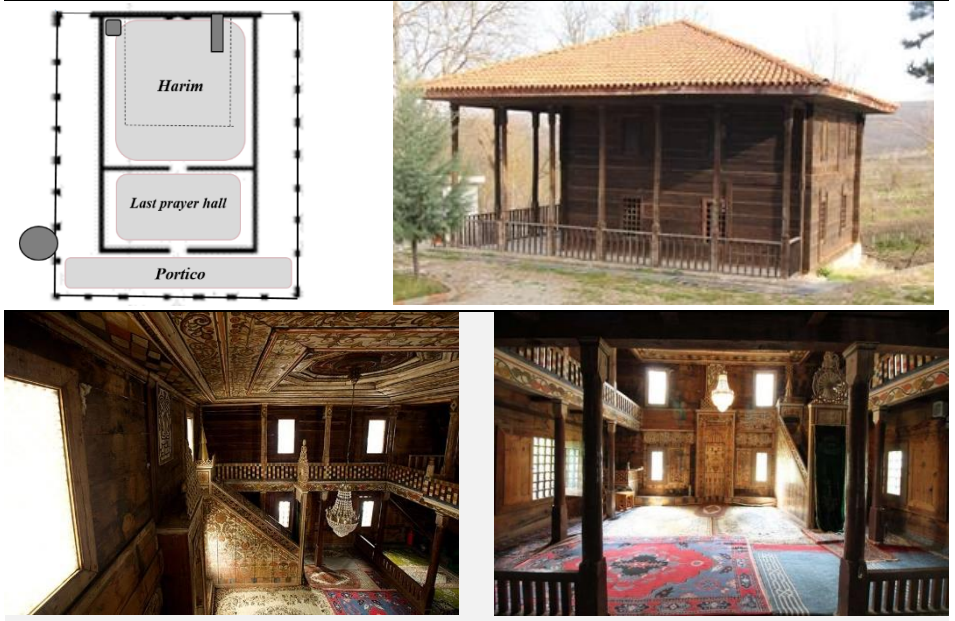
Samsun Kavak Bekdemir Mosque(URL 1)

Figure 1. Spatial Arrangement in Wooden Mosques

The *kadınlar mahfili* (women's gallery) above the mosque's entrance is supported by wooden columns. The pavilion floor may have an I, L, or U layout. Typically, there is a projection or balcony towards the mihrab facing south in the middle of the section. The *mahfil* is accessed via a staircase in the *mahfil* adjacent to the north facade of the *harim* (Figure 2).

(I mahfil)   *(L mahfil)*

(U mahfil)   *(O mahfil)*

Rize İkizdere Şimşirli Mosque *(URL-2)*   Samsun Çarşamba Şeyh Habil Mosque *(URL-3)*
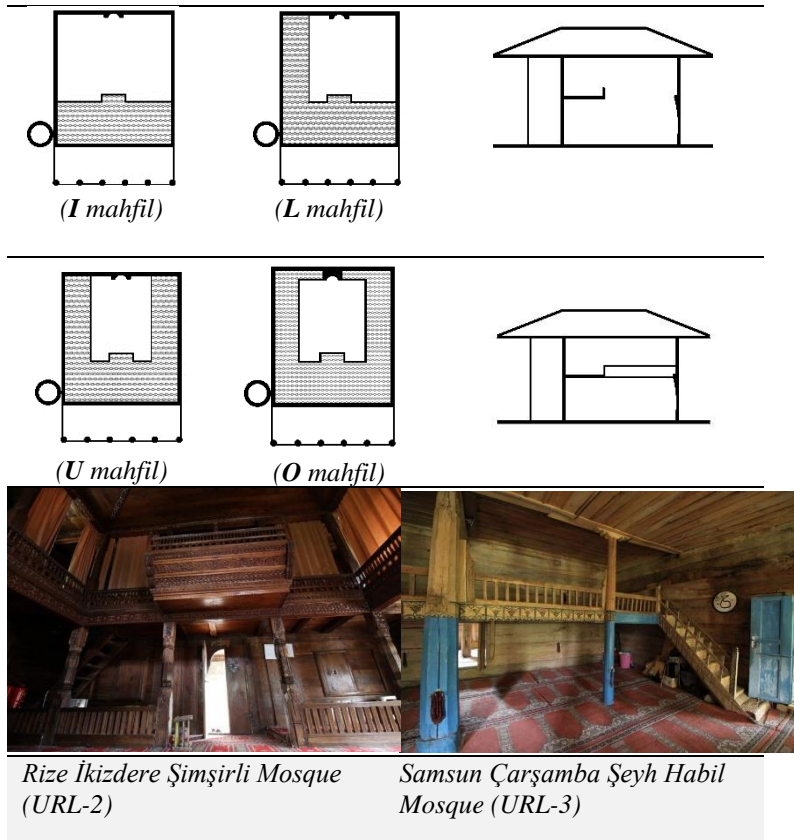
Figure 2. Form of *Mahfil* in Wooden Mosques
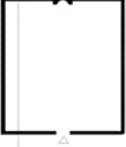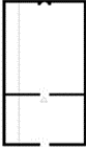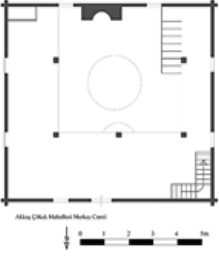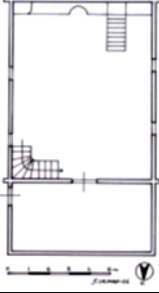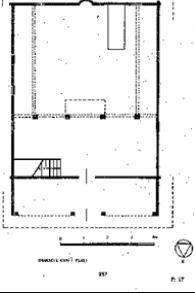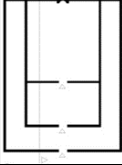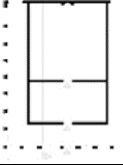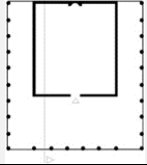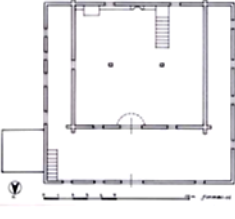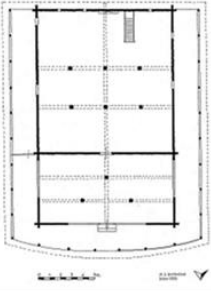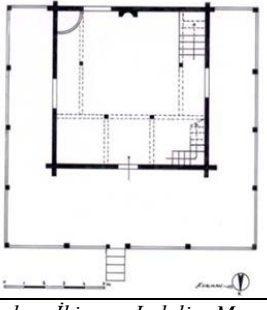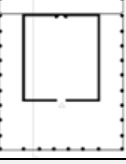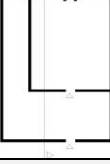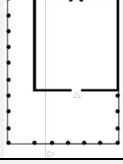
There is usually a last prayer hall in front of the entrance to the harem section. In some mosques, the *harim* is surrounded by rewaqs, and the northern part of the rewaq serves as the last prayer hall. In other mosques, there is also a last prayer hall in front of the *harim* (Bayraktar, 2012). The last prayer hall is designed as a single or double-story, open or closed. There are also mosques without a last prayer hall. Wooden mosques generally do not have minarets. In mosques with minarets, the original minarets are cylindrical minarets made of wood.
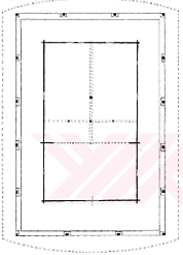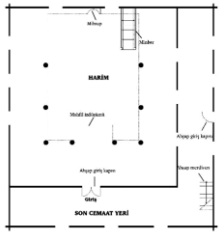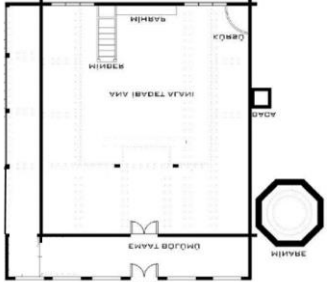
Regarding spatial configuration, mosques where the *harim* is surrounded by rewaqs are generally located in the central Black Sea region, where

the land is flat or very slightly sloping. In the Eastern Black Sea Region, which has a sloping topography, rewaq applications are not encountered except for a few examples, such as Trabzon Uzungöl Filak Mosque and Rize Hemşin Bilenköy Mosque. Can (2004) also relates this situation to the land conditions and states that mosques are already built in a limited area on sloping lands, and since the area of the *harim* would be even smaller if a rewaq were built, mosques were built as two-story instead of rewaqs to gain space. On the other hand, he emphasizes that suitable space can be found for rewaqs on flat land.

There is also diversity in the rewaq application common in mosques in the Central Black Sea Region. In some regions, the mosque is surrounded by rewaqs on one, two, three, or four sides. Depending on whether the mosque is single- or double-storeyed, the rewaqs are also arranged as single or double-storeyed. Following the climate or usage conditions, rewaqs can be arranged as entirely open, semi-open, or closed. In mosques, the last prayer hall and porches are usually arranged to allow worshippers to socialize together (Figure 3).

Without Last Prayer Hall	Harim+ I Form Covered Last Prayer Hall	Harim+ I Form Open Last Prayer Hall
Ordu Akkuş Çökek Village Mosque (Seyfi,2017)	Fatsa Aşağıyavaş Village Mosque (Bayhan, 2009)	Rize Çayeli Ormancık Village Mosque (Karpuz,1989)
Harim+ I Form Covered Last Prayer Hall+ U Form Closed Rewaq	Harim+ I Form Covered Last Prayer Hall+ U Form Opened Rewaq	Harim+ U Form Open Rewaq
Ordu Ünye Karadibek Mosque (Bayhan,2009)	Samsun Çarşamba Gökçeli Mosque (Can,2004)	Ordu İkizce Laleli Mosque (Bayhan, 2005)
Harim+ Open Rewaq in 4	Harim+ L Form Covered	Harim+ L Form Open Last

Sides	Last Prayer Hall	Prayer Hall
Samsun Kavak Tatarmuslu Village Mosque (Bayraktar,2005)	*Artvin Borçka Düzköy Mosque (Coşkun & Çelebioğlu, 2020)*	*Trabzon Çaykara Uzungöl Filak Mosque (Aydın, & Perker,2017).*

Figure 3. The Last Prayer Hall and Rewaq Forms in Wooden Mosques

The *harim* section is covered in wooden mosques with a *üç omuz* (three sided) or *dört omuz* (four sided) hipped roofs. The *üç omuz* hipped roof application is seen in larger, earlier mosques. Late mosques have *dört omuz* hipped roofs. There are two different applications regarding the upper cover of the interior of the *harim*. Generally, in early examples, the ceiling was left open from the inside as a "*bakkal tavan*". Another common practice is to cover the interior of the *harim* with a flat, stepped, or *bağdadi* domed ceiling (Figure 4). One of the characteristic features of the roofs is that they have wide overhangs. It is also possible that thin wooden planks called *hartama* were used in the roof covering of the roofs that are covered with Turkish-style tiles today when they were first built.
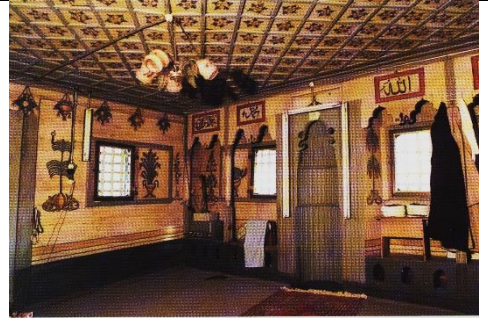
Samsun Çarşamba Gökçeli Mosque (URL-4)	*Trabzon Of Bölümlü Kaban Masjid*
Rize Kalkandere Hüseyin Hoca Mosque (URL-5)	*Artvin Borçka Muratlı Village Mosque (URL-6)*

Figure 4. The Upper Cover of *Harim*

Bayraktar (2005) points out differences in the spatial structure of early and late period wooden mosques; he states that mosques built in the early period have a single story, rectangular plan with a vertical prayer hall, a closed last prayer hall in front of the prayer hall, or a structure with rewaqs surrounding the building from two or three sides. He also defines the early period mosques as structures constructed with rough workmanship, mostly with hipped roofs sloping in three directions and without a ceiling covering in the *harim* area. He states that in the late period wooden mosques, the last prayer hall surrounded by *perde* is not seen in the *harim* planning, but a two-story rewaq layout is used, the

ceiling of the *harim* is closed, and in some examples, small wooden domes are built.

Construction System

Wooden mosques, referred to as cantı/çandı mosques in the literature, are structures constructed using a timber masonry system. The timber masonry system is created by stacking tree trunks/timbers on top of each other. This system is also called the *çantı* technique. According to the Sözen Art Concepts and Terms Dictionary, "*çantı*" refers to a construction method that involves joining long wooden elements, whether uncarved or turned into timber, using dovetails (Sözen ve Tanyeli, 1986). Ayverdi (1966) defines it as "the name given to buildings constructed with long logs that are notched and interlocked, without nails". The *çantı* technique, also known as 'nailless' among the public, is a type of construction created by placing logs or *perde* (pieces of wood) on top of each other using different joining techniques at the corners (masonry technique). The dovetail systems used in the wooden masonry system are named with local names such as *kurt boğazı*, *kara boğaz*, *kertme boğaz*, and *çalma boğaz* joints, depending on the dovetail detail (Özgüner, 1970) (Figure 5).
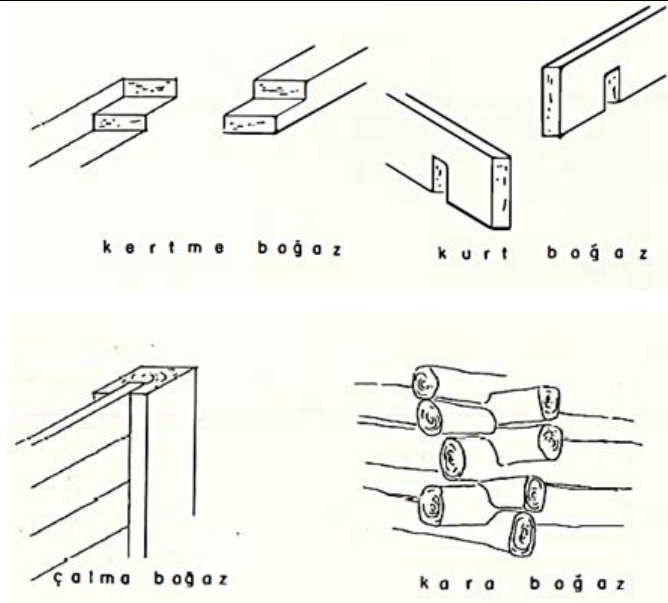
Figure 5. Joint Systems in Wooden Masonry Buildings (Özgüner, 1970)

Karpuz (1987) categorized wooden masonry walls into two groups: *çantı* and timber walls. While defining simple masonry walls built with round cross-section trees as "*çantı*" he stated that timber walls, which he calls a more advanced wall construction technique, consist of 2-5 cm thick boards with load-bearing timber construction.

The initial stage in building wooden mosques involves establishing a foundation system to keep the structure from being in direct contact with ground moisture. The foundation system of wooden mosques is closely related to the slope of the land on which they will be built. Main beams are placed on a stone foundation or basement wall up to the basement level on sloping lands where the structure will be built. In flat areas, the main beams are placed on large stones or thick logs to protect the structure from water on the ground (Figure 6). While stacked stone

foundations are common in the Eastern Black Sea Region due to the sloping land, the Central and Western Black Sea Region used large stones or wooden logs. Ayverdi (1966) states that none of the examples in the Western Black Sea Region have stone wall foundations, and that the mosque floors are built on large stones placed on the soil or, in some places, on piles.

| Borçka Düzköy Mosque | Çarşamba Karakaya Mosque (URL- 7) | Çatalzeytin Çağlar Village Central Mosque (URL- 8) |
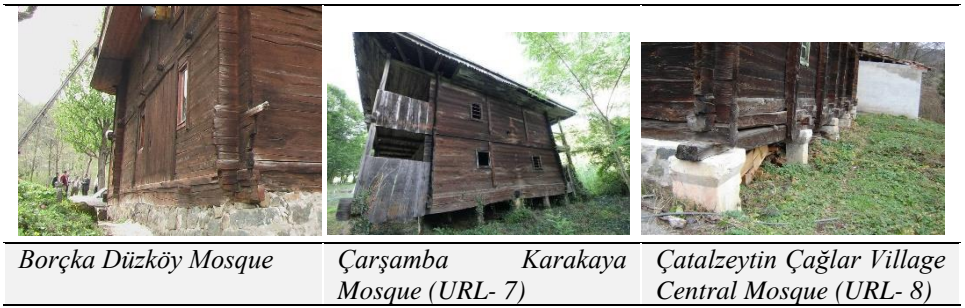
Figure 6. Foundation Systems in Wooden Mosques

The ends of the beams placed on the foundation wall or stones are connected with a '*boğaz açma*' system without using nails. After the floor beams are completed, in the construction of the walls, single pieces of wood (roughly smoothed logs or timber), usually the size of a mosque, are stacked on top of each other and connected through notches called *boğaz* (throats) opened at the corners. While the wall elements made of logs are joined with "*kara boğaz*", the elements made of processed logs or timber are joined with "*kurt boğaz*" joint. The wall elements made of timber are fixed with the help of wooden dowel pins (Figure 7).

| Çorum Sanayi Marangozlar Mosque (Nefes &Gün, 2016) | Çarşamba- Yaycılar Köyü Şeyh Habil Mosque (Yıldız, 2011). |

Figure 7. Log and Timber Walls

Bayraktar (2012) and Can (2004) state that the timbers forming the walls of the early-built *çantı* mosques in Samsun and its surroundings were thicker. Some of the wooden elements in Çarşamba Gökçeli and Şeyh Habil mosques have a thickness of 20 cm, while in Tatarmuslu and Engiz mosques, it ranges from 8 to 12 cm (Can, 2004). There are also mosques where roughly carved tree logs are used. In the Düzce Geriş Village Orhan Gazi Mosque, Samsun Kavak Tatarmuslu Mosque, Karanar Village Mosque, Çorakdere Village Mosque, Sinop Boyabat Dereçatı Mosque, Kastamonu Geyikli Mosque, Çorum İskilip Kocabayır Village Mosque, Evlik Village Mosque, Sorgun Mosque, Sarayköy Mosque, Çorum Tavukçuhoca Mosque, Sanayi Marangozlar Mosque, Ahacık Village Yüceardı Mosque, Bayat Falı Village Mosque, Bayat Yenişeyhler Village Mosques, the wooden logs were split into two and roughly carved with flat inner and curved outer surfaces and joined together with *kurt boğazı* joint at the corners.

The thickness of the wooden elements used in late period structures is 4-6 cm thick and 20-30 cm wide. There is no second bearing element in this system. In cases where the length of *perde* (pieces of wood) was not

sufficient, the wooden elements forming the wall were kept shorter and brought together with double-channel middle poles (armoz pole). In this system, in the "*çalma boğaz*" joint detail, channels are opened in the "armoz pole" elements placed in the corners, and wooden wall elements made into timber are placed in these channels. In addition to the armoz pillars used to connect the wall elements, the pillars surrounding the gathering place in the *harim*, the last prayer hall, and the cloisters outside also serve as support elements (Özgüner, 1970; Demir, 2004; Zorlu, 2017; Furtuna & Binan, 2021).

Facade Characteristics

The fundamental elements determining the facade characteristics in wooden mosques are the exterior wall construction, roof form, rewaqs, and window arrangement. Historically, the facade characteristics of wooden mosques, considered in two groups as early and late periods, differ depending on the period in which the mosque was built and the topography.

When considering construction, the quality of the wooden elements that form the walls varies based on the region or the period in which they were built, even though the construction system remains the same. Generally, in the western part of the region and in early examples, lightly processed logs were used, while timber was used in later periods. Another issue related to construction is the foundations. Mosques were constructed on stone foundations on sloping terrain and on stone or wooden piles on flat terrain.

The roof form also differed between early and late period structures. Mosques built in the early period, which are generally located on flat or

slightly sloping land, are larger in size compared to those built on sloping land and in the late period, and this also affected the dimensions of the roof covering. In early period mosques, the dominant element on the facade is the three-shouldered hipped roofs, which are taller. In late period mosques, the roof form consists of four shoulders and is lower in height. Another factor that impacts the visual characteristics of mosque facades is the presence of a surrounding rewaq around the *harim*, its location on the facades, and whether it is open or closed. In the Central Black Sea region, rewaqs in various forms are found surrounding the *harim* in mosques, while in the Eastern Black Sea region, they are mostly restricted to the last prayer hall, with one or two exceptions (Figure 8).

| *Samsun Çarşamba Gökçeli Mosque (URL-9)* | *Çarsamba / Ordu Village Mosque (URL-10)* |
| *Rize Hemşin Bilenköy Mosque (URL-11)* | *Samsun Kavak Bekdemir Mosque (URL-1)* |
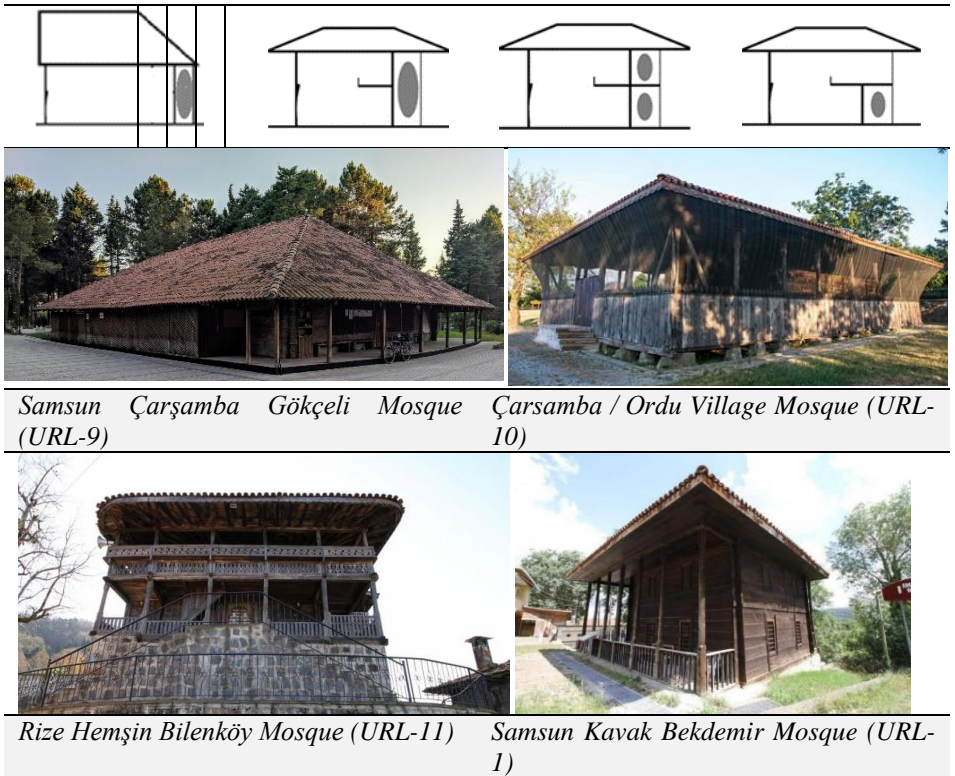
Rize Fındıklı Meyvalı Mosque (URL-12)	*Samsun Çarşamba Karakaya Mosque (URL-7)*
Samsun Asarcık-Akyazı Village Gökgöl Mosque (URL-13)	*Kumru Şenyurt Village Old Mosque (URL-14)*

Figure 8. Last Prayer Hall and Rewaq Arrangement in Wooden Mosques

In early period mosques, the wall heights are lower compared to late period mosques, and they also have smaller and fewer windows in terms of window arrangement (Figure 9). Bayraktar (2012) evaluates these small openings created by cutting the wooden walls in the early period cantı mosques with rough workmanship as simple elements. In contrast, mosques constructed during later periods had larger and lots of windows. Additionally, late period mosques featured a systematic window arrangement, unlike the earlier period's asymmetrical layout. In some of the recent mosques, finely crafted ornate windows can also be seen.

Samsun Çarşamba Yaycılar Şeyh Habil Village Mosque (URL-15)	*Çarşamba Kuşhane Village Old Mosque (URL-16)*
Artvin Borçka Camili Village İremit Mosque (URL-17)	*Rize Kalkandere Hüseyin Hoca Village (URL-18)*

Figure 9. Facade Characteristics of Early and Late Period Wooden Mosques

In summary, wooden mosques built in the early period have the characteristic of a single-storey facade with a few windows that are perceived as low due to the size of the roof, are very small in size, and do not have a systematic layout. The earliest mosques that have survived to the present day are in the provinces of Samsun and Sakarya. Small and unsystematically designed windows built with sparsely processed logs are also seen in the later mosques of Çorum and Kastamonu.

The late period mosques, which are more numerous and widespread, are generally two-story and have a façade characteristic that is perceived as

more spacious. The facades of the mosques in this group are characterized by rectangular wooden framed windows, usually arranged in two rows, illuminating the *harim* section. In general, the most striking element on the facades is the *harim* doors, decorated with wood carvings or different techniques. Especially in the Eastern Black Sea Region, it is possible to see mosques with simple decorations in the carving technique, not only on the entrance doors but also on the wooden jambs, window railings, beams, or pillars.

Bayraktar (2011) explains the differences between the facade appearances of the two groups as follows: "While the first group features a simple and roughly constructed flat and closed facade, the works in the second group showcase a high and spacious facade with fine workmanship. While there is no mention of a two-story facade layout in the first group, there is a mobile facade design in the other group, supported by a two-story and largely symmetrical window layout, highlighted by floor beams and pillars in the middle of the walls."

Decorative Features

The decorative features of wooden (*çantı*) mosques in the Black Sea Region also differ between early and late period mosques and in the regional context.

These mosques, which look extremely plain and modest when viewed from the outside, are particularly notable for their rich wood carvings and *kalemişi* (wall fresco), especially in the late period mosques. In some mosques, wood carvings and *kalemişi* are used together in decoration programs, while in some mosques, only *kalemişi* or wood carvings come to the fore. The interior decorations are located in the main sections, such

as the *mihrab*, *minber*, *vaaz kürsüsü* (preacher's platform), covering system, ceiling nave, *mahfil* balcony railings, and columns. In the Eastern Black Sea Region, the entrance doors are the most striking and important part in terms of the facade decoration of mosques. In the Western and Central Black Sea Region, plain doors without any decoration are also standard in mosques. The decoration program in mosques is organized by repetition of motifs or compositions in panels or freely on the entire surface (Azizsoy and Özkurt, 2021). The decorations in the wooden (*çantı*) mosques in the Black Sea Region can be classified into two groups: wood carving and *kalemişi*.

Wooden Decoration

The wooden ornamentation features in mosques vary depending on the region they are located in and the date they were built. The early-dated cantı mosques represented by Kastamonu, Sinop, Ordu, and the Western Black Sea Region and Çarşamba Gökçeli Mosque are poor in terms of ornamentation, and most of the wooden ornamentation is made with simple engravings and carvings. In these decorations, there is a separate style with various geometric shapes such as zigzag, curved, parallel, triangle, dentil, and rosettes (Can, 2004; Bayraktar, 2012; Aksoy, 2022). In addition, in the late period mosques, especially in the Eastern Black Sea Region, rich wooden decorations came to the fore. Karpuz (1989) defined the richness and fine workmanship in the wooden ornaments of mosques in the Eastern Black Sea Region as the "Eastern Black Sea wooden style". Wooden ornamentation is widely used, particularly in mosque interiors.

Wood carvings and reliefs have an important place in the decorative programs of wooden mosques. Although wood carvings are mostly seen on the pulpit and door wings, they are also found on the preacher's pulpit, *mahfil* railings, column capitals, ceiling bosses, window sashes, and beams. *Ajur* (wooden tracery), especially on the pulpit crowns and railings, is another form of decoration seen in decoration programs. Another technique in wood decoration is the lathing technique. Lathing is a technique generally used in ceiling decorations. Wooden decorations are spread over large areas in the form of vegetal and geometric patterns. These patterns can be applied independently or in a composition, in a panel, border, or cartridge. The ornamental program consists of geometric borders, rosettes, curved branches, stylized and naturalistic trees of life, S and C curves, and symbolic shapes. In the Eastern Black Sea Region, wood was generally used in its natural color in decorations (Karpuz, 1989; Sümerkan and Okman, 1999; Bayhan, 2009; Zorlu, 2017) (Figure 10). Azizsoy and Özkurt (2021) conducted a study in the Eastern Black Sea Region and found that the motifs of "hair braid," "basket braid," "walking eight," "almond interlace (ring)," and the "tulip" image with curved branches, trees, and its derivative "şemse" motifs show continuity in the Artvin-Trabzon-Acara (Georgia) line, excluding Rize. Based on these findings, it is stated that these motifs contain a character and expression specific to the region.

Dernekpazarı Güney Neighborhood Mosque	*Uzungöl Filak Mosque*
İkizdere Şimşirli Village Mosque (URL-2)	*Çarşamba Ordu Village Mosque (URL-19)*
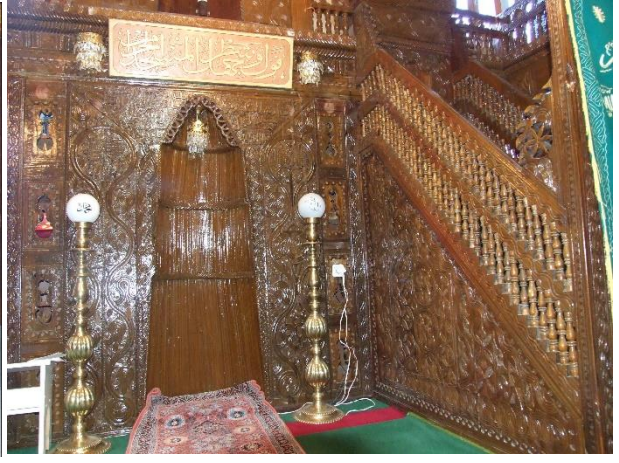
Figure 10. Wooden Decoration

Kalemişi Decoration (Wall Fresco)

Ornaments made with the *kalemişi* technique also play an important role in the decorations of mosques in the region. The *kalemişi* applied on wood using root dyes can be divided into two groups.

In the first group, very rough-shaped paintings and writings are seen, applied with a free hand. In these decorations, made with root or ochre paints without priming, simple compositions created with spiral curves, flat surface paintings, spots, or simple zigzags and curves were applied.

The second group consists of decorations that follow a certain decorative program, again using root dyes. Carved decorations are generally used in the interior on the altar, pulpit, ceiling, and inner domes. *kalemişi* decoration programs were applied as various verses of the Quran, prayers, mosques, minarets, flower motifs coming out of vases or stylized vases, and leafy plants extending in S-shape within cartouches, borders, or circles (Can, 2004; Demir, 2004; Bayraktar, 2012).

Samsun Çarşamba Gökçeli Mosque (URL-4)	*Kavak Bekdemir Mosque (URL-20)*

Figure 11. *Kalemişi* Decorations

4. Conclusion and Suggestions

Turkey is a country with a universally rich architectural and cultural heritage. Its historical monumental structures have hosted different civilizations, and its traditional structures have diversified into different geographical regions. Rural architecture, with its unique textures, is the most valuable part of this heritage.

In the Black Sea Region, famous for its rainy climate and rich forest areas, buildings that are products of the ancient wooden construction tradition are an important part of our rural architectural heritage. Mosques built in the wooden masonry system, with the use of wooden

materials, construction techniques, spatial layout, and decorative features, have an important place in this heritage.

When the examples brought to the literature are evaluated, it is seen that the oldest examples that have survived to the present-day date back to the Seljuk period. Later, except for a few structures that have survived to the present day from the Principalities period and the early years of the Ottoman Empire, the vast majority of mosques in the region date back to the 18th and 19th centuries. It is seen that the construction of wooden mosques continued until the 1950s.

To summarize the general characteristics of the wooden masonry mosques in the region, the spatial structure of the mosques is defined by the *harim*, the last prayer hall, rewaqs, and the upper cover formation. There is generally a rectangular or rectangular *harim* close to a square. In wooden mosques, depending on the land features, possibilities, and needs, there is a last prayer hall in front of the entrance facade of the *harim*. There are also mosques without the last prayer hall. It is also known that some mosques did not have the last prayer hall when they were first built, but they were added in later years. It is seen that the last prayer hall in mosques is arranged as closed, semi-open, or open in line with the climate conditions and needs. The rewaq surrounding the *harim* is seen in mosques built on flatter land conditions. These mosques are located in Samsun and Ordu, with some exceptions. Wooden mosques generally do not have minarets in their original form except for wooden minarets in a few mosques. The existing minarets were added later.

The foundation system of wooden mosques, like the rewaqs, varied depending on the terrain conditions, and mosques were built on stone or

wooden piles on flat terrain and masonry walls on sloping terrain. Single-story, three-shoulder hipped roofs, small size, and asymmetrical window arrangement characterize early mosques. The façade layout of the two-story late-period examples generally has rectangular windows arranged in two rows symmetrically. Mosques built in this period are notable for their interior decoration features. The interior decorations of the wooden mosques in the Eastern Black Sea Region are at a higher level than the rest of the region, with both wood carvings and *kalemişi* decorations. The wooden mosques in the region differ depending on the period in which they were built or the region's characteristics.

Today, some of these mosques are abandoned to their fate. Protecting and keeping these mosques, which have become inactive due to lack of use or have lost their original features due to unconscious interventions, is very important for the sustainability of our architectural heritage. The first step in protection is documentation. In this context, studies carried out on a local scale are very valuable. To control the interventions, it is important to make registration records and the local people aware of the features that make these extremely plain and modest mosques worthy of protection. The protection of these works, which are far from being seen, is possible by raising the awareness of the local people and taking care of them.

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Research on Criteria For Festivals Held in Cultural Heritage Areas

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1. Introduction

Monuments, buildings and archaeological sites constitute the concept of cultural heritage defined in the Convention Concerning the Protection of the World Cultural and Natural Heritage (UNESCO, 1972). As conservation awareness and theories develop, the scope of the concept of cultural heritage expands from a single building to the whole city and from the physical components of the place to intangible cultural heritage values (Erder, 2022).

Defining cultural heritage and conservation methods have also been an important research topic. Developing conservation awareness in societies, use of cultural heritage, ensuring restoration funds and sustainability are among the issues that have been emphasized since the 19th century. Considering academic research and implementation practices, tourism appears as an important tool in the protection of cultural heritage. Cultural heritage and tourism are in a symbiotic relationship. While cultural heritage encourages tourism, the economic income obtained from tourism creates financial resources for conservation. However, the most important point to consider here is that tourism should be used as a tool, not a goal, to protect cultural heritage (Çelebi Karakök & Ertaş Beşir, 2023).

Kaleiçi region, which is an important cultural heritage element and urban archaeological site for Antalya, is also the tourism center of the city. Kaleiçi, founded by the Attalos II, King of Pergamum, was an important port city of the Hellenistic, Roman, Byzantine and Seljuk periods. It has traditional houses and monumental buildings from these different periods (Kara, 2015). It was declared as a protected area by the High Council of Real Estate Antiquities and Monuments in 1973 (Başok, 2016). However,

it was aimed to protect Kaleiçi since it transformed into an urban collapse and became a security problem at this time, by turning it into a tourism zone with the conservation development plan prepared in 1979.

The tourism-oriented conservation development plan started to show positive results in the early 2000s. Historical buildings, especially traditional houses, were equipped with tourism functions and restoration processes began. Thus, the region has become a tourism center today for both local and foreign tourists. However, venues for accommodation, food and beverage, entertainment and culture have proliferated in terms of both quality and quantity in an exaggerated, uncontrolled and unsystematic distribution. Nowadays, Kaleiçi's neighborhood spirit has been lost; it has turned into a tourism and commercial center with its bars, hostels, restaurants and shops. Local traces in the region in terms of space and way of living have been largely erased. Intangible cultural heritage values have also begun to disappear. Improper restorations of traditional houses since they were used only for tourism purposes by ignoring conservation theories and regulations, and newly built imitation buildings in the region have turned into stage decorations that partially refer to history.

Real estate and commodity prices in the region have risen excessively, life has become expensive, and the majority of local people have had to leave the region. As a result of this, nowadays, user profile of the region consists of employers, tourists and the youths who come to have fun (Demirel, 2017). In addition, it is observed that the usage density of the region exceeds its capacity in the summer and remains at a very low level in the winter. The decrease in the number of tourists and the financial income obtained from tourism in the winter months, pushes employers to make

overtourism interventions to benefit in the summer months. Thus, employers strive to earn income during the summer months to survive the whole year. The demands of the employers put pressure on the architects who design the projects and the public institutions that carry out the control operations, and as a result, the use of historical buildings for tourism predominates the aim of conservation historical buildings.

In order to find a solution to this problem, in this research, the issue of providing tourism activity in a region all year round was investigated among the studies of refunctioning historical protected areas with tourism. If tourism activity can be provided throughout the year; it is thought that employers' tendency of making overtourism interventions can be prevented and thus their pressure on public institutions can be reduced.

Research have shown that one of the solutions is to organize festivals. Festivals with various concepts enhance tourism activities and benefit the local economy by contributing to the creation of a regional identity through tangible and intangible cultural heritage elements (Raj & Vignali, 2010). In this regard, festivals are considered as a comprehensive example of conservation policies that can be developed through tourism in regions, such as Kaleiçi, which are under the influence of many physical, social, economic and political variables.

As a tourism strategy, festivals play an important role in the recognition and development of the region in which they take place. While contributing to tourism with their economic and social benefits, they lead to the creation of a distinctive identity in the region. Festivals can extend the tourism season in an area, increase tourist density and/or create a new tourism season (Yeoman as cited in Raj & Vignali, 2010). This

transformative potential of festivals comes from the fact that they include alternative activities to the daily life that can only be experienced for a limited time and create a different atmosphere by going beyond the ordinary. The possibility of meeting with unique experiences makes that region a center of attraction for visitors.

In addition, it is not an obligation to make huge preparations and costly events to organize a festival. Small scale but unusual events can also be interesting for visitors (Finkel & Platt, 2020). There have been festivals in different concepts and sizes held in various parts of the world for many years. Although their focus and method are different, these festivals stimulate tourism and contribute to conserve the cultural heritage values. They benefit local people and international cultural network.

For example, one of the long-running festivals is the West Indian Carnival, which has been held in Leeds, England since 1967. This festival, which started to be organized in search for identity, community and sense of belonging by the Caribbean people who came to England in the 1950s-60s, has turned into an event where people of many races and nationalities gather under a multicultural roof over the years (Leeds West Indian Carnival, 2023). Raj & Vignali (2010), in their research on Leeds West Indian Carnival, determined that a spiritual bond was established between Caribbean people and local people. As a result of this, the region where the festival was held became the center of the local economy, cultural tourism increased as well as economic return, and a new intercultural destination image was developed.

As another example, there are festivals organized in various concepts in Edinburgh, which attract many visitors from all over the world every year.

Thus, Edinburgh has gained the identity of a 'festival city' (Edinburgh Festival City, 2024). These festivals, which have various concepts from art to science, such as the Science Festival, International Children's Festival, Fringe Festival, Jazz & Blues Festival, are held year-round and have always made the city an active, international and intercultural destination. Another example, Europian Heritage Days (EHD), is an event initiated by the Council of Europe in 1985, comprising 50 countries that have signed the European Cultural Convention, and including various activities and festivals on a cultural theme determined every year. For example, the theme for 2022 was determined as Sustainable Heritage, and the theme for 2023 was determined as Living Heritage. 2024 organizations will be held with the theme of Heritage of Routes, Networks and Connections. In these events, which are carried out with the aim of introducing cultural heritage to people and instilling awareness of conservation, many historical buildings and protected areas that cannot be entered under normal conditions are opened to visitors. The festival is held in every September and provides social and economic contribution to the development of cultural heritage (Europian Heritage Days, 2024).

Some of the events took place in France in 2023 as part of the EHD organization are as follows: Tours introducing traditional architectural construction techniques, visits to the ateliers of artists who lived in the 1800s, trips to the houses of historical figures, trips to restored historical buildings, events for experiencing traditional craft techniques, workshops for the renewal of old furniture, installations and exhibitions, night tours to cultural heritage sites, cultural landscape themed walks, workshops in archaeological excavation sites, workshops on understanding the daily life

routines of Neanderthal people (Ministere de la Culture, 2023; La Charente Maritime, 2023). In addition to these culturally themed trips and activities, there were also street shows, concerts and festivals in line with the theme of the year. Thus, education, tourism, culture and entertainment activities were held intertwined.

Today, Greek cultural heritage has become more recognized worldwide with festivals taking place in different destinations. A series of festivals aiming to introduce the history and culture of the region are organized in the city of Chania on the Island of Crete (Chania Tourism Bureau, 2021). As another example, Tenta Festival in Kalavasos Town in Northern Cyprus is an art and culture festival that takes place in an archaeological site (Cyprus Events, n.d).

In Seoul, the capital of South Korea, the Yeouido Cherry Blossom festival is held every spring to celebrate the blooming of cherry blossom trees in Yeouido Park (Bradley, 2024). While visiting the park, visitors have the opportunity to watch traditional Korean shows and taste local food.

Türkiye Culture Route Festivals have been organized in the cities selected by the Ministry of Culture and Tourism in Türkiye since 2021 in order to present the unique cultural values of these cities (Türkiye Culture Route Festivals, 2024). These festivals held in different provinces on different dates of the year, focus on cultural heritage, especially art, history and architecture.

Culture-themed festivals organized in various historical destinations are held to raise awareness of cultural heritage in society and to provide economic funds through tourism for the conservation of cultural heritage. These festivals have been organized in historical places for many years,

encouraged by international and national organizations, and their numbers are increasing every year. These progressions demonstrate that festivals are an important method for introducing cultural heritage and for conservation and sustainability studies.

2. Material and Method

In this research, it is aimed to determine the criteria for festivals themed with cultural heritage in cultural heritage sites should have to be held successfully. The criteria were tried to be identified by the descriptive analysis method based on studies in the literature. Kaleiçi Old Town Festival, organized for Kaleiçi Region of Antalya Province, was chosen as the material.

2.1. Material: Kaleiçi Old Town Festival

There are various festivals organized to increase cultural and tourism activities in Antalya. While some of these festivals are still being organized, some of them have not been continued. Saklıkent Snow Festival, Antalya Sand Sculpture Festival, Çubukbeli Festival, International Piano Festival, Golden Orange Film Festival, Aspendos International Opera and Ballet Festival, International Lycia Kaş Culture and Art Festival, Kaş Theater Days, Antalya International Theater Festival are some of these (Antalya Provincial Directorate of Culture and Tourism, 2024). Today, Kaleiçi Old Town Festival and Antalya Culture Route Festival have been added to these festivals.

Kaleiçi Old Town Festival started to be organized for the first time in 2016 with the initiative of Antalya Muratpaşa Municipality, and it has started to develop and gain an international character with the efforts of the Municipality since 2019 (Figure 1). It was organized online during the

Covid-19 pandemic and has been actively held again in the last two years. Antalya Culture Route Festival was held for the first time in 2023 by the Republic of Türkiye Ministry of Culture and Tourism. During festival, various locations of Antalya were turned into activity areas, while Kaleiçi Region was considered one of the most important event locations of the festival due to its historical and touristic characteristics. Thus, in 2023, Kaleiçi Region hosted two festivals for the first time. Kaleiçi Old Town Festival was held on 26-29 October, and Antalya Culture Route Festival was held on 4-12 November. Both festivals managed to attract international attention to the historical and cultural features of the Kaleiçi Region, at a time when Antalya's sun-sea-sand season was ending.

Figure 1. Kaleiçi Old Town Festival images, 2022 (Kaleiçi Old Town Official Facebook Account, 2022).

Kaleiçi Old Town Festival aims to introduce and conserve cultural heritage by bringing together agents of historical city centers from different countries with the theme of "Old Town". The Old Town Forum is organized within the scope of the festival to share and develop experiences regarding cultural heritage. The events in 2023, started with the Festival Cortege and consisted of local folk dances, poetry - music recitals, concerts, scientific meetings, workshops, installations, performances and

exhibitions. Antalya Culture Route Festival, also held in the same year, included various events such as Atatürk's Infinity Journey Exhibition, Presentation of Atatürk Tragacanth Dolls, Sufi Music Concert, Candy Workshop, Flying Gazes installation, Film on the Stage Shows, Puppet Workshop and Tango Music Concert.

Both Kaleiçi Old Town Festival and Antalya Cultural Route Festival managed to increase the tourism potential of Antalya, which was in decline in the autumn period. However, it is important to ensure the sustainability of the festivals as well as organizing them, and to establish the right balance between tourism and cultural heritage conservation. For this reason, Kaleiçi Old Town Festival was examined with the descriptive analysis method through the relevant literature.

2.2. Method: Determination of Criteria Through Descriptive Analysis

The main steps of this study are literature research, field study, descriptive analysis and development of conclusion and recommendations (Figure 2). In the literature phase, relevant literature was examined, and data was collected. During the field study, the festival to be examined as material was selected and the festival was attended as a visitor. At the descriptive analysis phase, the data collected from the literature were analyzed and the criteria that should be in a cultural heritage-themed festival in an archaeological site were determined. Subsequently, the festival selected as material was reviewed according to these criteria. Finally, in order for cultural heritage-themed festivals in archaeological sites to be more successful, criteria that need to be studied further in the literature have been suggested.
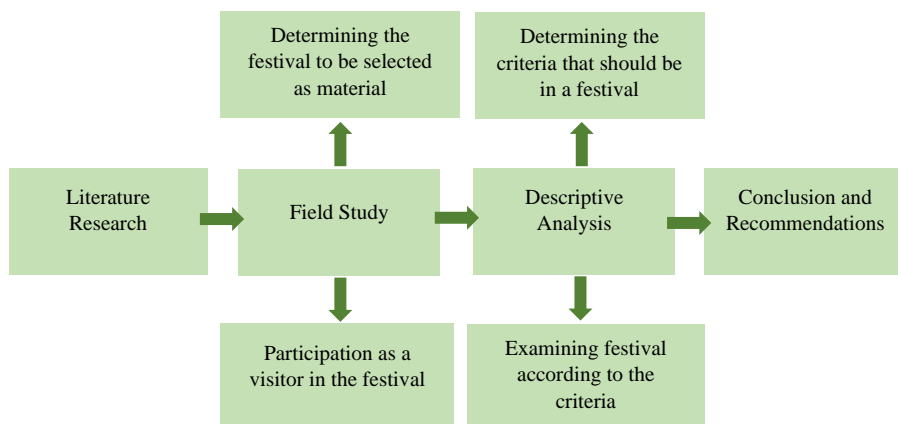
Figure 2. Flow Chart of Research Methodology

3. Research and Findings

In the literature, it has been discussed that the relation between festivals and context should be established correctly. Platt & Ali-Knight (2018) explain the concept of *place-making* as making a settlement livable through urban design, physical infrastructure and social projects, and state that festivals contribute to this concept in many ways. Festivals associated with a place make that place livable and experienceable. Festivals can take root if they held *in-place* and *with-place* (2018, p. 264). Similarly, Martha et al. (2017) underline that festivals are important in terms of contributing to the production and introduction of knowledge, history, art and tradition; however, they also state that to make this contribution, festivals must have a relation with place in terms of its content.

In addition to this, according to Edensor & Sumartojo (2018), festivals offer the opportunity to temporarily comprehend a place in a different way by highlighting a situation / relation / potential specific to that place. In this context, festivals are considered as part of a kind of alienation and re-

establishment of relation. Old Town Festival aimed to present the cultural heritage of Kaleiçi. However, beside site-specific activities such as workshops, scientific meetings, folk dances, other events such as concerts, exhibitions etc. had not a site-specific connection with Kaleiçi. For this reason, it was seen that the festival's connection with the place mostly remained such a situation of using the region as a venue for events.

It is recommended that festivals interact with natural elements specific to their region (Gibson & Wong, 2011). It is necessary to establish a connection between the concept of the festival and the natural components of the area such as flora, fauna, topography, sea or forests. In the events of Old Town Festival, there had not been observed inputs special to the sea, marina, cliffed shore or sloping topography.

Festivals are also expected to relate with the climatic characteristics of the region (Green & Strong, 2023). Seasonal changes and characteristics should be taken into consideration when planning events. Old Town Festival was held in October. In October, with contribution of Antalya's temperate climate, most of the activities could be held outdoors. For this reason, it can be thought that the festival's relation with the climate was partially established, however it was also possible that the climatic conditions could have a greater impact on the event contents.

Another prominent criterion is experience. Rickly & McCabe (2017) state that tourism should offer experiences that differ from daily ones and in this way, they underline that the experiences can affect the visitors' emotions and remain in their memories. Emotional involvement and memorability should be ensured in experiences. The events of the Old Town Festival cannot be considered extraordinary in general. Visitors were provided with

a pleasant time; however, these experiences were not thought to be memorable.

Another criterion is participation. Heynen (1999) argues that participants who interact with cultural heritage in the role of spectators only experience a nostalgic feeling rather than having a real connection with history. In order to create a deeper relationship with cultural heritage, it is important for visitors to step out of their spectator position and take an active role. Thus, the visitor should become a part of the activity. This criterion ensures that the participant has the highest level of interaction with what he/she experiences and contributes to both his/her own perception and to the art piece. In the events of the Old Town Festival, it was observed that participants were mostly in the role of spectators. Visitors only participated in the workshops in an active position.

Another important criterion as a different type of participation is the involvement of local people in the organization process of the festival. According to Smith (2019), in order for a festival to be organized properly, local people must embrace and support the event since they have the highest awareness about physical and social requirements in the festival region. In this regard, the contribution of residents in decision-making processes is important in order to run a more efficient process. For this, their benefits, demands and needs should also be taken into consideration. Although the number of residents in Kaleiçi has decreased due to the transformation of the region from residential to a touristic area, there are many local business owners. Businesses in Kaleiçi have participated in the festivals held so far (Kaleiçi Old Town Festival, 2023). Additionally, it is important to make efforts to ensure/increase the active participation of

Antalya's local people, public institutions and relevant academicians in the decision-making process of the organization in future festivals.

Another important criterion for festivals is the presence of an interesting concept. Festivals with interesting themes have the potential to create an atmosphere differs from daily routine for a temporary time (Cudny, 2014). In this way, festivals create cultural and economic resources by transforming the social and physical character of the place within a specific period. Since the main theme of the Old Town Festival is to present cultural heritage, it has a very strong potential. However, considering that the festival should be able to attract large crowds every year, it should be taken into consideration that it needs a secondary and unique theme / concept in addition to its main theme. In addition, if there are a couple of festivals in one region, it is important that events are needed to differ from each other in terms of content and time. Thus, they can undertake the function of giving novel identities to the region at divergent time periods. Another important criterion for festivals is sustainability (Kaleiçi Old Town Forum, 2023). The sustainability of festivals requires all the criteria mentioned above, as well as appropriate economic conditions. Participation fees for festival events may be considered in two different categories for local and foreign tourists. In addition, activities for free should also be organised. Additionally, organizing events that for all participant profiles in the society (elderly people, children, disabled individuals, pregnants, etc.) should be taken into consideration. Thus, all economic, social and environmental parameters of sustainability can be achieved (Çelebi Karakök & Ertaş Beşir, 2023). Some social sustainability principles were included in the Old Town Festival. However, in addition

to these, environmental and economic sustainability principles should be given more attention.

Since festivals require organizing series of events for large group of people, another important criterion is to establish a good coordination and management system. Festivals that operate properly in terms of management contribute to the spread and development of cultural tourism (Martha et al., 2017). A good coordination and management system has been followed in the Old Town Festival until today. There were no major negative experiences.

Table 1 shows the criteria compiled from the literature and their relations with festival events.

Table 1. Criteria and Analysis Table (by Authors)

Literature	Criteria	Festival Events	Relation Between Criteria and Events	Evaluation
Platt and Ali-Knight, 2018 Martha et al., 2017 Edensor and Sumartojo, 2018	Creating the relation between festival and place, being specific to the place	folk dances, poetry – music recitals, concerts, scientific meetings, workshops, installation – performances, exhibitions	The aim of the festival was introducing cultural heritage in Kaleiçi, however some events were not specific to the Kaleiçi Region.	Some of the events didn't have a specific relation with place.
Gibson and Wong, 2011	Establishing the relation between festival and nature		It was not observed activities related to the natural features of Kaleiçi.	It was not observed that festival have a specific relation with nature.
Green and Strong, 2023	Establishing the relation between festival and climate		The festival was held in October, when the scorching effect of the Sun was over.	Festival had a partial relation with the climate.
Rickly and McCabe 2017	Offering extraordinary and memorable experiences		The events were generally not unusual.	It was not observed that the festival offers unique experiences.
Heynen 1999	Active participation in activities		The events in which participants could actively participate were workshops.	Visitors' active participation in the events was partially ensured.
Smith 2019	Participation of local people in the organization		Local businesses participated in the festivals. However, it was difficult to obtain	Local people, public institutions and academicians' participation

			clear information about the content of participation.	should be ensured.
Cudny, 2014	Importance of concept		Cultural heritage considered as a main and single theme.	There is a need for unique themes with cultural heritage in the next years.
Kaleiçi Old Town Forum, 2023	Sustainability		Social sustainability principles were included.	Social, environmental and economic sustainability principles need to be given.
Martha et al., 2017	Establishing a good coordination and management system		A good coordination and management system has been conducted until today.	Until today, the festivals have been well managed. Constant attention must be paid.

4. Conclusion and Suggestions

The versatile structure of festivals, which consists of many economic, social, cultural and physical elements, makes festivals a preferred strategy to activate tourism in cultural heritage areas. If festivals are organized correctly, they offer important opportunities from international recognition of the region where they are held to a noticeable increase in the country's tourism income. However, it is not easy for a festival to reach the desired visitor capacity from the first time and to be recognized on international platforms and to have an opportunity to be sustained for years. For this reason, in this study it was investigated that which criteria a festival in a cultural heritage region should meet. As material, the Old Town Festival

held in Kaleiçi, the historical city center of Antalya Province in Turkey, was examined.

The criteria were tried to be determined through literature research. It was analyzed to what extent these criteria were taken into consideration in the Kaleiçi Old Town Festival. According to literature research, nine criteria have been identified. These can be listed as follows:

- Relation between festival and place
- Relation between festival and nature
- Relation between festival and climate
- Extraordinary and memorable experiences
- Active participation of visitors
- Participation of local people in the organization of the festival
- Interesting concept
- Sustainability
- A good coordination and management system

Although these criteria are individually important, almost all of them are part of social sustainability principles. Different criteria are needed for the physical conservation and sustainability of cultural heritage. In addition, organizing a festival also means the presence of many people at the same point, the use of loud music, sounds and powerful lights, the emergence of various vibrations and frequencies that will affect historical buildings, and an increase in environmental pollution. For this reason, before organizing festivals in cultural heritage site, it is necessary to strengthen cultural heritages against these effects and avoid making overtourism in these areas. While the aim of any festival may be to host as many visitors as

possible, it should be aimed to control the number of visitors in cultural heritage areas. Otherwise, the activities may have negative consequences. Additionally, it can be useful to utilize sustainability principles to ensure that a festival be in demand in the years to come. In addition to social sustainability criteria, economic and environmental sustainability criteria must also be provided. In this context, festival activities should be affordable for everyone to participate. In addition, more studies are needed on issues such as the transportation of disabled individuals to the festival areas, the design of activities that will appeal to different visitor profiles such as the elder or children, the methods of evacuating visitors from the festival area in case of a danger, to what extend intervention can be regarded as reasonable in the architectural heritage area and how to integrate intangible cultural heritage into events.

Organizing festivals in cultural heritage area is a study field that needs to be examined in more detail. Besides that, it was seen that the Kaleiçi Old Town Festival, which was chosen as the material in this study, made positive contributions to the international introduction of the Kaleiçi Region, creating funds for the restoration of historical buildings, meeting the entertainment needs of the society with education, and increasing employment for a certain period of time. When the criteria mentioned in this research are taken into consideration, it is predicted that festivals in cultural heritage areas will be more permanent and productive.

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Building with Combined Functions: A Systematic Model Proposal for the Suitability of Their Adaptive Reuse

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1. Introduction

Historic buildings can be built as individual buildings or as part of a complex of buildings, at the same time or in different periods with the rest of the complex. Among them, there is a third group called "buildings with combined functions", which refers to structures with different functions combined in a single building or integrated into two different buildings (Acar İpekoğlu, 1993a; İpekoğlu, 1993b; Dişli, 2020). These historic buildings are important to urban identity as they persist in city centers. Even if they lose their functions over time, the importance of preserving their original identity and passing it to future generations is becoming increasingly clear. Therefore, these buildings should be equipped with new functions that correspond to today's living comfort and overlap with their spatial and structural characteristics. Creating new functions, sustainability, and new uses in historic buildings will achieve and ensure the continuity of the historic/original fabric of urban life.

To fully understand the meaning of the term "buildings with combined functions," it is useful to first look at the definitions of similar groups of buildings throughout history, such as "mosque complexes/*külliye*" and "outbuildings/*manzume*." Among these, the *külliye*, also called imaret, site, and the complex was developed to provide social facilities, usually around a mosque and sometimes around a madrasa, tomb, or commercial building, to serve the people (Katoğlu, 1967). Ürey (2010) and Demir (2019) stated that the tradition of complex buildings began in the Seljuk period, in the 13th century, and usually consists of a mosque and a madrassa, which are free or complex in design. The oldest examples of *külliye* in Anatolia date back to the Artuqid period and during the

Ottoman period, there were a growing number of functional spaces (Çobanoğlu, 2003). Hasol (1998) defines the term *külliye* as a religious and social center consisting of a madrasa, a tomb, a hospital, a soup kitchen, a bath, a fountain, a *muvakkithane* (timekeeping room), and stores built with a mosque. According to Turani (1975), all these types of buildings that make up the complex must have been built around and simultaneously with a mosque. Sözen and Tanyeli (2001) further specified the issue by stating that the functions of all these buildings should be complementary and share the same stylistic characteristics. Andrew (1996) refers to the unity of several buildings as *külliye* and traces it back to the Ottomans. According to him, *külliye* is a large complex with different types of buildings around a mosque.

Manzume, on the other hand, is defined as a building complex but smaller than a *külliye* in terms of size and number of buildings (Sözen and Tanyeli, 2001). Akok (1968) defines it as a building with collective facilities developed around a tomb that met various needs since its establishment. Karamağaralı (1976, p.199-200) also distinguished the concept of *manzume* from *külliye* using the example of Hunad Hatun Manzume and stated that the buildings were not arranged as a whole in the beginning, but were planned and assembled at different times. He also emphasized the importance of following the layout and arrangement of the existing buildings and the surrounding area when planning the individual building units in a *manzume*.

Adaptive reuse can simply be defined as "to re-use a building or structure for the purpose of giving it new life through a new function" (Odasa, 2014). Similarly, Wilkinson et al. (2014) define it as a major change to a

building that alters both the building itself and the function it fulfils. Many authors have examined the topic of adaptive reuse of historic buildings from different perspectives. In their study, Vafaie et. al (2023) compiled these studies with a systematic literature review and divided them into different categories. These categories include architectural, structural, socio-cultural, economic, environmental, energy, authenticity, legal, administrative (decision-making) and functional factors. Among them Douglas (2006) focus on minimal intervention in the architectural/physical factors of the building during any adaptive reuse project. Aigwi et. al, (2018) emphasize the importance of adaptive reuse projects in extending the life of a building. Besana et al, (2018) emphasize the socio-cultural importance of adaptive reuse by creating a sense of place and connectedness. For Yung & Chan (2012), adaptive reuse not only provides more employment opportunities, attractive locations and artisans, but also tourism revenue, financial gains and aesthetic contribution to the historical districts. De Berardinis et al. (2017) define how adaptive reuse contributes to energy conservation and quality of life of historic districts, and De Gregorio et al. (2020) emphasise the positive contribution of adaptive reuse projects to the conservation of natural and local resources through the use of local, durable and high-quality natural resources. Finally, Lo Faro & Miceli (2019) focus on the importance of public-private partnerships and in-depth research, identification and historical analysis that strongly influence the success factors of adaptive reuse projects.

Similarly, international guidelines and standards emphasize that the new function should be compatible with the social, cultural and economic

needs of the users and in line with the sustainable development of the area. It should be of benefit to society, meeting the needs of contemporary life but without ignoring the integrity, original value, and character-defining features, with minimal alterations and respecting the authenticity, integrity and original purpose of the building (UNESCO, 1972; Amsterdam Convention, 1975; ICOMOS, 1983; ICOMOS, 2010a; ICOMOS, 2010b; ICOMOS, 2013; DEH, 2004; NPS, 2006; NSW & RAIA, 2008). However, there is no data, measurement, criteria, standard, or guideline for the quality and suitability of adaptive reuse of historic buildings in Türkiye, which is a serious drawback for a country with a large number of registered historic properties, which reached 124.671,00 by the end of 2023 (MoCT, 2023). Therefore, the study of the extent of interventions/changes during functional modifications is fundamental for the proper planning of adaptive reuse measures. If these are known, interventions in material, space, volume, structure, and technical infrastructure can be planned accordingly. Therefore, the aim and main novelty of this study is to assess the suitability of these functional modifications with a proposed assessment model specific to Türkiye, by examining the relevant international standards/guidelines dealing with the topic of adaptive reuse, the national regulations for historic buildings, and the basic literature on this subject.

2. Material and Method

This study consists of two parts. In the first part, the important historical buildings with combined functions in Konya were identified and evaluated. This phase is described in detail in Tables 2-6. In the second part, Ereğli Rüstem Pasha Caravanserai, which was selected as a case

study, was examined for the suitability of adaptive reuse within the framework of the developed model proposal. The data obtained was presented on a numerical basis using a color scale (Table 1).

In the first part, buildings with combined functions within the scope of the study were examined in relation to the different building types and combinations they contain, in terms of combination types, adaptive reuse, and/or functional change, as well as loss of original function and types of interventions and conservation approaches during the process of adaptive reuse. No scoring system was used in this section.

In the second part, buildings with combined functions are examined to determine the requirements for appropriate functional selection (Altınoluk, 1998: Kuleli, 1998), national restoration measures (Policy Decision No. 660 of the Ministry of Culture and Tourism, Turkey) and the appropriateness of the interventions made in the adaptive reuse process (Yıldırım, 1999). An assessment criterion for adaptive reuse was established in accordance with international regulations and standards (UNESCO, 1972; ICOMOS, 1975; ICOMOS, 1983; ICOMOS, 2010a; ICOMOS, 2010b; ICOMOS, 2013; DEH, 2004; ; NPS, 2006; NSW & RAIA, 2008) and related literature (Aigwi et al., 2018; Arslan et al, 2020: Altınoluk, 1998: Cantacuzino, 1975: Douglas, 2006: Madran, 1999; Mısırlısoy & Günçe 2016; Plevoets & Van Cleempoel 2011).

In this section, each title was divided into different scores and a scoring table with a total of 100 points was created (Table 1). Since the "determination of appropriate functional selection requirements, determination of restoration interventions, and determination of appropriateness of reuse interventions" may cause formal changes such

as additions or removals to the structure and may cause the most significant formal changes and have the potential to alter, damage, and develop the character-defining features, the score was set at the highest level and scored 25 points each at the maximum level. A scoring system was also developed to determine the level of reliability of the data obtained. For example, as literature has the lowest reliability, its total score was set at the minimum of 7 points.

The monument characteristic, spatial design, volume dimension, functional relationships and location of the historic building to be preserved are set as the main requirements for selecting the appropriate function in the proposed method (Altınoluk, 1998: Kuleli, 1998). These five main criteria are evaluated with a total number of 25 points. If the building fully meets the relevant criteria and is fully protected according to the relevant criteria, it receives 5 full points, if it partially meets the relevant criteria and is partially protected, it receives 3 points, and if the building does not meet the relevant criteria at all and is not preserved according to the relevant criteria, it receives 0 points (Table 1).

The determination of the restoration measures in the method proposal was based on the 5 basic intervention methods listed in Decision No. 660 of the Ministry of Culture and Tourism of the Republic of Turkey, namely consolidation, strengthening, reintegration, renovation and liberation. The elements considered in determining the appropriateness of adaptive reuse interventions in the proposed method are as follows: Interventions in the plan, structure, technical infrastructure, façade design and environment (Yıldırım, 1999). Each of these interventions was categorized as ideal, intermediate, and unacceptable in three different

categories, with a total of 25 points awarded. Ideal intervention practices were given 5 points, intermediate intervention practices were given 3 points, and unacceptable intervention practices were given 0 points (Table 1). In the proposed methodology, the main inferences related to adaptive reuse in the main international guidelines and standards are listed in Table 1 (UNESCO, 1972; ICOMOS, 1975; ICOMOS, 1983; ICOMOS, 2010a; ICOMOS, 2010b; ICOMOS, 2013; DEH, 2004; NPS, 2006; NSW & RAIA, 2008). They were grouped into six sub-items, for each of which 3 points were awarded, for a total of 18 points. Finally, the basic literature review on this topic was also included in the proposed methodology. It was assessed with a total of 7 points, for each of which one point was awarded (Table 6). Table 6 also includes a graphical analysis of the buildings in the form of a color scale (unacceptable/average/moderate, ideal (good), very good) and drawings/photographs. The explanation of this graphical scale is as follows: 50 points and below are unacceptable, 50-60 points are average, 60-70 points are moderate, 70-80 points are ideal (good) and 80 and above are very good. These scores are represented graphically with the colors red/green. Structures with an unacceptable score of 50 or less are shown in red, while structures with a score of 80 and above in very good condition are shown in green.

Table 1. Analysis and evaluation/rating table developed for the relevance of Refunctioning (Sevgi-Görbeğ, 2022).

Building name	Architect	Construction date		City	Vicinity	Original and new function:		
Drawings and Photos of the Building:			Graphic: Score graph and color scale of the analysis result					
1st Criterion: Requirements for the selection of a suitable function			2nd Criterion: identification of recovery interventions			3rd Criterion – Determination of the appropriateness of interventions		
Monumental feature of the historic building that should be preserved	Completely preserved	5 p ☐	Consolidation	Ideal	5 p ☐	Interventions in the plan	İdeal	5 p ☐
	Partially preserved	3 p ☐		Intermediate	3 p ☐		Intermediate	3 p ☐
	Never preserved	0 p ☐		Unacceptable	0 p ☐		Unacceptable	0 p ☐
The spatial design of the historic building	Completely preserved	5 p ☐	Strengthening	İdeal	5 p ☐	Interventions in the structure	İdeal	5 p ☐
	Partially preserved	3 p ☐		Intermediate	3 p ☐		Intermediate	3 p ☐
	Never preserved	0 p ☐		Unacceptable	0 p ☐		Unacceptable	0 p ☐
Volume dimension of the historic building	Completely preserved	5 p ☐	Reintegration	İdeal	5 p ☐	Interventions in the technical infrastructure	İdeal	5 p ☐
	Partially preserved	3 p ☐		Intermediate	3 p ☐		Intermediate	3 p ☐
	Never preserved	0 p ☐		Unacceptable	0 p ☐		Unacceptable	0 p ☐
Functional relations of the historical building	Completely preserved	5 p ☐	Renovation	İdeal	5 p ☐	Interventions at the facade	İdeal	5 p ☐
	Partially preserved	3 p ☐		Intermediate	3 p ☐		Intermediate	3 p ☐
	Never preserved	0 p ☐		Unacceptable	0 p ☐		Unacceptable	0 p ☐
Context of the historic building	Completely preserved	5 p ☐	Liberation	İdeal	5 p ☐	Interventions in the environment	İdeal	5 p ☐
	Partially preserved	3 p ☐		Intermediate	3 p ☐		Intermediate	3 p ☐
	Never preserved	0 p ☐		Unacceptable	0 p ☐		Unacceptable	0 p ☐
Total Point: 25			Total Point: 25			Total Point: 25		

4th criterion - Determination of conformity with national/international regulations and standards: 18 p			5th Criterion - Evaluation criteria for the re-functioning in literary literature: 7 p		
Cultural and natural heritage should be given a function for the benefit of society and protected as part of this cultural heritage-planning program.	3 p	☐	The function given in remodeling should be determined according to the needs of the society in which the building is located (Cantacuzino, 1975).	1 p	☐
The historic building should be given new functions that meet the demands of contemporary life without ignoring its character-defining features.	3 p	☐	Interventions in historic buildings should extend the life of the building (Douglas, 2006).	1 p	☐
The new functions given to the historic building should be compatible with the social, cultural, and, economic needs of the users.	3 p	☐	They should add a new dimension to historic buildings by giving them contemporary functions when needed (Altınoluk, 1998)	1 p	☐
			Historical buildings should only be given a properly selected new function that reflects their original functional characteristics (İpekoğlu, 1993b)	1 p	☐
The new functions given to the historic building should preserve the original character of the area, respect the context of the historic structure in which it is located, and be consistent with sustainable development.	3 p	☐	When a building is given a new function, all architectural, ornamental, and, spatial features should be preserved. It should be remembered that buildings could take on new functions depending on their potential, provided they are compatible with their qualities. The interventions should not make it difficult or impossible to recognize the architectural ornaments and decorative elements of the original building (Madran, 1999).	1 p	☐
Reuse should respect the originality, integrity, and integrity of meaning, and form of the historic building.	3 p	☐			
When introducing new functions to a historic building, consideration should be given to the number of occupants, duration of use, and consistency with the original use. However, if this is no longer possible, a suitable new use with minimal alterations should be encouraged, while maintaining the original characters.	3 p	☐	It should not be overloaded with the knowledge and new materials that the new function brings that should be designed at a level and quality that does not affect the original conditions (Madran, 1999)	1 p	☐
			The planned physical interventions in the structure should not damage the structure in such a way that they can be changed and removed (Madran, 1999).	1 p	☐
Total Point:	18 p		Total Point:		7 p
TOTAL MAX. POINT: 25 + 25 + 25 + 18 + 7 = 100 POINT					

3. Findings and Discussions

In this section, case study historic buildings are examined in two sections: in the first part, 14 buildings in Konya that have combined functions are evaluated according to their different combination types, and in the second part, the Rüstem Pasha Caravanserai is examined in

detail for its suitability for adaptive reuse according to the model proposal explained above.

3.1. Results of the Evaluation of Historical Buildings with Combined Functions in the Konya Region

Fourteen exemplary historic buildings were analyzed with regard to their combined functions, their original construction and combination dates, and various building combinations and floor plan types (Table 2-8). Table 2 examines 14 buildings and shows that ten of the buildings date from the 13th century, one of them with a 19th-century addition, and two from the 15th century. There are eight different combination groups: Mosque-tomb, Mosque-library, Mosque-*Hankâh* (guesthouse)-tomb-store, Madrasa-tomb, Madrasa-Masjid, Masjid-tomb, Caravanserai-*Tabhane* (guesthouse)-store, tomb-cell-Masjid-*Semahane* (the building where Mevlevi dervishes perform the sema)-kitchen-administration office. Four of the original main functions of the buildings were mosques, four were madrasas, three were masjids, one was a tomb, one was a lodge, and one was a caravanserai. Among these, madrasahs and mosques/masjids are the main functions most frequently used. Among the sample buildings, there are generally two different combinations of functions in 13th-century buildings, but there are three different functions in the Konya Akşehir Sahib-i Ata Fahrettin Ali (Stone) Madrasa and four different functions in the Sahib-i Ata Mosque complex. Fourteen different functions were identified in the combined functional buildings in Konya: Mosque, store, inn, caravanserai, library, madrasa, small mosque/masjid, tomb, *semahane*, kitchen (*Matbâh-ı Şerif*), administrative office (*Meydân-ı Şerif*), *tabhane*, tomb/dome, and lodge

(*zaviye)*. Among these functions, the combination of madrasah, tomb, and mosque/masjid is the most frequently observed. The *hankah* is only in the Sahib-i Ata mosque complex and the library is only in the Sultan Selim Mosque. The Mevlana complex occupies a special position with its seven different functions: Madrasa, small mosque, tomb, grave, *semahane*, kitchen, and administrative office were solved in the same or adjacent units (Table 2) (Table 3). In the Seljuk period, the buildings were more modest in their dimensions, integrated, and interconnected in their spatial organization. In the Ottoman period, this relationship was broken. For example, while the combination of mosque and tomb was common in Seljuk buildings, this situation changed with the transition to the *külliye*/mosque complex in the Ottoman period, and the tomb was separated from the building and developed into an independent building type. A similar situation applies to the Mevlana Complex.

Table 2. Different types of functions of the historical groups of buildings with combined functions in Konya (Sevgi-Görbeğ, 2022).

Name of the building	Construction year/period of the building	Mosque	Store/Shop	Inn/Hankâh	Caravanserai	Library	Madrasa (cell)	Masjid	Tomb/grave/coffin	Semahane	Tabhane/Guest house	Tomb/Kümbet	Zaviye/Lodge	Kitchen(Matbâh-ı Şerif)	Administrative unit (Meydân-ı Şerif)
1. Alâeddin Mosque	XIII. c.	+										+			
2. Mevlana Complex	XIII.c-XIX.c.						+	+	+	+		+		+	+
3. Sırçalı Madrasa	XIII.c.						+					+			
4. Sahib-i Ata Fahrettin Ali Madrasa	XIII..c. (1250)						+	+				+			
5. Karatay Madrasa	Madrasa:XIII.c.Tomb:-						+					+			
6. İnce Minerali Madrasa	XIII.c.						+	+							
7. Sahib-i Ata Mosque Complex	XIII.c.	+	+	+								+			
8. Eşrefoğlu Mosque	XIII.c.	+										+			
9. Tahir and Zühre Masjid	XIII.- XIV. C.							+				+			
10. Rüştem Pasha Caravansarai	XVI. c. (1553)		+		+						+				
11. Sultan Selim Mosque, Yusuf Ağa Library	XVI.c.	+				+									
12.Beyhekim Masjid,Tomb	XIII.c.							+				+			
13. Şems-i Tebrizi Mosque, Tomb	XV. c.	+										+			
14. Ebu İshak-ı Kâzerûnî Lodge and Tomb	XV. c. (1418)											+	+		

Table 3. Plan drawings of case study historic buildings showing different combination types (Sevgi-Görbeğ, 2022).

(Aslanapa, 1973, 119)

(Akok, 1969, 18)

(Arslan, 2017, 208)

(Kuran, 1969, 51)

(Source: Karpuz, 2009, 277)

(Akok 1970a , 16)

(Akok, 1970b, 14)

(Archives of Directorate General of Foundations)

(Karpuz, 2004, 451)

(Arslan, 2017, 1635)

(Akmaydalı, 1982, 109)

(Archives of Directorate General of Foundations)

(Özyalvaç, 2020, 333)

(Ülgen 1989, 232)

Table 4 shows that three of the buildings were converted into museums in the 20th century, two were converted into museums in the 21st century, one was converted into an office in the 20th century, one was converted into an office in the 21st century and one was converted into a café in the 21st century. For these buildings, adaptive reuse was achieved according to changes in capacity, function and performance (Table 4). The change in capacity is due to the building units that have been added over time to fulfill the combined function. Beyond that, there are no contemporary additions to the overall building. The main building types added over time were tombs, inns/hanikah, libraries, masjids, semahanes and cells. In both the Seljuk and Ottoman periods, there are units built at different times, forming buildings with combined functions. All buildings have been altered either during restoration or renovation (Table 4).

Table 4. Data on historical groups of buildings with combined functions in Konya (Sevgi-Görbeğ, 2022).

Name of the building	Construction year/period	Date of change in function (if applicable)	Original function	New function		Change of capacity and its nature		Change of the service and its nature	
				Yes	No	Yes	No	Yes	No
1. Alâeddin Mosque	Mosque: 1219 Tombs: (?)	-	Mosque	No		Tombs added over time		Yes/ Restoration	
2. Mevlana Complex	Tomb: 1231 Semahane:13.c. Kitchen (Matbah-ı Şerif): 13.c. Administrative unit (Meydân-ı Şerif):13.c. Cells :16.c.	1926(Konya Âsâr-ı Âtîka Museum) 1954 (Mevlâna Museum)	Main tomb	Yes/ Museum		Cells, Masjid, Tomb added over time, Semahane, Kitchen, Administrative units		Yes/ Restoration Rehabilitation	

	Masjid: 16. c. Other tombs and graves: 16.yy					
3. Sırçalı Madrasa	Madrasa and Tomb: 1243	1960- office	Madrasa	Yes / Public office	No	Yes/ Restoration Rehabilitation
4.Akşehir Sahib-i Ata Fahrettin Ali (Stone) Madrasa	Madrasa, Masjid, Tomb: 1250	1965 (Archaeological Museum), 2009 (Tas Madrasah Stone Works Museum)	Madrasa	Yes/ Museum	No	Yes/ Restoration Rehabilitation
5.Karatay Madrasa	Madrasa and Tomb: 1251	1955-museum	Madrasa	Yes/ Museum	No	Yes/ Restoration Rehabilitation
6.İnce Minerali Madrasa	Madrasa, Masjid, Tomb: 1264	1956-museum	Madrasa	Yes/ Museum	No	Yes/ Restoration Rehabilitation
7. Sahib-i Ata Mosqe Complex	Mosque: 1258 Tomb:1269-70 Hankâh/inn: 1279	2006 (Hankah and tomb are part of the museum; shop is not used)	Mosque	Yes/ Museum No/ Mosque	Tomb and hankah/inn added over time	Yes/ Restoration Rehabilitation
8.Eşrefoğlu Mosque	Mosque and Tomb: 1297	-	Mosque	No	No	Yes/ Restoration
9. Tahir and Zühre Masjid	Masjid and Tomb: 13.- 14. c.	-	Masjid	No	No	Yes/ Restoration
10. Rüştem Pasha Caravanserai	Caravanserai, Store/Shop, Tabhane: 16.c.	Fire Department, Bazaar, Military headquarters, Café (2009)	Caravanserai	Yes/ Cafe/ Coffee House	No	Yes/ Restoration Rehabilitation
11.Sultan Selim Mosque and	Mosque: 1567	-	Mosque	No	Library added over	Yes/

Yusuf Ağa Library	Library:1795				time	Restoration
12.Beyhekim Masjid and Tomb	Majid and Tomb: 13. c.	-	Masjid	No	No	Yes/ Restoration
13. Şems-i Tebrizi Mosque and Tomb	Mosque and Tomb: 15. c.	-	Mosque	No	No	Yes/ Restoration
14.Ebu İshak-ı Kâzerûnî Lodge, Tomb	Lodge and Tomb: 1418	(1990s) Library (?)Training Center	Lodge/ Zaviye	Yes	No	Yes/ Restoration

By examining Table 5, it is clear that there are five forms of different combinations in structures with combined functions. These are in the form of walls, doors, windows, passages/corridors, or direct connections. There are also different groups of combinations: a combination of two different functions on the same floor plan (Karatay and Sırçalı Madrasa), side by side in different floor plans (Alâeddin, Eşrefoğlu, Sahib-i Ata, Sultan Selim Mosques, Ereğli Rüstem Pasha Caravanserai, and İnce Minareli Madrasa) or built over time (Sahib-i Ata, Alaeddin, Sultan Selim, and Mevlana Complex). The buildings studied are divided into three main groups according to the type of connections. They have separate entrances and adjoin a wall, were built over time, are connected with a separate wall, are accessible through a passageway, have nested entrances, and adjoin the same wall (Table 5).

Table 5. Types of combinations in historical groups of buildings with combined functions in Konya (Sevgi-Görbeğ, 2022).

Adjacent to a wall with separate entrances	Ince Minerali Madrasa: on a wall with separate entrances (combination of madrasa and masjid): The masjid is adjacent to the north wall of the madrasa. The masjid has a separate entrance on the east and was built in the same period as the madrasa on a different plan (J).	Sahib-i Ata Mosquecomplex: (combination mosque- hankah- tomb- shop): The entrance of the Hankah and the mosque are different. The shop is located at the entrance of the Hankâh. The tomb is adjacent to the south wall of the mosque with a window, and the tomb is reached through a passage from the north iwan of the Hankâh (CT). In different plans, there is a coherent solution of different functions (J).	Esrefoglu Mosque: (combination of mosque and tomb) The tomb is adjacent to the east wall of the mosque and has a separate entrance, with different plans and an adjacent joint on the east wall (J).	Eregli Rustem Pasha Caravanserai: (combination caravanserai-tabhane shop) The tabhane and shop adjoin the south wall of the caravanserai and have separate entrances, built at the same time in different plans (J).	Sultan Selim Mosque and Yusuf Ağa Library: (combination of mosque and library) The library is adjacent to the west wall of the mosque (J) and has a separate entrance and a connection with the window to the mosque. They were built at different times (CT)
Built over time, connected by a separate wall	**Alâeddin Camii:**(Combination of mosque and tomb): The tombs were added over time to the courtyard north of the mosque and have separate entrances (J). Mosque and tombs were built at different times (CT).				
	Mevlana Complex:(Tomb (main mausoleum and sarcophagi), cell, mosque, tomb, semahane, kitchen, administrative unit combination: Tombs, mosques, mausoleums, semahans are interconnected over time, and cells are combined with separate walls and separate entrances (CT). The mosque, semahans and tombs were resolved over time on the same floor plan (S), there are tombs adjacent to the same wall (J).				
Adjacent to a wall with nested entrances	**Sırçalı Madrasa:** (Combination of Madrasa and Tomb): The tomb adjoins the northeastern wall of the madrasa and is entered from inside the madrasa. The tomb and the madrasa were built in the same period and dissolved in the same plan (S)		**Akşehir Sahib-i Ata Fahrettin Ali (Stone) Madrasa:** (Combination of Madrasa Mosque/Masjid tomb): The tomb adjoins the north wall of the madrasa and is entered through the madrasa. The masjid adjoins the north wall and has a separate entrance to the west. The tomb, the masjid and the madrasah were built at the same time and arranged on the same plan (S)		
	Karatay Madrasa:(combination of madrasa and tomb): The tomb is adjacent to the southeast/southwest wall of the madrasa and is entered through the madrasa. The tomb and the madrasa were built in the same period and were dissolved in the same plan (S)		**Tahir and Zühre Masjid:**(Combination of masjid and tomb): The tomb adjoins the east wall of the masjid and is entered from the courtyard. The tomb and the madrasa were built in the same period and dissolved in the same plan (S)		

	Beyhekim Masjid and Tomb: (combination of Masjid and Tomb): The tomb is adjacent to the north wall of the masjid and one enters the tomb from inside the masjid. The tomb and the masjid were built at the same time and solved on the same plan (S)	**Şems-i Tebrizi Mosque and Tomb:** (combination of mosque and tomb): The tomb is adjacent to the east wall of the masjid and the tomb is located inside the masjid as an iwan. The tomb and the mosque were built in the same period and were dissolved in the same plan (S)
	Ebu İshak-ı Kâzerunî lodge (Zaviye) and tomb: (combination of Tekke shrine) The mausoleum is adjacent to the south wall of the masjid and the mausoleum has a separate entrance. The tomb and the masjid were built at the same time and solved in the same plan (S)	

Examination of Table 6 revealed that the restoration work carried out in the buildings retained the existing floor plans, and that the function of some sample buildings changed as living standards and requirements changed. Interventions were mainly observed on the façades and roofs, while new wall additions were observed inside. Lateral additions such as wet rooms and/or ticket booths were mainly observed in buildings that were used as mosques or museums. However, with the change in function, the lack of measures such as security and easy access is also evident.

Table 6. Intervention types and conservation approaches during the process of adaptive reuse (Sevgi-Görbeğ, 2022).

Types of Interventions		Interior interventions		New additions to the building		Addition of new facilities in the courtyard		
Name of the building	Exterior facade	Yes (type)	No	Yes	No	Ease of access	Security	Wet area, playground, cafe exhibition hall, ticket booth, etc.
1. Alâeddin Mosque	✓	No			✓			No
2. Mevlana Complex	✓	No		✓			✓	✓ticket booth, wet

							space
3. Sırçalı Madrasa	✓reintegration	✓reconstruction of cell walls		✓			No
4. Akşehir Sahib-i Ata Fahrettin Ali Madrasa	✓reintegration, consolidation	✓Addition of wet spaces and depot	✓				✓wet space, depot
5. Karatay Madrasa	✓ reintegration, consolidation	✓ The walls between the cells were demolished and merged, niches were created for the exhibition.	✓				✓ticket booth, wet space
6. İnce Minareli Madrasa	✓reintegration	✓ The walls between the cells were demolished and merged, niches were created for exhibition.	✓				✓ticket booth
7. Sahib-i Ata Mosque Complex	✓reintegration	No	✓			✓	✓wet space (ablution fountain)
8. Beyşehir Eşrefoğlu Mosque	✓reintegration on the façade, earthen roof was removed and hipped roof was built	No	✓				✓wet space
9. Tahir and Zühre Masjid	✓consolidation	No	✓				✓wet space
10. Ereğli Rüştem Pasha Caravansarai	✓consolidation	✓ Adding wooden partitions, refunctioning some areas of tabhane and the shop as wc, masjid & technical space		✓			No
11. Sultan SelimMosque and Yusuf Ağa Library	✓consolidation	No		✓			No
12. Beyhekim Masjid and Tomb	✓reintegration and consolidation	No		✓			No
13. Şems-i Tebrizi Mosque and Tomb	✓ reintegration and consolidation	No		✓			No

| 14. Ebu İshak-ı Kâzerûnî Lodge and Tomb | ✓ reintegration and consolidation ✓ The gable roof was made by removing the earthen roof | No | | ✓ | | No |

Eleven different reasons were identified for the adaptive reuse or loss of function of buildings (Table 7). Legal obligations, the need for deterioration/restoration, the need to keep up with changing user satisfaction/interest/demand, and the goal of increasing the economic value of the building were cited as common reasons for adaptive reuse. In the examples where the main function is a mosque/masjid, the original function is retained. Looking at Table 7, it is clear that most changes of function take place in buildings that cannot transfer their former function to the current one because a change of use is required and the existing spaces are functionally inadequate.

Table 7. Reasons for adaptive reuse and/or change of function and loss of original function of historic groups of buildings with combined function in Konya (Sevgi-Görbeğ, 2022).

Name of the building: reasons	△	□	○	◪	▼	◆	●	☀	△	■	▶
1. Alâeddin Mosque	✓			✓		✓		✓	✓		
2. Mevlana Complex		✓	✓		✓	✓		✓	✓	✓	✓ cells, masjid, tomb, semahane
3. Sırçalı Madrasa		✓	✓		✓	✓	✓	✓	✓		
4.Akşehir Sahib-i Ata Fahrettin Ali (Stone) Madrasa		✓	✓		✓	✓	✓	✓		✓	✓ Masjid, tomb
5. Karatay Madrasa		✓	✓		✓	✓	✓	✓	✓	✓	
6.İnce Minerali Madrasa		✓	✓		✓	✓	✓	✓	✓	✓	
7.Sahib-i Ata	✓Partial:	✓Partial : hankâh	✓		✓	✓	✓Partial	✓	✓		✓

Mosque Complex	mosque	and tomb				: hankâh				Hankâh/inn, tomb
8. Eşrefoğlu Mosque	✓				✓	✓		✓	✓	
9. Tahir and Zühre Masjid	✓				✓	✓		✓	✓	
10. Ereğli Rüştem Pasha Caravansarai		✓	✓		✓	✓	✓	✓	✓	
11. Sultan Selim Mosque and Yusuf Ağa Library	✓				✓	✓		✓	✓	
12.Beyhekim Masjid and Tomb	✓				✓	✓		✓	✓	
13. Şems-i Tebrizi Mosque and Tomb	✓				✓	✓		✓	✓	
14.Ebu İshak-ı Kâzerûnî Lodge and Tomb		✓	✓		✓	✓	✓	✓	✓	

⌂: Old/original function ▢: Loss of the original function ○: Functional inadequacy of the existing spaces
▨: Need of the building for performance/use improvement ▼: Need of the building for a performance/use change ■: Effort to increase economic value of building
♦: Legal obligations ●: Modern facilities / changes in services ☀: Deterioration, need for renovation
△: Need to keep pace with changing user satisfaction/interest / demand
►: Increasing the capacity and volume of use of the building to the maximum need for grading

In assessing the selected historic buildings according to the relevant international guidelines/standards, six criteria were identified, which are summarized in the relevant articles of the standards. As most of the selected buildings have been converted into museums, it was assessed whether the new function they have been given is beneficial to society, compatible with the demands of contemporary life and the social, cultural and economic needs of users, and whether the new function is considered appropriate for the existing building and its surroundings. It was found that on average 63.07% of the buildings met the standards. The Konya

Sahib-i Ata mosque complex was the least likely to meet the criteria with a rate of 33.32% (Table 8).

Table 8. Evaluation according to the relevant international standards (Sevgi-Görbeğ, 2022).

Building Numbers	1. Cultural and natural heritage should give the historic building a function for the benefit of society and should be protected as part of the planning program.	2. The historic structure should be provided with new functions according to the necessitites of today's life without ignoring its original features.	3. The historic structure and the new functions should be compatible with the social, cultural, and economic needs of the users.	4. The historic structure and new functions should preserve the original character of the area, respect the context, and be consistent with sustainable development.	5. Introduction of new functions and activities to the historic structure should consider the number of users, the duration of use, and consistency with the original use.If it is no longer possible, an appropriate new use with minimal alterations is to be encouraged.	6. Reuse should respect the authenticity, integrity, and purpose of the historic building.	% of compliance with stated criteria
1	✓	≠	✓	✓	✓	✓	83,30
2	✓	✓	✓	⊥	⊥	⊥	49,98
3	✓	✓	✓	⊥	⊥	⊥	49,98
4	✓	✓	✓	⊥	⊥	⊥	49,98
5	✓	✓	✓	⊥	⊥	⊥	49,98
6	✓	✓	✓	⊥	⊥	⊥	49,98
7	✓	⊥	✓	⊥	⊥	⊥	33,32
8	✓	≠	✓	✓	✓	✓	83,30
9	✓	≠	✓	✓	✓	✓	83,30
10	✓	✓	✓	⊥	⊥	⊥	49,98

The title row "Evaluation Criteria" spans across the criteria columns.

11	✓	≠	✓	✓	✓	✓	83,30
12	✓	≠	✓	✓	✓	✓	83,30
13	✓	≠	✓	✓	✓	✓	83,30
14	✓	✓	✓	⊥	⊥	⊥	49,98
Percentage of buildings meeting the average criteria							63,07

✓Fully compatible with standards ⊥ Partially compatible with standards ≠Not compatible with standards

1.Konya Alâeddin Mosque   3.Konya Sırçalı Madrasa

2.Konya Mevlana Complex   4. Konya Akşehir Sahib-i Ata Fahrettin Ali (Stone) Madrasa

5. Konya Karatay Madrasa   7. Konya Sahib-i Ata Mosque Complex

6. Konya İnce Minerali Madrasa   9. Konya Tahir and Zühre Masjid

8. Konya Beyşehir Eşrefoğlu Mosque   11.Konya Sultan Selim Mosque and Yusuf Ağa Library

10. Konya Ereğli Rüştem Pasha Caravansarai   13.Konya Şems-i Tebrizi Mosque and Tomb

12.Konya Beyhekim Masjid and Tomb 14.Konya Ebu İshak-ı Kâzerûnî Lodge and Tomb

3.2. Evaluation of the Ereğli Rüstem Pasha Caravanserai in the Context of Adaptive Reuse

The Rüstem Pasha Caravanserai of Ereğli occupies an important place because it was built in the Classical Ottoman period and is a work of the architect Sinan. The building is a large-scale original work, which is a combination of a barn, hospice, and warehouse. Although the building was structurally sound after the repairs made due to its previous use, it was in a rather worn and neglected state. Following the decision of Konya Municipality in 2009 to restore the caravanserai, it is now being actively used and put back into service. For the above reasons, it was chosen as a case study building. It was evaluated according to the method developed above and the results were explained in detail below:

1. criterion: Determination of the functional selection requirements:

In this category, Rüstem Pasha Caravanserai received a total of 12 points. Since it is not currently used in its original function, it received 0 points in the "Functional Relations of the Historic Building" category and 3 points in each of the other categories for partially preserving its monumental feature, spatial design, volume/dimension, and context (Table 10).

2. criterion: Identification of recovery interventions:

In this category, Rüstem Pasha Caravanserai received a total of 23 points. It received 3 points in reintegration and 5 points in each other interventions: consolidation, strengthening, renovation, and liberation (Tables 9-10).

Table 9. Determination of the recovery interventions (Source: Author's photo archive, 2020-2022; KVBM Archive, Restoration Report, 2013).

Determination of restoration interventions:	
1.Consolidation	**2.Reintegration**
The north facade (left) and the west facade (right) of the Rüstem Pasha Caravanserai before restoration The north facade (left) and the west facade (right) of the Rüstem Pasha Caravanserai after restoration	The entrance door to the stable/barn wing of the Rüstem Pasha Caravanserai from the inside before restoration (left) and after restoration (right)
3.Renovation, Reconstruction	

Concrete hats on the chimneys on the eastern facade of Rüstem Pasha Caravanserai before restoration (left) (restoration report, 2013) and brick hats after restoration (right)

The upper cover of Rüstem Pasha Caravanserai before restoration (left and right)

Rüstem Pasha Caravanserai after restoration from the west facade (left) and the upper cover view from the courtyard (right)

Lead-coated drainage on the facades after the restoration
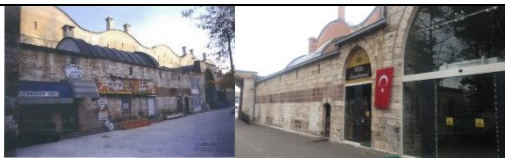
Views of the windows and doors on the southern facade of the Rüstem Pasha Caravanserai before restoration (left) and after restoration (right)

Additions to the west facade of the Rüstem Pasha Caravanserai before restoration, the color change and darkening of the material (left) and the west facade after restoration (right)

Shops attached to the stable part of the Rüstem Pasha caravanserai before restoration (left) and the stable part after restoration (right)

The bench at the entrance wall of the Rüstem Pasha Caravanserai before restoration (left) and the bench and flooring (right) at the entrance wall after restoration

4.Liberation
  Pre-restoration of Rüstem Pasha caravanserai, the mezzanines (left) with metal and portable stairs in the stores and the extensions in front of the outer stores	 Wooden beams in the vaults of the Rüstem Pasha Caravanserai before restoration (left) and wooden beams in the vaults after restoration (right)

3.Criterion-Determination of suitability of interventions: Rüstem Pasha Caravanserai received 5 points in the category of "interventions in the structure" as ideal and 3 points for each of the other four categories and the interventions are considered intermediate, receiving a total of "17" points from this section (Table 10).

4.Criteria-Determination of Conformity with International Regulations and Standards:

Rüstem Pasha Caravanserai scored a total of 15 points in this section. It received 0 points in the category "Reuse should respect the originality and integrity of meaning and form of the historic building" because it has lost its original meaning, and 3 points in each of the other categories (Table 10).
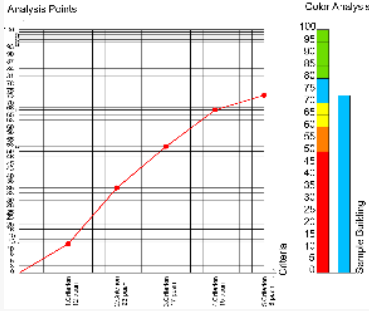
5. Criterion- Evaluation criteria for adaptive re-use in the literature:

Rüstem Pasha Caravanserai has received a total of 6 points in this section. Since it did not have a new function, it received 0 points in this category and 1 point in each of the other categories (Table 10).

In the evaluation of the Rüstem Pasha Caravanserai in terms of the suitability of its adaptive reuse, it received "73" points out of a total of "100" points. Since the result of the analysis was in the range of 70-80

points and was represented in blue on the color scale, it was evaluated as ideal (good) (Table 10).

Table 10. Analysis and evaluation/scoring table for the suitability of the adaptive reuse of the Rüstem Pasha Caravanserai (Sevgi-Görbeğ, 2022).

Name: Rüstem Pasha Caravanserai	Architect Sinan	Period: Classical Ottoman	City/Vicinity: Konya, Ereğli	Original/New Function: Caravansarai/ Coffee House

Drawings and Photos of the Building		

Graphic: Score graph and color scale of the analysis result

1th Criterion: Determination of the criteria requirements for the selection of a suitable function					2th Criterion: identification of recovery interventions (Policy Decision no:660)				3th Criterion - determining the appropriateness of interventions			
Monumental feature of the historic building that should be preserved	Completely preserved	5p	☐		Ideal	5 p	■	Interventions in the plan	İdeal	5 p	☐
	Partially preserved	3p	■		Intermediate	3 p	☐		Intermediate	3 p	■
	Never preserved	0p	☐	Consolidation	Unacceptable	0 p	☐		Unacceptable	0 p	☐
Spatial design of the historic building	Completely preserved	5p	☐		İdeal	5 p	■	Interventions in the structure	İdeal	5 p	■
	Partially preserved	3p	■		Intermediate	3 p	☐		Intermediate	3 p	☐
	Never preserved	0p	☐	Strengthening	Unacceptable	0 p	☐		Unacceptable	0 p	☐
Volume dimension of the historic building	Completely preserved	5p	☐		İdeal	5 p	☐	Interventions in the technical infrastructure	İdeal	5 p	☐
	Partially preserved	3p	■		Intermediate	3 p	■		Intermediate	3 p	■
	Never preserved	0p	☐	Reintegration	Unacceptable	0 p	☐		Unacceptable	0 p	☐

Criterion	Preservation	Pts			Renovation / Liberation	Pts		Interventions		Pts	
Functional relations of the historical building	Completely preserved	5p	☐		İdeal	5 p	■	Interventions at the facade	İdeal	5 p	☐
	Partially preserved	3p	☐		Intermediate	3 p	☐		Intermediate	3 p	■
	Never preserved	0p	■		Unacceptable	0 p	☐		Unacceptable	0 p	☐
Context of the historic building	Completely preserved	5p	☐		İdeal	5 p	■	Interventions in the environment	İdeal	5 p	☐
	Partially preserved	3p	■		Intermediate	3 p	☐		Intermediate	3 p	■
	Never preserved	0p	☐		Unacceptable	0 p	☐		Unacceptable	0 p	☐
Total Point:		**12 p**		**Total Point:**		**23 p**		**Total Point:**		**17 p**	

4th criterion - Determination of conformity with international regulations and standards: 18 points (UNESCO, 1972; Amsterdam Con., 1975; ICOMOS, 1983; ICOMOS, 2010; ICOMOS, 2011; ICOMOS, 2013a; ICOMOS, 2013b; DEH, 2004; NPS, 2006; NSW & RAIA, 2008)			**5th Criterion - Evaluation criteria for the re-functioning in literary literature: 7 points** (Aigwi et. al, 2018; Arslan, et. al, 2020: Altınoluk, 1998: Cantacuzino, 1975: Douglas, 2006: Madran, 1999; Mısırlısoy, D., & Günçe, K. 2016; Plevoets, B., & Van Cleempoel, K. 2011).		
Cultural and natural heritage should be given a function for the benefit of society and protected as part of this cultural heritage-planning program.	3p	■	The new function should be determined according to the needs of the society in which the building is located.	1 p	■
The historic building should be given new functions that meet the demands of contemporary life without ignoring its character-defining features.	3p	■	Interventions in historic buildings should extend the life of the building.	1 p	■
The new functions given to the historic building should be compatible with the social, cultural, and, economic needs of the users.	3p	■	They should add a new dimension to historic buildings by giving them contemporary functions when needed	1 p	■
			Historical buildings should only be given a properly selected new function that reflects their original functional characteristics.	1 p	☐
The new functions given to the historic building should preserve the original character of the area, respect the context of the historic structure in which it is located, and be consistent with sustainable development.	3p	■	When a building is given a new function, all architectural, ornamental, and, spatial features should be preserved. It should be remembered that buildings can take on new functions depending on their potential, provided they are compatible with their qualities. The interventions should not make it difficult or impossible to recognize the architectural ornaments and decorative elements of the original building.	1 p	■
Reuse should respect the originality, integrity, and integrity of meaning, and form of the historic building.	3p	☐			
When introducing new functions to a historic building, consideration should be given to the number of occupants, duration of use, and consistency with the original use. However, if this is no longer possible, a suitable new use with minimal alterations should be encouraged, while maintaining	3p	■	It should not be overloaded with the knowledge and new materials that the new function brings that should be designed at a level and quality that does not affect the original conditions.	1 p	■
			The planned physical interventions in the structure should not damage the structure in such a way that	1 p	■

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the original characters.				they can be changed and removed.		
Total Point:	**15 p**			**Total Point:**		**6 p**
TOTAL MAX. POINT: 12 + 23 + 17 + 15 + 6= 73/ 100 POINT						

4. Conclusion and Suggestions

Over time, socio-cultural and economic changes in societies lead to changes in production systems and consumption patterns as well as to a differentiation of comfort needs and living standards. These changes lead to a formal differentiation of structures, to destruction through abandonment or to destruction through decay. Cultural assets that need to be preserved as part of the historical process may lose their original functions depending on changing demands and needs, technological developments and environmental factors. It is important that structures that are challenged or become dysfunctional and have the characteristics of cultural properties are actively preserved in the life of the community with functions that correspond to their unique structural features. Therefore, historic buildings that reflect the lifestyle and socio-economic structure of the era as well as the original architectural forms should be adaptively reused to meet contemporary needs. The architectural features that reflect the identity of the period in which the historic buildings were constructed are the most important factor in deciding the new function, which should harmonize with the existing uses and environmental relationships around the building and provide economic and social benefits to the users.

In this study, a literature review, field research and analysis were conducted to make the necessary provisions for the sustainable protection of historic buildings with combined functions in the context of adaptive

reuse to provide an example of what should be considered during the adaptive reuse decisions of these buildings. A total of 14 buildings with combined functions were examined from 6 different perspectives. These are evaluations of the different function types of the structures, identification information, combination types, intervention types and conservation approaches during the process of adaptive reuse, adaptive reuse and/or function change, and reasons for loss of original function and repurposing according to the criteria set by national/international standards.

The main combination types in these structures are defined as follows: Mosque-Tomb, Mosque-Library, Mosque-Hankâh-Tomb, Madrasa-Tomb, Madrasa-Masjid, Masjid-Tomb, and Caravanserai-Tabhane-Store. Six of them have been preserved in their original function, but the others were equipped with other functions, such as a museum, store, store, café and library. As for the types of connection of these structures, the most common type is the connection of a window or door with a wall with intertwined entrances. When examining the types of interventions and conservation approaches during the process of adaptive reuse of these buildings, it was found that the restoration work on the buildings was carried out while maintaining the existing layouts. In most of the sample buildings, external interventions were observed on the façades and roof, while new wall extensions were mainly observed on the interior. The reasons given for the adaptive reuse and/or change of function and loss of original function of these buildings were: Legal obligations, the need for restoration, the need to keep up with changing user satisfaction, and increasing the economic value of the building.

The study identified some basic criteria for adaptive reuse by scanning international guidelines and developing a corresponding analysis method. In the proposed model, a specific scoring system was developed as a result of the evaluation, and thanks to the scores obtained, verbal and abstract expressions can be concretized. This model proposal comprises a total of 5 sub-criteria, it was developed and tested in Rüstem Pasha Caravanserai, a work by Mimar Sinan in Ereğli, Konya. It was selected as an example of the historical buildings with combined functions and examined within the scope of the research as it has been repurposed and used as a cafe/coffee house since its last restoration. With a total of 73 points, the building was rated as ideal in the context of the adaptive reuse.

Recommendations

For further studies, it is suggested that this study, which was conducted in Konya, be further developed as an example for the study of the combined functional structures in other regions with similar parameters. It is also suggested that in addition to the Rüstem Pasha Caravanserai, which has been selected and studied in detail, other buildings with combined functions should be treated in a similar way and described in detail so that the differences or similarities between them are revealed and the research contributes to the development of studies on this subject. There are many international regulations and standards for the adaptive reuse of historic buildings. However, the lack of such detailed and specialized decisions at the national level is a major shortcoming in Türkiye. This study assumes that the evaluation parameters developed for the adaptive reuse of historic buildings with combined functions can

serve as a basis for the formation of comprehensive and detailed policy decisions, standards, guidelines and similar regulations related to the adaptive reuse of historic buildings at the national level in the future.

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Preservation of Cultural Heritage in the Eastern Black Sea Region: The Historical Mansions of Trabzon

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1. Introduction

It is known that the geography where cities are located, the people living in this geography, and the traditions that make up their way of life are all effective in the development of cities into what they are today. The identity of the city is formed by the cultural heritage values that bring all of these components together (Kurak Açıcı & Temur, 2023). Historical buildings, which are among the cultural heritage values that make up the city, are the most important symbols and cultural memories of the city in which they are located. These buildings, which have cultural heritage value, convey information to future generations about the many developments and changes experienced during the period in which they were built. Since these buildings are important parts of the city, their deficiencies affect the society to a great extent. In this context, there should be an awareness of the protection of historical buildings and the buildings should be transferred to future generations (Kaymakçı, 2022). The preservation and transfer of buildings to future generations ensures that the artistic and cultural values of a society are also preserved and transferred to future generations.

The concept of conservation can be defined as extending the life of a cultural heritage building by preserving its artistic and historical values and using various conservation methods in order to transfer it to future generations without disturbing its originality (Turanlı & Satıcı, 2021). Re-functioning, one of the conservation methods, involves preserving the architectural, aesthetic, social and cultural values of historical buildings and creating new usage opportunities to meet user needs and spatial requirements. The change of function in historic buildings is a modern

understanding of conservation (Gazi & Boduroğlu, 2015). When determining the new function, the identity of the historic building and the changes that will be caused by the interventions should be taken into consideration. With a correct and appropriate re-functioning decision, the historic building can be brought back to the city (Tunçer & Ateş Can, 2022). In addition to re-functionalization, which is one of the conservation methods, historical buildings whose original function is suitable for today's use are repaired with restoration works and their sustainability with their original functions is ensured. With various conservation methods, the cultural heritage values of the city are protected by ensuring the sustainability of these buildings that form the silhouette of the city.

Many historic Turkish cities in the Eastern Black Sea Region, the subject of this study, are rapidly losing their historical texture. The fact that the topographical structures of the cities are not suitable for the production of new housing areas has accelerated the destruction of historical buildings. Conscious and planned conservation efforts realized within the framework of conservation zoning plans prepared by local governments in recent years are the best way to transfer the historical texture of the region to future generations (Başkan, 2008). The re-functioning method applied in the conservation works and ensuring the sustainability of the original function contribute to the protection of cultural heritage in the Eastern Black Sea Region.

Within the scope of the study, Trabzon/Sürmene Haşim Ağa Mansion, Trabzon/Sürmene Memiş Ağa Mansion, Trabzon/Sürmene Ahmet Hacıyakupağaoğlu Mansion, which are 19th century Eastern Black Sea

civil architectural works, are discussed. Re-functionalization of the buildings without losing their essence, ensuring the sustainability of their original functions and the cultural heritage values they preserve constitute the main fiction of the study.

2. Cultural Heritage

Cultural heritage encompasses all historically, artistically, scientifically, aesthetically, anthropologically and ethnologically significant assets that have been handed down from the past to the present and have universal value. This heritage includes immovable structures and artistically valuable movable artifacts that have been created entirely by human labor or by natural factors, but bear the traces of human creativity. In addition, handicrafts that have become the common heritage of the people, cooking techniques and customs, traditions and customs that affect daily life and have survived unchanged over time are also intangible elements that are evaluated within this scope (Diker, 2016). These cultural heritages, which are divided into tangible and intangible, have been protected by various conventions in order not to lose their values and to be passed on to future generations.

At the 16th General Conference of UNESCO held in Paris between October 17 and November 21, 1972, it was decided to establish an international convention on the protection of cultural heritage. On November 16, 1972, the "Convention on the Protection of the World Cultural and Natural Heritage" was adopted with the aim of introducing cultural and natural heritage sites of universal value to the whole world, creating an awareness to protect this universal heritage and protecting cultural and natural values that have been damaged for various reasons or

are in danger of extinction. Entering into force on December 7, 1975, this convention was ratified in Turkey on May 23, 1982 and entered into force after its publication in the official gazette in 1983 (Şentürk, 2012). In this convention, cultural heritage values are divided into 3 classes:

- Monuments: Architectural structures, sculptures, paintings, inscriptions, caves, archaeological artifacts and combinations of elements are considered in this group and these works have universal historical, artistic or scientific values.

- Building communities: The building communities in this group have universal values due to their location.

- Sites: Protected areas in this group can be man-made or natural formations, or a combination of both. Protected areas have universal values in anthropological, ethnological or aesthetic term (Demirer, 2015).

In order to understand the importance of cultural heritage management, we must first understand the value of cultural heritage, what, why, how and with whom to protect it. It has also been realized that protecting the value of cultural heritage sites contributes to the level of development of societies (Öksüz Kuşçuoğlu & Taş, 2017). Today, the cultural heritage of countries is in danger of extinction with the effect of globalization, and its values are decreasing (Gümüşçü, 2018). Countries should protect these cultural heritage values that constitute their cultural memory with various methods specified in the conventions and transfer them to future generations. The most important criterion in transferring these values to future generations is that cultural heritages should not lose their essence.

Turkey has been home to many civilizations and different cultures. Thanks to its historical past, it still hosts many historical and cultural artifacts influenced by this accumulation and these artifacts constitute the cultural heritage of our country. Having many artifacts that are eligible to be included in the world heritage list makes it obligatory to protect and preserve them in order to pass them on to future generations (Kurak Açıcı, et al., 2017). In this context, historical buildings whose original function is suitable for today's conditions are preserved by ensuring the sustainability of their functions, while buildings suitable for function change are re-functionalized by preserving their original values. Re-functionalization is an important understanding of conservation.

1.1. Conservation and Repurposing

Historical buildings are important artifacts that provide information about a society's culture, architecture, art, customs and traditions, and way of life by serving users from the moment they were built. However, today, due to rapidly increasing urbanization and population density, many historical buildings are damaged and face the danger of extinction (Kurak Açıcı & Konakoğlu, 2019). The change or disappearance of buildings that have an important role in the formation of cities over time causes the physical environment of the city to change and thus the urban memory to change. For this reason, the concept of reuse, which allows for the preservation of cultural and historical continuity in architecture, is of great importance (Yalçınkaya & Bal, 2019).

Buildings that have historical value and need to be preserved should be re-functionalized by taking into account their spatial characteristics and respecting the original state of the building. When choosing the function,

it is important that the spatial requirements of the re-functioning and the existing condition of the building can meet these requirements. In addition, the relationship between the building and its environment, its functional and spatial requirements, and its compatibility with the new function should be taken into consideration (Biber & İslamoğlu, 2023). If the re-functionalization is not in harmony with the building and the environment and is not done by respecting its essence, the objectives such as protecting the cultural heritage value of the building and ensuring its sustainability will not be achieved.

Conservation of historical buildings, keeping them alive and giving them a new function is a subject adopted by developed countries. Through conservation, not only architecture and urban planning, but also material and spiritual elements bearing the traces of societies that have existed in a certain period throughout history are kept alive. By giving these elements functions in accordance with the requirements of the age, their use value is increased (İstanbullu Dinçer & Muğan Ertuğrul, 2000). In this way, these elements are transferred to future generations.

When we look at the legal regulations throughout the history of architecture, after World War II, the Athens Declaration (Carta Del Restauro) was established in 1931 in order to protect historical cities and revitalize destroyed cities. Due to the inadequacy of the Athens Declaration, the Venice Charter in 1964 and the Amsterdam Declaration by the Council of Europe in 1975 redefined the conservation criteria. In 1979, the ICOMOS Declaration (Burra Charter) in Austria laid down its own principles. In Turkey, legal regulations on conservation were made in the 1980s and put into practice with the Law on the Protection of

Cultural and Natural Assets, which entered into force on July 21, 1983 (Uğursal, 2011). Many cultural heritage values in our country have been protected by this law, their value has been preserved and their sustainability has been ensured.

In the last decade, a conservation approach that considers rural architectural heritage and, beyond this, the built environment together with the natural environment, partly shaped by man, has gained importance worldwide. With the declaration of 2006 as the year of "cultural landscape" in Europe and the adoption of recommendations in this regard, the legal process has begun. In Turkey, although a more sensitive approach to rural architecture was adopted with the 2004 regulations, this is not clearly stated in the definitions. The protected area is still defined with a vague expression such as "cities and places subject to social life". The concept of "rural protected area" is not considered as a conservation issue in itself (Eres, 2013). However, our cultural elements in rural areas constitute our cultural memory as much as our cultural elements in the city. In our country, the buildings in the Eastern Black Sea Region are among our important cultural heritage values with the use of materials specific to the region, the creation of structures compatible with the topography of the region, and hosting many cultures in history. Importance should be given to the protection of our existing cultural heritage values in these rural areas.

3. Traditional Eastern Black Sea Houses

In the urban fabric; it is seen that the most effective structures in rural and urban centers are traditional houses. It is at the forefront with its impact on the historical environment and its structural elements that

provide continuity for Turkish people and allow them to realize their life opportunities. Traditional houses are important cultural heritage values that ensure the continuity of Turkish culture (Kurak Açıcı, 2021). Traditional Turkish house architecture is one of the most characteristic areas of Turkish architecture with its site organization, silhouette, construction material, plan scheme and aesthetic inventions. Eastern Black Sea houses are home to the most unique examples of traditional Turkish building art. No matter what kind of material is used, these houses are the product of an architecture of "harmony" with nature, people and long years of experience (Başkan, 2008). The traditional houses of the Eastern Black Sea Region stand out with a unique wooden building tradition. The main factors influencing the formation of these houses are based on natural, economic and socio-cultural structure. Among these, the climate with heavy rainfall, steeply sloping terrain, the use of locally available materials (wood and stone), layout and construction methods stand out. The economic and social structure of the buildings in the region generally has a significant impact on the interior layout and plan typology (Karakul, 2021). These features form the character of the architecture of the region.

Sümerkan (1990) stated that the main building materials used in the region were wood and stone and that these two materials were used together with various construction techniques. Among these techniques, the "filling" wall technique is unique to the region. Due to the difficult geographical conditions in the region, where road construction started in the 1970s, cultural communication was at a minimum level and learning new construction techniques became difficult (Sümerkan, 1990).

Repeated construction techniques due to geographical conditions constitute the characteristic features of the architecture of the region. The fact that the materials used in the characteristic architectural construction techniques of the region cannot provide resistance against harsh climatic conditions and are living materials creates an obstacle to the transfer of the architectural culture created by the buildings to the next generation. At this point, the issue of protecting the buildings with restoration works comes to the agenda.

While elements such as the physical qualities, built environment and settlement characteristics of the Eastern Black Sea architecture are considered as "tangible cultural heritage", cultural qualities such as cultural practices, narratives, knowledge and practices maintained by craftsmen within the building tradition and lifestyles are issues that should be addressed as "intangible cultural heritage" (Karakul, 2021).

Candaş Kahya and Sağsöz (2004), in their study on urban protected areas in the Eastern Black Sea Region, examined eight urban protected areas in Trabzon province and found that they were protected regionally but not when analyzed in terms of building specificity. When the structures in the protected areas were analyzed according to their degree of preservation, it was determined that the best-preserved area was Sürmene urban protected area no II with a preservation rate of 100% and the worst preserved area was Konakönü urban protected area with a preservation rate of 65%.

Within the scope of our study, 3 historical buildings in Sürmene, which is the district where the most importance is given to protection in the protected areas in Trabzon province, have been examined in terms of re-

functioning and protection, and the importance of transferring our cultural heritage to future generations has been emphasized.

4. Material and Method

In this study, it is aimed to reveal the current utilization status of the civil architecture examples of the Eastern Black Sea Region, which have cultural heritage value. The study is qualitative research in this respect. Sürmene Haşim Ağa Mansion, Sürmene Memiş Ağa Mansion and Sürmene Ahmet Hacıyakupağaoğlu Mansion were determined as the sample group due to the same geographical and period characteristics of the buildings in terms of their relations with each other. In this context, first of all, a literature review was conducted and literature information on re-functioning, cultural heritage and traditional Eastern Black Sea houses was included. In the next stage, the buildings were examined on site, photographed and analyzed through photographs using the on-site observation technique. Photographs of the buildings were obtained from the authors' archives. In the last stage of the study, based on all the data obtained, evaluations were made about the cultural heritage values of the buildings, the preservation of the original function and their re-functionalization. The stages of the study are given in the study structure (Figure-1).
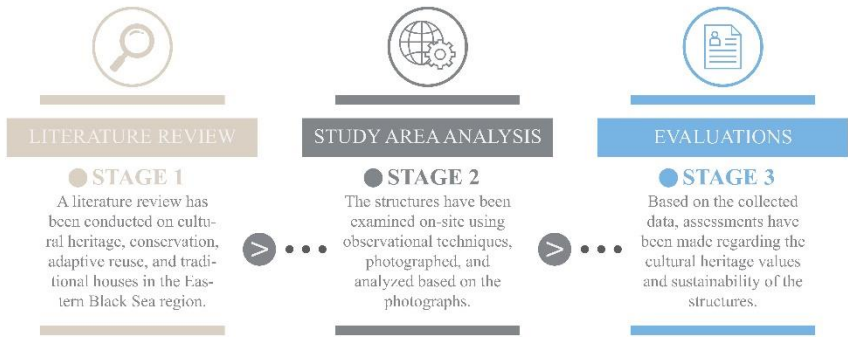
Figure 1. General Structure of the Study

5. Findings and Discussions

"Haşim Ağa Mansion", "Memiş Ağa Mansion" and "Ahmet Hacıyakupağaoğlu Mansion" from Sürmene district, which has the best degree of protection in Trabzon province, which has important cultural heritage values of the Eastern Black Sea Region, were analyzed within the scope of the study. Functional changes that these cultural heritage values have undergone in order to preserve historical memory were analyzed. In "Haşim Ağa Mansion", the residential function of the building has been preserved from the past to the present and the sustainability of the function has been ensured, while "Memiş Ağa Mansion" was transformed from a residence to a museum building, and "Ahmet Hacıyakupağaoğlu Mansion" was re-functionalized and transformed from a residence to a hotel building. The contribution of these buildings to the preservation of cultural heritage through re-functionalization and sustainability of function, which are conservation methods, were evaluated. Table 1 shows the location of the buildings.

Table 1. Location and Neighborhood of the Buildings

■ Trabzon	■ Sürmene

■ Haşim Ağa Konağı

■ Memiş Ağa Konağı

■ Ahmet Hacıyakupağaoğlu Konağı
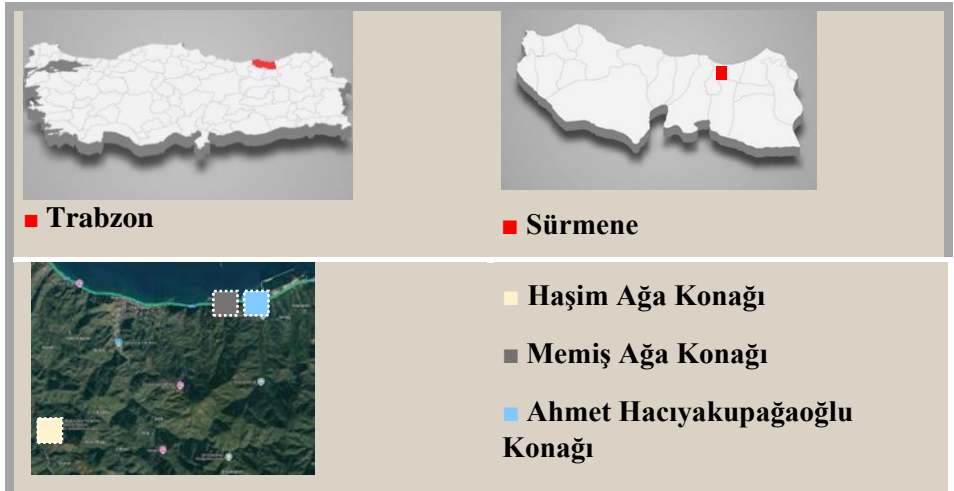
5.1. Cultural Heritage Values of the Eastern Black Sea Region

Different societies make their unique identities permanent through the structures they build. The existence of cultural elements has created a heritage understanding specific to societies. The formation of the concept of cultural heritage is made possible by the recognition and understanding of historical and cultural heritage at the local level and the development of conservation awareness (Yılmaz, 2020). Geographically, the Eastern Black Sea Region is a transition region between Eastern Anatolia in the south, the Black Sea in the north, the Caucasus in the northeast and the Central Anatolian steppes in the southwest. For this reason, the region is the intersection point of ancient civilizations that existed and disappeared thousands of years ago (Ünsal, 2010). This situation shows that there are many tangible cultural heritage values that need to be protected belonging to civilizations that have lived in the region throughout history. The sustainability of these structures, which

have survived to the present day and constitute our cultural memory, is ensured through conservation and re-functioning methods.

Trabzon, one of the important transit points of the Eastern Black Sea Region, has a rich content that preserves the traces of its long historical past. Trabzon, which has the characteristics of a port city, bears the traces of political, economic and social fluctuations throughout history, from the first trade colony settlement named Trapezus, to Trebizond, the capital of the Komnenos Dynasty, which established close ties with Byzantium, to Trabzon, which came to the fore as a trade and supply center during the Ottoman period. In this context, Trabzon has served as a stage that reflects the social structure of the states it has ruled in every period in its urban fabric (Üstün Demirkaya, 2014). Trabzon, which has been home to many cultures throughout history, hosts civil architectural works, inns, baths, walls, monasteries, mosques, churches and many monumental structures, which are tangible cultural heritage values, in its physical geography. The sustainability of these cultural heritage values is ensured through various conservation methods. With re-functionalization, cultural heritage values gain functions such as museums, hotels, exhibition areas, commercial centers, etc. in a way to adapt to today's conditions, apart from their original functions. With the sustainability of the function, which is another conservation method, the building is preserved with its original function.

In the protection and sustainability of cultural heritage values in the city of Trabzon, Sürmene region stands out especially with its civil architectural works. Against the danger of the disappearance of cultural memory, cultural heritage values have been registered and taken under

protection by the Board of Protection of Historical Monuments. In this context, "Haşim Ağa Mansion", "Memiş Ağa Mansion" and "Ahmet Hacıyakupağaoğlu Mansion", which carry the culture of the 1800s to the present day in Sürmene region, are registered immovable cultural assets. While Haşim Ağa Mansion has survived to the present day by preserving its original function as a residence, Memiş Ağa Mansion has been re-functionalized and gained the function of a museum, and Ahmet Hacıyakupağaoğlu Mansion has been re-functionalized and carried the traces of the past to the present day with its hotel function. Re-functionalizing the buildings and ensuring the sustainability of their functions not only protects our cultural memory, but also contributes to tourism by highlighting the history of the city.

5.1.1. Sürmene Haşim Ağa Mansion

Haşim Ağa Mansion is located in Trabzon province, Sürmene district, Gültepe village, 130 block, parcel 2. Built in 1895 by Hüseyin Ağazade on behalf of his grandfather Haşim Ağazade, this mansion continues its existence in the historical texture of the city with its original function today. The mansion built by Hüseyin Ağazade is named as "Haşim Ağazade Mansion with 99 Windows". The 450 m² mansion is one of the largest mansions in the region. Since its construction, the mansion has only been used as a hospital by the Russians for 4 months during the Russian invasion of the Black Sea Region, but otherwise it has been preserved with its original function until today. It is stated by the mansion owners that the mansion was restored by Zeki Efendioğlu, the grandson of Hüseyin Ağazade, between 2003-2004. The mansion is under the protection of the Cultural and Natural Heritage Protection

Board. The mansion, which has survived to the present day without being damaged with its original function, is an important cultural heritage value for the Eastern Black Sea Region. Identification information of the building is given in Table 2.

Table 2. Sürmene Haşim Ağa Mansion Identity Information

IDENTITY INFORMATION	FACADES
Building: Haşim Ağa Mansion **Location:** Trabzon/Sürmene **Neighborhood:** Gültepe Village **Block no:** 130 **Parcel no:** 2 **Number of floors:** 2 **Year of construction:** 1895 **Original function:** House **Current function:** House **Building material:** Wood and stone **Construction technique:** Stone-cut wall technique and wooden framework with eye-filling technique	

The building bears the characteristics of traditional Eastern Black Sea houses. While the cut stone wall technique was used on the majority of the ground floor in the façade characteristic, the wooden framework with eye-filling technique was used on the second floor of the building (Figure 2). Roof eaves extending up to 100 cm protect against the harsh Black Sea climate, while tiles are preferred for the roof cover.

Figure 2. Haşim Ağa Mansion Facade Visuals (Dara Yükünç, 2024)

As in most of the traditional Eastern Black Sea houses, there are two main entrances. This double entrance, which is an expression of the

culture of haremlik and selamlik, is located on the east and west facades and forms a symmetrical plan. This symmetry is continued by two separate wooden staircases leading to the upper floor located at the continuation of both main entrances. In addition to the main entrances, there are external guest entrances to the guest rooms on both facades. In this way, privacy is provided within the mansion. While the main entrance doors are double winged, the guest entrance doors are single winged with a width of 60 cm. The third entrance on the north facade was used as a barn entrance. On the ground floor, there are 4 rooms, 1 cookhouse, wet areas and two entrance sofas (Figure 3).

Figure 3. Ground Floor Rooms (Dara Yükünç, 2024)

One of these rooms is the main room where important guests were hosted. The ceiling and walls of this room have decorations painted with root paint. There is also a decorated stone fireplace in this room. The walls of the rooms are covered with horizontal and vertical chestnut wood planks with an average width of 15 cm each. Both entrance lounges lead to the cookhouse. There is a stone fireplace and a cooking oven in the cookhouse. There are arch-shaped decorations on the fireplace and cooking oven (Figure 4).

Figure 4. Ground Floor Cookhouse, Wall and Ceiling Decorations in the Head Room (Dara Yükünç, 2024)

The upper floor of the mansion is reached by a double-sided staircase and the symmetry continues in the plan. In the upper floor plan, there are 6 rooms, 1 cookhouse, wet room, 2 entrance sofas and 1 large sofa. There is a transition from the kitchen to the living room and from the living room to the rooms. With the effect of the haremlik selamlık culture, there is a transition area between the 2 guest rooms side by side on the upper floor and there is a coffee cooking fireplace in this room. It is stated that the treats were served to the guests from this room. In the cookhouse, there is a stone fireplace at the continuation of the lower floor (Figure 5).

Figure 5. Upper Floor Cookhouse, Coffee Fireplace and Sofa (Dara Yükünç, 2024)

The mansion reflects the Eastern Black Sea building and living culture with its construction technique, material properties, plan scheme and functional features. The preservation of the building in its original form and the fact that it has survived to the present day and continues to take

place in the city silhouette is an important issue for the protection of our cultural memory.

5.1.2. Sürmene Memiş Ağa Mansion

Memiş Aga Mansion is located in Trabzon province, Sürmene district, Balıklı neighborhood, Kastel Location, 458 block, 10 parcel. The mansion bears the characteristics of traditional Sürmene houses with its structure and plan features. Built in 1854-1856, this mansion was restored in 2000 and has survived to the present day and is one of the important works of Sürmene traditional residential architecture (Kurak Açıcı, et al., 2018). The mansion is under protection by the Cultural and Natural Heritage Protection Board. Today, it is not used as a residence, which is its original function, and it is used as a museum building with re-functionalization without disturbing the essence of the building. The re-functioning method applied in the building ensures that the cultural heritage values of the building are preserved and transferred to future generations. Identification information of the building is given in Table 3.

Table 3. Sürmene Memiş Ağa Mansion Identity Information

IDENTITY INFORMATION	FACADES
Building: Memiş Ağa Mansion **Location:** Trabzon/Sürmene **Neighborhood:** Balıklı **Block no:** 458 **Parcel no:** 10 **Number of floors:** 2 **Year of construction:** 1856 **Original function:** House **Current function:** Museum **Building material:** Wood and stone **Construction technique:** Stone-cut wall technique and wooden framework with eye-filling technique	

The mansion has traditional Eastern Black Sea facade characteristics. In the two-story mansion, the ground floor is completely built with cut stone wall technique and all facades except the north facade facing the sea on the upper floors. On the north facade facing the sea on the upper floor, wooden framework with eye filling technique was used. There are wide roof eaves against the harsh Black Sea climate. Since Memiş Ağa Mansion, whose ground floor is used as a police station, is a defense structure, it is noteworthy that there are only small ventilation windows on the facades other than the upper floor family living area (Figure 6).

Figure 6. Memiş Aga Mansion Facade Visuals (Dara Yükünç, 2024)

The ground floor of the mansion functions as a police station and dungeon, while the upper floor is the living area. There are three entrances on the ground floor; east, west and north facades. When you enter from the east and west facade entrances, you encounter a small entrance area (Abidin, 2018). The section with the police station and dungeon rooms on the ground floor is entered from the north entrance facade and separated from the other parts of the ground floor by doors. The remaining parts of the ground floor include a cookhouse, a sofa and 2 rooms (Figure 7).

Figure 7. Ground Floor Police Station and Living Area Entrance (Dara Yükünç, 2024)

The cookhouse covers the southern half of the ground floor. The three facades of the cookhouse are surrounded by wooden interior walls and the south facade is the stone body wall of the building. In the southern part of the cookhouse, there is a hearth section separated by an arch, whose chimney rises to the roof. It is thought that the rooms on both sides of the cookhouse section belonged to servants and officials (Kurak Açıcı, et al., 2018) (Figure 8).

Figure 8. Cookhouse and Hearth (Dara Yükünç, 2024)

The upper floor of the building is the living area and is accessed by a wooden staircase. There is a hatch in the floor above the wooden staircase and with this hatch, the living area is cut off from the lower floor. On the ascent to the upper floor, ornamented wooden stair railings, a large sofa and rooms welcome you. The 2 facades of the sofa are covered with horizontal wooden coverings at a height of 40 cm. On the south facade, there are arched and carved wooden doors leading to the harem section (Figure 9).

Figure 9. Upper Floor Sofa, Stair Railings and Access Doors to the Harem Section (Dara Yükünç, 2024)

On the north-east and north-west facades, there are two rooms entered through arched wooden carved doors. The ceilings of these rooms are decorated with wooden ornaments (Figure 10). The room on the north-west facade is the main room and there is a stone fireplace in the room. The heavily wood-worked ceiling system in the head room is quite special in terms of its function, design and ornamentation. There are wooden flare motifs in the center of the surface formed by decorated slats and floral motifs. The wooden core in the center of the ceiling is movable. It is moved manually and acts as a propeller in the room as a result of its long rotation on the inclined groove (Yıldız, 2023).

Figure 10. Fireplace and Ceiling Detail of the Head Room, North East Room Door and Wall Decorations (Dara Yükünç, 2024)

The door on the south facade of the Sofa section leads to the back section, which is thought to have been used as a harem. In this section, there are 2 rooms and a bath section, which is placed in the middle of both rooms and accessed by steps. This bath section coincides with the

level of the hearth section on the lower floor. The heat from the hearth area helps to heat the upper bath section. The rooms have stone fireplaces, stone carved eyes and built-in wardrobes with carved wooden doors. The entrance doors of the rooms have an arch form (Figure 11).

Figure 11. Haremlik Section Rooms and Hamam (Dara Yükünç, 2024)

Memiş Ağa Mansion, which has the traditional building features of Sürmene region in the Eastern Black Sea region, is an important cultural heritage value that preserves its historical texture with the re-functioning method. In addition, the building is also an important point for tourism in terms of reflecting the cultural characteristics of the region. The protection of the building with its contribution to tourism and the cultural heritage values it carries is an important issue for the cultural memory of the Eastern Black Sea Region.

5.1.3. Sürmene Ahmet Hacıyakupağaoğlu Mansion

Ahmet Hacıyakupağaoğlu Mansion located in Trabzon province, Sürmene district, Güneşli location, 257 block, parcel 1. Memiş Aga's brother Ahmet Aga built this mansion on behalf of his father Yakup Aga. Although the exact year of construction is unknown, it is thought to be around 1800. The building is under the protection of the Cultural and Natural Heritage Conservation Board. While the building was a residential building in its original function, today it has been re-

functionalized as a hotel and restaurant. In this way, the cultural heritage values of the building have been preserved and transferred to future generations. The mansion is a typical example of Sürmene traditional houses with its plan analysis, use of materials and façade characteristics. Identification information of the building is given in Table 4.

Table 4. Sürmene Ahmet Hacıyakupağaoğlu Mansion Identity Information

IDENTITY INFORMATION	FACADES
Building: Ahmet Hacıyakupağaoğlu Mansion **Location:** Trabzon/Sürmene **Neighborhood:** Güneşli **Block no:** 257 **Parcel no:** 1 **Number of floors:** 2 **Year of construction:** 1800 **Original function:** House **Current function:** Hotel and Restaurant **Building material:** Wood and stone **Construction technique:** Masonry wall technique and wooden frame with triangular filling technique	

The facade character of the mansion bears the traditional Eastern Black Sea facade features. The building, which uses masonry stone wall technique on the ground floor and wooden frame wall technique with triangular filling on the upper floor, has 2 floors as in many traditional Eastern Black Sea houses (Figure 12). The southern part of the ground floor is buried in the ground and is not in use. The main entrance of the ground floor is located on the north facade. Apart from this, a door on the east facade provides access to the ground floor. It is stated that this door leads to the barn section in its original use.

Figure 12. Hacı Yakupağaoğlu Mansion Facade Visuals (Dara Yükünç, 2024)

At the ground floor entrance, a sofa is encountered and rooms are located on the east and west facades of the building. The door opening to the south façade of the building provides access to the barn section in its original function. In its present function, it is used as a warehouse. At the entrance, there is a staircase to the upper floor without landing against the east wall. It is thought that the doors and stairs in this section have been altered in history. While the floor was earthen in its original use, in today's hotel function, the floor is covered with stone (Figure 13). The wet room in the room on the west facade of the ground floor, which was on the north facade, is located on the south facade in the hotel function.

Figure 13. Ground Floor Entrance Hall (Dara Yükünç, 2024)

The main living floor is accessed from the main entrance on the ground floor, either by stairs or by climbing the stone steps to the high entrances on the east and west facades of the building. After accessing the main living floor from the outside, the entrance sofas are reached on both sides. There is a cookhouse at the midpoint of both sofas. Although the

cookhouse section has a high ceiling height, wooden beams are load-bearing. There are 2 rooms on the south facade of the building, east and west of the cookhouse. There is a passage from these rooms to both the cookhouse and the entrance hall. In this way, while food service can be served directly from the cookhouse to the rooms, direct access to the rooms can also be provided from the entrance lounges without transition to the cookhouse. These two rooms contain bath sections. In addition, there are stone fireplaces in both rooms. The cookhosue and the section where these rooms are located have gained the function of a restaurant in today's hotel function (Figure 14).

Figure 14. Cookhouse, South Facade Room and Hamam Section (Dara Yükünç, 2024)

While some partition walls were removed in the hotel function on the main living area floor of the building, the doorways and wall boundaries of these sections were preserved with wooden posts. There is a sofa area at the transition from the kitchen to the north side. From this sofa there are 2 rooms on the east facade, 2 rooms on the west facade and access to the ground floor by stairs. In today's hotel function, these rooms are used as hotel rooms. The sofa provides a lobby function (Figure 15).

Figure 15. North Facade Sofa and Rooms (Dara Yükünç, 2024)

The building, which has been taken under protection with re-functionalization, is at an important point with its cultural heritage values. Apart from its original function, the building is used as a commercial area with the function of a hotel, contributing to tourism and carrying the Eastern Black Sea cultural heritage values to future generations. Although there are some changes in the building due to the change of function, it is generally preserved and continues its existence in the city silhouette.

6. Conclusion and Suggestions

The sustainability of the architecture, which serves as a means of transmitting the values of the people and the city that have lived within the historical fabric of the region for centuries, is of paramount importance for countries, cities, and individuals. The traces of the places where people live are traced with the continuity and sustainability of cultural heritage. It is also a necessity for the urban fabric to reach from centuries ago to the present day and to be transferred to the future, and to gain historical and environmental awareness.

The Eastern Black Sea Region has hosted many civilizations due to its geographical location and hosts important cultural heritage values bearing the traces of these civilizations. Trabzon city, which is one of the

important regions of the Eastern Black Sea region, and Sürmene district stands out as the region that best preserves its cultural heritage values. The architectural structures, which are among the tangible cultural heritage values in the region, have been re-functionalized and their sustainability has been ensured by providing new functions suitable for today's conditions, apart from their original functions. In addition, the original functions of architectural cultural heritage values have been preserved and brought to the present day. While preserving the traces of the cultural memory of the region, this situation has also ensured the transfer of cultural heritage values to future generations.

While the original function of Sürmene Haşim Ağa Mansion is preserved, Sürmene Memiş Ağa and Sürmene Ahmet Hacıyakupağaoğlu Mansions continue to exist through re-functioning. The past building culture, living culture, handicrafts, social and political characteristics of the region are passed on to future generations through the preservation of the buildings. The buildings also contribute to tourism as they reflect the culture of the region and become a popular destination for local and foreign tourists.

In general, the preservation of the buildings in the city silhouette contributes to the transfer of the cultural memory of the region to future generations without disappearing.

Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article. There is no conflict of interest.

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Continuities and Discontinuities in the Spatial Layout of Houses in Anatolia from the Ottoman Empire to Türkiye

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1. Introduction

The aim of this study is to understand the transformation process of Anatolian House from the classical age of Ottoman Empire to the end of 20th century of modern Turkey. This duration covering a couple of centuries, is divided into four phases. If the 1st phase is empire's classical age considered as the period from the 16th century to the early 19th century, 19th century to the first quarter of 20th century is the 2nd phase, the period of Ottoman Westernization which differs than the previous with new developments. Then to about 1950's of Turkey can be seen as the 3rd phase with many distinctive features. Finally, the period from 1950's to nowadays exhibits a new social structure as the 4th phase. From one to the next period, particularly from the 2nd phase to the 3rd, as in all areas of life, there was a break in house culture from one point of view, so there is a discontinuity, whereas there is a continuity considering the daily life and rituals did not change completely even if there was a new social system, spatial layout and construction system of houses from another point of view. This study tries to seek the traces of what changed, what did not in the house culture of Anatolia. Therefore, it is scoped from the beginning of 19th century towards the end of 20th in time, from the typical houses of Ottoman Anatolia to the apartment flats of modern times. However, the scope in place should also be strictly defined, since Anatolia is very large area with a variety of cultural regions where there were different idiosyncratic developments which does not allow the researcher to achieve common deductions. Thus, the place can be limited with the cities where the change is clearly observed, so the center, the capital of empire or the big cities such as Bursa, Bolu, Tokat and

Kütahya which were in close contact with the center through the trade network of Anatolia, are among the right choices.

Kütahya has been chosen as the case of this study, which was a significant city in the classical age of Ottoman Empire for several reasons. First, since it was situated at the crossroads of major trade routes, connecting the nearby regions to central Anatolia, the city became an important center for commerce and trade. This position facilitated the movement of goods, including textiles, spices, and ceramics, making it a bustling hub for merchants. Kütahya hosted vibrant markets, where traders from various regions converged. Markets were the centers for exchange of local products, not only with famous ceramics, but also imported goods from different parts of the empire (Özbudak, 2018). In this way the city contributed to the Ottoman treasury through taxes and duties on goods passing through, making it an economically valuable city for the empire. The presence of caravanserais provided essential services, and this infrastructure enhanced the efficiency of trade and contributed to the city's economic vitality. Therefore, the city served as a provincial capital and its geographical position allowed for effective defense and military mobilization as well. Kütahya was involved in various military campaigns, particularly during conflicts with neighboring states. Briefly, it has been always open to change, but a safe and wealthy city at the time, with which the city inherited many examples from all periods, early 19th century houses, Multi-Family Mansions of the late 19th century, Family Apartments of the 1950s and today's apartment flats naturally.

2. Methodology

This study deals with the house as an architectural object which can only be comprehended within the history like all other human creations. Therefore, the approach to history, on which the method of this study is based, should be briefly explained. According to this approach, which has been of Dilthey and Weber rooted to Vico, Herder, and the German School of History, every period of history establishes its own order and sets the legal, political and economic institutions, which shape this order. They only apply for that period. Thus, each period and all human communities can be perceived within their individualism. It is individualism, not generality which determines the nature of history. As there is no law or idea which gives perpetual consistency to history, these individual coherences do not follow one another in a linear way. In this case the only solution is to take each period with its specific conditions, its individualism and its uniqueness (Özlem, 2012). This can be done by conceiving a particular period's economic, legal and political systems as being the main factors which determine its characteristics. As every period inherits certain characteristics of the preceding period, it adds novelties to these characteristics and perhaps creates newer ones. Thus, this is exactly the reason why each period needs to be understood within its own uniqueness.

Dilthey and Weber offer a historical methodology and interpretation on how historians and social scientists approach the study of history. Dilthey's approach centers on the idea of understanding, which emphasizes the importance of empathetically grasping the subjective experiences and intentions of historical actors (Dilthey, Jameson, 1972).

According to him, historical knowledge is not just about uncovering objective facts but involves interpreting the experiences and meanings that individuals attributed to their actions and contexts. He argued that the historian's task is to reconstruct the inner life of past individuals by understanding their worldview, values, and emotions. Dilthey's method contrasts with the positivist approach, which seeks to apply the scientific methods of the natural sciences to historical study. He criticized positivism for neglecting the subjective dimension of human experience. Instead, Dilthey proposed that history should be understood as a historical world where the meanings and interpretations of human actions are central. This involves a hermeneutic process, an interpretive approach where understanding is achieved through the reconstruction of historical context and the subjective experiences of the past.

Weber approaches the study of history and social phenomena with a focus on the concept of ideal types and the method of understanding. Weber's interest lay in understanding the role of ideas, values, and cultural factors in shaping social action (Roth, Weber, 1976). For him, history is not just a chronological account but a narrative that must be interpreted in light of the underlying social and cultural forces. His concept of ideal types refers to theoretical constructs that help historians and social scientists analyze complex social phenomena by highlighting key characteristics and trends. Weber's methodology involves a detailed analysis of how various factors, including economic, religious, and political forces, interact to shape historical developments. His approach examines how collective beliefs and values influence social structures and historical change.

Both emphasize the importance of understanding the subjective and interpretive dimensions of history. Dilthey's hermeneutics are rooted in the intimate, while Weber's social analysis considers broader cultural and structural factors. Dilthey's focus on the individual's inner life provides a depth of understanding of personal motivations and meanings, Weber's analysis on the other hand, offers a framework for understanding historical trends and developments on a larger scale. In constructing history, the former encourages a deep, empathetic engagement with meanings, the latter promotes a systematic analysis of social and cultural forces.

Anatolian houses took shape under specific conditions. Naturally, the Ottoman was faced with the knowledge and experiences accumulated in the region prior to their settlement, and they, too, added their own accumulations to the region. These accumulations, which saw many modifications and developments became specific to the period. Each situation became a new entity which was a product of its period, and it can only be understood in the historical conditions of the new period.

3. Tradition and Change

Tradition refers to the customs, practices, beliefs, and values that are passed down from generation to generation within a society or group. It encompasses both tangible elements, like ceremonies and artifacts, and intangible elements, like stories, languages, and social norms. The continuity of rituals is a key aspect of tradition. Rituals are structured, often symbolic actions or ceremonies performed on specific occasions, and they help to maintain and reinforce cultural values and social cohesion (Bergesen, 1999). When rituals are consistently performed over

time, they contribute to the stability and perpetuation of a tradition. Tradition and the continuity of rituals are interconnected with four aspects.

Preservation of Identity: Rituals often embody the core values and beliefs of a tradition. By performing these rituals regularly, a community maintains a sense of identity and continuity with its past. For example, religious ceremonies, national holidays, or cultural festivals reinforce shared values and historical narratives.

Transmission of Knowledge: Rituals serve as a means of transmitting knowledge and skills from one generation to the next. Through participating in or observing rituals, individuals learn about their cultural heritage, historical context, and social norms.

Social Cohesion: Engaging in shared rituals helps to build and reinforce social bonds within a community. It fosters a sense of belonging and collective identity, as individuals participate in common practices that symbolize their shared heritage.

Adaptation and Change: While the continuity of rituals is crucial for preserving traditions, traditions themselves are not static. Rituals may evolve or adapt over time in response to changing social, cultural, or historical contexts. This adaptability allows traditions to remain relevant while still honouring their historical roots.

Tradition relies on the continuity of rituals to maintain and pass down cultural and social norms. Rituals act as living expressions of tradition, helping to sustain and reinforce collective identity and heritage over time. Since tradition is not a static entity but a dynamic process that evolves over time, the change in tradition reflects how societies adapt and

reinterpret inherited practices in response to new circumstances and values. Traditionally, customs and beliefs were passed down through generations with little alteration, serving as a stabilizing force in cultures (Lee, 2005). However, as societies encounter new ideas, technologies, and social changes, traditions often undergo transformation. This evolution can manifest in various ways. For instance, globalization exposes societies to diverse cultural influences, leading to the blending or modification of traditional practices. Similarly, shifts in social values can prompt re-evaluations of traditional norms and roles. Traditions that were once rigid may become more flexible, incorporating new elements while retaining core aspects that continue to hold meaning. Understanding tradition as an evolving phenomenon allows for a recognition of its relevance in contemporary contexts.

4. Continuities and Discontinuities in the House Culture of Anatolia

The transformation of Anatolian houses from 19th to the 20th century illustrates a compelling narrative of continuity and discontinuity in household routines and space usage habits. The houses epitomized by their courtyard and hall-centric layouts were not just architectural entities but integral components of daily life, deeply intertwined with the socio-cultural fabric of their time. In the 19th century, Anatolian houses in the regions such as Safranbolu, Kula, Amasya, Bursa, Tokat, Antalya and Kütahya typically feature timber-framed structures, stone foundations, and intricate woodwork. The layout often includes a courtyard with a kitchen and a toilette, and a paved entrance with the rooms for storage on the ground floor, and a row of multi-functioned rooms along a hall on the upper floor. These spaces were used for various daily activities, including

cooking, socializing, and working (Asatekin, 2005). The hall or main living area was typically a multi-functional space where the family gathers for the daily activities like eating. Daily practices in Anatolian houses were deeply rooted in communal and familial interactions. Meals were a central aspect of family life, often prepared and shared in the open spaces. The layout facilitates social cohesion, with extended families often living together or in proximity, fostering strong family bonds and communal support networks. Seasonal changes were influencing space usage. During the warmer months, activities move to the courtyard or the open hall to take advantage of natural light and ventilation. In contrast, during the colder months, the family would gather in the centrally heated rooms, where a stove provided warmth and a place for eating.

Transformation was driven by a combination of socio-economic, political, and cultural shifts, in other words westernization, the dissolution of Ottoman Empire, the establishment of Turkish Republic, and the subsequent modernization efforts led to a noticeable discontinuity in architectural practices. There was a significant shift towards new construction techniques, materials, and styles, reflecting the broader trends of urbanization. Among many changes, the introduction of reinforced concrete as a primary building material and the introduction of motor vehicles were noticeable. This allowed for the construction of multi-story buildings and led to the opening of large roads. As a result, traditional neighbourhoods began to be replaced by new urban layouts. Additionally, the socio-economic transformation of Anatolia played a critical role in the discontinuity. Migration from rural areas to urban centers increased demand for housing, prompting rapid and large-scale

construction. This urban sprawl often disregarded the architectural heritage and led to the proliferation of apartment blocks, which contrasted sharply with the traditional housing (Gökçe, Chen, 2014). The focus shifted from the houses to constructing apartment flats to accommodate the growing urban population.

The transition to the 20th century brought significant changes in space usage and daily practices as well. The disappearance of courtyards and halls significantly impacted daily practices. Communal spaces became limited, and the emphasis shifted towards individual living units, reflecting the changing socio-economic dynamics and the rise of nucleus families. New houses often lacked the flexible, multifunctional spaces of traditional houses. Kitchens, living rooms, and bedrooms were clearly delineated, reducing the adaptability of spaces for different daily activities. The loss of communal areas also meant a decline in extended family living arrangements and a shift towards more isolated and individualized lifestyles. The focus on privacy and individual space became more pronounced, reflecting broader cultural shifts towards individualism and away from the communal living practices of the past.

However, the essence of Anatolian domestic life continued to be a vital aspect of cultural heritage through the habits of daily life, rituals, practices and the interiors and space use despite the 20th century transformations. For instance, the act of sharing meals remained a cornerstone of daily life. Traditional dishes, often prepared from scratch using locally sourced ingredients, are still commonly enjoyed by family members gathered around a communal table. The preparation and consumption of the meals as a traditional practice, as a communal

cooking and eating activity reinforced family bonds and cultural continuity. Secondly, the importance given to the main room in a typical Anatolian house, remained almost the same for the living room of a family apartment flat of 1950s (Kerestecioğlu, 2008). Main room was the patriarch's room for the guests and business talks. Likewise, the living room served the same but with the inclusion of wife this time. Both were kept clean, nicely decorated, well-furnished, and daily activities did not happen in there. Moreover, the hall as the communal space of family in 19th century, is the family room of apartment flats in 20th century, where the family members gather, chat, drink tea or coffee, watch the TV and even eat the dinner in wintertime, which indicates preserving a connection to the traditional arrangements.

Many Anatolian households incorporate traditional crafts into their interiors. Items such as handwoven rugs, embroidered textiles, and handcrafted pottery are not only decorative but also functional, reflecting a deep appreciation for craftsmanship and heritage. These items often serve both practical purposes and as symbols of cultural identity. Anatolian interiors often feature traditional elements such as low seating arrangements, ornate wooden carvings, and textiles with traditional patterns. These elements are both functional and symbolic, creating a space that reflects cultural heritage and historical practices. Certain daily rituals have persisted, such as the practice of morning coffee preparation and consumption, which holds social and cultural significance. The ritual of making Turkish coffee is not just about the beverage but also about the interaction and conversation that accompany it.

For many families, religious practices are an integral part of daily life. This might include setting aside time for prayers, observing fasting periods such as Ramadan, and participating in religious festivals. The home often serves as a space for these rituals, with dedicated areas for prayer and religious study. In some Anatolian homes, there are specific areas set aside for ceremonies and rituals. For instance, a designated corner or room might be used for religious practices or special occasions, preserving the traditional use of space for cultural and spiritual purposes. Traditional festivals and seasonal celebrations are marked with specific rituals and practices that involve the entire household. For example, during major holidays like Eid or local festivals, homes are often decorated, special foods are prepared, and traditional ceremonies are observed. These practices provide a link to ancestral customs and reinforce cultural identity.

5. Four Phases of Transformation in the Spatial Layout of the Houses

Since the time span, from the classical age of Ottoman Empire to the end of 20th century of modern Turkey, covers a couple of centuries, is divided into four phases. As it was mentioned above, if the 1st phase is the empire's classical age considered as the period from the 16th century to the early 19th century, 19th century to the first quarter of 20th century is the 2nd phase, the period of Ottoman Westernization which differs than the previous with new developments. Then to about 1950's of Turkey can be seen as the 3rd phase with many distinctive features. Finally, the period from 1950's to nowadays exhibits a new social structure as the 4th phase. Besides, the study's approach, based on the historical

methodology of Dilthey and Weber, is to understand and interpret both the household's routines and rituals at each period, and the historical developments on a larger scale. Therefore, everyday life in relation to social values is illustrated by taking the risk of filling the gaps with the author's empathy, while changes in society like family type and technological developments like the new kitchen equipment are included in their own historical context.

5.1 Everyday Life in a Kütahya House in the Classical Age

Household routine was marked by a mix of traditional practices and structured roles in the classical age of Ottoman Empire. The day typically begins early by the Islamic call to prayer, which signaled the start of the day, and the family would wake up before. Morning meal often consisted of simple, easily prepared foods such as bread, cheese, olives, and sometimes honey or jam. In wealthier households, breakfast could be more elaborate, including various pastries and fresh fruit. The breakfast was most probably being taken by the inclusion of all family members coming before the patriarch appears, and sitting cross-legged around a low tray on a wooden platform called seki, a special part of the hall, in good weather conditions (Figure 1).
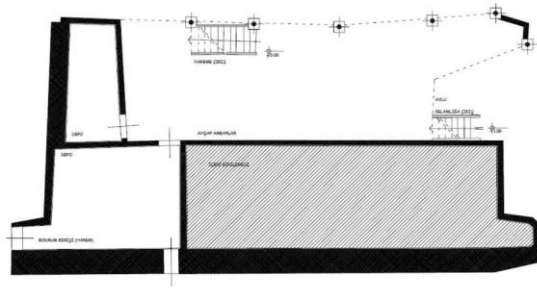
Ground Floor Plan
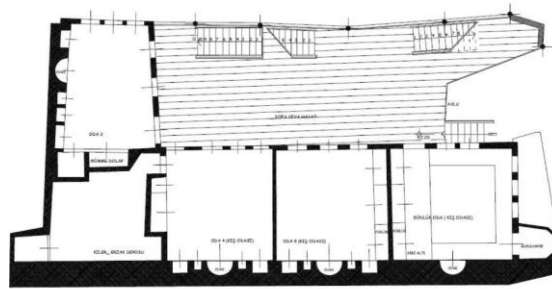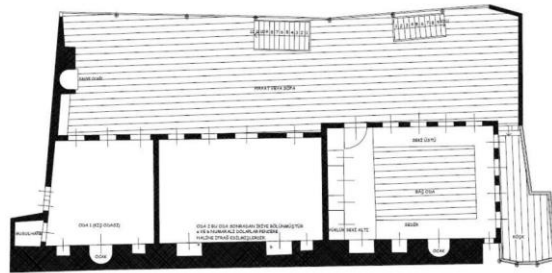
First Floor Plan

Second Floor Plan

Figure 1. Plans of Macar House from the 18th Century (drawn by the students; Ezgi Eda Eltutan, Janset Tezcanlı and Yaşar Yasin Opşin)

It was possibly in the main room in wintertime. Women manage the household, includes preparing meals, maintaining the cleanliness of the home, and overseeing the care of children (Melek, 2004). They often had separate quarters from the men, known as the harem, where they conduct

Ground Floor Plan

First Floor Plan

Second Floor Plan

Figure 1. Plans of Macar House from the 18th Century (drawn by the students; Ezgi Eda Eltutan, Janset Tezcanlı and Yaşar Yasin Opşin)

It was possibly in the main room in wintertime. Women manage the household, includes preparing meals, maintaining the cleanliness of the home, and overseeing the care of children (Melek, 2004). They often had separate quarters from the men, known as the harem, where they conduct

their daily activities. Meals were prepared in the kitchen, a one floor annex adjacent to the house on the ground floor or separate in the courtyard, which could be equipped with a stove or fireplace, and women were spending considerable time for cooking. Lunch was often the most substantial meal of the day. In wealthier households, lunch could be a social occasion with guests. Women also attend to daily chores like laundry, which was done by hand and often involved washing clothes in a communal area or courtyard. In an active social life, women might have visitors in the women's quarters, and there were often gatherings for tea or conversation. Men might visit friends or relatives or engage in business discussions in the main room. Dinner was often a quieter family time, though it could also be an occasion for socializing of household. The evening pray was performed just after sunset, and families might gather for this religious ritual. In wealthier households, entertainment could include storytelling, music, or poetry recitations. The presence of musicians or storytellers was not uncommon in affluent urban houses. While boys from wealthy families often attended madrasas for the education, since this was not allowed to girls, they might learn reading, writing, and other skills from family members or tutors at home. As night approached, families would prepare for bed simply by taking the cushions and pillows from the cupboard and laying them on the floor. Wealthy urban households often employed servants to help with domestic tasks. These individuals would have their own routines, working in roles such as cooking, cleaning, or serving and accommodated on the mid floor of three storied houses. Urban household routines in the Ottoman Empire were characterized by a structured

approach to daily life, with distinct roles for men and women, a focus on religious practices, and a blend of social and domestic activities.

5.2 Everyday Life in a Multi-Family Mansion in the Late Ottoman Period Kütahya

In the late 19th and early 20th centuries, multifamily mansions in urban centers like in Kütahya, are significant residential buildings. These were typically housed by large families, consisted of sections with separate entrance doors, one for the patriarch, others for the married sons (Fig. 2). They were not row houses, one mansion under one roof, constructed at once or the mansion was divided into sections later. Whereas the ground floor is separated, upper floors have common spaces for the whole family to come together reflecting the social and cultural norms of the time. Patriarch is still the father of family, has the domination and respect as a figure. However, the authority of him might have been relatively shared with the sons. The house is not a single house, but a multi-sectioned single house and sons are the patriarchs of their families in own sections. There is a main room for each son-patriarch at each section. This indicates that there was a slight change in family type as well, and therefore the daily routine of households was differentiated than the classical age. Since there are common spaces on the upper floor, breakfast of the morning routine might be a communal experience for the families.
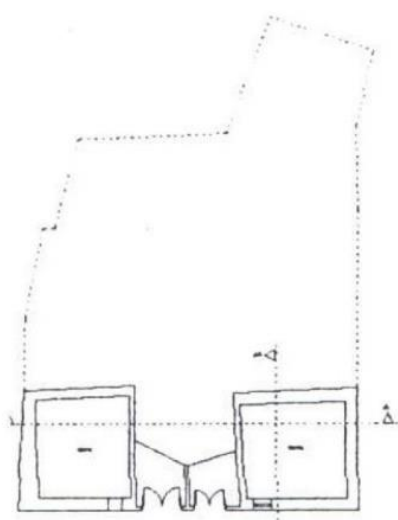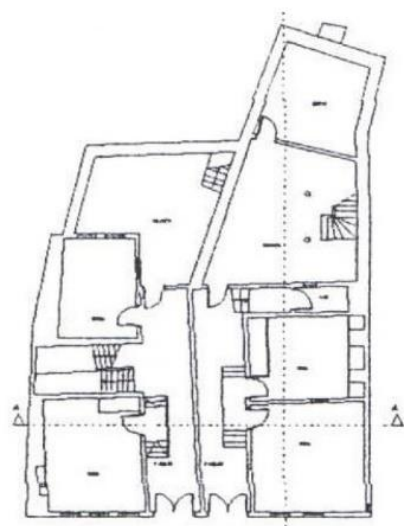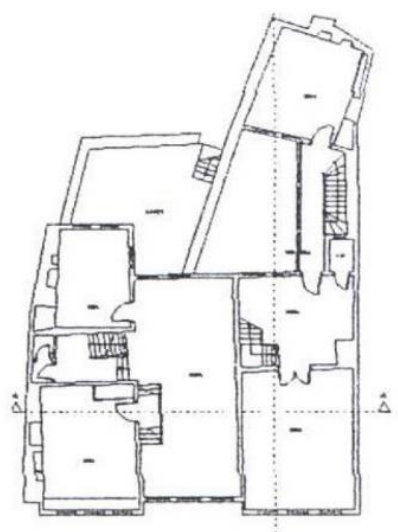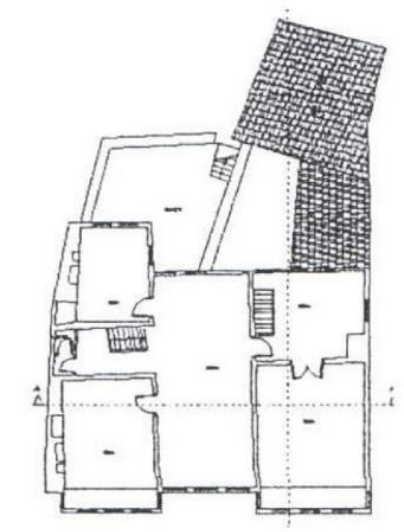
Figure 2. Plans of a Multi-Family Mansion from the 18th Century
(source: Kütahya Municipality)

It is probably the same with the wealthy families of classical age, not a simple meal, might include elaborate dishes. Women possibly were

managing their respective family sections. They were responsible for cooking, cleaning, and overseeing the household activities within their sections (Altın, 2014). On the other hand, they were in collaboration to each other in case of a common activity planned in the daytime among the women, or might come together when the patriarch's wife, the mother of the family calls for a gathering. Each family might have a personal servant besides the others who are responsible of daily tasks for the whole mansion. Families might prepare the food together, there is a communal dining area on the upper floor where they gather for lunch. After lunch, it might be common to rest in their own sections or to have quiet activities. The afternoon was often spent on social visits within the mansion, where family members might visit one another or interact in common areas. Women could gather for tea and conversation, and men might engage in business discussions or relax. Children played and engaged in educational activities within the mansion's premises. Boys might attend a madrasa, while girls might receive informal education at home. Families gathered in their own sections for dinner sometimes, though larger family gatherings could occur in communal areas. Evening and night pray were important religious practices, with families participating in these rituals either in their sections or in a common space on the hall. In affluent multifamily mansions, same as in the classical age, entertainment might include music, storytelling, or other cultural activities which could take place in shared spaces. Major religious festivals were significant events, often celebrated with communal activities and feasts involving all family members within the mansion. Although multifamily mansions provided a sense of communal living,

there was an emphasis on privacy within individual family units. Servants were not slaves, but the secondary members of a wealthy Ottoman family, thus an integral part of the house life. They helped manage daily tasks and were often a crucial part of the household's functioning.

Daily life in multifamily mansions during the late Ottoman Empire was characterized by a blend of shared and private activities, with a focus on maintaining traditional social structures and practices. The routine involved a mix of individual family management, communal interaction, and adherence to religious and cultural norms. On the other hand, it should be stated that even the multifamily mansions signify a change in the family type, as a first step of transition from the feudal family to the nucleus family of the modern times, classical age houses did not disappear. Both survived until the first half of 20th century.

5.3 Everyday Life in a Family Apartment at the mid of the 20th Century in Kütahya

Turkey faced with significant social changes in the 1950s. The lifestyle and daily routine of households living in family apartments reflect these changes, as well as the continued influence of traditional practices. Urbanization was increasing in this period, and apartment living was becoming more common, particularly in larger cities. A family apartment with a couple of stories had one or two flats on each floor, was for a big family, where the patriarch and other married family members were living in their own flats (Figure 3).
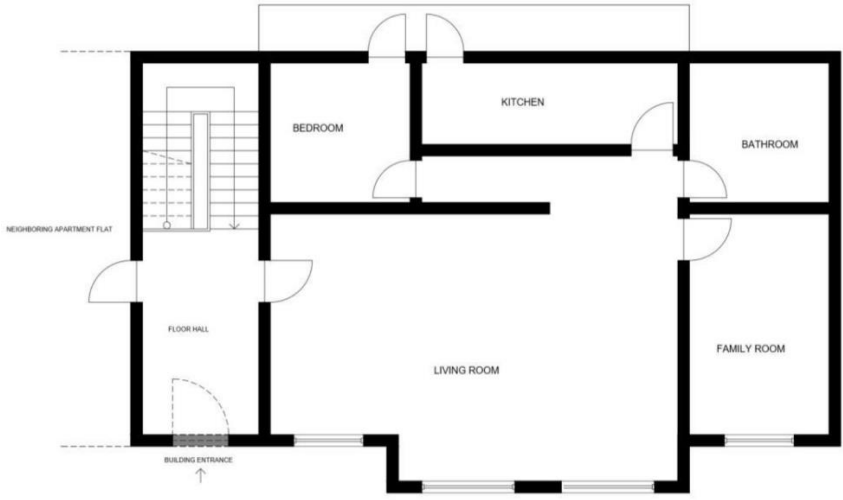
Figure 3. Plan of a Family Apartment Flat in Kütahya from 1950's (drawn by the students; Ezgi Eda Eltutan, Janset Tezcanlı and Yaşar Yasin Opşin)

Therefore, the only common area was the staircase in this new spatial layout. This may be considered as the second step of transition to the nucleus family (Altınbaş, 2014). Flats are typically smaller compared to the houses of previous phases, often consisting of a living room, one or two bedrooms, a kitchen, and a bathroom. They were usually modestly furnished, functional and simple, incorporating traditional Turkish elements like rugs and curtains.

Families would wake up around sunrise, influenced by the need to start for work and daily activities. Breakfast was simple, nutritious meal compared to larger traditional meals. Women managed household tasks such as cooking, cleaning, and looking after children under the age of seven. There was an increasing trend of women working outside the home, but traditional roles still held strong in many households (Gürel,

2009). Both the girls and boys above seven were going to the school, and men to work. The open hall of the previous period is now the family room with a stove, where the household was gathered for the lunch, daily activities and dinner. Family room activities at the evenings were likely to listen radio, watch TV, chat and drink tea. Other rooms are the bedrooms, first-time in the house culture, specialized spaces are reserved for sleeping. The main room on the other hand, is now the living room which is not accommodated only by the patriarch for seating or business talks, thereafter it is the space, not for the daily use, but for welcoming friends and guests in special occasions.

Cooking was done in the kitchen integrated into the plan layout, with gas or electric ranges, a shift from older methods. Families often eat together, and it was a time for communal gathering. Many adults were engaged in work or business during the day. Children attend school, with classes typically running from the morning into the early afternoon. Women usually would continue with household chores, including laundry with manual washing machines. The use of electric or gas-powered appliances was becoming more common (Melek, 2004). Dinner could include simple dishes or leftovers from lunch. Evening prayers were still part of the routine for many Muslim families. Families might also engage in reading or studying. In the 1950s, television was becoming increasingly common in Turkish homes, and families would gather to watch broadcasts, which could include Turkish dramas or news. Radios were also popular for listening to music and news. Socializing with extended family and friends was important. Visits might occur in the evenings or on weekends, often involving tea or coffee and conversation. As night

approached, families would prepare for bed, which involved basic hygiene routines. Bedtimes varied but were generally early, especially for children. The use of electric lighting allowed for more flexibility, but many still followed a traditional schedule.

The 1950s were a period of modernization in Turkey, with increased access to technology and changing social norms. This influenced daily routines, with more urban and industrial lifestyles affecting traditional practices. Economic conditions influenced household routines. For many families, the focus was on managing resources efficiently, and economic constraints could affect daily life and leisure activities. While many aspects of life remained rooted in earlier customs, the post-war era brought new technologies and social changes that impacted how families managed their daily lives.

5.4 Everyday Life in an Apartment Flat in Modern Kütahya

The daily routine of households living in apartment flats in today's Turkey reflects the modern urban lifestyle, shaped by contemporary technological, social, and economic factors. Apartments are typically well-equipped with contemporary amenities. They often feature a living room, one or more bedrooms, a kitchen, and a bathroom (Figure 4). Many apartments also include balconies or terraces. Interiors incorporate modern furniture and appliances. Open-plan living spaces are common, and homes often feature updated decor with contemporary elements. The day generally begins early, around 7.00 am. Many people wake up to the sound of alarm clocks or smartphones, and the morning routine is often influenced by work or school schedules. Both men and women share household responsibilities. Many women work outside the home, and

there is a growing trend toward more equitable division of domestic chores (Fehim Kennedy, 1999).

Figure 4. Plan of an Apartment Flat in Kütahya from 2019 (drawn by the students; Ezgi Eda Eltutan, Janset Tezcanlı and Yaşar Yasin Opşin)

Cooking is done using modern appliances, such as gas or electric cookers and ovens. Many households also use microwaves and dishwashers. The variety of food includes traditional Turkish dishes as well as international cuisine. During the day, adults are typically at work, and children attend school. Lunch is often in the break time and a quick, practical meal. The workday ends in the late afternoon. Schools, especially private ones usually have a similar schedule. Afternoons may also involve running errands, attending appointments, or engaging in leisure activities. Many people use public transportation or drive their own vehicles to navigate city life. Families often gather to eat together in the evening. Evenings can include various activities such as watching television, surfing the

internet, or engaging in hobbies. Many people have access to streaming services, and watching movies or TV series is a common pastime. Bedtimes vary but typically around midnight. The use of modern lighting and technology allows for flexibility, but many people maintain a relatively consistent schedule to manage their work and social commitments. Household chores are often done in the weekend. This includes tasks like cleaning, laundry, and grocery shopping. Many families use washing machines and other modern appliances to manage these tasks efficiently. Technology plays a significant role in daily routines, from managing household tasks to staying connected with family and friends. Urban life in Turkey today is mainly characterized by modern influences. However, family ties remain important, but there is also a greater emphasis on individual career and personal development. Economic conditions influence daily routines, including spending habits and lifestyle choices. Many families balance traditional practices with modern conveniences to adapt to contemporary living.

6. Conclusion

Comparing the daily routines in a Kütahya house from the classical age of Ottoman Empire, in a multifamily mansion from the late period, in a family apartment from the 1950s, and in a modern apartment flat in Türkiye highlights both continuities and changes over time.

Multifamily mansions were large, often with separate sections for different families and distinct spaces for men and women. 1950's family apartments were smaller and more standardized compared to mansions. The layout became more compact, reflecting urbanization and modernization. Furnishings were simpler and more functional. Today's

apartment flats are even more compact and efficient, with contemporary designs and modern amenities. Open-plan layouts are common, and apartments often feature updated appliances.

Multifamily mansion households were managed traditionally, with clear gender roles and often the presence of servants or slaves. Women handled domestic chores, while men were involved in external activities. There was a shift in family apartments toward more shared responsibilities, but traditional roles persisted. Women continued to manage household tasks, but more women began working outside the home. In the today's apartment flat, household management is more balanced, with both partners often sharing responsibilities. Modern conveniences, such as dishwashers and washing machines, have streamlined domestic chores, and there's a greater emphasis on equitable division of labour.

Lunch and dinner were significant communal events for the multifamily mansion households. Social interactions were frequent, with structured leisure activities in the evenings. In 1950's family apartments, evening routines became more individualistic. Family dinners were still important, but the growing influence of television and other media began to shape evening activities. The structure of daily life has changed in apartment flats of today. Lunch is quick and practical, evening routines including a range of leisure activities like watching TV and surfing the internet. The flexibility provided by modern technology has transformed how evenings are spent.

Social life was centered on family gatherings and communal spaces within the mansion in multifamily mansions. Entertainment was

including music and storytelling. In the family apartments, staircase and possibly the family room of grandmother's flat might house the social life in the daytime, and in-family activities became more dynamic, with the introduction of radio and TV. Social visits remained important, but the nature of these interactions began to shift. Social and cultural engagement in a modern apartment flat, is heavily influenced by technology, with television, streaming services, and social media playing central roles. Social interactions are more diverse and can occur both online and in person.

The night-time routine was influenced by traditional schedules, so the bedtimes were generally early in both a classical age Ottoman house and in a multifamily mansion of the late period. It began to adapt to modern conveniences in family apartments, with electric lighting allowing for more flexibility in bedtime. Evening activities started to shift toward radio and TV. In a flat of modern apartments today, bedtimes remain flexible, influenced by technology and personal schedules. Modern lighting and entertainment options contribute to a more varied nighttime routine.

Across all periods, family remains central to daily routines. Meals are a key time for family interaction, and socializing with family members is an important aspect of life. Many traditional practices, such as meal structures and religious observances, have persisted over time, though they have adapted to modern contexts. Technological advancements and modernization have greatly influenced daily routines, from household appliances to entertainment and communication. Shifts in gender roles

and increased participation of women in the workforce have transformed household management and daily routines.

Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article. There is no conflict of interest.

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Preservation of Architectural Heritage Through Artificial Intelligence

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1. Introduction

Architectural heritage is one of the most significant indicators of a society's cultural identity and historical richness. Various architectural works, such as historical buildings, monuments, bridges, castles, palaces, and places of worship, carry physical and cultural traces from the past, leaving a valuable legacy for future generations. These structures reflect the architectural style, technological advancements, aesthetic understanding, and socio-economic conditions of the period in which they were built. Therefore, architectural heritage is a rich source not only for its aesthetic and historical values but also for its cultural and scientific knowledge.

The preservation of architectural heritage is crucial for maintaining cultural identities and passing them on to future generations (Smith, 2006, p. 15). Preserving these structures goes beyond maintaining physical traces of the past; it also ensures the continuity of historical and cultural knowledge. The preservation of historical buildings plays a critical role in maintaining cultural heritage and transferring it to future generations (Jokilehto, 1999). However, these structures deteriorate over time for various reasons. Factors such as natural disasters, climate change, air pollution, vandalism, wars, and natural wear can cause damage to or even complete destruction of historical buildings (Feilden, 2003). Additionally, modern urbanization and construction activities threaten the existence of these structures, necessitating a comprehensive and systematic approach to preserving architectural heritage.

The preservation of architectural heritage aims to protect not only the physical structures but also their cultural and historical values (Pendlebury, 2009, p. 52). Conservation efforts focus on improving the

physical condition of historical structures while also aiming to preserve their historical and cultural significance. At this point, artificial intelligence (AI) technologies offer innovative solutions for the preservation and restoration of architectural heritage. AI can be used to create digital models of historical buildings, which serve as references in restoration projects. Digital modeling documents the current conditions and restoration processes of structures in detail, providing a valuable data source for future work (Remondino & Rizzi, 2010).

Moreover, AI-based data analysis can be used to monitor the condition of structures and detect damages. Using sensors and data analytics, weak points and potential risks of structures can be identified, enabling early detection of damage and the implementation of preventive maintenance interventions (El-Helw et al., 2019). AI can also play an essential role in the planning and management of restoration projects. For instance, AI-supported simulations can predict the outcomes of different restoration methods, analyzing the impact of materials and techniques used during restoration on the structure. This helps select the most suitable and effective restoration strategy (Fassi, Achille & Fregonese, 2011).

The use of AI technologies in the preservation of architectural heritage makes restoration and conservation processes more efficient. These technologies contribute to the longevity of historical structures and ensure the sustainable preservation of cultural heritage (Gatt et al., 2018). The innovative solutions provided by AI play a significant role in passing architectural heritage on to future generations. Furthermore, the application of these technologies opens new opportunities for research and education in the field of architectural heritage preservation and restoration.

1.1. Artificial Intelligence and Architectural Heritage

As in many other fields today, artificial intelligence (AI) offers revolutionary innovations in the preservation and restoration of architectural heritage. The use of AI technologies in heritage conservation provides more precise, efficient, and sustainable solutions compared to traditional methods. In this context, the advantages and applications of AI technologies play a significant role in the preservation of architectural heritage.

1.2. Digital Documentation and 3D Modeling

AI-supported digital documentation and 3D modeling technologies play an important role in the preservation of architectural heritage. These technologies are used to create detailed digital models of structures. Digital models capture the geometric and surface characteristics of buildings with high accuracy, making them suitable for use as references in restoration projects. Digital modeling documents the current conditions and restoration processes of structures in detail, providing a valuable data source for future work (Fassi, Achille & Fregonese, 2011).

2. Material and Methods

This article will discuss how AI is used in the preservation of architectural heritage and the opportunities this technology provides. In addition to AI-supported digital modeling, data analysis, damage detection, and restoration processes, the role of AI in heritage preservation and its potential for the future will be emphasized. In this context, the innovative solutions offered by AI in the preservation of architectural heritage and developments in this field will be examined in detail.

3. Findings and Discussions

3.1 Applications of 3D Scanning Technologies

Preservation of Historical Structures: Digital documentation ensures that historical structures are preserved in their original condition, allowing any damage or changes over time to be recorded. "Digital documentation plays a critical role in the preservation of historical structures and serves as a valuable reference source for future restoration work" (Remondino & Rizzi, 2010, p. 90).

Reference for Restoration Processes: Digital models help maintain fidelity to the original condition of structures during restoration. This aids in the accurate and effective execution of restoration projects. "Digital archives provide information on the past conditions of structures and help overcome challenges encountered during restoration processes" (Remondino & Rizzi, 2010, p. 90).

Education and Research: Digital models can be used for educational and research purposes by architecture students and researchers. These models offer a valuable resource for studying historical structures and learning various architectural techniques. "Detailed models of historical buildings provide insights into architectural styles, construction techniques, and historical periods" (Fassi, Achille & Fregonese, 2011, p. 470). In education, digital models provide practical experiences and help students learn about the intricacies of historical structures.

Protection of Cultural Heritage: Digital documentation plays a significant role in protecting cultural heritage. Digital models of historical buildings are an essential tool for preserving cultural values for the future.

This ensures that even if structures cannot be physically preserved, cultural heritage can still be passed on to future generations through digital models.

Virtual Reality and Augmented Reality Applications: Digital documentation can be used in virtual reality (VR) and augmented reality (AR) applications. These technologies allow historical structures to be digitally recreated and introduced to a broader audience. Thus, people can explore places virtually, even if they cannot visit them physically. "Digital documentation forms the foundation for VR and AR applications, and these technologies are used to promote and educate about historical structures" (Fassi, Achille & Fregonese, 2011, p. 470).

3.2 Digital Documentation and Preservation of Cultural Heritage

Digital documentation plays a critical role in preserving cultural heritage. Digital models of historical buildings help to maintain not only the physical structure but also the cultural and historical significance of the building. This ensures that the original values of structures are preserved in restoration and conservation efforts. Digital archives provide information about the past conditions of structures and help overcome challenges encountered during restoration processes. For large and complex historical structures, digital archiving offers reference resources that can be accurately and effectively used in restoration projects. Remondino and Rizzi (2010) emphasize the importance of this technology, stating, "Digital archives provide information on the past conditions of structures and help overcome challenges encountered during restoration processes.

Digital models can be used as valuable educational and research tools for architecture students and researchers. Artificial intelligence analyzes

digital models of historical structures, providing insights into architectural styles, construction techniques, and historical periods. These models serve as essential tools in architectural education, helping students learn the intricacies of historical structures (El-Helw et al., 2019). In this context, digital models offer students practical experiences and help them gain knowledge about the preservation and restoration of historical structures. "Detailed models of historical structures provide insights into architectural styles, construction techniques, and historical periods" (Fassi, Achille & Fregonese, 2011, p. 470). These models teach students about the intricacies of historical structures and raise awareness of the importance of their preservation.

Virtual Reality and Augmented Reality Applications

Digital documentation can also be utilized in virtual reality (VR) and augmented reality (AR) applications. These technologies allow historical structures to be digitally recreated and introduced to a broader audience. This enables people to explore places virtually that they cannot physically visit. "Digital documentation forms an essential foundation for VR and AR applications, and these technologies are used for promoting and educating about historical structures" (Fassi, Achille & Fregonese, 2011, p.

Restoration and Preservation

3D scanning technologies can document the damage and deformations of historical structures in detail over time. This data is used in restoration projects to determine the extent of the damage and the necessary interventions. El-Helw et al. (2019) emphasize the importance of this technology, stating, "This data is used in restoration projects to determine the extent of the damage and the necessary interventions" (p. 277). This

allows the restoration process to be carried out in a more planned and organized manner.

3.2.1 Digital Models and Restoration Planning

Detailed digital models play an essential role in planning restoration projects. These models guide the selection of materials and methods to be used during the restoration process. Fassi, Achille, and Fregonese (2011) highlight the guiding role of digital models by stating, "These models guide the selection of materials and methods to be used during the restoration process" (p. 465). Digital models accurately reflect the current conditions of structures, ensuring that restoration plans are created with precision.

Damage Detection and Documentation: 3D scanning technologies detect and document the damages and deformations in historical structures in detail. These records precisely reflect the current state of structures, enabling accurate interventions in restoration projects. "This data is used in restoration projects to determine the extent of the damage and the necessary interventions" (El-Helw et al., 2019, p. 277).

Planning the Restoration Process: Detailed digital models play a crucial role in the planning of restoration projects. They assist in accurately determining the materials and methods to be used, ensuring the restoration process is conducted in a more organized and systematic manner. "These models guide the selection of materials and methods to be used during the restoration process" (Fassi, Achille & Fregonese, 2011, p. 465).

Accurate Representation of Current Conditions: Digital models accurately reflect the current conditions of structures, ensuring that restoration plans are created with precision. This enables restorations to be

carried out faithfully to the original state of the structures. Digital models preserve the historical and cultural values of buildings, enhancing the quality of restoration projects.

Time and Cost Savings: 3D scanning technologies provide time and cost savings in restoration projects. Digital models enable a faster and more efficient restoration process, contributing to cost reduction in restoration projects and the more efficient use of resources.

Continuous Monitoring and Maintenance Planning: Digital models facilitate the continuous monitoring of structures and the identification of maintenance needs. Using sensors and data analytics, the weak points and potential risks in structures can be detected. This allows for early detection of damage and the implementation of preventive maintenance interventions. "Sensors and data analytics can identify weak points and potential risks, allowing for early detection of damage and preventive maintenance interventions" (El-Helw et al., 2019, p. 277).

3.3 Virtual Reality (VR) and Augmented Reality (AR)

Digital models created using 3D scanning technologies can be effectively used in virtual reality (VR) and augmented reality (AR) applications. These technologies enable virtual tours of historical structures, reaching a wide audience. Remondino and Rizzi (2010) emphasize the importance of VR and AR technologies, stating, "These technologies allow virtual tours of historical structures, reaching a broad audience" (p. 98). Virtual tours increase accessibility to historical structures and offer innovative solutions for the tourism sector.

Advantages of Applications:

Increasing Accessibility to Historical Structures: Virtual reality and augmented reality technologies allow people to explore historical structures even when physical visits are not possible. This enables people to discover places they cannot physically visit in a virtual environment. "This allows people to explore places they cannot physically visit in a virtual environment" (El-Helw et al., 2019, p. 280).

Offering Innovative Solutions for the Tourism Sector: Virtual tours provide innovative solutions for the tourism sector. Virtual tours of historical structures enhance the promotion of tourist sites and allow them to reach a broader audience, contributing to increased tourism revenue and supporting local economies. "Virtual tours increase accessibility to historical structures and offer innovative solutions for the tourism sector" (Remondino & Rizzi, 2010, p. 98).

Educational Use: VR and AR applications can be used for educational purposes. Students can examine the details of historical structures in a virtual environment, gaining insights into these structures. These technologies provide practical experiences in education and help students learn the intricacies of historical structures. "These technologies provide practical experiences in education and help students learn the intricacies of historical structures" (Fassi, Achille & Fregonese, 2011, p. 470).

Promotion and Preservation of Cultural Heritage: VR and AR technologies support the promotion and preservation of cultural heritage. Through digital models, historical structures and sites can be introduced to a broader audience. This contributes to the preservation of cultural heritage and its transfer to future generations. "These technologies support the

promotion and preservation of cultural heritage" (El-Helw et al., 2019, p. 280).

3.3.1 Application Areas and Sample Projects

3.3.1.1 Pompeii, Italy

The ancient city of Pompeii has been documented in detail using 3D scanning technologies. These digital models have been used in virtual reality applications, creating virtual tours of Pompeii. This allows visitors to explore Pompeii in a virtual environment and study the history of the ancient city more closely. "The 3D scanning technologies used in Pompeii play a significant role in preserving the ancient city and creating virtual tours" (Çetin & Demir, 2020, p. 56).

3.3.1.2 Machu Picchu, Peru

The digital scanning of Machu Picchu provides archaeologists and restoration specialists with more information about this ancient city. Digital models have been used in virtual reality applications, creating virtual tours of Machu Picchu. This enables visitors to explore Machu Picchu in a virtual environment and gain a better understanding of the ancient city's history. "The digital documentation of Machu Picchu provides a critical resource for preserving the ancient city and creating virtual tours" (Seçkin & Altın, 2018, p. 88).

3.3.1.3 Louvre Museum, France

The Louvre Museum has been digitized using 3D scanning technologies and virtual reality applications. Visitors can tour the museum virtually and examine the exhibits. This allows people who cannot physically visit the museum to discover the Louvre's rich collection. "The digitization of the

Louvre Museum sets a significant example for virtual tours and augmented reality applications" (Yıldırım & Aydın, 2019, p. 123).

3.4 AI-Based Data Analysis and Damage Detection

Artificial intelligence (AI)-based data analysis and damage detection technologies offer innovative solutions for the preservation of architectural heritage. AI algorithms and advanced sensor technologies provide precise monitoring of historical structures, offering significant advantages in damage detection and restoration processes. Kozikoğlu and Yüksel (2021) highlight the importance of these technologies, stating, "Advancements in AI and sensor technologies will offer revolutionary innovations in the preservation of historical structures, providing more precise solutions than traditional methods" (p. 66).

AI-based systems analyze large data sets to continuously monitor the current state of structures. Data obtained from sensors is processed by AI algorithms to identify weak points and potential risks in structures. This allows for early detection of damage and the implementation of preventive maintenance, contributing to the longevity and preservation of historical buildings.

3.5 Advanced Algorithms and Sensor Technologies

In the future, new algorithms and sensor technologies that provide more precise and faster data analysis will be developed, making the preservation and restoration of historical structures more effective. By using advanced AI, deep learning, and machine learning algorithms, damage detection and data analysis processes will become more reliable and faster. These advancements will create a significant transformation in architectural heritage preservation.

Next-generation sensors continuously monitor structures' responses to vibration, temperature, humidity, and other environmental factors. This data is analyzed by AI systems, which continuously assess the condition of the structure and identify potential risks in advance. Kozikoğlu and Yüksel (2021) emphasize the benefits of these technologies, stating, "AI will continuously monitor the condition of historical structures, identify potential risks in advance, and enable preventive maintenance interventions" (p. 66).

3.6 Innovation in Restoration and Conservation Processes

The development of AI-based technologies offers innovative approaches to restoration and conservation processes. Advanced simulation techniques help determine the most suitable strategies by predicting the effects of different restoration methods and materials on structures. This allows restoration projects to be carried out in a more planned and effective manner.

AI also plays a significant role in project management and resource planning. AI-based systems enhance efficiency in the time management and cost estimation of restoration projects, contributing to more economical and sustainable restoration processes.

3.6.1 Cultural and Economic Contribution

The use of AI technologies in architectural heritage preservation offers not only technical advantages but also significant cultural and economic contributions. Preserving cultural heritage increases tourism revenue and supports local economies. Moreover, preserving historical structures leaves a rich cultural heritage for future generations.

In the future, more innovative solutions in architectural heritage preservation and restoration will be developed through the integration of AI and digital technologies. The use of these technologies will bring revolutionary changes to heritage preservation, playing a critical role in passing down the values of the past to future generations.

3.6.2 AI-Supported Simulations and Predictions

AI provides opportunities for conducting various simulations and predictions in restoration projects, contributing to a more effective and efficient restoration process. These simulations analyze the effects of materials and techniques used during restoration on the structure in detail. AI-supported simulations facilitate the decision-making process in restoration projects and help determine the most suitable and effective strategies.

3.6.2.1 Advantages of AI-Supported Simulations

One of the main advantages of AI-supported simulations is the ability to quickly evaluate different scenarios, helping to identify potential risks and opportunities in restoration projects in advance. Additionally, AI simulations analyze the long-term effects of the methods and materials used in projects, offering more sustainable and lasting solutions.

- **Speed and Efficiency:** AI quickly analyzes large data sets, enabling the retrieval of accurate and reliable results in a short time.
- **Risk Management:** AI-supported simulations help identify potential risks in projects in advance and assist in taking the necessary precautions.

- **Optimization:** AI allows for the optimization of materials and methods used in projects, reducing costs and facilitating more efficient project execution.

Data Collection and Analysis

Artificial intelligence (AI) provides significant advantages in data collection and analysis in the restoration process of historical buildings. This process allows restoration projects to be managed with greater precision and effectiveness.

3.6.2.2 Advantages of AI-Based Data Collection and Analysis

- **Early Warning Systems:** Sensors and AI continuously monitor the condition of structures, enabling early detection of potential risks and facilitating necessary interventions through early warning systems.

- **Precision and Accuracy:** AI-based analyses process data from sensors with high accuracy, allowing for a detailed assessment of the current condition of structures.

- **Efficient Resource Use:** Data analytics help identify areas requiring immediate intervention, ensuring more efficient use of resources.

- **Long-Term Planning:** AI evaluates the long-term health of structures, predicting future maintenance and restoration needs.

- **Risk Management:** AI analyzes potential risks in projects and takes strategic measures to mitigate these risks.

- **Time and Cost Savings:** AI optimizes project timelines, ensuring projects are completed on time and cost-effectively.

3.7 Examples

3.7.1 Milan Cathedral, Italy

In the restoration of Milan Cathedral's main spire, AI-supported simulations were conducted using various data sources. These simulations helped determine the most suitable methods to be used in the restoration process. Fassi, Achille, and Fregonese (2011) emphasize the importance of AI technologies in restoration processes, stating, "AI-supported simulations played a critical role in the restoration of Milan Cathedral, making the project more effective."

The AI technologies used in Milan Cathedral's restoration created simulations to predict the outcomes of different restoration methods. These simulations provided guidance in material selection and the determination of restoration techniques. For example, the effects of different stone types and preservation materials on the structure were analyzed through AI-supported simulations, ensuring the use of the most suitable and durable materials during the restoration process.

3.7.2 Cologne Cathedral, Germany

AI-based data analytics and project management systems were used in the restoration of Cologne Cathedral, ensuring the completion of the restoration on time and within budget. Yıldırım and Aydın (2019) underscore the effectiveness of AI in restoration projects, stating, "AI-based systems contributed to the organized and efficient execution of Cologne Cathedral's restoration process."

Detailed digital models of Cologne Cathedral were created using laser scanning technologies. These models provided crucial data by accurately

documenting the cathedral's complex geometry and intricate decorations, which were used throughout the restoration process.

3.8 Robotic Systems and Autonomous Vehicles

AI-supported robotic systems and autonomous vehicles can be used in restoration processes, minimizing human error and increasing efficiency. These systems are particularly effective in challenging or hard-to-reach areas. Robots can perform detailed scans of structures, speeding up damage detection and the restoration process. Additionally, these robots can precisely apply restoration materials and techniques, enhancing the quality of projects.

For instance, advanced robotic systems equipped with precision laser scanning devices can scan structures down to the finest details. This data can then be analyzed by AI algorithms to generate comprehensive reports on the current condition and damage potential of structures, allowing restoration processes to be conducted in a more organized and planned manner.

4. Conclusion and Recommendations

Digital modeling and 3D scanning technologies offer groundbreaking innovations in architectural heritage preservation, providing significant advantages in this field. These technologies enable the detailed and accurate documentation of historical structures, creating essential data sources for passing them on to future generations.

In the future, digital modeling and 3D scanning technologies are expected to continue advancing, offering even more precise and effective solutions for preserving historical structures. "The integration of artificial intelligence and 3D scanning technologies will enable more detailed and

accurate documentation of historical structures and optimize restoration processes" (Remondino & Rizzi, 2010, p. 98).

New-generation scanning devices and AI algorithms will provide revolutionary advancements in preserving historical structures. These technologies will enable the creation of digital models of historical structures more quickly and accurately, providing critical data sources for use in restoration and conservation projects. Additionally, AI-supported analyses will facilitate the continuous monitoring and maintenance of historical buildings, making their upkeep easier. "AI will continuously monitor the condition of historical structures."

AI technologies offer revolutionary innovations for the preservation and restoration of architectural heritage. These technologies contribute to the longevity of historical structures and support the sustainable preservation of cultural heritage. The innovative solutions provided by AI play a crucial role in passing architectural heritage on to future generations. The effective use of AI technologies is of critical importance for the success of future preservation efforts.

In the future, digital modeling technologies are expected to advance further. New-generation scanning devices and AI algorithms will offer more precise and effective solutions for educational and research purposes in architectural heritage. The integration of AI and digital modeling technologies will provide innovative solutions in the educational and research processes for historical structures (Remondino & Rizzi, 2010). Digital models play an essential role in architecture education and research. These models allow students and researchers to examine historical structures in detail and provide the necessary information for

their preservation. The development of digital modeling technologies will bring more innovative and effective solutions in educational and research processes.

As digital modeling and 3D scanning technologies continue to advance, more precise and effective solutions will be offered for preserving historical structures. New-generation scanning devices and AI algorithms will make the use of these technologies more widespread and accessible. "The advances in AI and 3D scanning technologies will provide groundbreaking innovations in the preservation of historical structures, offering more precise solutions compared to traditional methods" (Kozikoğlu & Yüksel, 2021, p. 66).

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Landscape, Historical and Cultural Value of Cape Yason in Ordu, Perşembe

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1. Introduction

Cities are complex mixtures of many historical, current, natural and cultural components. For this reason, each city is different and special from each other. Every phenomenon that makes cities special and unique stems from the accumulation of the city's past, as well as directing its future. All this mixture is a determining factor in the city's preferability and livability. Thus, although many people live in that city due to birth, work and family ties, a significant majority consider the city's values in order to live. Therefore, the main factor that determines belonging to a city is the city's values. One or more of these values can be found in the city or in its surroundings. However, whether they are in the city or in its surroundings, they have a share in the total effect. Especially since historical areas inside or outside the city are sources of cultural accumulation and social memory, they require special attention and protection. This is often carried out through the protection and restoration of historical areas.

Historical areas are restored and preserved for different reasons;

- Ensuring the continuity and transmission of history and culture,

- Revitalizing them by adapting them to today's living conditions, provided that their historical nature is preserved,

- Evaluating historical structures within the current structural system,

- Protecting urban landscapes and cultural settlements.

In this respect, protecting developing and changing urban spaces is also important in terms of sustainability. In additon, the maintenance, repair and re-functioning of historical buildings and building groups are

important for the national and international gaining and maintenance of urban identity (Çelik and Yazgan, 2007; Erdoğan and Atabeyoğlu, 2016). According to Ahunbay (2004); with the declaration of 1975 as the 'European Year of Architectural Heritage' and the subsequent publication of the 'Amsterdam Declaration', the protection of architectural heritage was determined as one of the goals of urban and regional planning. This declaration is important because it adopted an integrated protection goal covering economic, social, administrative and legal aspects (Çelik and Yazgan, 2009).

Especially in recent years, the concept of protection has gained intensity in Turkey in terms of urban renewal, revitalization and tourism investments with the focus on the activities of revealing the historical texture. In this direction, local governments have transformed their activities in the historical texture into local government policies. The important point here is to develop policies that will effectively use urban design for transportation, protection, renovation and urban landscaping (Tırnakçı and Aklıbaşında, 2018). Despite the practices that include right and wrong activities, the perception of protection during use has begun to settle rapidly in Turkey.

Ordu province has a wide variety and spread in terms of historical and archaeological values and areas. The city hosts a large number of historical and cultural heritages. In addition to the city, there are archaeological excavation sites, monumental structures and civil architecture examples in its districts. The combination of the nature that enables the development of tourism in the province and the historical assets and cultural heritage spread throughout the province has created

rare results. It is possible to travel to almost all of these heritage areas on a daily basis. This makes the province more attractive and satisfying in terms of tourism.

The district of Perşembe is one of the notable settlements of Ordu with its natural and historical assets. It is a place that people often visit on a daily basis because it is both a coastal district and a neighbor to the city of Ordu. Perşembe is also a settlement with the title of 'Slow City', known worldwide as Cittasalow. The Cittaslow movement started in 1999, and Perşembe was included in this list in 2012 (Cittaslow, 2015; Radstrom, 2011; Karadeniz 2014). The Cittaslow movement set out with the aim of creating cities where people can communicate with each other, socialize, are self-sufficient, sustainable, protect their handicrafts, nature, traditions and customs, but also do not have infrastructure problems, use renewable energy sources and benefit from the conveniences of technology as a realistic alternative (Cittaslow Turkey, 2024).

One of the most important historical, natural and touristic areas of Perşembe is Cape Yason (Jason). Cape Yason, known in the region and abroad, is known for the Church of Yason, the Lighthouse of Yason, many other historical ruins and the Legend of the Golden Fleece (The Legend of the Argonauts). The Legend of the Golden Fleece is one of the most important in Greek mythology.

Yason Burnu is in Perşembe district of Ordu province. It is on the Samsun-Ordu highway. It is 35 km away from Ordu city center (Figure 1).

Figure 1. Cape Yason (Google Earth)

Argonauts is the name of a group of sailors who lived in Greek mythology before the Trojan War. The sailors' name comes from the ship they boarded, the Argo. The Yason Peninsula in Ordu/Persembe, where a part of the legend takes place, is where the Argonauts, led by Captain Jason, came with Hercules (Heracles) to search for the "Golden Fleece". According to the legend; King Athamas of Boeotia had a boy named Phrixus and a girl named Helle. The queen died young. After the death of Queen Nephele, stepmother Ino set a trap for the children. Ino poured harmful substances on the fields and caused the crops to be destroyed. The king wanted his advisors to meet with the holy priests to learn the solution to this problem. The queen bribes the advisors and makes them say that the children should be sacrificed. The king initially does not accept the sacrifice of the children, but he cannot go against the words of the holy priests. The king takes his children to a nearby mountain to be sacrificed. Meanwhile, Queen Nephele watches the situation from heaven. She asks the gods to send a ram with a golden fleece (Aries) to save her children. The ram comes to get them and takes them on his back

and begins to fly towards Asia (Anatolia). Phrixus sacrifices the ram to Zeus and presents the golden fleece of the ram to the son of the Sun God. The Argonauts set off on a ship to the country of Colchis (the region on the eastern shores of the Black Sea) to seize this fleece. After many events, Jason seizes the Golden Fleece (Culture, 2015).

In Greek mythology, this legend is told at length and with all its interesting details. The legend is a rich value that has provided gains to the culture of Greece in particular, but also to Turkey and the region. Today, hundreds of people visit Cape Yason every day without knowing about this story and without knowing that a legend that is very valuable to the Greeks takes place in this geography.

2. Characteristics of Cape Yason

2.1. Natural Landscape Characteristics

The Jason Cape, a natural peninsula, is in the form of a ridge a few meters above sea level. The natural topographic structure of the area has been preserved intact. Therefore, there is no homogeneous surface form. The cape is affected by strong winds from time to time.

The peninsula is poor in terms of plant life. The fig tree (Ficus carica) in front of the church is the only tree in the conservation area. The area is covered with field plants, grass and occasionally weeds. This state of the area supports naturalness, while at the same time contributing positively to the holistic perception of the area. However, the absence of a dominant and widespread plantation is also an advantage for silhouettes and vistas.

The most important values that make the region a one-day destination for the local people are the uninterrupted, intertwined and harmonious integrity of cultural elements, landscape and natural events. So much so

that the natural topographic structure of the cape has not been interfered with. The cape is surrounded by rocks and small dunes. There is a small dune area on the west side of the cape, reached by a path covered with wild grass and rocks. The rest of the coast is mostly rocky. The west coast consists of green areas and rocks. This area is connected to the sea with gentle slopes in some places. Especially a large part of the west coast is covered with large rocks (Figure 2).

Figure 2. (Original) a) The view of the east coast, b) The view of the west coast, c) The view of the west coast, d) The rocks, e) The view of the area

The shores of the Perşembe district, the many surrounding hills and the houses on the hills form the background of the cape. Sunrise and sunset are the most striking views of the cape. The sunrise and sunset views can be watched 320 days a year.

2.2. Historical and Cultural Landscape Characteristics

The district of Perşembe was taken by the Turks in the 14th century and incorporated into the Ottoman Empire in 1461. Despite its deep-rooted history, the district does not have many historical elements. The most important historical area of Perşembe is Cape Jason and the historical assets on it. Cape Jason is where the Argonaut legend told in Homer's Odyssey took place. In addition, the Greek historian Xenopho mentions Jason in his book Anabasis (Black 2014).

On the shores of Cape Yason, there are fish ponds carved from stones that are 4 thousand years old. There are also footings belonging to a 2400-year-old pier. The region also functioned as a maritime trade center in ancient times. Surface research shows that there were clay deposits, ceramic production and trade in ancient times (Anon. 2014c).

The Council of Ministers declared the region between Efirli and Bolaman as a Tourism Culture Protection and Development Area in 2009 (Kara 2014). The Jason Peninsula is a 1st Degree Archaeological and 2nd Degree Natural Site Area. The area covering the Archaeological and Natural Site Areas, Jason Cape and Çaytepe Village is a 'Tourism Area' (Figure 3). The tourism area consists of a historical church, a lighthouse, historical walls and ruins, fish ponds, village houses and social facilities (Figures 4, 5).

The Jason Church, built in 1868, was built by the Greeks and Georgians living in the region. In the 3rd century AD, the 'Festival of Lights' was celebrated here by Christians. The church has a small dome with three apses. Light and dark colored stones were used on the front facade. The church, divided into three naves, has two rows of columns inside. There are two entrances, one on the south and one on the west. The church was restored in April 2004. In 2006, the first landscaping was carried out in the area (Anon. 2014b). This church is the only church on the seashore in the Black Sea Region (Günay, 2007).

At the tip of Cape Jason is the Lighthouse. The lighthouse was opened to visitors in 1964. The lighthouse has a steel body, is cylindrical in shape and 6 m high. Its height above sea level is 12 m. The lighthouse is actively operating and can be seen from 8 miles away (Karadeniz 2014).
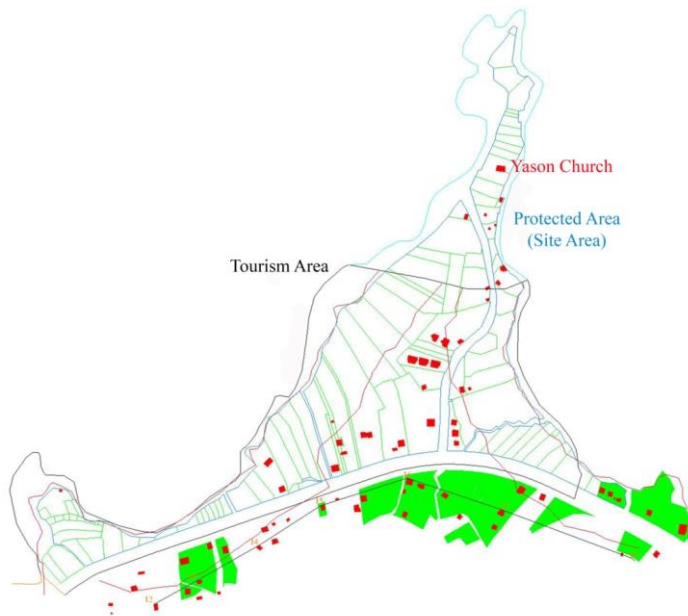
Figure 3. Site plan of Cape Yason (Ordu Metropolitan Municipality)

Figure 4. Yason Church (Original)

Figure 5. a) The remains of walls b) Lighthouse (Original)

2.3. Tourism Potential

Cape Yason and the Yason Church are of great importance in terms of faith and cultural tourism. The region was opened to tourism on January 10, 2008. Nearly 90 thousand local and foreign tourists visit Cape Yason every year. This number increases every year. In addition, the Security Directorate has prepared an underwater map of the Cape Yason area. Thus, it is possible to do scuba diving and other water sports. Due to

legends, it is also believed that there is a treasure in and around the Cape. For this reason, curious locals have made many attempts to find this treasure. Tourists especially love watching the sunrise and sunset at Cape Yason. In fact, many tourists come just to see this event. Cape Yason is extremely special as it allows you to watch the sunrise and sunset 320 days a year.

There are also small social enterprises on the Cape Yason. These businesses meet the demands of tourists without damaging the area. They also provide a place to relax.

Various exhibitions, concerts and installations are also held in the area from time to time. The cape provides a unique venue and stage for these exhibitions and concerts, and the exhibitions and concerts in this unique ambiance attract larger crowds than ever before.

2. 4. Current Landscape Design for Cape Yason

What provides sustainability and functionality of historical and touristic places is actually the landscaping they have most of the time. Because, landscaping ensures that the historical area is integrated with its wider environment and also provides the functions that visitors need to the area. Thus, the area is transferred to the future while fulfilling its function within the balance of protection and use.

The Cape Yason, which attracts great interest from tourists and locals and is one of the important event and tour locations of the city, has recently gained an effective and useful landscaping. The conservation area is reached via a short connecting road from the main road. At the end of this connecting road, visitors are greeted by a parking area. Even the large parking lot is insufficient on weekends and holidays. In this

case, vehicles are parked along the edges of the connecting road. From the end of the connecting road, the area can only be continued on foot.

At the beginning of the pedestrian path, there is a relief wall with scenes from the Argonaut and Golden Fleece Legends. There are various narratives and introductions about the area on this wall. There are social areas with eating, drinking and sitting areas on the seashore along the pedestrian path. The path that continues along the shore leads to the Historical Church. The interior of the Historical Church can also be visited and is open to visitors. The path that continues after the Historical Church continues along the entire cape and reaches the Lighthouse at the tip of the cape. Along this path, benches and sitting areas have been created to dominate the view and especially on the edges of the cape. These sitting areas are designed with extremely simple designs and wooden traverses. The topography has not been interfered with in the landscaping and has been preserved in its natural state. Wooden traverses have been used on the path created on the wide and open grass area. There are wall ruins in places within the area. In addition, fish ponds used in ancient times can also be seen along the shore. There are information boards in the area where necessary. Thus, visitors can access information about the area (Figure 6).

Figure 6. Current Landscape Design (KTB, 2024)

3.Conclusion

The region is extremely remarkable with its natural and cultural assets. However, meeting recreational needs and service expectations will increase interest in the region. The church and the lighthouse can be easily seen and known. However, the ancient walls, stones and columns cannot be noticed by visitors. The historical stone fish ponds are interesting. However, since visitors do not have information about these details, it is not possible to notice them. Uncovering all of the old ruins and exhibiting them as an open-air museum will attract the attention of visitors. If the church is evaluated as a museum or art gallery, the balance of use and protection will also be achieved.

The topography of the area is naturally rugged. Creating the road in accordance with the existing topographic structure of the land increased the feeling of naturalness and protection.

Small signs and information boards in the field provide information about the peninsula. Thus, it provides visitors with information about the historical texture and existing structures.

The important advantages and values of the field can be listed as follows;

- It has a beautiful scenery
- It is a natural peninsula
- It has natural characteristics like rock and sea
- It has a myth, the Golden Fleece.
- It has the historical church
- It has the lighthouse
- It has other historical characteristics like walls, fish ponds and pillars
- It is on the coastal road

- It is near the Ordu City

- It is near the Perşembe County

- Sunrise and sunset can be seen during 320 day

- Transportation is easy

- It is near other natural and historical places

- There is a village near the historical zone

- It is in the protected area

- It is in the tourism area

- It has suitable an area and historical artifacts to open-air museum

- The sea is suitable for scuba diving

- There is the map of underwater for environment of peninsula

- The historical building has been restored

- There is enough area for landscape design and other applications like open-air museum

- There is university in the city, it has Art History and Landscape Architecture Departments

Cape Yason has an extremely high tourism potential. Cape Yason, along with other touristic locations, is located on the route used for travel between Ordu province and its districts. Since Cape Yason is located on this travel route, it has become a stopover point for both tours and individuals.

It would be appropriate to make some improvements in order to use the tourism potential of the area correctly and to increase its recognition and interest. Accordingly;

- Marine sports activities and scuba diving in the sea should be supported.

- Small trips with boats designed in an antique style can be effective in reviving the ancient spirit in the area.

- The recognition of the area should be increased with festivals, concerts, exhibitions and daily activities.

- Columns, column heads and similar ruins found in the area should be exhibited in the area.

- The church should be evaluated as an art gallery or museum.

- Promotional activities should be carried out at national and international levels.

- The knowledge of Greece and the Greek people that the legend took place in Yason should be refreshed and reminder promotions should be made.

- Symbols, statues or similar artistic objects related to the Golden Fleece Legend and the Argonauts should be used in the city.

- Festivals and theater plays related to the Golden Fleece Legend and the Argonauts should be held in the city.

- The ship on which the Argonauts reached Yason can be built and placed in Yason.

- The locations of ancient fish ponds should be marked and made noticeable with informative panels.

- Fish ponds and the commercial port phenomenon of the period can be revived as a scene.

- The ancient pier with its feet and footprints can be rebuilt in accordance with the original.

- The area should be supported with ground cover and small shrubs in terms of plant existence.

Areas that stand out with any of the historical, cultural and natural values are always valuable. However, areas where all three of these are present together are special. Cape Jason deserves special attention for both its nature, its cultural heritage in Greek Mythology and its historical structures. progress has been made in this regard with the applications carried out so far. However, it is critical that protection continues effectively. The area should be kept dynamic and lively with activities and a balance between protection and use should be achieved. In addition, activities and studies that increase the recognition of the region will also be effective in increasing the potential for qualified tourism.

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A Review of the History of Façadism

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1. Introduction

Façadism, by general definition, is a practice that permits the preservation of the outer shell or façade or parts of historic buildings that require protection, while allowing for the demolition of the interior and modern construction behind the façade. Beyond this, Façadism encompasses urban design practices that attempt to create street silhouettes with historical appearances, evoking a specific period within a city. Similarly, façadist practices include modern reconstructions that mimic demolished historic buildings, using modern materials and techniques to recreate exterior shells reminiscent of the old buildings, while configuring the interior differently from the original layout. Façadism intersects with the fields of conservation, urban development, and architectural design, reflecting a multidisciplinary approach to preservation.

The first examples of Façadism appeared notably in England during the 1970s, and the practice soon spread across Europe and later to the United States (Richards, 2002). In subsequent years, similar applications began to appear in Turkey. Overseas, these projects often led to clashes between urban developers, who supported growth, and conservationists. Reports on façadist interventions in protected buildings appeared frequently in periodicals and newspapers, with criticism often directed at these interventions. This public scrutiny resulted in books, research articles, and theses on Façadism, and an international symposium on the topic was held in Paris in 1999.

While Façadism has not been formally classified in Turkey, many examples that align with Façadism have been legally permitted across various Turkish cities, particularly over the past 25 years in Istanbul, Izmir,

Bursa, and Ankara. These permitted buildings are generally those deemed worth preserving for their façades, while their interiors—considered to lack historical or artistic value—are approved for substantial changes. The initial examples sparked debates within Turkey on conservation, architectural design, and urban development, and, as a result, some municipal councils have refused similar proposals for façadist projects.

Façadism presents different issues depending on one's perspective. The quality of urban applications and whether these projects achieve their objectives can influence whether Façadism is viewed as beneficial or problematic. Authorities that allow façadist applications, involving the partial demolition of historic structures, are responsible for ensuring these projects align with the country's cultural heritage realities. They must also recognize the importance of safeguarding historical assets. Façadist practices have opened up discussions on the preservation status of historic buildings, intervention decisions, and documentation standards. Determining standards for the preservation-worthiness of a building's interior is a key issue in Façadism. Some authorities consider preserving the artistic value of a building's façade sufficient, even if the interior lacks similar value, without acknowledging that the building's interior is also a product of the technical, economic, and architectural needs of its time. Supporters of this view argue that preserving the façade alone is adequate for urban conservation.

The primary challenge with Façadism is the lack of consensus, both within architecture and conservation fields and among other disciplines (Luxen, 2001). Strict conservationists have harshly criticized Façadism, arguing against its practice of separating the interior and exterior in both concept

and execution. They do not see Façadism as a legitimate form of conservation. However, those who find Façadism acceptable view it as a means of preserving the city's authentic silhouette while contributing to urban development. International conferences and manifestos have discussed Façadism, with some critiquing and others recommending this approach. Many experts in conservation, shaping the intellectual development of preservation practices, have voiced their positions on Façadism. Despite widespread criticism, Façadism has continued to spread globally, suggesting that it is viewed favorably by some. Proponents of Façadism argue that it provides users with modern, functional spaces within a historical context, and, from a positive perspective, Façadism contributes to the city's transformation, thus making it an acceptable practice (Luxen, 2001). The frequent appearance and continued implementation of Façadism worldwide indicate a broad acceptance of this favorable outlook. Simultaneously, some conservationists take a neutral stance, emphasizing the city's ongoing change and considering Façadism a tool that supports this transformation, avoiding firm opposition or endorsement of such practices.

This study examines the general definition and history of Façadism, focusing on basic conservation perspectives and providing an assessment of Façadism in terms of architectural periods.

2. Façadism

Façadism refers to the practice of retaining one or several facades of a historic building while demolishing its interior and constructing a new structure behind the facade. In English, this practice is known as "Façadism," with alternative terms such as "facadomy" occasionally used

(Tyler, 2000). In Turkish, this practice is commonly referred to as "*Façadism*" Beyond this definition, within the conceptual development of Façadism practices, it is also applied to encompass decorative applications aimed at achieving historically styled urban silhouettes and examples in reconstruction where only the facade of the historic building is reconstructed. From another perspective, Benhamou (1999) describes Façadism as an inevitable structural intervention required to meet the current use and living conditions while keeping alterations to historic buildings minimal. He identifies it as the most radical intervention, describing Façadism as making profound interior changes without altering the building's external shell. He explains that this approach suggests preserving the facade while demolishing the remaining interior structure, hence coining it as Façadism. Richards (2002) defines it as producing redesigned and modernized interiors by sacrificing part of the facade and the entire interior, with the facade as the key component of the urban image. Emmitt (2003) describes façade retention as the construction of a new building behind the historic facade, aimed at preventing complete destruction of the urban fabric. He notes that while some argue for preserving the entire historic building, others accept modern interventions behind historic facades, with planners and urban developers generally viewing such practices positively.

Façadism occupies an important place in architectural history, with both positive and negative effects depending on perspective. Examples of Façadism practices, which have become widespread since the 1970s, reveal some differences over time. In early applications, Façadism was perceived as the rebuilding or repair of facades, the revitalization of old

urban fabric, and the adaptation of building exteriors to contemporary conditions. Today, Façadism is understood as preserving important facades while demolishing and redesigning the interiors to meet current needs (Barre, 1999). This practice completely separates the interior from the exterior of the historic building, where preserved facades serve only as decorative elements in the new structure. Façadism is significant in preservation practices as it highlights the designer, encourages builders to create new solutions to technical problems, and involves innovative solutions beyond conventional technical methods in new buildings (Highfield, 2003). Dimitrokali et al. (2010) view Façadism as a divisive topic with opposing views within architectural conservation, where it involves the preservation of either part or all of a building's facade while constructing a new building behind it. They question whether Façadism represents an honest approach regarding architecturally and historically significant buildings. Highfield (2003) asserts that the practice of building new structures behind historic facades—or conversely, retaining historic facades in modern applications—poses a significant issue in architectural history.

As interiors of historic buildings constructed through traditional methods are entirely renovated, the building area often increases, and height restrictions are exceeded, as seen in numerous examples. Façadism requires decisions directly affecting historic buildings, the most crucial being which facades are deemed worthy of preservation and whether the interior should be entirely demolished. In line with this, it is both difficult and highly debated to decide which parts of a historic building are integral to the urban fabric and should be preserved.

In observing Façadism practices, many seem to prioritize area gain and real estate value over preservation. Although the exterior shell is preserved, interior space with unrestricted usage is gained, and economically more valuable new buildings are created than the historic ones. Retaining the historic facade purely for decorative purposes, transforming the original historic building in terms of material, design, size, and scale, is criticized. Although Façadism might initially appear as a successful preservation application, a closer analysis reveals that it contrasts with the achievements of the preservation movement. Façadism emphasizes certain preservation concepts sharply, including material compatibility, structural integrity, and relationships at interior or urban scales, encapsulating differing views on these issues. Historic facades emptied of their interiors and inadequately integrated with new buildings in style, structure, and technique are often labeled as "fake history." Criticism of Façadism practices often includes opposition to this "fake history," as these facades cannot bear historical meaning as the original building did, with the building losing its historic character. Preserved historic sections in new applications stand out distinctly, as a consequence of these practices, with their historic character effectively lost. All preservation applications should respect cultural heritage and its public value and significance. Preservationists continue to argue that historic buildings and environments are meaningful elements of life and should be adapted to new uses under appropriate conditions. Insistence on basic facade retention practices leads to results that are visually challenging. Preservationists in such practices struggle to either protect the historic

building or design a high-quality new structure, leading to a kind of careless infill that cannot be considered true preservation (Semes, 2009). Pinan (1996) notes that Façadism attempts to reconcile two opposing aims. The first is to renew and adapt the historic structure for a new function, and the second is to preserve the traditional urban fabric and facade character. Façadism is described as simultaneously embodying the acts of both demolishing and not demolishing. The emptying of the interior of the historic building represents demolition, while the preservation of the facade represents non-demolition. Façadism inherently encompasses both renewal and preservation. Historic cities and fabrics are constantly evolving, and during this change, the compatibility between original sections and new applications remains a current issue. Buildings we regard as historic today were, at one time, quite new, and over time, they have been influenced both positively and negatively by changes in cities. Many historic buildings have been lost for various reasons, some deliberately demolished to make way for new structures. Regardless of the reason, it is inconceivable to produce a new building in a historic environment independently of its surroundings and landscape. In cities with a deep historical background, ignoring the historical development and transformation of the city in new applications does not constitute a successful architectural practice.

Any new building in a historic environment should be built to communicate with its surroundings. This communication may be peaceful and harmonious, or, depending on the intentions of the investor and designer, it can be quite stark and discordant. The problem is how to integrate a contemporary and contrasting element with the historic

environment. If this issue is not thoroughly examined during the project phase, dilemmas will arise between past practices and future urban vision goals (Semes, 2009). Especially in the last twenty years, there has been intense debate regarding contemporary applications in historic buildings and fabrics. The feasibility and acceptability of such practices remain significant topics of discussion. Architects and urban planners with different approaches than the traditional materials and design perspectives of the historic environment have introduced modern materials and innovative designs in historic urban settings. Sometimes, striking designs by award-winning and experienced architects have received criticism despite possessing unique architectural and aesthetic value. Criticisms in preservation practices include lack of respect for historic craftsmanship, disregard for traditional or even ancient architectural traditions, and secondary consideration of historical and contemporary messages and cultural values (De Naeyer, 2003).

The Pompidou Centre in Paris, coded as an architectural language opposite to the historic environment, was heavily criticized at the time of its construction, but later accepted as highlighting the presence of the historic environment and showcasing period differences (Figure 1).

Figure 1. Pompidou Center, Paris, France, Fransa

Similarly, the 1830 neoclassical Lyon Opera House was redesigned by Jean Nouvel in 1986. To meet the spatial requirements of the opera house, the interior was completely emptied, and half-cylinder-shaped additional floors with a neutral design approach were constructed (Figure 2).

Figure 2. National Opera House, Lyon, France (URL, 2024)

In today's cities, practices that imitate past architectural styles without necessitating the reconstruction of a historic facade, promote new urban revitalization, and contribute to the city skyline are also considered

Façadism. Such applications have been frequently encountered in our country in recent years. The aesthetic concerns regarding the existing building stock in historic environments that are not products of conscious urban development, such as facade cleanings, ensuring that buildings and decorative elements relate to one another, efforts to establish linguistic unity in urban appearance, and attempts to create common storefront facades can also be evaluated within this scope. The aim of these practices is to make users feel that they are living in a quality physical environment and to create urban centers of attraction.

Façadism, which has been criticized from many perspectives, is described as an application that aims to establish a balance between those who desire urban development and view it as a necessity and conservationists. The critical perspective, however, sees it as a practice that diminishes preservation to a two-dimensional level (Tyler, 2000). Buildings that have become synonymous with facade preservation are typically prominent structures located in or near the city's historical commercial centers, significant for their distinctive facades and city identity. The most important commonality among such structures is that they are generally situated in valuable parts of the city and their interiors are deemed not worth preserving. Due to new planning decisions in their zoning blocks, the aim should be to enhance the potential of these buildings' existing spaces and fully adapt their interiors to new functions in new applications. Depending on the perspective, Façadism can be evaluated in various aspects, including architecture, preservation, the techniques used in practice, and urban planning. Among these evaluations, the preservation of the historic structure's originality is the most crucial assessment

criterion. Many applications face criticism for losing the building's originality and the spirit it possessed. Whether the applications respect history and their aesthetic qualities varies according to perspectives, becoming a highly debated topic.

3. History of Façadism

The intellectual foundation of Façadism began in England. The concept of Façadism was viewed as a solution that reconciled strict preservationists with experts supporting urban development while re-evaluating England's cultural heritage. In the 1970s, a product of English postmodern architecture, buildings from this period were decorated with classical, Gothic, and Art Nouveau motifs, with their interiors and exteriors being produced in completely different styles. This type of building gained general public acceptance due to the notion that its exterior decorations established a connection with the past. Façadism emerged as a product of the postmodern approach prevalent in England during that time. According to Richards (2002), although England is often shown as the starting point for Façadism in the literature, it can also be said that applications directly corresponding to Façadism were carried out simultaneously or even earlier across Europe.

In general, Façadism, which developed within the postmodern understanding that designs and productions referenced historic facades, has been an indicator of a new urban spirit against modernism. As an alternative to the urban fabrics produced by modern architecture, Façadism examples that have historical exteriors and modern interiors began to be seen as examples meeting multiple demands. In the silhouettes created by

such structures, buildings that have preserved their original facades while having modern applications behind them have differentiated from other buildings whose interiors are preserved. Particularly in Bristol, the practice of demolishing the portions of historical buildings behind their facades and constructing new buildings within the interiors has become common. In the 1980s, Façadism became a highly preferred practice among architects and urban developers in other cities in England as well. This approach to urban development has led to exciting discussions and opposition, as it involves either preserving or creating replicas of the facades of historical structures.

Numerous historical buildings and city silhouettes in Europe have been redesigned and reshaped through Façadism. The Helsinki City Hall serves as a striking example. Cities such as Bruges (Belgium), Salerno (Italy), and Paris are places where such practices are frequently observed. The international renovation project carried out while preserving the main facade of the Louvre Palace is a notable example (Figure 3). Additionally, Façadism has been widely applied in major American cities like Washington DC, New York, Boston, and Philadelphia, and has started to appear in many smaller cities. Among these, the San Francisco Architectural Heritage Foundation included 250 buildings entirely and 182 historic buildings based solely on their facades in its preservation decisions in 1985, setting Façadism as a target (Richard, 2002). Early examples in America include the ZCMI Building in Salt Lake City (Figure 4) and Amussenes Jewelry Store, along with the Army and Navy Club, Bond Building, and Chase Plaza/Chicago in Washington. The "Cumberland Terraces" within Regent's Park in London, built in 1826, is a form of

Façadism due to the changes made in its interiors to improve its deformations over time (Highfield, 2003).

Figure 3. Louvre Palace, Paris, France.

Figure 4. ZCMI Building, Salt Lake City, USA

The practice of Façadism can be observed in any area experiencing high real estate prices and urban transformation pressures. Residential buildings located in historic city centers, repurposed commercial structures, and industrial buildings that have been integrated into social life through urban regeneration are the types of buildings where Façadism is most commonly seen. Conversely, Barrue (1998) notes that Façadism has also been applied in rural areas of France, in homes with regional architectural character. Examples of Façadism in places of worship are limited. It has generally

been an approach used in churches damaged after World War II. Similarly, churches that have been damaged by fires or have fallen into disrepair over many years have had their interiors repurposed, or certain parts have been incorporated into new constructions, reintegrating them into contemporary life (Egleston, 2004). There are instances where surviving parts of church buildings have been used as decorative elements in new building designs. Churches, due to their forms, are significant elements of the urban landscape. They have a strong pictorial impact on the city silhouette. Because of these qualities, church fragments have been evaluated in new designs (Figures 5-6).

Figure 5. Mt. Vernon Church, Boston, USA (Dipner & Dibner-Dunlop, 1985)

Figure 6. Old St George's Church, National Archives, Edinburgh, Scotland

In England, where the concept of Façadism originated, there was a rapid documentation effort between 1980 and 1990, which helped save many historic buildings from demolition. After the documentation efforts, discussions shifted from whether historic buildings should be demolished to how to intervene with these structures. Façadism practices were allowed as a representative of the reconciliation between urban conservation and change, especially in the commercial areas of cities. Gringer and Grey Streets in Newcastle upon Tyne, England, are places where Façadism practices were prevalent between 1982 and 1990 (Figures 7 and 8). Through Façadism, the aim was to preserve the city's skyline (Pendlebury, 2009). Examples like this help to protect urban fabric and create historically styled street silhouettes. Similar to the example of Newcastle upon Tyne, Pinan (1996) makes a comparable assessment for Paris. Pinan (1996) argues that façadisim is a preferred method to enhance building efficiency while preserving the historic street silhouette and that adding historically styled buildings to urban voids creates visually rich street fabrics.

In parallel with global practices, examples of Façadism have started to appear in Turkey. The first instances emerged in the 1990s in cities such as Istanbul, Izmir, and Bursa, where land and real estate prices were high. It is understood that these early examples in Turkey served as a temporary solution, primarily aimed at granting zoning rights to the owners of historical buildings in rapidly developing urban areas. Urban development plans that lack reference to the city's historical fabric allowed for high density and extensive construction. A facade-based preservation approach was attempted to enable shorter historical buildings to benefit from these

zoning rights. However, experiments revealed that such practices focused more on generating profit than preserving the historical urban silhouette, drawing significant criticism (Figure 9-10).

These practices have had various impacts on urban residents. The transformation of the historical urban fabric in this manner has generally been considered a tragically comical approach, even satirized through caricatures. In particular, the conversion of historic residential structures into densely populated central areas not only altered the social fabric but also caused a significant increase in traffic congestion in the cities (Figure 10-11).

Figure 7. Grey Street New Castle upon Tyne, England (Pendlebury, 2009)

Figure 8. Grey Street New Castle upon Tyne, England (Pendlebury, 2009)

Figure 9. İzmir Office Building

Figure 10. İstanbul Taksim Hotel

Figure 11. İzmir Apartment Building

Figure 12. Bursa office building

3.1. Pre-Modern Façadism Trends

The most common criticism of Façadism practices is aimed at the disconnection between the interior and exterior spaces. From a purist perspective, it is concluded that the facade should always reflect the

interior space. This idea is central to the ideas and design philosophy of the ancient period. The important architect of antiquity, Vitrivius (1996), defined the creation of a beautiful building as the achievement of integrity among the parts that constitute the building within certain proportions. He specifically noted that adding or removing something from the facade could disrupt the entire composition. This notion is also observed in the Gothic and Renaissance movements (early 15th century to early 17th century), which significantly employed classical architectural details in building facades for many years. Following these movements, Baroque architecture produced similar qualities. The impact of Baroque architecture on cities begins with the design of street silhouettes in this style between the 16th and 18th centuries. During this period, there was a close relationship between urban-scale and block-level regulations. In cities like Paris, London, and Berlin, architectural productions with more pronounced facades can be observed under the Baroque design philosophy. The Art Nouveau movement, which was influential from the 1880s until World War I, also produced richly detailed facades that enhanced the city skyline. Renovating facades or creating interior spaces behind preserved facades reflects a design philosophy that continues traditional forms and styles. In 19th-century Paris, Baron Haussmann utilized many historical facades as part of urban planning, creating city silhouettes that were very similar by using classical architectural details in extended facades. Sources indicate that facade competitions were held in Paris in the 1890s (Pinan, 1996). These types of applications, which aimed to present the city historically, also overlap with Façadism. There are some similarities between Façadism practices and the classical building

tradition, such as the elevation of the facade and the effort to create striking facades in the city (Richards, 2002).

In addition to examples that support Façadism, there were also professionals who opposed facade-heavy design approaches. John Ruskin, an important figure in 19th-century conservation practices, stated in his book "The Lamp of Truth" that buildings should possess structural integrity, expressing this as an act that elevates the building, and he produced work in this direction (Pendlebury, 2009). In early 20th-century America and Europe, as well as in England during the 1930s, there were many buildings with early steel structures clad in classical styles. While these buildings appeared closer to the modern movement due to their technology and the use of new materials, their design philosophies were in line with Façadism. Key overlapping aspects include the stylistic differences between interior and exterior spaces, the concealment of steel structures, and the traditional forms used to clad building facades of this period. In summary, in the pre-modern period, the facade of a historic building was seen as a fundamental determinant of building design rather than its interior space, forming the basis for the idea of Façadism. Conversely, the cladding of modern materials with classical materials and decorations has been criticized for differences in approach between interior and exterior spaces.

3.2. Modern architecture and Façadism

The modern architecture movement developed in parallel with the advancements in science and art in the early 20th century, emerging as a rational and functional approach that had a global impact. This period saw a significant influence of function on building form, with the emergence

of simple designs. The works produced in modernism broke away formatively from past forms, introducing a new architectural discourse and language. Modern architecture defined design philosophies that met the needs of the industrial age, using the materials of the time. However, the emergence of modern architectural products also led to some disappointments. One of these disappointments was the insensitivity of the modern movement towards architectural conservation, which sometimes led to outright rejection of it.

There are both similarities and contrasts between the dogmas of Façadism and modern architecture. After implementation, Façadism offers functional solutions to users. In this aspect, Façadism intersects intellectually with the modern architecture movement, which produces flexible spaces and architectural solutions. Modern architecture desires the external reflection and perception of internal function, discussing their simplicity and minimalist design. However, in Façadism practices, the interior and exterior are entirely different, with the interior not reflecting on the facade. This aspect favors modernism's belief in honesty, asserting that the interior and exterior relationship should be a continuation of one another without misleading the user. The modern movement proposes and designs urban spaces that are conceived and designed according to the needs of the age, desiring the development and transformation of the city. In this respect, there is a commonality with Façadism, which is a part of urban development. Additionally, Façadism shares similarities with modernism by using contemporary materials, new structural designs, and allowing for expansive transparencies (Richards, 2002).

The intellectual separation between modern architectural approaches and Façadism is sharply evident regarding building structure. Venturi (1966) ranks three fundamental elements according to their significance: first, the outer shell that separates the space from the external environment and gives the city its facade; second, the interior space, which is more private and user-specific; and finally, the structure that supports the building. In this context, Sebestyen (2003) notes that these three elements should be in unity in modern architectural products. The exclusion or negation of the structure and the design of a different structure in its place is unacceptable in the context of modern movement. Today's understanding of Façadism is distinct from the modern architectural approach, as it completely excludes the interior structure. From an urban perspective, there is a difference between the modern movement and Façadism. Creating historically styled street silhouettes does not align with the modern approach. The modern perspective does not favor non-functional historical decorations at both individual and urban scales. In this context, Sebestyen (2003) points out that sometimes altered or distorted forms are used as decorative elements on facades, indicating that these are made with facade concerns, citing architects like Ricardo Bofill, Charles Moore, and Michael Graves as examples.

While the modern movement may not reflect the structural integrity of Façadism, it can have a positive attitude toward it. Both approaches desire urban development; however, the implementation method varies from country to country. The Old Post Office Building in Edinburgh, built in 1861, had its interior completely emptied and transformed into modern office units in 2005 while completely preserving its outer shell (Figure 13).

The differences reflected on the facade of the preserved building are seen in the façades cleanliness, modern casings in the window and door openings, and a partially transparent covering on the top floor. This application was made in line with the main idea of Façadism. While all facades and volume of the historic structure were preserved, the transformation of 2-3 story historic buildings into high-rise buildings and skyscrapers, especially in central urban areas, appears to deviate from the rationale behind Façadism. Such approaches demonstrate that the desire for urban development through Façadism has been interpreted in an uncontrolled manner and distanced from its essence.

Figure 13. Edinburg Old Post Office

Lloyd's Building, a significant structure of modernism, is located in London's commercial center. Designed by architect Richard Rogers, the building opened in 1985 and has become one of the emblematic works of high-tech modern architecture. The structure relates to Façadism in two primary ways. Firstly, similar to Rogers' other notable project, the Pompidou Centre, the Lloyd's Building occupies a position within the historical fabric of the city while simultaneously creating a stark

architectural contrast to its surroundings, highlighting the differences of the era. This juxtaposition emphasizes the modern architectural language in a context that predominantly features classical styles. Secondly, although it is considered one of the iconic buildings of modern architecture, the building decoratively incorporates the entrance door of the Lloyd's Company, dating back to 1928, on its Leadenhall Street facade (Figure 14). In historic contexts, the modern architectural products designed under new architectural concepts generally strive to differentiate themselves in terms of materials and architectural language from their surroundings, emphasizing temporal differences. In a city silhouette dominated by classical facades, materials such as large glass surfaces, reflective mirrors, and steel frames are commonly employed. Similarly, examples that fill urban voids within street silhouettes often include contemporary interpretations of historical facades, blending the past with modernity in a way that respects the historical context while also innovating upon it. This approach seeks to create a dialogue between the new and the old, enriching the urban landscape with diverse architectural expressions (Table 1).

Figure 14. Llyods Building London

Table 1. The Relationship between the Modern Architecture Movement
and Façadism

Modern Architecture Movement	Façadism
Proposes functional and flexible interior spaces.	Provides free space usage in the interior.
Seeks harmony between the reflection of the interior and the exterior façade.	The interior is behind the façade; the interior and exterior do not reflect each other.
Desires urban development.	Designed to contribute to urban development.
Utilizes contemporary material possibilities.	Incorporates modern materials and designs behind historical structures.
Structural accuracy is fundamental.	The exterior façade and the internal structure are completely different.
The design approach is simple.	There is no definitive and singular design approach; it varies according to the designer and decision-makers.

3.3. Post modern Architecture and Façadism

Postmodernism emerged in the 1970s as a reaction to the modern
architectural movement (Venturi, 1966). Over time, modern architectural

products faced various criticisms, both in terms of thought and content. These criticisms often focused on modernism's complete break from historical continuity and its disregard for historical values, leading to a homogeneous architecture worldwide. Many modern architectural works were designed independently of their local cultures, which prompted a reevaluation of postmodernism. Postmodern architecture argues that historical forms and styles can be an endless source of inspiration, asserting that these elements should be modernized and incorporated into contemporary design. The use of historical elements in architecture helps maintain cultural continuity. Postmodernism is characterized by its eclectic nature, as it takes, interprets, and sometimes directly copies historical building forms. The historical decorations and architectural elements on facades significantly impact the urban silhouette.

While modernism emphasizes unity, holistic geometries, and rationality, postmodernism is dominated by contradictions and complexities. It focuses on the concept of urban memory, emphasizing the rediscovery of traditions and culture, and seeks to integrate these values into the architectural environment. However, the excesses and disorder in the use of these elements have negatively affected the aesthetic values of urban spaces. As a result, many designs have replaced expected consistency with disorientation, leading to the emergence of eclectic designs and the kitsch phenomenon (Midilli Sarı, 2005). Show (2001) argued that citizens should be aware of the deceptive applications of the postmodern movement and Façadism in our cities. The author also notes that architectural products emphasizing historical facades strengthen the visual impact of the city and are desired by property owners because they increase real estate values. In

England, the first postmodern examples of Façadism began in the 1960s. Robert Venturi's book "Complexity and Contradiction in Architecture" provided the intellectual foundation for the postmodern movement, leading to its widespread adoption. Venturi (1966) advocated for architectural compositions that consist of separate parts and their combinations. There are similarities between Façadism applications and the building forms used by Venturi. The most significant of these similarities is the physical and visual separation between the interior and exterior. Another important similarity relates to historical elements. Façadism strikes a balance between the demands for strong urban development and the preservation of historical forms. The postmodern perspective, while desiring urban development, asserts that this must be done without compromising urban identity and historical continuity.

Facades are crucial for the urban and street silhouettes in Façadism, and updates can be made to interior spaces. This allows for the preservation of important historical facades while designing the required spaces behind them. Thus, Façadism serves as an appropriate tool for postmodern urban development and fits well within the postmodern framework (Richards, 2002). A similar assessment is made by Simone (2001) in the context of Brussels. The author points out that in Façadism applications, the facade remains merely a visible element that one passes through to reach the interior, indicating that these practices align closely with the postmodern movement. Within this general framework, it can be concluded that Façadism fundamentally occurs within the systematic thinking of the postmodern movement. Based on this understanding, the applications of Façadism and postmodern architectural products have been mutually

evaluated, revealing that their commonalities outweigh their differences (Table 2).

Table 2. The Relationship between the Postmodern Movement and Façadism

Postmodernism	Façadism
Urban spaces based on historical emphases create urban vistas.	Aims to preserve existing urban spaces and urban vistas.
There are visual separations between interior and exterior spaces.	Façadism technically and visually separates the interior and exterior.
Aims to realize urban development using local architectural elements.	Designed to contribute to urban development; uses existing historical elements.
Can lead to historical misconceptions; designs can be considered historically.	Despite the loss of information in the interior, the building can be perceived as historical.
It is a distinct architectural movement.	Not an architectural movement, but a type of practice; the closest architectural movement is postmodernism.

3.4. Façadism in the Context of Deconstructivism

There are significant differences between the products of modern and postmodern architecture in historical contexts. While modern architecture exhibits a holistic approach, postmodernism presents a visually dynamic design philosophy. Deconstructivism, on the other hand, manifests through practices that fragment known forms and structures, attempting to completely differentiate from the historical environment. Emerging after the postmodern era, deconstructivism represents an architectural movement that uses forms more flexibly by breaking away from the rigid architectural shapes that the postmodern movement often copied from historical elements.

Deconstructivism has produced original architectural products through an approach that disrupts and deforms conventional architectural forms. The deconstructivism thought is clearly expressed in its designs, utilizing

limitless and original geometries. By employing haphazard geometric forms, curving surfaces, and twisted lines, it seeks to establish architectural balances amidst the tensions that arise from contradictions. This movement is notable for its use of different materials and its challenging approach to structure. Deconstructivism can yield architectural forms that may sometimes be deemed impossible by distorting concepts such as harmony, coherence, and balance in structure (Midilli Sarı, 2005). Daniel Libeskind has employed both Façadism and deconstructivism in several of his projects. Notable examples include the Royal Ontario Museum in Toronto, Canada (Figure 15), and the Military History Museum in Dresden, Germany.

Figure 15. The Royal Ontario Museum Toronto Canada

4. Results

Façadism remains a contentious practice. To mitigate the issues associated with Façadism, it is essential to conduct planning studies that eliminate the justifications for Façadism applications. By preparing zoning plans that reference historical buildings and contexts, pressures on these structures and their surroundings will be reduced. Historical buildings should be

approached with a holistic planning strategy rather than a solely facade-focused preservation approach.

The structures and additional elements that constitute the skyline of Turkish cities create a certain level of chaos. Considering the lifespan of buildings, a transformation within the urban fabric is inevitable. During this transformation, elements that shape the identity of the city must be meticulously preserved, and new modifications should be made with reference to the historical context. A non-existent urban silhouette should not be reconstructed based on historical data, as this could mislead users. By recognizing the importance of cultural tourism in our cities, the healthy integration of existing fabrics into tourism will contribute positively to the sector. Although strengthening the visual impact of the city through the creation of historically styled yet non-existent structures may seem beneficial, their artificiality will quickly be perceived by users with strong architectural awareness.

Recognizing the importance of historical buildings and the values they carry will facilitate the acceptance of a holistic approach to these structures. The loss of any element in the composition of a historical building signifies the beginning of a loss of the values it embodies. Therefore, the interior and a part of the facade, which contain the social, economic, and artistic knowledge of the period in which the building was constructed, should not be excluded. The significance of originality at both the singular and fabric scale must be understood. Any form of intervention, material, technique, or use applied to a historical building and its context since its inception will negatively affect the originality of the structure and its surroundings. During Façadism applications, the question of how many

building elements specific to the building's original construction period are preserved will be examined, allowing for an understanding of the degree to which the building's originality has been maintained. Additionally, in instances where the mass has changed, the ratios of height changes in buildings within the relevant area of the city will be observed. Designers, due to functional changes, must respect the exterior composition as well as the interior space and should not alter the facades of ground floors, particularly for display arrangements. In this way, both the values of the structure and the spirit of the space can be preserved to some extent. Awareness of the social changes arising from Façadism applications should prevent pressure on long-time residents to leave their neighborhoods. Improvements should be made that cater to the social fabric of the residents. Economically, historical contexts should not be viewed merely as consumption objects, and measures should be taken to ensure that economic concerns do not take precedence over preservation efforts. This can only be achieved through legal regulation, quality supervision, and a conscious decision-making process.

In Türkiye, Façadism practices have been experimental. In most cases, the design quality, material and workmanship quality, and usability were observed to be significantly lower compared to European examples. Therefore, future practices in Turkey must ensure that the reasons for their implementation prioritize design, application, and usage quality. Many contemporary property owners lack a healthy awareness of preservation and prioritize economic concerns. In designs involving historical fabric and environments, efforts should primarily avoid mimicry. By recognizing that history is an endless source of inspiration, designers can create works

that do not mislead user perception. The conditions of construction and design processes for similar, neutral, interpretative, and contrasting applications mentioned above should be presented to the professional community, which may prove beneficial for informing and educating them.

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Examination of the Courses for the Protection of Cultural Heritage in Interior Design Education

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1. Introduction

Cultural heritage refers to historical and cultural values of universal value that have reached from the past to the present and are intended to be transferred to future generations. Being aware of the importance of cultural heritage, respecting cultural heritage and protecting this heritage is accepted as a criterion of development. The protection of cultural heritage has social, cultural and economic value for societies and all individuals of the society have important duties in the process of protecting and preserving the heritage.

Despite the existence of laws, regulations and various studies for the protection of cultural heritage, there are deficiencies in the creation of conservation awareness and conservation culture. Eliminating these deficiencies requires multidimensional thinking. Tapan (2014) emphasises that raising public awareness through education and thus protecting the cultural heritage by the public is the healthiest policy, that laws can only help in how we can protect, and that why and why questions can only be acquired through education. A sustainable conservation awareness at the social level can only be achieved through the production of educational policies for the protection of cultural heritage.

Addressing cultural heritage education at different levels and contents is an important step in protecting our cultural heritage. It is important that this process, which starts with the creation of conservation awareness at an early age, should be included in all levels of education with appropriate methods and techniques. Cultural heritage education, which is important at all levels, is also important in the undergraduate education process. It is important to have knowledge about the protection of cultural heritage in

the discipline of interior architecture, which is a discipline that bears responsibility for the protection of cultural heritage, especially in the protection of historical buildings, reuse of buildings, culture, identity dimension. The relationship between cultural heritage and interior architecture education is necessary for the protection of the architectural values of the past and the maintenance of this heritage in future designs. Interior architecture education not only provides students with the ability to design new buildings, but also teaches them the responsibility of understanding and interpreting historical and cultural heritage and transferring this heritage to future generations. In this way, interior designers can be more conscious about understanding and protecting cultural heritage. Thanks to cultural heritage education, students learn about historical buildings and historical environments and gain knowledge, skills and responsibility about the importance and necessity of protecting these values. Through cultural heritage education, students gain knowledge about their own culture and identity. They learn traditional building techniques, material usage, details, ornaments, they can use these data in their new designs and have knowledge about sustainable design approaches. In addition to these, students who receive cultural heritage education have a strong connection with their history and values and carry social and cultural responsibility in their designs. This encourages the awareness of protecting the heritage of the society.

In this study, it is aimed to provide an adequate level of education on the protection of cultural heritage in interior architecture education and to draw attention to its importance in protection. In this context, in this study, the curricula of universities providing undergraduate interior architecture

education in Turkey are evaluated in terms of the protection of cultural heritage and the adequacy of interior architecture education in the scope of cultural heritage protection is investigated and determinations are made for the courses.

1.1.Cultural Heritage

According to Altman and Chemers (1984), culture refers to the beliefs and perceptions, values and norms, customs and behaviours of a group or society. The concept of cultural heritage, which has a very wide scope, is the whole of all kinds of artefacts and values that need to be protected for future generations and passed down from generation to generation (İslamoğlu et al; 2018). These values are the values that constitute the common past of a society, ensure the continuity of experiences and traditions accumulated throughout history, and shape the shaping of society. From this point of view, the cultural accumulation of the past and the sum of the basic elements that make up a society are considered as cultural heritage. UNESCO defines cultural heritage or cultural heritage as "a general name given to what has survived to the present day from experiences such as artefacts, language and culture created by previous generations and believed to have universal values" (UNESCO, 1972).

The concept of cultural heritage was first included in the Hague Convention in 1954 after the World War II with the expression "movable and immovable property that bears the culture of all". At the meeting in The Hague, the "Convention on the Protection of Cultural Property in the Event of Armed Conflict" was adopted, where the concept of "cultural property" replaced the concept of "antiquities" (Madran & Özgönül, 2005).

"Cultural Heritage" has evolved in definition and scope in the historical process and has come to the present day by differentiating. The definition of cultural heritage has expanded over time to include civil structures, urban and rural areas, and abstract categories including culture and art branches (Güleç Korumaz, 2015). The Council of Europe defines cultural heritage as the resources inherited from the past as an expression of people's ever-changing values, beliefs, knowledge and traditions. Cultural heritage reflects the way of life of the country where it exists and the creativity of the people of the country (Kurak Açıcı & Temur, 2023). Cultural heritage is defined by Öksüz Kuşçuoğlu & Taş (2017) as the richness that describes the common past of the people in the same society, reveals their historical accumulation, and has meaning not only for the society and future generations but also for all humanity, Koçak & Taş (2017). Can (2018) defines it as the artifacts left to us as a legacy by our ancestors, which we choose to protect because we value them socially and individually, and which are the outward reflections of human communication and behaviour; Karip (2012) defines it as the cultural values that have emerged as a result of the creativity of people and the interaction of societies with each other since the beginning of human history.

Cultural heritage is the values that tell the common past of a society, strengthen the feelings of solidarity and unity of the society, ensure the continuity of the experiences and traditions that people have accumulated throughout history, and shape the future (ISMEP, 2014). Cultural heritage education is an important process at the beginning of the conservation practices applied for the protection of these values, raising awareness of

the society in terms of the cultural values of the environment they live in and raising awareness.

1.2.Cultural Heritage Education

Conservation awareness is the understanding, attitude and behaviour of individuals and communities in protecting cultural heritage. One of the most important actions that are as decisive as national and international policies on the protection of cultural heritage is that individuals have awareness and responsibility awareness on the subject (Çatalbaş &Dinçel, 2020). Cultural heritage education is important for individuals to reach this awareness and sense of responsibility. In this context, cultural heritage education is the basis of strategies for the protection of cultural heritage with a sustainable approach. Providing the necessary education on this issue is important in terms of reducing the negative effects of the individual on the natural, social and cultural environment and protecting these values (Kuter & Ünal, 2009).

The aim of cultural heritage education is to instil a sense of stewardship over historical elements and traditions by enabling individuals to become knowledgeable about historical places and elements, and in conjunction with this, to feel an active responsibility for the protection of this heritage (Copeland, 2004). Cultural heritage education increases people's awareness of the values and events that comprise their cultural heritage (Hunter, 1992), fosters a sense of continuity and commitment to historical and cultural values, and encourages societies to consider and reflect on their own historical and cultural experiences when planning for the future (Yeşil Bursa, 2011).

The term cultural heritage education, which includes learning activities to better understand history and culture, is an approach to teaching and learning about history and culture using information provided by tangible and intangible cultural assets and the environment in which they live. The term heritage education, which was used in the 1980s by museum interpreters, archaeologists, folklorists and communities interested in art history, has become widespread in countries such as England and Scotland since the 1900s (Şimşek, 2020). The aim of cultural heritage education, which includes the protection and learning of all abstract and concrete values of a society, is to increase the individual's understanding and knowledge about the historical values of the environment in which he lives (İslamoğlu, 2018).

Cultural heritage education is an educational process that provides the individual with knowledge and awareness about what cultural heritage is, why it is important and how it should be protected, raising awareness of the individual and the community and taking an active role in this issue, helping communities to understand their own cultural identity and origins and aiming to protect their cultural heritage. This educational process is important for the protection of cultural elements that societies have accumulated from the past to the present and that they should transfer to future generations. Protection of cultural heritage and cultural heritage education are two important concepts that complement each other. While cultural heritage education teaches individuals and communities the value of cultural heritage and the importance of its protection, conservation awareness refers to the reflection of this knowledge and understanding on the behaviour of individuals.

In the world and in Turkey, there are various activities carried out through international conventions, laws, by-laws, regulations, official institutions and organisations, non-governmental organisations, universities and volunteers for the protection of cultural heritage depending on its values. All activities carried out through laws and regulations can only provide the necessary level of conservation understanding with the existence of a conservation conscious society. The lack of social awareness for the protection of the historical and cultural environment and the lack of education is one of the important reasons for not reaching the desired level in the protection of cultural heritage (Tapan, 2014; Tunçer, 2017).

In all studies on the importance of education in the protection of cultural heritage, it is stated that education is a process that should start with the right tools and methods at all levels from childhood, from primary school to higher education (Bektaş, 1992; Lambert, 1996; Uçankuş, 2000; Asatekin, 2004; Stone, 2004; Copeland, 2004; Tapan, 2014).

The first stage of cultural heritage conservation is possible through formal and non-formal education models starting with what is worth preserving, why and how we can protect it (Asatekin, 2004). "Laws can only help 'How can we protect'. The answers to 'why and how' can only be given through education" (Tapan, 2014).In this context, it is an important necessity to address the issue of conservation first to families, educators in the following process, academicians working on conservation and all levels of education. Especially in disciplines that have responsibility for the protection of cultural heritage, cultural heritage education should be given importance.

Interior architecture profession is one of the disciplines that play an important role in the protection of cultural heritage. In this context, it is important to give sufficient place to the protection of cultural heritage in interior architecture education and to contribute to conservation awareness by teaching sustainable conservation methods in order to transfer cultural heritage to future generations.

1.3.Interior Architecture Education and Cultural Heritage

Conservation awareness should become a form of behaviour for the protection of cultural heritage and for this protection to be sustainable. The process of making conservation a form of behaviour can be realised through education and training programmes that draw attention to the importance of conservation, starting in the family, from primary school education to university education. In this context, it is of strategic importance to provide education at all levels of education, especially with appropriate methods and materials in all relevant disciplines by higher education institutions, with the process starting at an early age in order to ensure that protection is sufficiently adopted by the individuals of the country as a social duty. It is a universal acceptance that formal and non-formal education is important in protecting cultural heritage and ensuring the sustainability of this protection (Islamoğlu, 2018). Cultural heritage education, which includes the protection and learning of all abstract and concrete values of the society, provides to increase the individual's understanding and knowledge about the historical values of the environment in which he/she lives. It is very important that the discipline of interior architecture, which is responsible for the transfer of historical and cultural values to future generations by protecting them functionally

and aesthetically, is at an adequate level of education on cultural heritage and its protection, and that the curriculum is planned accordingly. At this point, educational institutions and educators have a great duty.

The relationship between interior architecture and cultural heritage is quite deep and multifaceted. The interaction of these two fields is important in terms of both preserving the past and developing solutions suitable for modern needs. Interior architecture is a profession that deals with and realises the physical and psychological aspects of space in an aesthetic, functional and user-friendly manner (Uluçay & Kaptan, 2019). It is a common duty of all societies to preserve the historical buildings that host various cultures and civilisations and act as a bridge between the past, present and future, and to transfer them to future generations by ensuring their sustainability (Faiz Büyükçam & Eyüboğlu, 2023; Curgül & Bekar, 2024). At this point, the discipline of interior architecture bears responsibility for the protection and restoration of historical buildings, the reuse of buildings, and the protection of cultural heritage with the dimension of culture and identity. From this point of view, it is important to have knowledge about the protection of cultural heritage in interior architecture education. The fact that cultural heritage education is included in the scope of the discipline of interior architecture, which aims at achievements such as strengthening ideas about history and culture and developing issues such as artistic competence, is an important contribution to conservation. In the education curriculum, with courses on the protection of cultural heritage, students are provided with the opportunity to learn about historical and cultural heritage, thus gaining

knowledge and experience. In this way, interior architects are expected to be more conscious about understanding and protecting cultural heritage, transmitting this heritage to future generations, ensuring cultural continuity, and providing new living opportunities for contemporary people together with history.

The importance given to cultural heritage in interior architecture education plays a critical role in carrying the knowledge of the past to the future and keeping these values alive in contemporary architecture. In this way, it is ensured that cultural richness is not lost both in the protection of historical buildings and in the construction process of new buildings. With the adequacy of the courses in the interior architecture education curriculum on the protection of cultural heritage, individuals and communities become more conscious and active in protecting cultural heritage.

Cultural heritage reflects the lifestyle, beliefs and aesthetic values of societies. Interior architecture students can make more sensitive and user-oriented designs by learning the cultural and social values of different societies through cultural heritage education. This sensitivity enables the space to establish a deeper connection with the users... As a result, cultural heritage education provides interior architecture students with the ability to make sustainable and user-oriented designs that take into account the historical and cultural context. In this way, heritage is preserved while old buildings are transformed into new living spaces, and cultural and aesthetic richness is taken into consideration while designing new buildings.

2. Method

With this study, which is based on the importance of cultural heritage education in the interior architecture programme, it is aimed to draw attention to the importance of cultural heritage in institutions providing interior architecture education and to contribute to the elimination of deficiencies, if any. In line with this purpose, firstly the universities providing interior architecture education in Turkey were determined. Assessment, Selection and Placement Centre (ÖSYM) Higher Education Council (YÖK) Atlas was taken as a basis in determining the universities, and the universities were listed according to their status as "interior architecture" and "interior architecture and environmental design" as well as their status as foundation and state universities. The official web pages of 77 universities were accessed and the courses and course contents in the course information packages in the 4-year undergraduate education programme were examined. In the second stage, the course names were scanned with the determined keywords, and the courses for the protection of cultural heritage were distinguished and listed among all courses. In the third stage, the aim, achievements and contents, compulsory elective status and ECTS information of the courses determined in the third stage were examined in detail, and the courses that could not be reached were excluded from the scope.

3. Findings

Within the scope of the study, the courses related to the protection of cultural heritage in undergraduate interior architecture education programmes were examined in detail and findings related to the research questions were obtained. According to YÖK atlas data, there are 16 state

universities and 19 foundation universities in Turkey in interior architecture programme; 6 state and 36 foundation universities in interior architecture and environmental design department. By accessing the official web pages of 77 universities, the purpose, content and scope information of the courses in the course information packages in the 4-year undergraduate education programme, their status as elective/obligatory courses and course ECTSs were examined. As a result of the examination of the objectives, achievements and contents of all courses with keywords, the courses for the protection of cultural heritage were distinguished and listed. At this stage, it was decided to exclude courses related to history. It is a fact that history-related courses have benefits such as historical consciousness, awareness, identity, sense of belonging, making sense of cultural heritage, having historical knowledge in national and international terms. However, in this study, courses directly related to the protection of cultural heritage were included in the scope of the study. In addition, courses whose course content, purpose, scope, compulsory elective status and ECTS information could not be accessed on the department page were excluded. Information about the university, course name, subheadings in the content, elective / compulsory status of the course, and course credit information were entered into the table (Table 1).

Table 1. Universities providing Interior Architecture and Interior Architecture and Environmental Design education in Turkey and compulsory elective status of courses related to cultural heritage and ECTS information.

University Name	Course Name	Z	S	Akts
Akdeniz University	Archıtectural Surveyıng	*		4
	Protection Legislation in Natural and Built Environment		*	4
	Restoration		*	4
Ataturk University	Archıtectural Surveyıng	*		5
	Interior Restoration	*		4
Cukurova University	Archıtectural Surveyıng	*		3
	Restoration Project	*		3
Eskisehir Technical University	Theories of Conservation	*		3
Iskenderun Technical University	Archıtectural surveyıng	*		4
Istanbul Technical University	Paradigms And Case Studies In Adaptive Re-Use	*		7
Istanbul University	Archıtectural Surveyıng and Restoration	*		5
Karadeniz Technical University	Archıtectural surveyıng	*		6
	Interior Restoration	*		6
Kocaeli University	Survey-Restoration and Conservation I	*		3
	Survey-Restoration and Conservation II	*		3
Konya Technical University	No Course Content	-	-	-
Kutahya Dumlupinar University	Survey and Restoration	*		5
	Theories of Conservation	*		3
Marmara University	Archıtectural surveyıng and Restoration	*		2
Mimar Sinan Fine Arts University	Conservation and Restoration	*		3
	Re-functionalisation of the Industrial Heritage		*	3
Nevsehir Haci Bektas Veli University	Survey and Restoration		*	4
Selcuk University	Archıtectural surveyıng	*		4
	Restoration	*		5

University	Course			
Yalova University	Archıtectural surveyıng and Restoration	*		4
Cankaya University	Restoration for Interiors	- -	- -	- -
Dogus University	Survey and Restoration Workshop	*		4
Fatih Sultan Mehmet Foundation University	Space Design in Traditional Turkish Housing Architecture		*	3
	Restoration Techniques		*	3
	Reuse of Buildings		*	3
	Historical Building Analysis	*		4
	Conservation and Restoration	*		4
	Turkish House and Protection		*	4
Haliç University	No Course Content	-	-	-
Istanbul Arel University	No Related Course	-	-	-
Istanbul Aydin University	No Course Content	-	-	-
Istanbul Beykent University	Restoration	*		5
	Survey and Documentation		*	5
	Re-use of Industrial Heritage Buildings		*	5
Istanbul Bilgi University	Survey, Drawing and Representation of Interior Spaces	*		5
	Cultural Heritage and Conservation	*		5
Istanbul Esenyurt University	Surveying and Documentation I		*	4
	Material Culture		*	4
	Advanced Conservation Techniques and Current Discussions		*	4
	Historic Environment Protection		*	4
Istanbul Gelisim University	Restoration Techniquesand Applications in Cultural Heritage Works		*	5
	Archıtectural surveyıng		*	5
	Conservation and Restoration		*	5
Istanbul Kent University	Archıtectural Surveyıng and Restoration	- -	- -	- -
Istanbul Nisantasi University	No Related Course			
Istanbul Rumeli University	Functional Transformation in Buildings		*	3
	Cultural Heritage and Conservation		*	3
	Historic Environment and Conservation		*	3

University	Course			
	Design in Historic Environment		*	3
Konya Food and Agriculture University	Survey and Restoration	*		3
Kto Karatay University	Restoration	*		5
Maltepe University	No Related Course			
Mef University	No Related Course			
Toros University	Survey and Drawing	*		3
	Conservation in the Historic Environment I		*	3
	Conservation in the Historic Environment Ii		*	3
	Restoration		*	3
	Spatial Re-functionalisation		*	3
	Restoration II		*	3
Yeditepe University	Archıtectural Surveyıng	*		4
	Design Principles in Historical Buildings		*	5
Afyon Kocatepe University	No Course Content	-	-	-
Bilecik Şeyh Edebali University	No Course Content	-	-	-
Hacettepe University	Conservation and Evaluation of Historic Environments		*	7
	Interior Solutions in the Conservation and Evaluation of Historic Environments		*	7
	Archıtectural surveyıng and Restoration	*		5
Kirikkale University	Archıtectural Surveyıng and Restoration	*		4
Necmettin Erbakan University	Survey and Restoration	*		5
	Cultural Heritage		*	3
Osmaniye Korkut Ata University	Survey and Restoration	*		5
Altinbas University	Archıtectural Surveyıng and Restoration	*		4
	Archıtectural Surveyıng		*	5
Ankara Science University	No Course Content	-	-	-
Ankara Medipol University	No Related Course	-	-	-
Antalya Belek University	Survey and Restoration	*		4
Antalya Science University	No Course Content	-	-	-
Atilim University	Conservation and Restoration		*	4

University	Course			
	Archıtectural surveyıng in Historical Buildings		*	4
Avrasya University	Archıtectural surveyıng	*	*	5
	Interior Restoration	*		5
	Conservation and Reuse	*		4
Bahcesehir University	Archıtectural surveyıng Drawing	*		4
	Conservation and Restoration		*	4
Baskent University	Conservation and Functionalisation		*	4
Beykoz University	Surveying Restoration Conservation	*		4
	Cultural Heritage		*	3
Biruni University	Building Measurement (Survey)	*		5
	Restoration and Historic Environment Protection	*		6
Fenerbahçe University	Survey-Restoration	*		3
Hasan Kalyoncu University	Archıtectural surveyıng	*		4
	Conservation and Re-functionalisation		*	4
	Building Survey		*	4
Isik University	Archıtectural surveyıng and Restoration	*		6
İhsan Doğramacı Bilkent University	No Course Content	-	-	-
Istanbul Atlas University	Repurposing		*	5
	Historic Environment Protection and Restoration		*	5
	Archıtectural surveyıng	*		3
Istanbul Esenyurt University	Survey and Documentation	*		4
	Surveying and Documentation Ii		*	4
	Historic Environment Protection		*	4
	Material Culture		*	4
	Advanced Conservation Techniques and Current Discussions		*	4
Istanbul Galata University	No Course Content	-	-	-
Istanbul Gedik University	No Course Content	-	-	-
Istanbul Gelisim University	Archıtectural surveyıng		*	5
	Conservation and Restoration		*	5
	Restoration Techniques and Applications in Cultural Heritage		*	5

University	Course			
	Works			
Istanbul Kültür University	Archıtectural surveyıng	*		4
	Restoration	*		2
Istanbul Medipol University	Survey and Re-functioning	*		5
Istanbul Okan University	Archıtectural surveyıng	*		2
Istanbul Sabahattin Zaim University	Protection Techniques and Methods	*		3
Istanbul Commerce University	Conservation and Restoration	*		5
Istanbul Topkapi University	Building Protection Techniques	*		3
	Archıtectural Surveyıng and Restoration	- -	- -	- -
	Design Approaches in the Historic Environment		*	4
Istanbul New Century University	Interior Architecture Surveying and Restoration I	*		5
	Interior Architecture Surveying and Restoration Ii	*		5
	Design Principles in Historical Buildings		*	3
Istinye University	Conservation Practices	*		4
	Architectural Design in Historic Environment		*	4
	Current Issues of Conservation in Architecture		*	4
	Historical Space Readings		*	4
Izmir University of Economics	Interior Studies in Traditional Anatolian Houses		*	3
	Introduction to Restoration and Conservation Studies		*	3
Kadir Has University	Cultural Heritage in Context		*	3
Nuh Naci Yazgan University	Survey and Restoration Techniques	*		5
Ostim Technical University	Survey and Evaluation		*	4
	Restoration and Conservation Works		*	4
Ozyegin University	Interior Architecture Details II: Repurposing	*		4
	Architectural Conservation and Surveying-	*		6
	Re-functionalisation of Spaces		*	3
Ted University	No Related Course	-	-	-

Tobb University of Economics and Technology	Archıtectural surveyıng and Restoration		*	6
Yasar University	Functional Transformation in Buildings		*	4
	Cultural Heritage and Conservation		*	4

All courses in the interior architecture and interior architecture and environmental design departments of all universities in the table were analysed with keywords. 24 courses in 16 interior architecture department state universities, 33 courses in 19 interior architecture department foundation universities, 7 courses in 6 interior architecture and environmental design state universities, 58 courses in 36 interior architecture and environmental design foundation universities, 122 courses in total were determined to be courses for the protection of cultural heritage. Course contents of 1 (Konya Technical Uni.) of the state universities of interior architecture department could not be reached. Course contents of 3 (Haliç Uni, Istanbul Aydın Uni., Istanbul Kent Uni.) of interior architecture foundation universities could not be reached. It was observed that 4 (Istanbul Arel, Istanbul Nişantaşı Uni., Maltepe Uni., Mef Uni.) of the interior architecture foundation universities did not have courses on the protection of cultural heritage in their curriculum. Course contents could not be reached in 2 (Afyon Kocatepe Uni, Bilecik Seyh Edebali Uni,) of the state universities of interior architecture and environmental design. Course contents of 6 foundation universities (Ankara Bilim Uni., Antalya Bilim Uni., İhsan Doğramacı Bilkent Uni., İstanbul Galata Uni., İstanbul Gedik Uni., İstanbul Topkapı Uni.,) could not be reached. Archıtectural surveyıng and restoration course content of Istanbul Topkapı University could not be reached. Other related courses

were included in the research. It was observed that 2 of the foundation universities of interior architecture and environmental design (Ankara Medipol Uni., Ted Uni.) did not have courses on the protection of cultural heritage. The table shows that 59 universities have courses on the protection of cultural heritage, while 6 universities do not have courses on the protection of cultural heritage (Table 2). This numerical data shows that universities in Turkey give importance to courses on the protection of cultural heritage in their courses.

Table 2. Universities and Cultural Heritage Courses

	Interior Architecture		Interior Architecture And Environmental Design		Total
	State	Foundation	State	Foundation	
Number of universities with courses on the protection of cultural heritage	15	12	4	28	59
Number of universities without access to course content	1	3	2	6	12
Universities without courses on cultural heritage protection	-	4	-	2	6
Number of courses analysed	24	33	7	58	122

After analysing the numerical data of the courses, content evaluations of 122 courses were made. These evaluations are analyses of the contents of the courses, their elective/obligatory status and ECTS information. Firstly, the compulsory and elective status of the courses related to the protection of cultural heritage were determined. It was seen that 60 of the 122 courses were compulsory (49,2%) and 62 (50,8%) were elective courses (Table 3). In this context, it was seen that the courses on the protection of cultural

heritage in the relevant departments were supported by elective courses as well as compulsory courses.

Table 3. Distribution of Compulsory / Elective Courses

		Frequency	**%**
Valid	Mandatory	60	%49,2
	Optional	62	%50,8
	Total	122	100,0

In the examination of the distribution of elective and compulsory courses depending on the type of university and department, 65.5% of the courses related to the protection of cultural heritage in the interior architecture undergraduate programme are compulsory in public universities and 34.5% in foundation universities. In the undergraduate programme of interior architecture and environmental design, courses on the protection of cultural heritage are compulsory in 12.9% of state universities and 87.1% of foundation universities (Table 4). There are 23 compulsory courses in state universities, 37 compulsory courses in foundation universities, 8 elective courses in state universities and 54 elective courses in foundation universities. In terms of ratio, it is seen that foundation universities give more weight to the courses related to the subject. When the elective and compulsory status of the courses for the protection of cultural heritage is analysed, it is seen that the compulsory status is low in foundation universities in interior architecture departments. In interior architecture and environmental design departments, it is seen that the rate of compulsory courses in state universities is quite low.

Table 4. Distribution of Elective and Compulsory Courses by University and Department Type

		University		
		State	**Foundation**	**Total**
Mandatory	Interior Architecture	19 %65,5	10 %34,5	29 %100
	Interior Architecture and Environmental Design	4 %12,9	27 %87,1	31 %100
	Total	23 %38,3	37 %61,7	60 %100
Elective	Interior Architecture	5 %17,9	23 %82,1	28 %100
	Interior Architecture And Environmental Design	3 %8,8	31 %91,4	34 %100
	Total	8 %12,9	54 %87,1	62 %100

In the next stage, analysis findings were obtained according to the contents of the courses. When the contents of the courses on the protection of cultural heritage were analysed, it was determined that the contents consisted of protection, role play, restoration/re-functioning and culture/cultural heritage sub-headings. When the distribution of the courses according to these sub-headings is analysed; there are 77 courses with conservation content, 58 courses with Archıtectural surveyıng content, 72 courses with restoration/re-functioning content and 25 courses with culture/cultural heritage content. When the contents of 122 courses in total are analysed, it is seen that 33.2% of the courses for the protection of cultural heritage are related to conservation, 25% to role play, 31% to restoration/re- functioning and 10.8% to culture/cultural heritage (Table 5). In terms of ranking, it is seen that the courses related to cultural heritage are mostly about conservation and the least about culture and cultural heritage.

In terms of the contents of the courses, it is seen that the contents of the

courses on the protection of cultural heritage are mostly on conservation, roleove and restoration/re-functioning. It is seen that the rate of courses directly related to culture and cultural heritage is low.

The contents of the surveying courses generally cover the measurement and documentation of modern or historical buildings, the importance of surveying, how it is done, the simple tools used in its construction and the surveying applications. However, the importance of conservation is emphasised. Restoration and reuse courses cover the historical development of the concept of conservation both in our country and in other countries, types and methods of conservation and restoration techniques, methods and approaches necessary for the re-functionalisation of historical buildings that have lost their original functions and the preparation of restoration projects. The courses on conservation include the main theories, general concepts and conservation methods related to the conservation of the historical environment, the awareness of the conservation of the historical environment and the general principles of designing new buildings in these areas and the basic concepts of the conservation of monumental and civil architectural heritage.

The courses related to the protection of culture and cultural heritage, on the other hand, teach the concepts of city and culture, cultural elements of urban life and the relationship between city and culture. It aims to introduce culture and material cultural values in various categories and to develop awareness about the protection of these values. In this context, students are taught intercultural uniqueness and originality through handicrafts, traditional architectural examples, textiles and other material culture items from various historical periods. It aims to raise students'

awareness about the protection of cultural heritage. It aims to provide students with the opportunity to increase intercultural understanding, to comprehend the importance of material culture and to develop sensitivity in protecting cultural heritage.

Table 5. Contents of the Courses on the Protection of Cultural Heritage

Protection		Architectur al surveying		Restoration- refunctionalisation		Culture/ cultural heritage	
%	f	%	f	%	f	%	f
%33,2	77	%25,0	58	%31,0	72	%10,8	25

When the distribution of the course contents for the protection of cultural heritage in line with the determined titles according to the type of university and department is examined, it is seen that the courses with protection in their content are 43.2% in state universities and 56.2% in foundation universities in the interior architecture undergraduate programme. In the interior architecture and design programme, it is seen that the courses with conservation in their content are 10% in state universities and 90% in foundation universities. In the interior architecture and design programme, it is seen that the courses with archıtectural surveyıng in their content are 50% in state universities and 50% in foundation universities in the interior architecture undergraduate programme, while the courses with conservation in their content are 9.4% in state universities and 90.6% in foundation universities. It is seen that the courses with restoration/re-functioning in their content are 48,6% in public universities and 51,4% in foundation universities in interior architecture undergraduate programme. In the interior architecture and design programme, it is seen that the courses with conservation in their content

are 13.5% in state universities and 86.5% in foundation universities. In the interior architecture undergraduate programme, it is seen that the courses with culture/cultural heritage in their content are 33.3% in state universities and 66.7% in foundation universities. In the interior architecture and design programme, it is seen that the courses with conservation in their content are 7.7% in public universities and 92.3% in foundation universities (Table 6).

Table 6. Distribution of the Contents of the Courses for the Protection of Cultural Heritage by University and Department Type

Content		University		
		State	**Foundation**	**Total**
Protection	Interior Architecture	16 43,2%	21 56,8%	37 100,0%
	Interior Architecture And Environmental Design	4 10,0%	36 90,0%	40 100,0%
	Total	20 26,0%	57 74,0%	77 100,0%
Archıtectural surveyıng	Interior Architecture	13 50,0%	13 50,0%	26 100,0%
	Interior Architecture And Environmental Design	3 9,4%	29 90,6%	32 100,0%
	Total	16 27,6%	42 72,4%	58 100,0%
Restoration/Refunctionalisation	Interior Architecture	17 48,6%	18 51,4%	35 100,0%
	Interior Architecture And Environmental Design	5 13,5%	32 86,5%	37 100,0%
	Total	22 30,6%	50 69,4%	72 100,0%
Culture/Cultural Heritage	Interior Architecture	4 33,3%	8 66,7%	12 100,0%
	Interior Architecture And Environmental Design	1 7,7%	12 92,3%	13 100,0%
	Total	5 20,0%	20 80,0%	25 100,0%

When the compulsory and elective status of the course contents for the protection of cultural heritage in state universities is examined, 75% of the courses whose content is protection are compulsory and 25% are elective, 87,5% of the courses whose content is Archıtectural surveyıng are compulsory and 12,5% are elective, 81,8% of the courses whose content

is restoration/re- functioning are compulsory and 18,2% are elective, 40% of the courses whose content is culture/cultural heritage are compulsory and 60% of the courses are elective (Table 7).

Table 7. Distribution of Elective Compulsory Courses in State University in terms of Course Content

Content		State University		
		Mandatory	**Elective**	**Total**
Protection	Interior Architecture	13 81,3%	3 18,8%	16 100,0%
	Interior Architecture and Environmental Design	2 50,0%	2 50,0%	4 100,0%
	Total	15 75,0%	5 25,0%	20 100,0%
Archıtectural surveyıng	Interior Architecture	11 84,6%	2 15,4%	13 100,0%
	Interior Architecture and Environmental Design	3 100,0%	0 0,0%	3 100,0%
	Total	14 87,5%	2 12,5%	16 100,0%
Restoration/ Refunctionalisation	Interior Architecture	14 82,4%	3 17,6%	17 100,0%
	Interior Architecture and Environmental Design	4 80,0%	1 20,0%	5 100,0%
	Total	18 81,8%	4 18,2%	22 100,0%
Culture/Cultural Heritage	Interior Architecture	2 50,0%	2 50,0%	4 100,0%
	Interior Architecture and Environmental Design	0 0,0%	1 100,0%	1 100,0%
	Total	2 40,0%	3 60,0%	5 100,0%

In foundation universities; 40,4% of the courses with conservation content are compulsory and 59,6% are elective, 64,3% of the courses with role play content are compulsory and 35,7% are elective, 50% of the courses

with restoration/re-functioning content are compulsory and 50% are elective, 30% of the courses with culture/cultural heritage content are compulsory and 70% are elective (Table 8).

Table 8. Distribution of Elective Compulsory Courses at the Foundation University in terms of Course Content

Content		Foundation University		
		Mandatory	Elective	Total
Protection	Interior Architecture	7 33,3%	14 66,7%	21 100,0%
	Interior Architecture And Environmental Design	16 44,4%	20 55,6%	36 100,0%
	Total	23 40,4%	34 59,6%	57 100,0%
Archıtectural surveyıng	Interior Architecture	6 46,2%	7 53,8%	13 100,0%
	Interior Architecture And Environmental Design	21 72,4%	8 27,6%	29 100,0%
	Total	27 64,3%	15 35,7%	42 100,0%
Restoration/ Refunctionalisation	Interior Architecture	8 44,4%	10 55,6%	18 100,0%
	Interior Architecture And Environmental Design	17 53,1%	15 46,9%	32 100,0%
	Total	25 50,0%	25 50,0%	50 100,0%
Culture/Cultural Heritage	Interior Architecture	3 37,5%	5 62,5%	8 100,0%
	Interior Architecture And Environmental Design	3 25,0%	9 75,0%	12 100,0%
	Toplam	6 30,0%	14 70,0%	20 100,0%

In the examination of the accreditation information of the courses, in state universities; 30% of the courses with conservation content are 3 credits, 37.5% of the courses with architectural surveying content are 4 credits,

31.8% of the courses with restoration/re-functioning content are 5 credits and 80% of the courses with culture/cultural heritage content are 3 credits (the most probable ones are written) (Table 9).

Table 9. Credit Weight Distributions of Cultural Heritage Courses in State Universities Depending on the Type of University and Department

		State University Loan						
Content		2	3	4	5	6	7	Toplam
Protection	Interior Architecture	1 6,3 %	6 37,5 %	4 25,0 %	3 18,8 %	1 6,3 %	1 6,3 %	16 100,0 %
	Interior Architecture and Environment al Design	0 0,0 %	0 0,0 %	0 0,0 %	2 50,0 %	0 0,0 %	2 50,0 %	4 100,0 %
	Total	1 5,0 %	6 30,0 %	4 20,0 %	5 25,0 %	1 5,0 %	3 15,0 %	20 100,0 %
Architectural surveyıng	Interior Architecture	1 7,7 %	3 23,1 %	5 38,5 %	3 23,1 %	1 7,7 %		13 100,0 %
	Interior Architecture and Environment al Design	0 0,0 %	0 0,0 %	1 33,3 %	2 66,7 %	0 0,0 %		3 100,0 %
	Total	1 6,3 %	3 18,8 %	6 37,5 %	5 31,3 %	1 6,3 %		16 100,0 %
Restoration /Refunctio nalisation	Interior Architecture	1 5,9 %	6 35,3 %	4 23,5 %	4 23,5 %	1 5,9 %	1 5,9 %	17 100,0 %
	Interior Architecture and Environment al Design	0 0,0 %	0 0,0 %	1 20,0 %	3 60,0 %	0 0,0 %	1 20,0 %	5 100,0 %
	Total	1 4,5 %	6 27,3 %	5 22,7 %	7 31,8 %	1 4,5 %	2 9,1 %	22 100,0 %
Culture/ Cultural Heritage	Interior Architecture		3 75,0 %	1 25,0 %				4 100,0 %
	Interior		1	0				1

	Architecture and Environmental Design		100,0%	0,0%					100,0%
	Total		4 80,0%	1 20,0%					5 100,0%

In foundation universities; 49,1% of the courses with conservation content are 4 credits, 42,9% of the courses with role play content are 4 credits, 40% of the courses with restoration/re-functioning content are 4 credits and 40% of the courses with culture/cultural heritage content are 3 credits (the most probable ones are written) (Table 10).

Table 10. Credit Weight Distributions of Cultural Heritage Courses in Foundation Universities by University and Department Type

		Foundation University Loan					
Content		2	3	4	5	6	Total
Protection	Interior Architecture		8 38,1%	8 38,1%	5 23,8%		21 100,0%
	Interior Architecture And Environmental Design	1 2,8%	7 19,4%	20 55,6%	6 16,7%	2 5,6%	36 100,0%
	Total	1 1,8%	15 26,3%	28 49,1%	11 19,3%	2 3,5%	57 100,0%
Archıtectural surveyıng	Interior Architecture		6 46,2%	4 30,8%	3 23,1%		13 100,0%
	Interior Architecture and Environmental Design	1 3,4%	3 10,3%	14 48,3%	8 27,6%	3 10,3%	29 100,0%
	Total	1 2,4%	9 21,4%	18 42,9%	11 26,2%	3 7,1%	42 100,0%
Restoration/ Refunctionalisation	Interior Architecture		8 44,4%	6 33,3%	4 22,2%		18 100,0%
	Interior	1	4	14	10	3	32

	Architecture and Environmental Design	3,1 %	12,5 %	43,8 %	31,3 %	9,4 %	100,0 %
	Total	1 2,0 %	12 24,0 %	20 40,0 %	14 28,0 %	3 6,0 %	50 100,0 %
Culture/ Cultural Heritage	Interior Architecture		4 50,0 %	2 25,0 %	2 25,0 %		8 100,0 %
	Interior Architecture and Environmental Design		4 33,3 %	5 41,7 %	3 25,0 %		12 100,0 %
	Total		8 40,0 %	7 35,0 %	5 25,0 %		20 100,0 %

When the course credits of public and foundation universities are analysed, it is seen that restoration and re-functioning courses are the most credited courses in public universities, while cultural heritage courses are the least credited courses. In foundation universities, it is seen that courses on conservation, roleove and restoration/re-use are in similar proportions, while courses on culture/cultural heritage are less credited.

4. Conclusion and Recommendations

In the protection of cultural heritage, the importance of raising awareness of the individual in appropriate methods, materials and forms from an early age is obvious. Despite the steps taken in the field of cultural heritage, the fact that the desired level of protection has not been reached shows that there are deficiencies in terms of the inadequacy of the education curriculum or the method applied in this regard. In the promotion and protection of cultural heritage, it is necessary to inform the society and this education should be at all levels of education. Especially in the process of interior architecture undergraduate education, the appropriateness and adequacy of the curriculum for introducing cultural heritage, teaching its importance, why and how to protect it, and the inclusion of courses in the process of interior architecture education will contribute to ensuring that the awareness of responsibility for the protection of cultural heritage reaches the desired level. In interior architecture education, with the courses on cultural heritage, students learn the diversity, values, history and the importance of sustainability of cultural assets, recognise different cultures and understand the importance of transferring and protecting them to future generations.

Cultural heritage education plays an important role in individuals' recognition, understanding and valuing of cultural heritage. This process helps students to understand the importance of cultural heritage and adopt conservation behaviours. Students learn that protecting cultural heritage is associated with a sense of social identity and belonging. By emphasising the aesthetic, historical, scientific and social values of cultural heritage, cultural heritage education makes students aware of

the value of cultural heritage and creates conservation awareness and motivation. Through cultural heritage education, students learn their professional responsibilities during the protection of cultural heritage and actively contribute to the development of solutions to the issue and contribute to the conservation awareness from a broad perspective.

In this study, it was tried to determine the place of cultural heritage education in the departments providing interior architecture education in Turkey. The data obtained within the scope of the study show that there are courses on the protection of cultural heritage in universities. Although there are courses on the protection of cultural heritage in the vast majority of universities, it has also been determined that there are interior architecture and interior architecture environmental design departments where there are no courses related to the subject. The analyses made in terms of the compulsory and elective status of the courses on the protection of cultural heritage showed a similar distribution in terms of rates. When state and foundation universities are compared, it is determined that foundation universities have more courses on the subject. The analyses made in terms of the credits of the courses show that the average credits are lower in both foundation and state universities in courses with culture and cultural heritage content than in courses such as architectural surveyıng, reuse and restoration. This situation shows that the courses on the protection of cultural heritage are mostly composed of courses on the recognition, measurement and reuse of historical buildings. Having more courses directly related to the protection of culture and cultural heritage in the course name or course content and having more credits of these courses will contribute to emphasising the importance of conservation and cultural

heritage in interior architecture education. If the courses related to cultural heritage and cultural heritage in interior architecture education are at an adequate level, students can internalise the issue of protecting cultural heritage and pay attention to this issue both individually and in their professional lives and can make a social contribution to the sustainability of conservation.

In conclusion, the inclusion of courses related to cultural heritage and cultural heritage conservation in the curriculum of interior architecture education will contribute to the development of sustainable conservation awareness. These courses should be supported by various methods such as transferring theoretical knowledge, experiencing places such as museums, historical sites and natural heritage areas, working on cultural heritage projects, and ensuring the active participation of students in volunteering activities to be carried out with institutions and organisations on conservation. In this way, it will be possible to ensure that students understand the value of cultural heritage and internalise the necessity of protecting this heritage.

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Value Assessment for Industrial Heritage: The Case of Sümerbank Industrial Campuses in Türkiye

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1. Introduction

In the twentieth century, the conservation of industrial heritage gained popularity now that industrial campuses were formerly on the outskirts and are now located in cities. It turned out that the industrial zone shifted away from city centers; thereby, many of them relocated, and buildings were torn down or abandoned. These industrial relics have increasingly become a hindrance to urban growth. Once destroyed, these industrial relics are non-renewable and delicate, rendering restoration impossible (Zhang, Liu, & Feng, 2022). Yet, the tearing down of factories aroused the interest of professionals and the public due to the attached value of these structures.

Currently, numerous Sümerbank campuses are idle; some have been demolished, while others are repurposed for new functions. Although campuses disappeared, the essence of Sümerbank, rich in traditions, remains vibrant. Individuals with experience at Sümerbank, whether as employees or citizens, aligned themselves with Republican values and contemporary living standards. The offspring of Sümerbank individuals uphold and perpetuate the modern republic through deliberate connections today. Furthermore, Sümerbank industrial campuses hold significant importance in the historical context of Turkish urbanism and architecture as a component of modern heritage buildings. Currently, they represent the final extant instances of industrial architecture and planning that arose from specific social, economic, political, and technological conditions of modernity in the early twentieth century. The campuses illustrate the design and planning strategies, structural systems

and elements, building materials, and construction techniques characteristic of a specific period in the history of the Turkish Republic. The Sümerbank campuses act as distinctive industrial heritage sites that exemplify the Republic's initial efforts toward social and technological development, highlighting the importance of studying the valuation of these sites in relation to this purpose. At this point, the present research aims to develop a value assessment proposal for Sümerbank industrial campuses in Kayseri, Eregli Nazilli Bursa, and Malatya to figure out the values of the buildings on these campuses to be used as criteria for the conservation of industrial heritage.

1.1. Conservation of Industrial Heritage

Industrial heritage, intertwined with political, economic, cultural, social, scientific, technological, and architectural realms, has emerged as an important priority for nations and governments. It illuminates historical ways of life, chronicles technological progress, and preserves the continuity of culture (Liu, Zhao, & Yang, 2018). Thereupon, scholars have increasingly acknowledged the synthesis of cultural values and regard historical sites as a shared heritage. The conservation of them for future generations is considered a main duty of ours (Günçe & Mısırlısoy, 2014). For Feilden and Jokilehto, conservation has to consider the cultural context as a cultural, artistic, technical, and craft activity that draws on humanistic and scientific studies as well as methodical study (1998, p. 127). For the conservation of industrial heritage, there are international charters. In the Nizhny Tagil Charter for the Industrial Heritage (2003), the term industrial heritage is defined as follows: Industrial heritage includes the remnants of industrial culture

that possess historical, technological, social, architectural, or scientific significance. The remains comprise structures and machinery, workshops, mills, factories, mines, processing and refining sites, warehouses, stores, energy production and distribution facilities, transportation infrastructure, and locations designated for social activities associated with the industry, including housing, places of worship, and educational institutions (The Nizhny Tagil Charter for the Industrial Heritage, 2003, p. 2).

The initial international initiative for the preservation of industrial heritage was undertaken by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) through the inclusion of various industrial sites on the World Heritage List. The Ironbridge Gorge Bridge in England, the Tin Mines in Bolivia, and the Zollverein Mine were added to the World Heritage List in 2001 (Şimşek, 2006, p. 16). The ICOMOS World Report 2001/2002 on Monuments and Sites in Danger states that the present risks to our historic heritage have been, in numerous respects, unparalleled to those of previous eras, particularly in light of the accelerated changes experienced since the last few decades of the 20th century (Bumbaru et al., 2001, p. 13). With the growth of industrial heritage, international organizations DOCOMOMO and TICCIH expressed interest in its preservation. DOCOMOMO is dedicated to the preservation of modern architectural structures, while TICCIH aims to conserve industrial heritage (Şimşek, 2006). Sümerbank industrial campuses were formed during the Republican period. The buildings on the campuses are examples of modern architecture. Thereupon, Sümerbank industrial campuses in Kayseri, Eregli Nazilli

Bursa, and Malatya are evaluated as cultural heritage, and these campuses should be assessed as valuable for their conservation.

2. Material and Method

The study begins with a theoretical examination of industrial heritage and conservation. The exploration of value assessment covers the valuation process, modern methodologies, value typologies, and values in legal documents related to industrial heritage. Due to the constantly changing meaning and scope of cultural heritage, the materials selected are from the 1990s and 2000s, except for the article by Riegl from the first decade of the twentieth century, which was the first published source on cultural object valuation and the basis for all value scholars. Thereupon, he selected primary sources for the value assessment are: Lamprakos (2014), Mason (2002), Riegl (1903), Feilden & Jokilehto (1998), Kılınç (2009), Ağır (2023), Satterfield (2002), Madran & Özgönül (2011), and Günçe & Mısırlısoy (2019). Other architectural conservation-related sources to identify the value types connected to industrial heritage: The Venice Charter (1965), The Declaration of Amsterdam (1975), The NARA document on authenticity (1994), Conservation Principle Policies and Guidance for the Sustainable Management of the Historical Environment (2008). 2003), and The Nizhny Tagil Charter for the Industrial Heritage (1975).

Accordingly, a theoretical study on value types and site surveys on five Sümerbank industrial campuses which were established in the Republican period is reviewed.

2.1. Value Assessment for Cultural Heritage

The most important issue in the conservation discipline is, 'What deserves to be conserved?' Thereupon, the assessment of industrial historical value is crucial for the identification and preservation of industrial heritage. Industrial heritage value assessment includes both the evaluation of industrial heritage and pre-assessment work on reuse, both of which protect its value (Zhang, Liu, & Feng, 2022). For Kılınç (2009), the value attached to previous works to preserve them stems from respect for their efforts. Yet, she points out that: "It ıs hard to say that works that are chosen as "valuable" had awarded with conservation however "invaluable" works had faced the risk of disappearance or being destroyed" (Kılınç, 2009, p. 55). By the end of the nineteenth century, it was evident that a logical structuring of value evaluation was necessary to decide what to continue to maintain. A seminal study in this area is the work of Austrian art historian Alosi Reigl, which was considered an introduction to draft preservation law. He clarified the meaning and value attached to a monument by classifying monuments into three different commemorative values intentional value, unintentional value (historical value), and age value: Intentional and unintentional monuments contain historic significance, and in both cases, we are concerned with their original, unharmed form as created by their creators, which we endeavor to restore by any means necessary. The commemorative value of intentional monuments has been established by their creators, whereas we have assessed the value of unintentional monuments. (Riegl, 1903, p. 22). For him, intentional monuments, those that were intended to mark or remind people of a specific memory, which could be a person, event, or

other action, should be repaired. Unintentional monuments were created by individuals to fulfill their practical and ideal purposes. In this sense, unintentional monuments gain an unusual contemporaneity (Ahmer, 2020, p. 152). The third one is 'new commemorative value'. It appreciates the past for 'age value' which shows itself through physical impressions and appeals to the senses. For Reigl, age value has worldwide significance since it transcends educational and artistic distinctions (Riegl, 1903, p. 32). Since Riegl, numerous academics continued to study the values attached to cultural heritage. Michele Laprakos elucidates "specific stages in human history that may concurrently exist within a particular epoch" (See Figure 1):

A monument can be regarded as a keeper of collective memory (referred to by Riegl as its "commemorative value"), a historical document ("historical value"), or a testament to the continuous cycle of life and decay ("age value"). The "past values," inherent to the monument's history, frequently clash with what Riegl identifies as "present values," which encompass evolving preferences ("relative art value") and the anticipation that a structure should fulfill human requirements ("use value"). The public may also attribute to a monument the aspiration for "newness," which in the 19th century signified reconstruction in accordance with an idealized era or style ("newness value") (Lamprakos, 2014, p. 420).
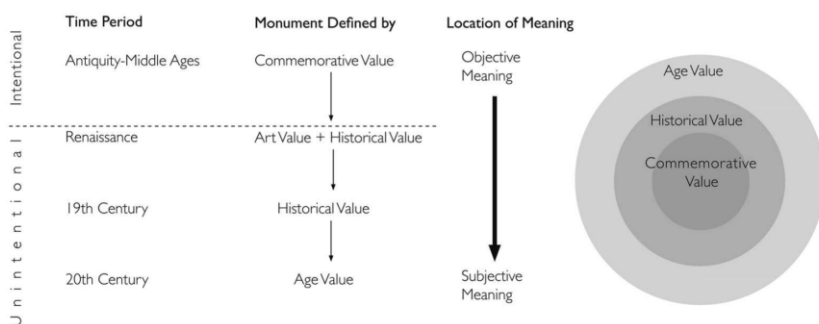
Recently, many international documents have also touched on cultural
heritage. As stated in the Venice Charter, Article 1 is stated to be a
historic monument for preserving evidence of a certain culture, a notable
development, or a historic event, as well as for more modest works of the
past that have acquired cultural significance over time. In the other
articles of the charter, it addressed aesthetic, archeological, and historical
values (The Venice Charter, 1965). In the Declaration of Amsterdam, it
was stated that "Europe's architectural heritage is an integral part of the
cultural heritage." The list includes proposals for integrated conservation
that consider cultural, aesthetic, use, historic, and artistic values. (The
Declaration of Amsterdam, 1975). For values and authenticity, it was
stated in the Nara Document on Authenticity that:

Evaluations of values attached to cultural properties and the reliability of
associated information sources may vary across cultures and even within
a single culture. Consequently, it is infeasible to establish assessments of
values and authenticity on rigid criteria. Conversely, respect for all
cultures necessitates that heritage properties be evaluated and assessed

within their respective cultural contexts, as they may vary from one culture to another (The NARA document on authenticity, 1994).

Kılınç (2009) categorizes the analysis of cultural heritage into three classifications: "intrinsic values, extrinsic values, and economic values." Intrinsic values are determined by the monument itself. Extrinsic values are influenced by the social, cultural, and historical context of a settlement, community, or individual, as well as the public's contributions and interactions with the monument over time (Kılınç, 2009). Table 1 displays the summary of the value assessment for cultural heritage.

Table 1. Summary of Valorization of Cultural Heritage

Value Category (Kılınç, 2009)	Sub-Value Category	Definitions
Intrinsic values: It is driven by the monument itself (Kılınç, 2009)	Age value	Value relies on feeling rather than logic: someone watching perceives the decaying monument as proof of his mortality. It essentially goes beyond other values, which means 'both originality and coherence of style (Lamprakos, 2014, p. 423).
	Historical value	It distinguishes the monument by its unique national style (Lamprakos, 2014, p. 424). Kılınç defined the relationship between historic value and industrial heritage in two ways: whether the industrial heritage was purposely created after a historical event, or whether it was strongly tied to a historic event or a certain period in history (Kılınç, 2009).
	Artistic value	"Value is based on an object's being unique, being the best, being a good example of, being the work of a particular individual" (Mason, 2002, p. 11).
	Authenticity-Originality value	To is an essential tool in identifying, analyzing, and monitoring cultural heritage; it has roots in specific cultural contexts (Nara Document on Authenticity, 1994).
	Document value	To provide evidence or information on any subject of its time, such as construction and/or production method, material, history, art, everyday life, and so on (Kılınç, 2009, p. 70).
Extrinsic values	Sociocultural value	It is associated with a material thing, structure, or location due to its significance for individuals or social groups, stemming from its antiquity, aesthetic appeal, artistic merit, connection to a prominent figure or event, or its role in facilitating cultural identity processes (Mason, 2002, p. 11). It is noticeable in its societal contributions, the scope of its influence, and the level of public engagement in its creation and evolution (Chen, et al., 2024).
	Political value	It relates to the significance of heritage in the stage of politics, which entails civic

	associations, governmental power, acts of protest, and the use of cultural heritage to establish or defend ideological agendas (Ağır, 2023, p. 37).
Aesthetic value	It refers to a wide range of qualities, including the visual features of heritage. It is a sense of well-being that may be probably most of the sociocultural values (Mason, 2002, p. 12). It primarily manifests in the building's aesthetic appeal and its ornamental atmosphere (Chen, et al., 2024).
Educational value	It is an ability to acquire knowledge of the past in the future through methods such as archaeology or the innovative interpretation of the historical record inherent in the legacy (Mason, 2002, p. 11).
Symbolic value	It refers to the common meanings connected with heritage that are tied to the chronology and meanings of a site (Mason, 2002, p. 11).
Commemorative value	It shows the value of a site for individuals who get part of their identity from it or have emotional ties to it. (Conservation Principle Policies and Guidance for the Sustainable Management of the Historical Environment, 2008)
Identity value	It refers to the emotional attachments of a community to specific items or sites. It addresses age, tradition, consistency, commemoration, legend, awe, sensations, spirituality, religion, and symbolic, political, patriotic, and national values (Feilden & Jokilehto, 1998, p. 18).
Philosophical-Spiritual-Religious value	Nature serves as a philosophical and religious resource, providing influence for religious, philosophical, and spiritual reflection and practice (Satterfield, 2002, p. 89).
Mythological value	It turns out by linking the cultural artifact with a myth, which is a traditional story involving entities of the supernatural or abilities (Kılınç, 2009, p. 75).
Relative art value	It embodies the aesthetic and artistic values of both its time and now (Kılınç, 2009, p. 75).
Uniqueness-Rarity value	It evaluates the object in relation to other buildings of the same type, style, builder, era,

		or an amalgam thereof to ascertain its rarity, representativeness, or uniqueness (Feilden & Jokilehto, 1998, p. 19).
	Group value	It is defined by Madran and Özgönül in two different planes: vertical and horizontal. Vertical ones are like different phases in archaeological areas. Horizontal ones are like Ottoman complexes that are composed of different types of buildings (Madran & Özgönül, 2011). Kılınç defines industrial heritage as an amalgamation of diverse production and service units within an industrial site (Kılınç, 2009, p. 76).
	Polarity Value	It refers to the number of a certain building type in a given space ((Madran & Özgönül, 2011; Kılınç, 2009).
Economic Value	Use-Functional value	Industrial buildings, which do not serve the initial purpose, have an economic value to be used for purely utilitarian purposes, which has shown the possibilities for re-functioning these buildings and areas.
	Market value	Each cultural heritage item has monetary value, which can be realized through re-use, cultural tourism, material or land value, and other means (Kılınç, 2009). The conservation of the architectural heritage can add "value" to an area
	Continuity in use	If cultural heritage is constantly used, whether, for its original or new function, it can continue to provide physical, social, and economic benefits, and the continuity of its use can add value to an area (Günçe & Mısırlısoy, 2019, p. 4).

3. Findings

3.1. Historical Background of Industrialization in the Republican Period

In the early years of the Republic, the destruction of the war, the decrease in the loss of qualified labor force due to the minorities leaving the country, and the lack of capital resources created serious problems country. The industrialization of the early Republican period was a multi-

dimensional component of the modernization project of the Republican regime. Industrialization rapidly transformed the economic, social, and physical structure of the region where factories were established. In 1921, there was a kind of light industry that overwhelmed the quality of workshops throughout the country. Accordingly, in 1923, the Izmir Economic Congress was held to discuss industrial problems.

The significant actions taken in Congress encompassed the establishment of the Industrial and Maadin Bank in 1925 and the legislation of the Industrial Incentive Law. The setting up of Industry and Maadin Bank was intended to facilitate credit access for the private sector and to foster a collaborative relationship with it. The objective was to manage state-owned factories to subsequently transfer them to the private sector. The Industrial Incentive Law was an expansion of the law that was established in 1913. This law was aimed at creating a qualified working class in Turkey. Under the scope of the law, only managers and accountants who might be foreigners and foreign workers could be brought from abroad to work for a short period (Kepenek, 1998). The policies of industrialization had two key aspects: protectivism and statism. In the Republican period, though the world's economic system was in crisis, the Turkish economy remained isolated from the outside world and experimented with the national industrialization model (Boratav, 1999, p. 71).

To develop the country and ensure economic independence, the Republican regime determined several steps to develop industrialization. Accordingly, various privileges were provided to the private sector. The regime endeavored not only to create the necessary physical and legal

infrastructure but also to provide incentives in many ways for the private sector to make industrial investments. Nevertheless, the private sector has struggled to capitalize on the privileges provided by the government, primarily due to insufficient experience and inadequate capital accumulation in the developing state (Kepenek & Yentürk, 1997). Accordingly, the principle of statism, which was adopted economically and politically to solve the problems of industrialization in the early years of the Republic, embraces the participation of the state in the economy. The role of the state was that of the owner of capital in the formation of new industries. In fact, the state acted as the main entrepreneur as its state capitalist, during the statist industrialization period, but that did not mean that private investors were excluded. The main aim was to guide private entrepreneurs by taking the lead in industrialization. The state and private entrepreneurs complemented each other. Statist industrialization led to the domestic production of basic consumer goods. The most important objective of the statist industrialization policy is to ensure domestic production of the goods that were imported. Consequently, the period of statism, rather than addressing only the economy, was necessary to evaluate the relationship with the Sümerbank industrial campuses, which became important entities that were the generators of industrialization, modernization, and social change.

The First Five-Year Industrial Plan (FFYIP) was the most important implementation that could be considered the beginning and essence of statist industrial policy at the concrete level. A team of Soviet experts was invited to prepare the plan in 1932. The Soviet Five-Year Plan, which played the most important role in the Soviet Union's recovery

from the world crisis, clearly showed the importance of such a development plan behind the Statist principle. The First Five-Year Industry Plan was prepared as a result of financial problems that disappeared when obtaining an 8 million dollar loan with zero interest rates from İsmet İnönü's trip to the Soviet Union. (Tayanç, 1973). İnan (1972) described the principles of this plan as follows:

(a) The industry branches, in which their main raw materials were grown in the country or were possible to supply the industry within a short time, were discussed.

(b) Due to, these industrial campuses requiring large capital and technical forces, their organizations were done by state or National institutions. This industry would create a balanced activity in the field of agriculture.

(c) The production capacity of the industrial campuses was dependent on the needs and consumption of the country (İnan, 1972).

Accordingly, this plan consisted of two parts. Initially, 20 factories were proposed to be established in the main industrial branches: weaving (cotton, hemp, wool), mineral processing (iron-steel, copper, sulfur), cellulose (paper), stone-soil (glass, cement), and chemistry (artificial silk, rosewood, phosphoric acid, and superphosphate). Secondly, it proposed the re-establishment of the Ministry of Economy (İlkin & Tekeli, 1998). In fact, rather than a plan, it was a program that determined where the factory would be built in the next five years. And it contained the feasibility calculations for these factories. In line with the First Five-Year Industrial Plan, the selection of the location of the Sümernank industrial

campuses was determined in Kayseri, Ereğli, Nazilli, and Bursa. The main priority of the Sümerbank industrial campuses established within the framework of this plan was the production of consumer goods.

3.2. Sümerbank Industrial Campuses

Sümerbank was founded in 1933, taking over the roles of the Industrial Credit Bank and the State Industrialization Office, which were the main organizations overseeing the implementation of the First Five-Year Industrial Plan. The legislation enacted on July 3, 1933, conferred an extensive array of responsibilities and functions upon Sümerbank, including the initiation of tasks and studies endeavors for state enterprises, as well as engaging in credit and banking operations to collaborate with economically viable and productive private sector entities. Sumerbank initiated its operations through the acquisition of historical Ottoman factories. The investment was initiated with the setting up of Sümerbank industrial campuses in Kayseri in 1934, Ereğli in 1937, Nazilli in 1937, Bursa in 1938, and Malatya in 1939.

Furthermore, a primary responsibility of Sümerbank involves providing education to its personnel regarding the plants and other national industries. The setup of Sümerbank industrial campuses represented significant advancements in industrialization and served as crucial educational bodies within their respective regions. The industrial campuses are designed to address the requirements of the workforce in the adjacent areas. The place where they were established increased the population growth and size of the city where they were established. Like the industrial model that developed on industrial campuses in Europe and the United States during the 19th century, Sümabank was structured to

address the requirements of its workforce. The primary distinction between the Western model of industrial campuses and Sümerbank lies in the origins of their establishment. In the West, these industrial sites were created by well-intentioned industrialists as private initiatives, whereas in Turkey, the construction of industrial sites involved significant state intervention.

Sümabank industrial sites functioned as entities of the Republican Regime and served as significant ideological instruments that supported the revolution via a modernization initiative during the initial phases of the Republic. They were strategically positioned at the convergence of state political ideology and community education to facilitate a significant social transformation. As Asiliskender stated, Sümerbenk industrial campuses were a major actor in the modernization project of the regime by exemplifying the ideal of civilized modern life to the citizens of the environment (Asiliskender, 2004).

3.3. Planning Sümerbank Industrial Campuses

The preliminary projects for the Sümerbank industrial campuses in Kayseri and Nazilli were designed by Russian architects. The projects for the campuses in Ereğli, Bursa, and Malatya were designed by German architects (Arıtan, 2004; Asiliskender, 2008). Consequently, Russian and German designers applied their distinct design and aesthetic insights in the early site projects. The industrial sites of Sümerbank were conceived with a comprehensive and logical strategy to ensure the community's sense of security and contentment. Consequently, in addition to technological considerations, aesthetics played a significant role in campus design. To foster a sense of community, meticulously designed

landscapes incorporating outdoor sports facilities, contemporary socio-cultural spaces, housing, and amenities were established. It may be argued that there was no serious difference in the campus layouts and building designs of the Russian and German designers.

The industrial sites of Sümerbank, characterized by their intriguing and continuous history, exhibited a distinctive spatial organization (Figure 2).

Figure 2. Site plan of Sümerbank Industrial Campuses in Kayseri, Bursa, Nazilli, Ereğli and Malatya.

The Sümerbank campuses, as contemporary industrial environments, encompassed numerous structures serving various functions. They were autonomous, contemporary, and intricate entities. These campuses were constructed in accordance with the policies of the Republican Regime. The statist movement in Turkish sports specifically manifested in the establishment of these five industrial sites, which included sports and recreation facilities. The Nazilli campus encompassed educational facilities (Sümer Primary School, Sümer Children's Library, nursery/kindergarten, and Sümer Foundation), social amenities (hospital duty houses, bakery, bathhouse, worker/single pavilion, and Sümer campus mosque), and athletic spaces (clubhouse, sports hall, and sports fields: football, basketball, volleyball, and tennis courts). The Bursa Merinos campus included educational facilities (nursery/kindergarten, elementary school), social amenities, and athletic spaces (clubhouse, sports fields, tennis court, and mini-golf course). The Kayseri campus comprised educational facilities (Sümer primary school, nursery/kindergarten, middle schools, high school, and library), social amenities (guest house, accommodation), and athletic spaces (clubhouse, swimming pool, sports field, and four tennis courts). The Malatya campus included educational facilities (Sümer Primary School, kindergarten), social amenities (worker pavilion, guesthouse, hospital), and recreational areas (clubhouse, sports facilities, swimming pool, sports fields, football fields, basketball courts, and handball courts). The Konya Ereğli campus included educational institutions (Sümer Primary School, nursery/kindergarten), social amenities (social center, workers'

pavilion, guesthouse, and hospital), as well as cultural and recreational areas (clubhouse, open-air cinema, sports facilities).

4. Discussions

4.1. Value Assessment for Sümerbank Industrial Campuses

Sümerbank industrial campuses, as a state entity, played a pivotal role in industrialization and modernization in the Republican period. These unique industrial sites became models for modern industrial sites. Accordingly, they are important, especially on local, regional, national, and international scales. However, since the privatization of the process in the 1980s, the structures on the campuses have been eradicated day by day. Only the remaining structures are evaluated under the scope of research. Thereupon, the significance of campuses should be scientifically confirmed by carrying out value assessments on the campuses so as to identify various types of values, propose legal protection status, and decide what aspects to highlight. Value assessment is carried out for Sümerbank industrial campuses in Kayseri, Ereğli, Nazilli, Bursa, and Malatya. The value assessment is based on the conceptual framework proposed by Kılınç (2009), which was arranged into three groups: intrinsic, extrinsic, and economic.

4.1.1. Intrinsic values

4.1.1.1. Age value

At the beginning of the republican era, statist policies were formally enacted with the implementation of the first Five-Year Industrial Plan (FYIP). Sümerbank industrial campuses were the first concrete initiatives of the Republican regime to develop industrialization in Turkey. Therefore, they were a holistic approach in which all the necessities of

the working class were considered in planning these campuses. The established industrial complexes were continued by the state and privatized at intervals until the 1980s. Most of the complexes were built recently, and the age value is generally valid for old structures, which can also be considered valid for the campuses as the first industrial enterprises of the new republic. The industrial campuses that contemporary built environments illustrate the industrialization process of the modernization initiative in the first few decades of the Republic. The sites are examples worthy of exploration in terms of their effects on the acceleration and transformation of the development of the cities and the formation of the modern community in which they are established.

4.1.1.2. Historical value

As Kılınç (2009) identified, the connection between historic value and industrial heritage exists in two ways: whether the industrial heritage was purposely created after a historical event or whether it was strongly tied to a historical event or a certain period in history. In this sense, the Sümerbank industrial campuses were the first industrial institutions that were intended to develop industrialization in the newborn state. These campuses were founded based on the political and economic plans of a new regime. One of the last projects was completed by Mustafa Kemal Atatürk, and he attended the inauguration ceremony of the campuses (Figure 3).

Figure 3. The official opening of the Sümerbank site in Nazilli occurred on October 9, 1937. Mustafa Kemal Atatürk attended the ceremony (Photograph archive at the administration building on the Sümerbank industrial campus).

4.1.1.3. Technical-Artistic value

As Feilden and Jokilehto (1998) defined it, this value form refers to "technical, structural, and functional concept and workmanship" (Feilden & Jokilehto, 1998, p. 19) The production units exemplify considerable technological and artistic value. They are constructed with specific structural systems. The production units were frequently constructed with a curved roof to ensure adequate natural light and ventilation. The half-vaulted saw-tooth roofs in Kayseri and Nazilli, along with the perpendicular triangular saw-tooth roofs in Ereğli, Malatya, and Bursa, were constructed from reinforced concrete, acting as an iconographic representation or silhouette of an industrial town (Figure 4). Albert Kahn employed this methodology in the architectural design of plants in Soviet Russia. He developed a roof system for the expansive production facility that ensured optimal daylighting and ventilation (Doğan, 2022).

Figure 4. a) Inside perspective of the factory unit at the Sümerbank in Nazilli (author, 2022); b) Viewpoint of the saw-tooth roof and the daylight effect within the production unit at the Sümerbank in Bursa (author, 2022); c) An inside perspective of the factory unit at the Sümerbank in Ereğli (https://archives.saltresearch.org/handle/123456789/196955, 7 Agust 2021).

4.1.1.4. Authenticity / Originality value

This type of value is connected to historical and document values due to the remaining original structures provide more information. Thereupon, the authenticity value is evaluated in term of terms of design, construction technique, and material on the campuses (Table 2).

Table 2. Authenticity value is evaluated

	Design	Construction technique	Material
Kayseri	Modernist approach	Skeleton system Roof with a half-vaulted saw-tooth style Hip roof Flat roof	Reinforced concrete system Local material: Stone Brick
Eregli	Modernist approach	Skeleton system Saw-tooth roof Hip roof Flat roof	Reinforced concrete system Use of steel for the skeleton system Local material: Stone Brick
Nazili	Modernist approach	Skeleton system Roof with a half-vaulted saw-tooth style Curved-form roof Hip roofs Flat roof	Reinforced concrete system Local material: Stone Brick
Bursa	Modernist approach	Skeleton system Saw-tooth roof Hip roofs Flat roof	Reinforced concrete system Brick
Malatya	Modernist approach	Skeleton system Saw-tooth roof Hip roofs Flat roof	Reinforced concrete system Brick

4.1.1.5. Document value

The documentation value of the industrial heritage is the outcome of the value types that are studied in the course of the research.

4.1.2. Extrinsic values

4.1.2.1 Sociocultural value

This type of value is strictly connected to the relationship between cultural assets and communities. Sümerbanak industrial campuses provided inexpensive materials for the public to adapt to modern fashions by designing and producing materials that attract the local or national taste. Sports facilities were a direct outcome of the prevailing political

strategy of the Republican Regime, established on Sümerbank industrial campuses. There were parks, neighborhoods, educational institutions, and comprehensive social and sports facilities, fostering a healthy, tranquil, and comfortable lifestyle, representing civilized entities that are seldom encountered in nations with democracy.

4.1.2.2 Political value

Sümerbank industrial campuses were institutions that were the ideological apparatuses of the state as long as they took an important part in the modernization project of the Republican regime. In the Republican period, modernism, which was forced into ideological progress by Atatürk, created the environment for its own production on the Sümerbank industrial campuses. The incorporation of new types of buildings raised architectural experiments in which Republican ideology was embedded in the materialized form in order to build a modern community.

Secondly, Russian planners (Sümerbank in Kayseri and Nazili) and German planners (Sümerbank in Ereğli, Malatya, and Kayseri) designed these campuses. Notably, owing to the statist policies of the Republican regime, Soviet Russia significantly contributed to the industrialization of the developing state. The Soviets contributed to the design and building of Sümerbank industrial farms in Kayseri and Nazili.

4.1.2.3. Aesthetic value

Sümerbank established a unified built environment via its urban planning, cohesive design elements, visual consistency, material coherence, architectural scale, and modern architectural lexicon. They were defined by diverse modernist architectural styles, such as Art Deco,

International Style, and Constructivism, along with their unique grid-iron patterns in both form and function. Thus, they exhibited similar aesthetic principles and shared planning characteristics concerning site layout and architectural design, despite being developed by separate teams of Russian and German planners (Figure 5).
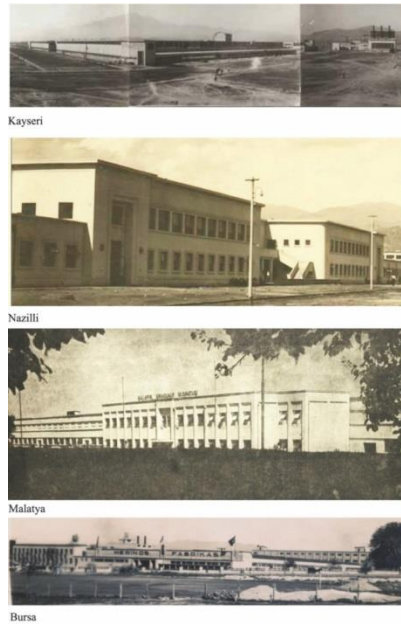
Figure 5. Factory units in Kayseri, Nazilli, Malatya, and Bursa (Asiliskender, 2008; Doğan, 2022; Arıtan, 2004).

The visual appearance of each structure and landscape item on the sites was meticulously crafted following the aesthetic, technological, and ideological considerations of the era. The common design base in all structures and landscapes is evident. Thus, contemporary aesthetic comprehension and lifestyle were widely disseminated among individuals at the sites, resulting in the creation of a unique visual ideology. The public buildings on the sites exhibit the traits of Art Deco Streamline Moderne. Typically, the facades of public edifices feature

horizontal bands referred to as speed stripes. Porthole windows were incorporated into façade combinations. The initial precursor of rounded corners and flat roofs was incorporated into the public puddings. Public spaces offered visual coherence across the campuses (Figure 6).
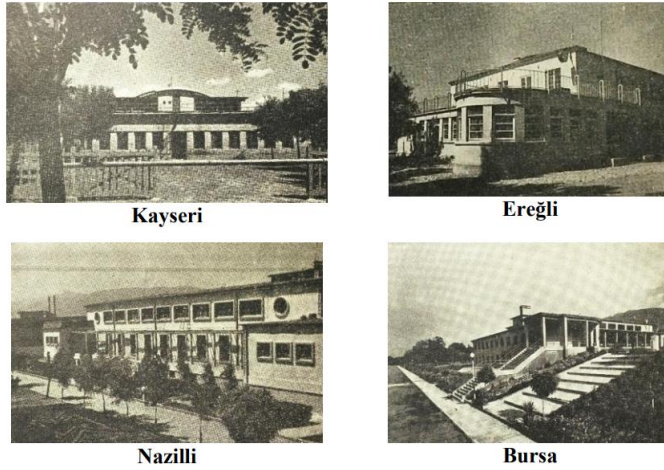
Figure 6. The public building on the sites (Eren & Tuna, 2018, p. 169).

3.4.2.4. Educational value:

This kind of value is valid for all industrial heritage in terms of offering information on numerous subjects such as material usage, construction method, design, and lifestyle (Kılınç, 2009).

4.1.2.5. Symbolic value:

Sümerbank industrial campuses holistically were the magnificent symbol of the Republican regime, in which republican ideology was translated into material existence on the campuses. They are pivotal in embodying the values and norms of the Republic Regime. Thereupon, they symbolize statist industrialization policy in the regime. They become a model industrial site to provide a humanitarian environment for the working class, thereby becoming the symbol of the new civilization.

Besides this holistic approach, there are single buildings that represent modern architectural features. The power plants at the Sümerbank industrial sites in Kayseri, Nazilli, and Bursa exhibited features of Soviet avant-garde constructivism. The structures integrated concrete frameworks and steel girders with a synthesis of contemporary technology and engineering. Structures exhibit specific geometric forms, polished surfaces, and ribbon-like glazing (Figure 7). The towering chimneys of the power plants emerged as symbols of Turkey's industrial development, referred to as national chimneys (Arıtan, 2004).

Figure 7. The view of the power plants in Kayseri, Nazilli, and Bursa (Doğan, 2022).

4.1.2.6. Commemorative value:

These built heritages and their uses have an important collective memory and impact on the daily urban life where they were established. Particularly, Sümerbank provided social-cultural spaces for workers on these campuses. Besides, the social programs offered to the community were also extraordinary. The various socio-cultural activities held on the sites influenced the daily life of residents (Figures 8 and 9). Asiliskender pointed out the social-cultural activities:

> Factories should not be regarded solely as industrial entities. The offered amenities—a cinema, a market, and sports facilities—revolutionized social life in the city. On those sites, the Anatolian community engaged in summer cinema, jazz evenings, and

equestrian races. Institutions for the offspring of laborers fulfilled the Republic's objective of contemporary education. The factory evolved into a significant institution that imparts knowledge about the Republic's contemporary lifestyle, encompassing its production methods, social environments, and formal educational facilities.

Referring to the commemorative value of Sumerbank industrial heritage, one worker states that:

> As children, we encountered a ball on campus for the first time. We witnessed those dancers. Previously, there was no phenomenon akin to this (dancing man-woman). Women were also prohibited from participating in the wedding ceremony or similar events. Consider its societal contribution. We witnessed the cinema in this location. We witnessed the theater in this location. A theatrical play, its performance, and the method of viewing it were acquired through observation. Theater and cinema were significant; they served as a portal, tasked with presenting audiences with a novel lifestyle. This was Atatürk's objective (Doğan, 2022).

Figure 8. a) A band of the Sümerbank in Nazilli (1939) (Günver Güneş's archive); b) a piano located in the public building of the Sümerbank in Nazilli (played by Aysen Yüceoral). Archive of İlhan Öden; c) the opera group of the Sümerbank in Nazilli, 15 February 1948 (İlhan Öden, http://sumerbank.blogspot.com/2011/ (20 July, 2023).
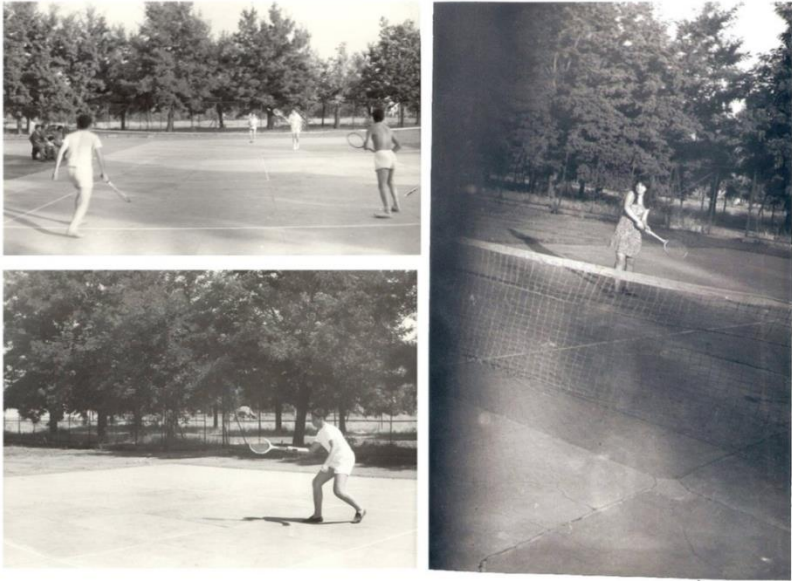
Figure 9. Playing tennis at the site in Kayseri (Nihat Alacalıoğlu's archives).

4.1.2.7. Identity value

Sümerbank significantly impacted the social life of the people who inhabited the sites and the citizens. They offered socio-cultural spaces as well as events for educating their employees during leisure time, akin to community centers that impose contemporary lifestyles on the community. Theater, cinema, opera, musical performances, and fashion shows on campuses contributed to the development of intellect, the arts, and civilization, facilitating a social transition from traditional structures to modernity. Consequently, Sümerbank industrial campuses significantly contributed to integrating the community with contemporary lifestyles by offering recreational activities on the premises. Creating a modern community was part of the political approach of the regime in line with the nation-building program.

4.1.2.8. Spiritual-Religious value:

There is not any phenomenon that should be considered of spiritual or religious value regarding Sumebank industrial campuses.

4.1.2.9.Mythological value:

There are not any mythical personalities or stories connected to Sümerbank, thereby regarding this sort of value for the case is pointless.

4.1.2.10. Relative art value:

This kind of value might be combined with aesthetic value in the Sümerbank industrial campuses so as to assess the industrial heritage aesthetics concept.

4.1.2.11. Uniqueness-Rarity value:

The campuses as a whole, which consider all the needs of the working class in their planning, are a unique example of industrial sites. Sümerbank industrial campuses provided the facilities listed in Table 2 to their workers on an international and national scale. For instance, a hotel on Sümerbank industrial campuses in Nazilli is among the rare residential buildings.

4.1.2.12. Group value:

The planning and construction of the Sümernank industrial campuses in Kayseri, Ereğli, Nazilli, and Bursa in line with the First Five-Year Industrial Plan can be assessed for holding group value.

4.1.2.13.Plurality value:

The number of different structures that were provided to develop social structure, public profile, economy, and daily life cycle in and out of campuses gains plurality value.

4.1.3. Economic values

4.1.3.1. Use-Functional value:

Sümernank industrial campuses have use values. However, after the privatization process of the campuses, some of the buildings on the campuses were eradicated. Even on Sümernank industrial campuses in Malatya, nearly all buildings were demolished. Table 3 shows the buildings that are reused on the campus. Sümernank industrial campuses in Kayseri and Nazilli are reused for educational purposes. Yet, in Nazilli, most of the structures are not used for this purpose thereby many buildings have been left to decay. Even though the weaving unit and all houses in the residential zone had been demolished, most of the buildings on the campus have been restored and reused under the roof of the Bursa Metropolitan Municipality. In Ereğli, the production units are used for original purposes by Albayrak Grup. Other buildings have been restored and reused under the roof of the Ereğli Municipality.

Table 3. List of the buildings that are reused on Sümernank industrial campuses.

FACILITIES	SIC In Kayseri	SIC In Ereğli	SIC In Nazilli	SIC In Malatya	SIC In Bursa
PRODUCTIONS UNITS	Reuse	Use	-	Demolished	Reuse – Partially Demolished
POWER PLANT	Reuse	Use	-	Demolished	Reuse
SOCIAL-CULTURAL					
Clubhouse	-	-	-	Demolished	Reuse
Kindergarten	-	Reuse	-	Demolished	Demolished
Outdoor Sports Area	Reuse	-	-	-	Reuse
Indoor Sports Area (GYM)	Not exist	-	-	Not exist	Not exist
Outdoor Poll	Reuse	Reuse	-	-	Reuse
FORMAL EDUCATION	+	+	+	+	+
Primary-Secondary School	Use	Use	Use	Use	Use
ADMINISTRATION	Reuse	use	Reuse	Demolished	Reuse
COMMERCIAL AREAS	Demolished	-	Demolished	Demolished	-
RELIGION BUILDING	Not exist	Not exist	use	Not exist	Not exist
HOSPITAL (HEALTH CENTRE)	-	reuse	Reuse	Demolished	Demolished
HOTEL - GUEST HOUSE	Not exist	Not exist	Demolished	Not exist	Not exist

4.1.3.2.Market value:

Each industrial heritage has a monetary value that might be derived from the value of the land, the reuse of the structure, or cultural tourism. In the case of the Sümerbank industrıal campuses, their sites are located in the center of the cities where they were established, thereby they are very

valuable lands. This was the most important feature that caused to demolition of existing structures so as to build new buildings. Rather than demolishing industrial heritages, re-use of these areas' buildings can also derive income in many ways.

4.1.3.3.Continuity in use:

Only, the Sümerbank industrial campus in Ereğli is used for original purposes. The ones in Kayseri and Bursa are reused. However, most of the buildings on campus in Nazilli are in idle condition (Figure 10). The building on the campus in Malatya was demolished. Accordingly, still-functioning facilities or the ones assigned with a new function can be evaluated for their incessant use.

Figure 10. The idle condition of industrial heritage on the Sümerbank industrial campus in Nazilli.

4. Conclusion

Sümerbank industrial campuses were significant industrial bodies of the early Republican Regime. They were created to promote the development of industry and social modernization. Consequently, they are pivotal in embodying the values and norms of the Republic Regime, as well as community identity and collective memory; thereby, Sümerbank sites emerge as a notable instance of cultural heritage. The amalgamation of identity and memory as a social construct has served as

the foundation for social development and modernization, and its impacts remain significant in the towns of Anatolia where Sümerbank sites are located.

After defining and evaluating the values, we can list 17 values for the Sümerbank Industrial Heritage valuation:

> - Intrinsic values: age, historical, technical/artistic, originality, and document.
> - Extrinsic values: Sociocultural, political, aesthetic, educational, symbolic, commemorative, identity, rarity, and group.
> - Economic values: Use/functional, market and continuity in use.

The buildings in each Sümerbank industrial campus represent each value category with a "+" if it is present, or with a "-" if it is not. The figures below show the valuation charts of the existing buildings on the Sümerbank industrial campus (Figures 11, 12, 13, 14, and 15). After analyzing the charts it turns out that the buildings and the sites are remarkably valuable. The production units, clubhouses, and powerplant buildings on all campuses have a remarkable number of values when compared to others. The main entrances on campuses in Bursa, Kayseri, and Nazilli have a remarkable number of values. Besides, all campuses had economic values in terms of reuse or continuing use, as was the case at Eregli, Kayseri, and Bursa. All the campuses have social value, and their significance contributes to working-class life by providing social facilities. Therefore, all structures have commemorative value. They have political values wherein Germany and Soviet Russia played a role in their design and establishment; thereby, they became a medium for the Republican Regime to have a connection with the Germans and Soviets.

All campuses were established during the lifetime of Mustafa Kemal Atatürk, the founder of the new state, who attended the opening ceremonies; consequently, they have symbolic value. The avant-garde design of the campuses' structures gives them aesthetic, original, and rarity value.

	INTRINSIC								ENXTINSIC									ECONOMIC		
	Age Value	Historical Value	Technical-Artistic		Originality			Document	Social-Cultural	Political	Aesthetic	Educational	Symbolic	Commemorative	Identiy	Rarity	Group	Use Functional	Market	Continuity In Use
			Technical	Technological	Design	Const. tech.	Material													
Main Entrace	+	+	+		+	+	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Production Units	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Power plant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Clubhouse Building	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Kindergarten	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Schools	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Sports Venues	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Housigns	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Administration	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+

Figure 11. Valuation chart of the Sümerbank Industrial Campus in Kayseri.

	INTRINSIC								ENXTINSIC									ECONOMIC		
	Age Value	Historical Value	Technical-Artistic		Originality			Document	Social-Cultural	Political	Aesthetic	Educational	Symbolic	Commemorative	Identiy	Rarity	Group	Use Functional	Market	Continuity In Use
			Technical	Technological	Design	Const. tech.	Material													
Main Entrace	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production Units	+	+	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Power plant	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Clubhouse Building	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Kindergarten	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Sports Venues	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Schools	+	+	-	-	-	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Housigns	+	+	+	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Administration	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+

Figure 12. Valuation chart of the Sümerbank Industrial Campus in Ereğli.

	INTRINSIC								ENXTINSIC									ECONOMIC		
	Age Value	Historical Value	Technical-Artistic		Originality			Document	Social-Cultural	Political	Aesthetic	Educational	Symbolic	Commemorative	Identiy	Rarity	Group	Use Functional	Market	Continuity In Use
			Technical	Technological	Design	Const. tech.	Material													
Main Entrace	+	+	+		+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Production Units	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Power plant	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
Clubhouse Building	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Kindergarten	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Sports Venues	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Schools	+	+	-	-	-	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Housigns	+	+	+	-	+			+	+	+	+	+	+	+	+	+	+	+	+	+
Administration	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+

Figure 13. Valuation chart of the Sümerbank Industrial Campus in Nazilli.

	INTRINSIC								ENXTINSIC									ECONOMIC		
	Age Value	Historical Value	Technical-Artistic		Originality			Document	Social-Cultural	Political	Aesthetic	Educational	Symbolic	Commemorative	Identiy	Rarity	Group	Use Functional	Market	Continuity In Use
			Technical	Technological	Design	Const. tech.	Material													
Main Entrace	+	+	+		+		-	+	+	+	+	+	+	+	+	+	+	+	+	+
Production Units	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Power plant	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+
Water Tower	+	+	+	-	+			+	+	+	+	+	+	+	+	+	+	+	+	+
Clubhouse Building	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Kindergarten	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Sports Venues	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Schools	+	+	-	-	-	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Housigns	+	+	+	-	+			+	+	+	+	+	+	+	+	+	+	+	+	+
Administration	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+

Figure 14. Valuation chart of the Sümerbank Industrial Campus in Bursa.

	INTRINSIC								EXTRINSIC									ECONOMIC		
	Age Value	Historical Value	Technical-Artistic		Originality			Document	Social-Cultural	Political	Aesthetic	Educational	Symbolic	Commemorative	Identiy	Rarity	Group	Use Functional	Market	Continuity In Use
			Technical	Technological	Design	Const. tech.	Material													
Main Entrace	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Production Units	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Power plant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Water Tower	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+
Clubhouse Building	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Kindergarten	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+
Sports Venues	+	+	-	-	+	-	-	+	+	+	-	-	+	+	+	+	+	+	+	+
Schools	+	+	-	-	-	-	-	+	-	+	-	-	+	+	+	-	+	+	+	+
Housigns	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Administration	+	+	+	-	+	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+

Figure 15. Valuation chart of the Sümerbank Industrial Campus in Malatya

5. Suggestions and Conclusion

During the 1980s, the neoliberal policies implemented in Turkey led to the closure of Sümerbank. Turkey's rapid urbanization has engulfed the Sümerbank sites. Thereupon, their sites became extremely valuable lands for investments. Accordingly, most of the structure of the campuses erodes. Instead of demolishing these structures, conserving and reusing these heritages provides more income (Tables 4, 5, 6, and 7).

The campus in Kayseri has been rehabilitated and reused for educational purposes. The site represents a significant example of well-preserved industrial heritage in Turkey. It has undergone restoration and is now being utilized under the administration of Abdullah Gül University. Following the restoration, the power center building was transformed into a museum and library. The restoration process for the production units is continuing. The parts in which the restoration process is completed are reused for educational purposes. The warehouses have been restored and are now being repurposed for educational use. The housing parts were repurposed to serve as dormitories. Additionally, restoration efforts were being conducted for the same section of the factory units and the primary entrance of the campus. Nonetheless, the sports grounds and the swimming pool experienced a significant loss of

their architectural identity due to unnecessary physical alterations on the site. The sports fields should be given to the university, which would then use them as part of its sports zone.

The campus in Bursa has also been restored and reused by the Bursa Metropolitan Municipality. However, the weaving building, which was located on the east side of the campus, and the clothing factory were demolished. The clothing factory could have been preserved and repurposed, managed under the control of the municipality, rather than being demolished. Only the weaving unit, which was located on the west side of the campus, has been partially restored and reused as a museum and office for the municipality. The power center has been converted into a museum. The sports venue is preserved and maintained by the metropolitan municipality. The clubhouse has been converted into a wedding hall for the municipality. For the construction of new structures, it needs to be cautious because the new structures create a lasting sense of place at the site.

The campus in Ereğli was partially privatized, in which the production and units, administration building warehouses, and power plant were torn over by Albayrak Grup in 1997. The use of these units by the Albayrak Grup is important in terms of the value of continuity in use. The housing zone was torn over the Ereğli Municipality. The house for the administrative staff of Sümerbank was restored and reused for social purposes by the municipality. The restoration process for the ones in the Gülbahçe zone is continuing. Yet, the sports venue on the campus is in idle condition. Referring to the valuation chart of Ereğli (

Table 6), this space should be restored and continue to serve the sports activities of the municipality. Therefore, the structures should be preserved in their original form, and the pitch should be renovated. The indoor sports hall should be preserved and continue to be used as it was before by the public.

Table 4. The industrial campus in Kayseri.

Facilities	View of Current Condition	Current Condition and Suggestion	I.V.	EX.V.	EC.V.
Main Entr.		Under the restoration process that was planned by Abdullah Gül University. It can used as one of the entrances of Abdullah Gül University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity ~~Rarity~~ Group	Use Functuianal Market Cons. In Use
Production units		Under the restoration process that was planned by Abdullah Gül University. In some parts of the production units, the restoration process was completed. The restored one is reused for educational purposes.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Power plant		The power plant was restored. It is reused as a library and museum.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Warehouse		The warehouses were restored. They are reused for educational purposes.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Housing		Houses were restored. The houses, that were for workers, are used as dormitories. Ones on the campus are used for accommodation of the staff of Abdullah Gül University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use

Adm.		The administration building was restored. They are reused as part of the university administration.	Age Historical ~~Tech-artistic~~ Originality Document	Social – Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use

Table 5. The industrial campus in Bursa.

Facilities	View of Current Condition	Current Condition and Suggestion	I.V.	EX.V.	EC.V.
Main Entr.		The main entrance was restored. It is used as the entrance to the wedding hall of the municipality.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Production units		The weaving building, which was located on the east of the campus and clothing factory was demolished. Only the weaving building, which was located on the west of the campus was renovated. The renovated one is reused as a museum and office for the municipality.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Power plant		The power plant was restored. It is reused as a museum.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Housing		Most of the houses were demolished. The remaining ones were renovated. They have been reused as offices.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Clubhouse		The clubhouse plant was restored. It is used as the wedding hall of the municipality.	+ Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use

<p style="text-align:center">**Table 6:** The industrial campus in Ereğli.</p>

Facilities	View of Current Condition	Current Condition and Suggestion	I.V.	EX.V.	EC.V.
Production units		After the privatization of the production units, they have been in use under the roof of Albayrak Grup since 1997. Continuity in use is the outcome of the economic value of industrial heritage. This condition should be maintained.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Houses in Gülbahçe zone		The houses have been restored by Ereğli Municipality.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Houses in For administrators		The houses have been restored by Ereğli Municipality. They are reused for social purposes by Ereğli Municipality.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Kindergarten		Kindergarten is reused for social purposes as a school.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use
Sport venue		The sports venue is in idle condition It should be renovated. It should used as a sports venue for the public. It should be maintained by Ereğli Municipality.	Age Historical Tech-artistic Originality Document	Social –Cultural Political Aesthetic Symbolic Commemorative Identity Rarity Group	Use Functuianal Market Cons. In Use

Table 7. The industrial campus in Nazilli.

Facilities	View of Current Condition	Current Condition and Suggestion	I.V.	EX.V.	EC.V.
Main Entr.		The main entrance should restored. Physical deterioration on the facade must be intervened.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Productio n units		Production units are in idle condition. It should be restored. Physical deterioration on the facade of the building must be intervened. It should be reused for educational purposes at Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Power plant		Production units are in idle condition and the roof of the building collapsed. It should be restored. Physical deterioration on the structure and roof must be intervened. It should be converted into a museum.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Warehous e		The warehouses are in idle condition and the roof of the building collapsed. It should be restored. It should be reused for educational purposes at Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Housing		The houses, that were for workers, were demolished. The ones for administration must be restored and used for the accommodation of the staff of Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Clubhous e		Production units are in idle condition. It should be restored. It should be reused for recreation purposes at Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use

Kinderg arten		The warehouses are in idle condition and the roof of the building collapsed. It should be restored. It should be reused for educational purposes at Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use
Hospital		It is reused as the administration building of the Sümer campus of Adnan Menderes University.	Age Historical Tech-artistic Originality Document	Social – Cultural Political Aesthetic Symbolic Commemor ative Identity Rarity Group	Use Functuianal Market Cons. In Use

The campus in Nazilli was torn over by Adnan Menderes University in 2003. It is reused for educational purposes by Adnan Menderes University. Yet, buildings on the campus are in idle condition. Table 7 shows the value of each structure on the campus. Referring to the economic value of sources, they are not reused; instead, new structures were raised on the campus that changed the identity of the campus. Instead of new ones, existing buildings should be preserved in their original form by following local organization and structuring techniques. As a result, conservation decisions for the campus should take priority over reuse decisions for these buildings on campus.

Acknowledgements and Information Note

Author Contribution and Conflict of Interest Declaration Information

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Assessing Architectural Significance of Cultural Heritage: A Study on İstanbul's Historical Apartments

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1. Introduction

Istanbul is home to many historical apartments that are not just structures but living testimonies to the city's architectural evolution over the centuries. These historical apartments, valuable in terms of cultural significance, face structural risks due to ageing and neglect. The urgency of understanding these challenges and acting is vital in preserving İstanbul's historical apartments for future generations. A comprehensive study assessed the architectural significance and structural risks of İstanbul's historical apartments, focusing on the Beyoğlu district. The study aims to provide a better understanding of the vulnerability of these structures and propose mitigation strategies to safeguard their architectural integrity. The historical context of the Beyoğlu district sets the stage for understanding the evolution of architectural styles and the significance of historical apartments in this area.

By delving into the challenge of identifying forgotten and undiscovered historical apartments, the study explores methodologies for uncovering these architectural treasures, presenting case studies of rediscovered apartments in Beyoğlu. Assessing the architectural significance of these historical apartments involve the establishment of criteria for evaluating their value and techniques for determining their architectural, cultural, and historical importance. Through case studies of architecturally significant apartments in Beyoğlu, the study aims to highlight the unique architectural characteristics and value of their structural existence. Understanding the structural risks faced by historical apartments is vital for their preservation. Common structural challenges and methods for assessing their structural integrity are explored, with case studies

highlighting specific structural risks in Beyoğlu's apartments. Mitigation strategies for these structural risks are proposed, including preservation techniques, structural rehabilitation approaches, collaboration with experts and stakeholders, and technology integration in preserving efforts. The study emphasises the importance of conservation efforts and summarises key findings and their implications for preserving Istanbul's cultural heritage. It underscores the importance of sustainable conservation efforts in safeguarding the architectural significance and mitigating the structural risks of the city's historical apartments, highlighting the necessity and responsibility for long-term preservation.

1.1 The Architectural History of Beyoğlu

To fully comprehend the architectural diversity found in Beyoğlu, one must understand its historical background. Beyoğlu started to develop during the 18th century. The settlement was concentrated on the slopes facing the Golden Horn between Galata Palace and Galata Walls (Kuban, 2021, p.70). The district became a cultural place during the 19th century, which included Western influences and traditional Ottoman designs. This period marked a significant turning point in Beyoğlu's architectural evolution, attracting a diverse population of Greeks, Armenians, Jews, and foreigners. The district is characterised by its eclectic mix of architectural styles, from neo-classical and art nouveau to modernist elements. This historical context sets the foundation for preserving the unique apartments that tell the story of Istanbul's architectural and cultural journey.

Beyoğlu, a well-known district in Istanbul, has a diverse historical background that has significantly influenced its architecture. In 1535,

upon the Ottoman-French Trade Treaty, the French ambassador was allowed to settle in Beyoğlu, marking the first institutional development in this region. This event sparked a series of architectural improvements, with other embassies and foreign minorities settling in the area. For example, Cadde-i Kebir, today known as İstiklal Street, was the first footpath road. Over time, wooden houses and neighbourhoods started forming on this footpath, bringing much attention to the region regarding residential settlements, religious buildings, educational buildings, and shops. However, due to these houses' wooden structures and dangerous cooking systems, Beyoğlu experienced several devastating fires, destroying many structures (Akıncı, 2018, p.21).

After several devastating fires in Beyoğlu, later in the 1870s, buildings were built entirely as masonry structures. This is why most masonry buildings have reached today (Karabetça & Sav, 2021, p.223). Due to this new construction method, Beyoğlu started to develop, and the population increased accordingly. As cultural and commercial relations with the West increased, Galata's influence expanded, and the growth towards Beyoğlu and the north accelerated (Kuban, 2021, p. 70).

The 19th century was essential in the architecture of Istanbul. In the first half of the 19th century, Ottoman and later Turkish society's continuous change while trying to assimilate Europe has been widely defined as the period of Westernization. This change manifested itself in urban planning, architecture, and design, as well as in many other fields. During this period, Levantines and foreign architects in Istanbul were in great demand (Can, 2020, p.15-16).

A significant transformation occurred in Istanbul's architecture in the second half of the 19th century. Apart from the poor or mediocre neighbourhoods of Istanbul, Galata, Beyoğlu and other neighbourhoods with extensions developed an architecture dominated by the eclectic styles of Europe and the 'art nouveau' style at the end of the century. The 19th century brought the atmosphere of European cities to Istanbul, marking a dynamic shift in Beyoğlu's architectural evolution (Kuban, 2021, p. 78).

The 19th and 20th centuries were the most influential times in Beyoğlu in terms of architecture and city planning. Some of the most influential architects were the Balyan Family, Raimondo D'Aronco, Alexandre Vallaury, the Fossati brothers, August Jasmund and Giulio Mongeri (Can, 2020, p.12). The Committee of Union and Progress (İttihat ve Terrakki) declared the Constitutional Monarchy (Meşrutiyet) in Selanik in 1908. With these developments, foreign architects in Istanbul became more demandable. Architectural services were carried out by Giulio Mongeri, Vedat Tek, Kemaleddin Bey, Adaman, and Aznavur. In 1912, there were 130 accessible architectural offices in Istanbul, and almost all were Greeks and Armenians (Can, 2020, p.40,41,43).

These developments have significantly shaped the cultural and architectural memory of Beyoğlu. Karabetça and Sav, in their article, underline the critical role played by non-Muslims and foreigners in the district's development, considering their substantial architectural, historical, and sociological impact on the society (Karabetça & Sav, 2021, p.219). For instance, the Cercle D'Orient or Cercle a Pera, known as the Abraham Karakaya Paşa Han, a social club exclusively for affluent

governors and businesspeople, Casa Botter, recognised as the first Art Nouveau building (Cansız, A.U. (2024), and Hidivyal Palace or Hotel D'Angleterre known as the first hotel in Beyoğlu Pera (Akıncı, 2018, p.100, 125, 240) are some of the elite examples of buildings that reflect this influence. While these buildings were significant for their times, the period saw residential improvements when Levantines and foreign architects were at the forefront. This led to the development of different residential typologies, with the significant influence of the French bourgeoisie. (Figure 1).

| Casa Botter İstiklal Street | Hidivyal Palace İstiklal Street | Previously as **Cercle D'Orient** (up) now as **Grand Pera** (bottom) İstiklal Street |
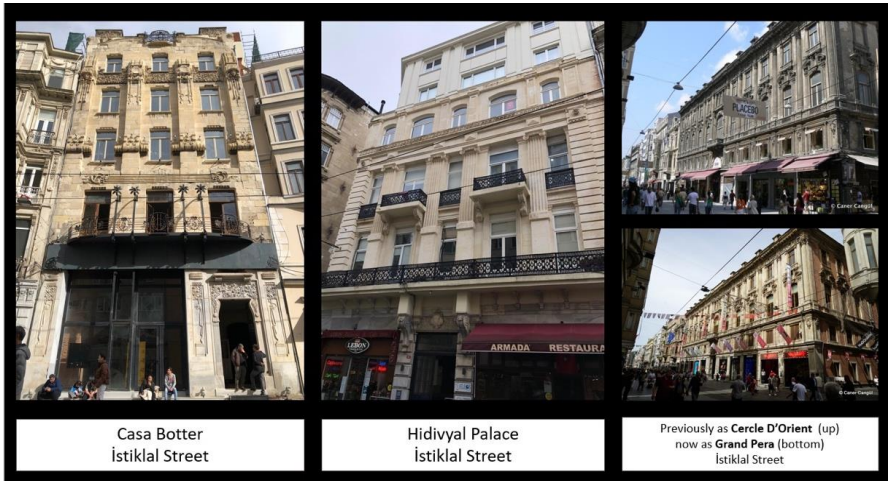
Figure 1. Casa Botter, Hidivyal Palace, Cercle D'Orient. (Kültür Envanteri)

The influence of foreigners, especially the French bourgeoisie, was instrumental in forming Beyoğlu's architectural evolution. In the 19th century, the French bourgeoisie began to value 'private life ', leading to the development of the multi-storey housing system and the corridor, which created a sense of privacy (Öncel, 2022, p.3). According to Öncel in her book 'Apartman', the increasing cosmopolitan population of

Beyoğlu from the second half of the 19th century onwards prompted Ottoman and foreign artisans and architects to develop a new housing type to meet the housing needs. This new type of housing, known as the 'apartment', facilitated the development of multi-storey construction. The influence of this housing type can be seen in various Istanbul neighbourhoods, particularly in Beyoğlu and its surroundings (Öncel, 2022, p.3). Many examples of these apartments, such as the Mısır and Baudouy Apartments on İstiklal Street, Kamondo Apartment on Serdar-I Ekrem Street, and Deniz Palace at Şişhane, have survived to this day (Figure 2).

Figure 2. Deniz Palas, Kamondo, Baudouy and Mısır Apartments
(Photos: Kültür Envanteri)

In the last quarter of the 19th century, apartment buildings in Beyoğlu were included in the city's life as examples of civil architecture in the areas where the Levantine culture in Istanbul was concentrated (Can, 2020, p.40).

This historical context underscores the importance of preserving Beyoğlu's unique apartments and buildings. These structures serve as

living testaments to the district's dynamic history and diverse influences, providing a visible connection to the past and highlighting the significance of architectural preservation in maintaining the city's cultural heritage. Additionally, the text addresses conservation issues such as additional floors, facadism, changes in structural systems, poor restoration, and reconstruction, as well as their consequences.

2. Identifying and Assessing Architectural Heritage

Architectural heritage refers to buildings and structures valued for their historical, cultural, architectural, and/or artistic significance. Identifying these sites involves evaluating their historical context, architectural features, and cultural impact. It also involves a systematic approach to recognising buildings and structures with historical, cultural, and/or aesthetic value. This process is crucial for preserving significant architectural sites and ensuring their existence for future generations. These sites contain different building types, which still stand in various neighbourhoods of Beyoğlu. In this chapter, apartments are the case study considering their cultural, architectural, and structural value.

Identifying architectural heritage involves comprehensive research, analysis, and consultation. Understanding a building's historical context, architectural features, cultural impact, and current condition can determine its significance and ensure its preservation.

Correct identification is the first step in an intense conservation program; registering and protecting it legally are the other two supporting registrations (Turan & Akbaylar, 2015, p.1) (Ahunbay, 2022, p.9). The conservation of cultural heritage is an important endeavour that aims to protect valuable artefacts and monuments for the benefit of future

generations. It covers more than physical restoration and involves critical identification processes. The primary goal of conservation efforts is to preserve the authenticity and significance of these cultural assets, including their historical, architectural, technical, and artistic value, while maintaining their structural integrity. Within architecture, education in conservation plays a pivotal role in ensuring the success of conservation programs. Therefore, institutions offering such programs must employ professionals with a strong conservation and restoration education (Ahunbay, 2022, p.68).

The reading of the construction of the building is the spatial organisation behind the building. In this context, the reconstruction process called facadism, which is applied to historical buildings, completely changes and destroys the building's function, structure, spatial effect, and cultural memory (Karabetça &Sav, 2021, p.222). Because these structures represent intangible cultural memories of a nation, a city or country must establish a robust system for their identification and preservation.

In his book (Tapan, 2014, p.54), Tapan emphasises the importance of staying true to the original character when renovating historic buildings. However, some critical factors might prevent the preservation of the buildings in their original condition: the current physical state of the buildings, the lack of a proper environment, and the inconsistency of zoning. Figure 3 shows the existing and earlier conditions of the Deveaux Apartment at İstiklal Street, now serving as a shopping mall, in which all floors and main structures, including the façade, changed (Karabetça & Sav, 2021, p.540).

Deveaux Apartment on the right, now a shopping mall on the left. İstiklal Street

Figure 3. Deveaux Apartment is a shopping mall now at İstiklal Street. (Karabetça & Sav, 2021).

The structure that emerged from inadequate restoration, misguided applications, and other factors has transformed into an object that offers only distorted representations to future generations (Tapan, 2014, p.54). Destroying the relationship between function and form, as if creating a theatre stage, is synonymous with destroying a society's cultural memory from the past to the present.

İstanbul has a unique harmony of almost all architectural movements during the last 500 years. The examples above (Fig. 1-2-3) are some of the most significant examples still existing and, unfortunately, existing but only mimicking their previous styles due to facadism, destructive restorations or reconstruction. Identifying and assessing some examples of historical apartments in Istanbul to emphasise the importance of conserving architectural heritage, specifically apartments that witnessed an elite and significant lifestyle in Istanbul during the 18th and 19th centuries.

Establishing criteria for evaluating historical apartments' cultural and historical value is crucial to assessing their architectural significance. This section presents a framework for identifying key characteristics that define the importance of these structures, including architectural style, historical context, and community significance. Through detailed case studies of significant apartments in Beyoğlu, this chapter illustrates the unique aspects that contribute to their value and the necessity of their preservation.   In Istanbul, many building textures have undergone changes that have yet to be documented. This makes restorations and conservation policies challenging to apply. Because undocumented historical buildings become much more complicated regarding the restoration process, this commonly results in reconstruction, meaning keeping the façade and demolishing the interior structure. Most of these buildings have been converted into different functions rather than the original. These buildings were built as apartments, inns, mansions, mosques, or churches; they had specific functions.

Some of the abovementioned apartments in Beyoğlu have been converted into boutique hotels, cultural centres, or shops. Table 1 below shows several essential historic apartments with different functionalities. An example can make the issue more understandable. For example, the Baudouy (Bodvi) Apartment has faced a restoration method called "facadism", in which the façade is kept original, and the interior structure and every detail changes. It is a painting and sculpture museum designed and opened by an important Turkish bank. Another example is Abbas Halim Pasha Mansion, also known as Mısır Apartment, the first concrete building in Istanbul. Now, it is used as an office and shopping centre.

Table 1. Selected existing apartments listing their previous and current owners and functions. (Prepared by the Author)

TABLE 1. IDENTIFICATION TAG						
NO.	**BUILDING**	**PREVIOUS OWNER and FUNCTION**	**CURRENT OWNER AND FUNCTION**	**ARCHITECT**	**DATE OF CONSTRUCTION**	**LOCATION**
1	Casa Botter	Jean Botter FASHION HOUSE AND RESIDENCE	* Zeynep Ovayar's shareholders and IBB Miras. Upper levels still under restoration. Ground, mezzannine and first floors serve as Art And Design Center.	Raimondo D'Aronco	1900-1901	İstiklal Street, Beyoğlu
2	Boaudovy (Bodvi) Apartment	Joseph Baudouy (apartment)	İş Bank, Painting and Sculpture Museum	***Unknown	1907	İstiklal Street, Beyoğlu
3	Frej (Freige) Apartment	Selim Hahna Frej (Freige) Apartment	Ciner Holding, İstanbul Galata University Art and social Sciences Faculty.	A.D. Yenidunia and C.P. Kyriakides	1905 or 1906	Galata, Beyoğlu
4	Kamondo Apartment	Abraham Kamondo Shops and Residence	**Owner unknown. Mixed use property shops and suits to rent.	***Unknown (There are some guesses that Mongeri could be the architect)	1868	Serdar-I Ekrem Street, Beyoğlu
5	Deniz Palas (Kirzade Apartment)	Kirzade Şevki Bey Apartment	Eczacıbaşı Holding. IKSV İstanbul Foundation for Culture and Arts	Georges Coulouthros	1920s (Exact date is unknown)	Şişhane, Beyoğlu
6	Circle d'Orient	Abraham Pasha (residence) and Grand Club de Pera.	Özak Global. Shopping Mall and Performance Center.	Alexander Vallaury	1883	İstiklal Street, Beyoğlu
7	Mısır Apartment (Abbas Halim Pasha Mansion)	Abbas Halim Pasha, as a resident for the family.	Multiple owners. Art Galleries at multiple floors, offices, cafes.	Hovsep Aznavur	1910	İstiklal Street, Beyoğlu
*	Zeynep Ovayar is the wife of Mahmut Nedim Efendi, son of Ottoman Navy Kaptan-ı Derya (Captain of the Seas) Osman Pasha.					
**	There is not an official document about the owner. Either it is classified or not well known.					
***	There is not an official document about the real architect.					

Table 1 describes these apartments' current situation to clarify the architectural heritage assessment. Although these buildings are protected and entirely functional, most valuable parts have been destroyed to open more spaces for more extensive and higher rooms. Some can be considered compulsory interventions, but a building loses value when it is out of originality because the spatial layout behind the building emphasises its construction.

According to several scanned research papers, theses, books, and articles, these apartments are valuable for assessing the significance of the architecture in the Beyoğlu district. When evaluating historical buildings,

it is crucial to consider their connections with the natural structure of the city and the human-space relationship.

Creating cultural landmarks takes many years, but money alone is enough to build or convert these valuable landmarks into a five-star hotel. Commemorating cultures with landmark buildings is difficult (Tapan, 2014). As a city, Istanbul can be commemorated by many historical buildings such as the Maiden Tower or Galata Tower, the Dolmabahçe Palace, etc. However, a culture cannot be easily commemorated when its architectural heritage is poorly assessed. Table 2 shows how the architectural heritage in Beyoğlu is being assessed. The general assessment and evaluation of the architectural heritage is the same for the other cultural landmarks. In the Beyoğlu Urban Conservation Area Conservation Implementation Development Plan Report (2011), article I-4 it is stated as, "In registered cultural heritage buildings (monuments and examples of civil architecture) or parcels, the original building form that needs to be preserved shall be preserved, and the Conservation Board shall evaluate requests for extensions, additional structures, floor additions, and the application shall be made according to the decision to be taken." This means that decisions can be quickly taken for the additions, such as adding floors, increasing the height or the width, or removing floors. There are many architectural landmark examples in Beyoğlu where this happened. Some can be seen in Table 2. The three buildings in Table 2 were selected based on their restoration processes and usage. They are some of the most essential architectural heritages in İstanbul. The other buildings faced the exact restoration process and were reconstructed, demolished, or left to their fates.

2.1. Casa Botter – an Art and Design Center

Casa Botter is the most important Art Nouveau apartment designed and built by one of the most influential architects of Istanbul during the 19th century (1901), Raimondo D'Aronco (Barillari & Godoli, 1997, p. 85). It is located at Pera (today known as İstiklal Street), where architecture and luxury life were famous. This apartment belonged to Sultan Abdülhamid II's tailor Jean Botter. He and his family lived there for a long time. The building has a typical narrow façade and deep plan typology due to the form and shape of the land on the street (Table 2). It has one basement, two floors as an atelier for the fashion house, three floors for family, a roof, and a mezzanine floor on the top, nine floors total (Akbayar et al., 1993, p. 312).

D'Aronco used developed construction techniques to build this masterpiece: a cast iron structure, a facade covered with stone, and curtain walls filled with brick. Floral decoration spreads freely on the ground floor and terrace, and the balcony railings are again the scene of D'Aronco's masterly design. He created a façade style, combining traditional architectural discipline with the free concept of the art nouveau style (Akbayar et al., 1993, p. 314), (Barillari & Godoli, 1997, pp. 85-86).

It is still being determined when this building was closed. The building, which has survived to the present day by frequently changing its owner, was used as an office block. What has happened to this unique building until its new opening? There were many interventions, but they needed to be corrected or successful.

The building faced significant construction challenges; it was left to its destiny. Most of the characteristics of internal walls have lost their originality. The community was unhappy about the situation, but there was nothing possible to do. Luckily, the building was restored by Istanbul Metropolitan Municipality in 2023 and reopened as a design and art centre. The ground, mezzanine and first floors have been restored. The façade was renovated. The upper floors are still under restoration.

Casa Botter, with its memory and architectural significance, has an essential role in the cultural memory of the area (Figure 4). It can be described as an architectural landmark commemorating Beyoğlu and, indirectly, İstanbul. As stated in the Beyoğlu Spatial Strategy Plan 2023, Casa Botter is one of the most critical components of the production memories of İstiklal Street. On the other hand, the same report states that the loss of cultural heritage is one of the biggest urban problems. However, the restoration processes and conservation strategies are insufficient, and there is a lack of sanctions.
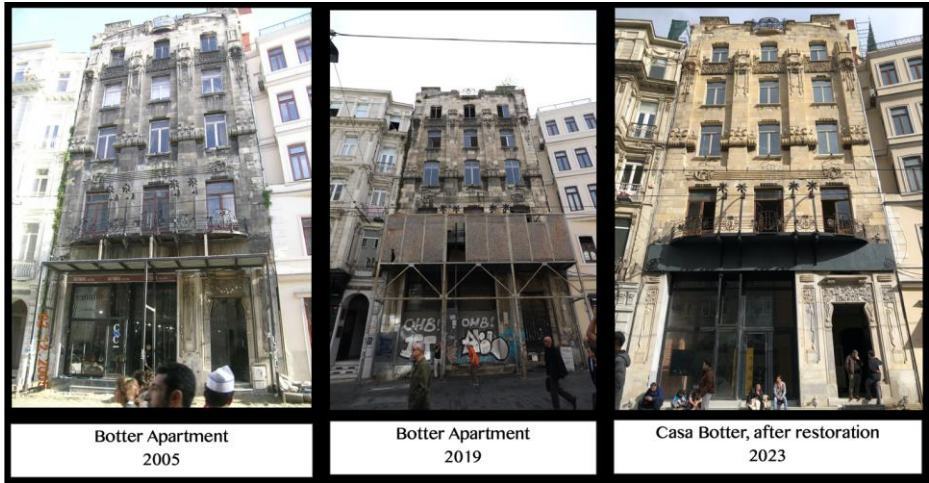
Figure 4. Casa Botter before and after restoration. (The first two images, from left to right, are from the Author's archive. The third one is from Kültür Envanteri)

It is straightforward to understand and assess the architectural and cultural value of the apartment just by observing Figure 4. The apartment was very severely used and left empty until 2023. As a result of the outstanding efforts of Istanbul Metropolitan Municipality, having positive negotiations with the shareholders of the apartment, the apartment finally had a chance to be restored. It became an art and design centre (Tulay, S. 2024). The building is being visited daily, assuming Jean Botter's fashion atelier is still active. Although the Botter apartment is visited daily, most visitors are outsiders, unaware of what this building was/is about or why it is essential for the architectural heritage. These cultural landmarks do not have meaning for these outsiders, who visit an old building and take good pictures to share on social media. The exhibitions on the ground floor replaced the fashion house for Jean Botter

and the first-floor reading and researching areas for the atelier (Durmaz, Ö. 2024).

2.2. Deniz Palas – Art and Performance Center

Deniz Palas, also known as the Kirzade Apartment, is one of the art nouveau-style apartments built in the early 20th century (exact date is unknown). This building faced a fundamental reconstruction process, and the performance hall design on the ground floor won two design awards (Biçer, S. 2011). The architect of the building was discovered during these renovation works, Georges Coulouthros (Her Umut Ortak Arar). There is no formal information about who named the building Deniz Palas. The building is located on a corner land at Şişhane, where the level difference allows the building to face Haliç, a magnificent view of Golden Horn and the historic peninsula (Ünübol, E. 2022). Before it became Deniz Palas, the Kirzade apartment was used by the family until the 1930s. Later, the building was sold to Zırh family, who used the building for eighteen years. There was no specific information about when it became Deniz Palas, but after the 1970s, when the owners moved from the building, it lost its importance, and it turned into an office building, and some of the floors were left empty. Until 1993, Deniz Palas remained neglected and empty. Deniz Palas was registered as a second-degree historical artefact in 1993, and a famous holding, Eczacıbaşı, bought the building in 2004 (Figure 5) (Her Umut Ortak Arar).
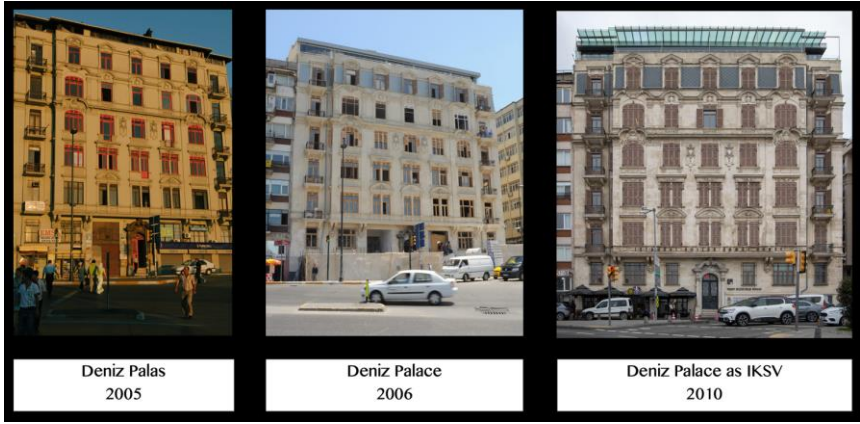
Figure 5. Deniz Palas, Before and after restoration (Photos: Her Umut Ortak Arar.)

Due to its status as a second-degree historical artefact, all floors were demolished, and a new steel and concrete structure was built behind the façade. The restoration was a complete reconstruction project like the Freij Apartment. New spaces were created, new floors added, and the façade was reinforced with special techniques (Maruf Mimarlık).

2.3. Frej (Freige) Apartment- A Faculty Building

Frej apartment was built for Selim Hannah Freige during the early 20th century. The architects were A.D. Yenidunia and C.P. Kyriakides. The building has neo-classical, baroque, art-nouveau and eclectic styles. It is a masonry building with jack arch flooring (Salbacak, 2019, p.42). Although Frej was one of the best existing examples of historical apartments in Beyoğlu, unfortunately, it was registered as a second-degree historical artefact with the same destiny as Deniz Palas and others in the Beyoğlu district. A second-degree historical artefact means many changes can be applied to the building except for protecting the façade. This is why two floors were added later when it was renovated.

The history of this unique apartment is yet to be well known. However, it is possible to guess the construction date based on the building's architectural style, which is mainly accurate to say it is either the 19th or 20th century (Figure 6). It is known that İstanbul's housing architecture improved, developed, and spread using the "katevleri-apartment" typology (Akbayar et al., 1993, pp. 338-339). Frej was one of the good examples of this "katevleri-apartment" typology.

Freij Apartment
Mixed-use, 1970s

Freij Apartment,
a hotel, 2008

Freij Apartment
a faculty building, 2024

Figure 6. Frej Apartment in the 1970s, 2008 and today (From left to right: Salt Research, Caner Cangül Archive, Her Umut Ortak Arar.)

All the historical apartments that were restored similarly now appear like theatre decorations, with original facades and fake interiors. Specific and absolute negativities cause the demolition of these buildings: internal and external migration, insufficiency of cultural cumulation, inadequate urban planning, and rapid increase in land rent (Tapan, 2014).

As a result of these negativities, the historical value of the buildings has no function-form relationship. This can not be a way of conserving the heritage. On the contrary, in this way, the value drops rapidly and cannot
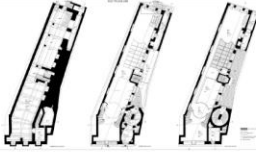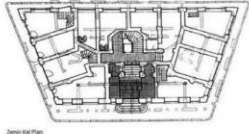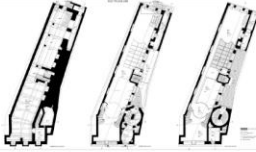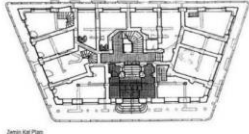
be reversed easily. In order to keep these buildings in the memory of the city and its users, they must be renovated and restored faithfully to the original and conserve them for future generations. Some elements form the sociocultural values and city memory: immovable cultural properties (civil buildings, monuments, engineering structures, mosques, apartments, etc.) and movable cultural properties. However, apartments, as essential elements of the cultural memory of a city, play a particularly significant role as they connect the present, future and past lifestyles, thereby preserving our cultural heritage.   For example, Markiz Patisserie, which was one of the most important examples of apartments and shop complexes on the street, was saved from being an auto spare parts shop thanks to Haldun Taner, who was a drama, cabaret and theatre writer as well as a lecturer and journalist. After this effort for the building, it was taken under conservation by the Higher Council of Antiquities and Monuments (Karabetça & Sav, 2021, p.544). The building is under restoration right now and is expected to open soon.

3. Architectural Conservation Policies and Techniques

Apartment buildings became prominent in Beyoğlu during the late 19th century, reflecting the influence of Levantine culture in İstanbul. These Western-style apartments and lifestyles spread mainly in the Beyoğlu Pera district (Pekin, 2018, p. 211). Art nouveau, neo-classic, eclectic, and baroque styles were brought from Europe to the conservation policies, applications, and usage of these buildings. Until the late 20th century, most of these buildings were used; some were destroyed, some were left empty, and some were used for other functions.

In this section of the chapter, assessing, evaluating, registering and conservation techniques with policies are aimed to be analysed considering the examples stated in Table 2. This Table provides general information about the case studies considering their previous and existing situations, specifically about the restoration processes and function. Tapan states in his book (Tapan, 2014) that a building can be evaluated as a cultural asset according to its architectural features. However, the function of that building in the memory of urbanites should gain continuity as a cultural asset value that should be preserved as well (Tapan, 2018, p. 72). This should be one of the significant conservation policies and must be improved according to the assessments and the significance of the buildings to be conserved. Such buildings can be seen in Beyoğlu as standing today, but these buildings, except for their facades, lost their value and function due to the lack of regulations and aim to provide profit; Kamondo Han in figure 2, Narmanlı Han, Hidivyal Palace and Kamondo Residences, etc., are some of the essential examples. Due to poor restoration and misapplications, the building has become an object that only gives a false image to future generations (Tapan, 2018, p. 64).

Table 2. Selected apartments based on their conservational situations. (Table prepared by the Author)

		TABLE 2. SELECTED APARTMENTS BASED ON THEIR CONSERVATION METHODS		
BUILDING		CASA BOTTER (İSTİKLAL STREET) 1901	DENIZ PALAS 1920's (KIRZADE APARTMENT) (ŞİŞHANE)	FREJ (FREIGE) 1920's APARTMENT (GALATA)
ARCHITECTURAL CATEGORY				
	ARCH. STYLE	Art Nouveau / Raimondo D'Aronco	Art Nouveau / Georges Coulouthros	Art-Nouveau - Neo Baroque -Eclectic / A.D. Yenidunia and C.P. Kyriakides
	PLAN TYPE			
	FAÇADE	Photo: Inan Kenan Olger - symetrical façade with art-nouveau style ornaments and decorative symbols representing the style in a most powerful way. The entrance of the resident section emphsizes the	Photo: Taken from İKSV web page -symetrical façade with art nouveau style decorative ornaments representing the style. The façade has a harmony of different symetrical designs in the overall look of the building, specifically on the front façade.	Photo: Inan Kenan Olger - Symetrical façade with decorative ornamnets created a symetrical look in each floor and in whole façade. Last two floors were added later. The facade is original.
STRUCTURAL MATERIAL	TIMBER	-	-	-
	MASONRY (brick and stone)	✓	✓	✓
	STEEL (cast iron)	✓	✓	✓
	CONCRETE		✓	✓
	INTERIOR	The building has all the complete floors. As seen from the plans of the ground and mezzanine floors, the double-sided staircases do not exist anymore. Staircases are either destroyed by the user time or collapsed during unused times.	Three floors and some other floor-supporting structures were demolished to create a performance hall, and new concrete columns and steel flooring systems were added. On the ground floor, extra rooms, such as offices, a restaurant, and a cafe, were added. Original pencil carvings were processed.	The building was completely demolished except for the facades and then reconstructed in 1983-87. The interior details, floors, doors, etc., were destroyed.
	ORNAMENTS (Decorative elements)	floral motives made of metal and carving stone, lamps with floral patterns, specifically emphasize the art-nouveau	Ornaments on the façades were reinforced and reconstructed with epoxy glass fibers on reinforced concrete walls and brick walls	The ornaments on the facades were restored, and the facades were structurally supported. Sculptures, birds, and human figures were protected on the facades.
TYPE OF RESTORATION	RESTORATION	✓	✓	✓
	RECONSTRUCTION (Façadism)		✓	✓
	STRUCTURAL INTERVENTION	Floors were supported with steel structural system. Balcony at the front was supported with additional steel beams.	New added steel floors supported with steel columns. Façade was reinforced with RC walls.	In spite of all its splendor, the building was second degree historical monument, so interior was completley dismantled and reconstruced again.
	PREVIOUS USE	Fashion house and residence for the Botter Family. Ground and mezzanine floors as fashion house and atelier. Upper floors apartmet housing for Botter family.	Apartment / Residence	Apartment / Residence
	CURRENT USE	Botter apartment has ben renovated by istanbul cosmopolitan municipality. Ground as exhibition, first and second floors are serving as design and art center. Upper levels are under renovation.	Deniz Palas is used as the headquarters of the İKSV foundation and an art performance center.	Freij apartment is used as one of the faculties of Galata University

On the other hand, Terkos Water Pump Station can be accepted as a good restoration and transformation project reflecting its production and construction technology (Figure 7) (Ahunbay, 2019, p.15).

This successful result depends on conservation policies and excellent and qualified restoration applications followed by the contractor and employer.

Terkos Water Pump Station, 2021.

Figure 7. Terkos Water Pump Station (Photos: Author's Archive, 2021).

According to Istanbul No. 1 Cultural Heritage Protection Regional Board Directorate, the first attempt at conserving cultural heritage dates to the beginning of the 20th century. The first regulation aimed at conserving and protecting cultural heritage in Turkiye was believed to begin with the "Asar-ı Atika Nizamnamesi (regulation)" in 1906. The "Muhafaza-i Abidat Nizamnamesi (regulation)" was issued in 1914 to protect immovable cultural assets (Koruma Kurulları). Several regulations were prepared and applied during the Republican period. The last one still being used was established in 2004 as Law No. 2863 on the Protection of Cultural and Natural Assets. This regulation has been reorganised with Law no. 5226, the Law of Amendment of the Law on the Protection of

Cultural and Natural Assets and Various Laws (Koruma Kurulları). There are many national and international policies to be argued. However, the chapter focuses on the general assessment and conservation policies in İstanbul Türkiye.

Restoration and conservation applications, which will be applied to buildings with artistic, cultural, and historical value, require multidisciplinary collaboration. She also stated in her book that this collaboration and multidisciplinary teams should involve experts educated about conservation and/or experienced in the field (Ahunbay, 2019, p.21). Conservation requires observation, analysis, and synthesizing skills. Conservationists should have a consciousness that will allow them to be resilient but pragmatic, understanding, and sensible simultaneously. It is essential to assess the conservation techniques to make the general ideas more understandable and emphasise their importance for exemplary conservation of the architectural immovable cultural assets. It is believed that conserving architectural cultural assets requires a high level of cultural maturity. Those with this maturity can understand and find the aesthetic and historical value in those cultural assets.

There are two major groups in conservation and restoration processes: "construction elements" and "construction materials." Structural issues and intervention methods are also crucial during successful conservation or restoration processes. (Zakar & Eyüpgiller, 2020, p.23). The condition of architectural components, construction elements, construction materials, and structural systems is closely related to the continued use of buildings, depending on the primary materials and

binders. Thus, fundamental concepts must be considered before, during, and after conservation/restoration projects and applications. The description of the basic concepts in conservation will enable readers to understand and clarify the difference between repair-reinforcement and strengthening.

a. *Conservation (preservation, protection)*

The Protection of Cultural and Natural Assets Regulation defines conservation as maintenance, restoration, changing of function works, and preservation of cultural and natural assets (Koruma Kurulları). Instead, it is a process of making decisions about the asset and preparing conservation plans and application processes. In the Venice Charter of 1964, article 4 states that it is crucial to develop sustainable conservation to obtain persistent action. The asset and the surrounding environment must be protected to support this persistent action (ICOMOS) (Zakar & Eyüpgiller, 2020, p.35).

b. *Maintenance, clearance, and mitigation of risks*

Maintenance is the most essential factor in providing long-lasting, sustainable conservation. It minimises the wear and tear of an architectural artefact. It is crucial to obtain and provide sustainable maintenance for cultural assets important to society, keeping them safe and protecting them against any risks they may face (Ahunbay, 2019, p. 102). When a cultural asset is being maintained, it is crucial to consider and mitigate risks such as earthquakes and natural and artificial risks.

c. Repair

Repair is one of the essential foundations of restoration. It plays a fundamental role in maintaining the asset's sustainable originality. It is also a kind of intervention done to the cultural asset to provide integrity, reinforcement, and rehabilitation (Zakar & Eyüpgiller, 2020, p.37).

d. Reintegration

Integration means to repair cultural assets damaged by natural conditions like fire, war, earthquakes, etc. This process includes restoring partially broken, destroyed, or lost elements to a usable state, ensuring structural safety, and enhancing their aesthetic appeal by restoring their integrity (Ahunbay, 2019, p. 129). To provide the completion of the asset, a part of the building or a piece can be completed; it does not have to be the whole building (Zakar & Eyüpgiller, 2020, p.38).

e. Renovation

Renovation is the process of conservation that restores a cultural asset's lost features and aesthetics using traditional or modern technological systems. It is also described as bringing the existing cultural asset to its original situation (Zakar & Eyüpgiller, 2020, p.38).

f. Rehabilitation

Rehabilitation makes an asset usable by changing and adapting its older version into a new one, keeping its originality while preserving its architectural features. When considering rehabilitating a cultural asset or site, the sustainability of the economy must also be

considered. Detailed and appropriate interventions must be considered (Zakar & Eyüpgiller, 2020, p.40) (Ahunbay, 2019, p. 140).

g. Restoration

Restoration is one of the fundamental components of conservation. It is important to save cultural properties by conserving their surroundings, removing all extensions and converting them to their original situations (Zakar & Eyüpgiller, 2020, p.40).

h. Reconstruction

Natural disasters, fires or similar impacts, long periods of lack of maintenance, cleaning, or any restorative activity may cause severe damage to cultural assets, which may require reconstructive applications. However, this reconstruction process requires essential evidence to prove a need for a reconstructive process, such as destroying a cultural asset during a war. It should not be forgotten that reconstruction is an undesirable application technique. The cultural asset will lose its originality, which means it has no historical value (Ahunbay, 2019, p. 163).

i. Reinforcement

In her book (2019), Ahunbay states that reinforcement supports the cultural asset to prevent the building from losing its originality and becomes much more durable against natural or artificial impacts such as floods, earthquakes, etc. The building must be evaluated, from its foundations to the ground to the windows and roof. Afterwards, a reinforcement program and project must be prepared accordingly (Ahunbay,2019, p. 112).

j. Reuse-Adaptation

Since the 19th century, the improvement of technology and changing lifestyles have caused changes and loss in functions of some historical buildings. New functions can be loaded to the cultural assets under certain conditions; decorations, architectural features and plans of the building should remain the same (Ahunbay, 2019, p. 145). The apartments mentioned above are good examples of this definition. Zakar and Eyüpgiller stated in their book (2020) that reuse or adaptation is required in conservation and restoration. Reuse is compulsory to provide preventive and continuous maintenance.

k. Relocation

Relocation involves moving a cultural asset from its original location to another place. Relocating a historical building requires thorough documentation, careful planning, and high-quality craft. However, moving a cultural asset from the environmental factors that shaped its cultural significance can harm its authenticity and originality (Zakar & Eyüpgiller, 2020, p.42).

l. Contemporary extension

Contemporary extension is a conservation concept that is not required for first-degree registered cultural assets. It is mainly used for second or third-degree registered assets. In Figure 6, two additional steel floors do not match the originality of the Frej apartment. The shopping malls in Figures 2 and 3 are other examples of contemporary extensions.

According to the abovementioned conservation concepts, the case study apartments have conservation applications listed and described in Table 3.

In this chapter section, the conservation policies applied in Türkiye have been evaluated. The listed concepts and application methods were considered with the selected buildings. It can be understood that these kinds of applications are being applied to any registered asset, whether correct or not. Moreover, most of these conservation techniques are considered "must" applications even though most may not be necessary for conserving an architectural cultural asset.

4. Suggestions and Conclusion

This chapter provides profound information about assessing cultural heritage, its importance, and conservation methods for saving assets safely and correctly. It also suggests several conservation methods to help professionals assess the significance of architectural heritage, precisely in Beyoğlu. There are several methods to keep in mind when considering an assessment of a cultural heritage. These methods can either be configured before or during a conservation program, or they can be applied to restoration projects. The first one is to avoid any reconstructive process such as facadism. This is particularly applied to second-degree buildings, but there are examples applied to first-degree assets as well, such as Cercle D'Orient (figure 1). Engaging local communities and improving educational programs based on conservation assessments, some sustainable conservation techniques and practices can be developed to provide conservations to help artefacts last longer. Existing buildings in Beyoğlu are not fully documented; a documentation

and research program can be provided by the local facilities or institutes involving students from the related departments; this will enable students to gain experience before they graduate, which means more educated and experienced professionals will be in the field of conservation. In addition to these methods, collaborating with international institutes can provide practices in different sites out of Beyoğlu to understand other conservation techniques. The other method or policy suggestion can be to create public awareness and help promote cultural heritage tourism, particularly for those that will be resorted and preserved. Finally, social media and public campaigns can help address the importance of conserving historical assets. These policies can be improved, developed, and applied in the correct situations of the conservation programs.

Apart from the suggestions above, the three apartment case studies have been completed and gathered in a table (Table 3). These three buildings were restored using different restoration procedures, which affected their existing function and usage. Table 3 shows that reconstruction, renovation, reuse-adaptation, and reinforcement procedures have been used frequently, assuming that these applications have conserved these apartments. On the contrary, all these applications have changed the cultural memory, architectural significance, and value of these historic assets.

Table 3. Conservation methods applied to the case study buildings
(Table prepared by the Author)

TABLE 3. CONSERVATION METHODS APPLIED TO THE APARTMENTS			
BUILDING	**CASA BOTTER 1901 İSTİKLAL STREET**	**DENIZ PALAS 1920's (KIRZADE APARTMENT) ŞİŞHANE**	**FREJ (FREIGE) APARTMENT 1920's GALATA**
CONSERVATION TYPE	The floors were reinforced by a steel structural system. The balcony at the front was supported with additional steel beams. **Reinforcement** was applied to the ground and mezzanine floors, and carvings were **renovated**. Continous **maintenance** is also provided. **Reintegration** was also applied to the elevator and some decorative elements. No reconstruction was applied.	Three floors and other floor-supporting structures were demolished to create a performance hall. New steel floors were added, supported by steel columns. The facade was reinforced with RC walls. On the ground floor, extra rooms, such as offices, a restaurant, and a cafe, were added. Original pencil carvings **renovated**. Except for the facade, most parts of the building were **reintegrated**, **reconstructed**, **reinforced**. The building is **reused** and **adapted** with new **functions**.	In spite of all its splendor, the building is a second-degree historical monument, so the interior was completely dismantled in 1983-87 and reconstructed again. The foundations and facade have been reinforced. Facade elements and carvings were **renovated**. **Reconstruction**, **reuse/adaptation** and **reinformcement** processes have been applied.
PREVIOUS USE	Fashion house and residence for the Botter Family. Ground and mezzanine floors as fashion house and atelier. Upper floors apartmet housing for Botter family.	Apartment / Residence	Apartment / Residence
CURRENT USE	Botter apartment has been restorated and refuncitoned by İstanbul Cosmopolitan Municipality: ground as **exhibition**, first and second floors are serving as **design** and art **center**. Upper levels are under restoration.	Deniz Palas is used as the **headquarters** of the İKSV foundation and **music** and **art performance** center.	The building was an **office building** in late 1970s, **hotel** in 2008, and undergone for a long restoration process and recently became one of the **faculty building** of Galata University.

An influential cultural memory of a city is based on its genuinely conserved historical artefacts, the awareness of the locals and the care of the local and governmental institutes.

In conclusion, the Beyoğlu district has lost many valuable buildings due to the lack of conservation projects, documentation of buildings, and bad restoration applications. Rent (unearned income based on cultural assets) and gaining the unfair right to use special applications for a specific cultural artefact not in the conservation regulations could be the first step to stopping illegal conservation.

Author Contribution and Conflict of Interest Declaration Information

There is no conflict of interest.

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A Study on the Topkapı Palace Mecidiye Gate

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1. Introduction

Definitions and criteria for cultural heritage in need of protection have been established by international documents. The World Heritage Convention and its Operational Guide have established the rules for the inscription and protection of areas of outstanding universal value, and these approaches have been further developed in accordance with decisions taken at international meetings.

The World Heritage Convention (1972), signed in 1972, established the rules for the registration, protection and documentation of natural and cultural heritage of exceptional universal value and established the World Heritage Committee for this purpose. The "Operational Principles Guide for the Implementation of the World Heritage Convention" prepared for the implementation of the Convention has provided certain approaches to the evaluation criteria for the inscription of properties on the World Heritage List (URL1. Op.Guide, 2023).

The World Heritage Convention was approved by Law No. 2658 of 14.04.1982 and published in the Official Gazette of 14.02.1983, number 17959. In the same year, on 23.07.1983, the Law on the Protection of Cultural and Natural Heritage was published, and the definitions and principles of protection of cultural heritage began to be addressed within the framework of the criteria of the World Heritage Convention (URL. 2).

Topkapı Palace in Istanbul was inscribed on the World Heritage List in 1984, designated as one of the historical sites of Istanbul (whc.unesco.org). The Palace is comprised of buildings arranged around four courtyards, reflecting the evolution of Ottoman architecture over time. This study

focuses on "Mecidiye Gate," one of the last additions to the Palace, as a case study in architectural style and scale.

The legislation and principles pertaining to conservation in our country indicate that conservation practices should be conducted within the scope of continuous maintenance, simple repair, and major repair (URL4.). In the absence of a continuity of conservation, the building is subject to major repair. Comprehensive restoration practices are initiated following the completion of the survey, restitution and restoration projects, which are then submitted to and approved by the board (Law No. 2863). These projects commence with a survey study, during which the current condition of the building is recorded.

The values of the cultural assets to be protected must be fully present and their original materials and details must be preserved (URL1., Op.Guide, 2024, URL 4, Nara Document, 1994). In cases where, for certain reasons, continuous protection and preventive conservation work cannot be carried out, losses of original details and materials are inevitable. In particular, the completion of Baroque, Rococo and Empire forms in buildings with 19th century neoclassical details is an issue that needs to be addressed both in the design and implementation process.

It is of the utmost importance that the intrinsic value of cultural assets is fully appreciated and that their original materials and details are preserved. In instances where continuous protection and preventive protection measures are not feasible for reasons beyond the control of the relevant authorities, the inevitable consequence is the loss of the original details and materials. In particular, the completion of Baroque, Rococo and Empire forms in structures with Neoclassical details dating back to the

19th century represents a significant challenge that must be addressed in both the project and implementation process.

Thanks to advanced documentation techniques, it has become easier to capture details in the survey phase of conservation applications and transfer them to drawings with their actual shapes. These techniques, which allow details to be captured in three dimensions, have made it possible to document 3D forms in surveys and complete them in restitution.

The Mecidiye Gate, one of the most recent additions to Topkapi Palace, has provided a different experience in the surveying and restitution project preparation processes, especially due to the Baroque cones on its towers. In this study, experience is shared in the documentation and restitution processes of a small-scale and detailed Baroque structure.

The Mecidiye Gate, a structure within the Palace that has not undergone restoration since the 1980s, necessitated the utilisation of advanced documentation techniques due to the extent of its deterioration and the inherent difficulties associated with its architectural details. The project was undertaken by BİMTAŞ, an affiliate company of the Istanbul Metropolitan Municipality, with the financing of the Istanbul European Capital of Culture Agency in 2009, due to the company's technological expertise. The data from this project, for which the author worked as an agency coordinator and project manager within BİMTAŞ, was used in the study.

1.1. Projects of Cultural Heritage

The Laws and Regulations on the Identification, Registration and Protection of Cultural Property establish the principles and methods to be followed in protection practices (URL3). Principle No. 660 sets out the approaches to the grouping and restoration of cultural assets. In protection practices, projects and applications are carried out in accordance with the relevant law and principle decision, together with international documents and principles (URL4. 660 Regulation).

It classifies cultural assets as "Group 1 structures that need to be protected for their historical, symbolic, commemorative and aesthetic qualities within the cultural data that make up the material history of society, and Group 2 structures that reflect the local way of life as cultural assets that contribute to the urban and environmental identity" and explains the maintenance, simple repair and major repair approaches according to the deterioration status of the structure (URL4. 660 Regulation). In cases where there is no continuity of protection, the structure is subject to major repair. Major restoration, re-functioning and even reconstruction applications are carried out after the survey, restitution and restoration projects have been prepared and the approval of the Board has been obtained (URL3.). These projects begin with a survey study to determine the current state of the structure. This study also includes analytical studies, in which material differences, deterioration and different periods are mapped in the project, with measurements and legends.

In particular, restitution projects are a research project relating to the period when the structure was first built and constitute the most important dataset for the restoration project. Particularly for Group 1 structures, it is

expected that the restoration application will be carried out in accordance with the restitution;

The Technical Specification for Survey, Restitution and Restoration Projects at the Single Structure Scale, which falls within the scope of Law No. 2863,

It is defined as "*a study that includes written, drawn and visual documents, using historical research and comparative study techniques, which periodises the interventions that an immovable cultural property has undergone over time and is carried out to determine its condition at the time of its construction or at a given perio*d" (URL3.).

In the restitution project, the original traces found on the structure are one of the most important inputs. Other sources are old photographs, drawings and projects of the structure used as reliable sources. In the case of large original material losses in the structure, it may be necessary to use a comparative analysis method on "similar structures".

Since the Mecidiye Gate of Topkapi Palace is a structure that has suffered great losses in its original details, a restitution project has been prepared using structures with similar period features and similar architectural characters. In the restitution project, the original traces found on the structure are one of the most important inputs.

1.2.Topkapi Palace and Mecidiye Gate

Topkapı Palace, which was one of the first World Heritage Sites to be registered in Turkey in 1985 and is among the "Historical Areas of Istanbul" (1985), is the second palace structure that Fatih Sultan Mehmet initiated construction of following the conquest of Istanbul (1453). The initial palace structure, designated the Old Palace, was erected in the

vicinity of present-day Beyazıt Square, colloquially known as the Theodosios II Public Square (Tauri Form), where Istanbul University is situated. Subsequently, the construction of a second palace commenced on the plateau extending to where the Historical Peninsula, the Marmara, the Bosphorus and the Golden Horn meet, on the Byzantine Acropolis, which is currently designated as Sarayburnu (Akdeniz, 1995).

The initial construction of the palace commenced in 1478 and was completed with the incorporation of numerous additions over a period of three centuries. This new palace, which was known by a number of different names including Saray-ı Hümayun, Saray-ı Cedide-i Amire and Yeni Saray, was named Topkapı Palace after the 19th century. The Ottoman dynasty continued to utilise Topkapı Palace, a significant emblem of the Ottoman Empire, until they relocated to the Bosphorus Palaces during the 19th century. Following the proclamation of the Republic, the palace was transformed into a museum by the decree of Atatürk on 3 April 1924 (Cezar, 2002).

Topkapi Palace is separated from the city by Sur-ı Sultani, built by Fatih Sultan Mehmet on the land side, and Byzantine walls on the sea side. Apart from the small gates called seat gates on the walls, there are a total of seven gates, four on the land walls and three on the coastal walls. It is observed that the settlement plan of the Palace, which is still observed today, is the same as the first settlement system during the Fatih period, consisting of independent courtyards and various spaces opening to porticoes around the courtyards, sitting on a topography consisting of terrace gardens (Karahasan, 2005).

Despite the additions and removals of structures over time since its construction, the layout has been largely preserved (Kuban, 2004). The section where the Mecidiye Gate is located is the Fourth Courtyard or Third Place, situated at the rear of the palace and facing Sarayburnu. This area, comprising a substantial garden and pavilions, assumed its present form in the nineteenth century (Anhegger-Eyüpoğlu, 1986) (Figure 1).
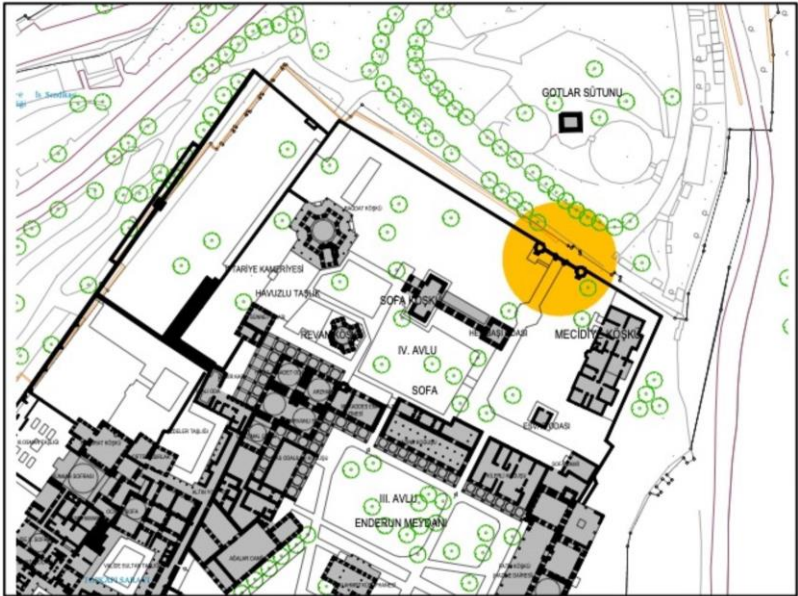
Figure 1. Topkapıı Palace 4th Courtyard Buildings and Mecidiye Gate (Author Archive, Bimtaş, 2009)

The Revan Kiosk and the Bağdat Kiosk, constructed by Murat IV (1623-1640) during the 17th century, are situated within this section. In addition to the aforementioned kiosks, the Circumcision Room, constructed by Suleiman the Magnificent in the 16th century and subsequently completed during the reign of Sultan Ibrahim (1640-1648), and the Iftariye Kiosk, or the pergola known as Mehtaplik, erected by Sultan Ibrahim, are also of interest. A fountain pool is situated in front of the porticoes of the Has Oda.

One end of the wide L-shaped portico provides access to the Mabeyn Taşlığı, which houses the Sultan's Has Oda and pavilions in the Harem. On the opposite side of the Revan Kiosk, one encounters a staircase leading down to the Sofa-i Hümayun flower garden. The garden, situated approximately three metres below the marble terrace, features the Sofa Kiosk and the structure known as the Hekimbaşı Tower. In Ottoman sources, this location is designated as the Sofa-i Hümayun, Lala or Tulip Garden (Sınar, 2001; Anhegger, 1986).

The section of the garden that extends from the front of the Mecidiye Pavilion to Sarayburnu via a road with a slight gradient is also referred to as the "Fifth Place". In this section, which encompasses the area where the Mecidiye Gate is situated today, the structure that was previously known as the Fifth Place Gate or the Third Gate, according to illustrated sources, featured a two-way horse ramp and a single-storey gate kiosk that was supported by consoles over the gate arch (Esemenli, 2001).

Figure 2. The Kapı Üstü Kiosk and Column of Goths (From Thomas Allom-18.Century, Archive of Koruma Kurulu)

Eldem states that this structure was demolished during the reign of Abdülmecid and the current double-towered gate was built in its place (Eldem, 1982).
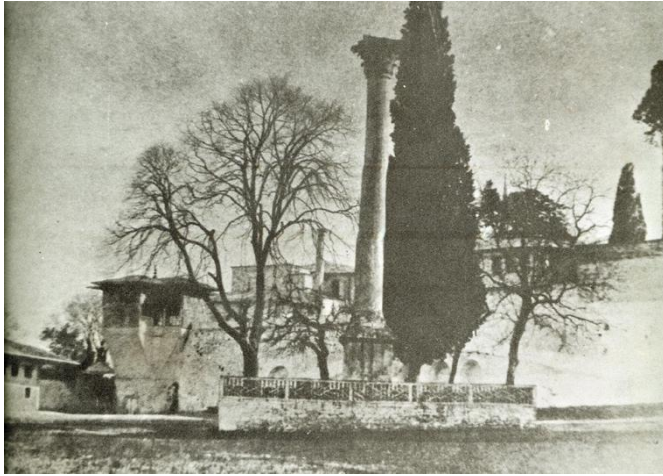
Figure 3. The Kapı Üstü Kiosk and Column of Goths, 1852 (Eldem-Akozan, 1982)

Figure 4. Mecidiye Gate Northeast Entrance Facade (Author Archive, 2024)

The gate was utilised as an entrance to the Mecidiye Mansion, which was reserved for the purposes of strolling in the garden or hosting guests, given that other palaces were in use during the reigns of Abdülmecit, Abdülaziz and Abdülhamit (Eldem & Akozan, 1982).

2. Material and Method

The aim of this study is to share the experience gained in the process of preparing the survey and restitution projects due to the advanced deterioration of the details of the Mecidiye Gate of Topkapı Palace, a neoclassical structure. For this reason, the 2009 survey, restitution projects and appendices, as well as recent photographs of the structure, were used. In the study, the architecture of the gate was explained in order to understand its architectural character and location. Then, general information was given about the projects prepared for cultural assets in the context of protection laws, and the documentation and processes through the survey and restitution projects were explained (Table1).

Table 1. Method and content of the study
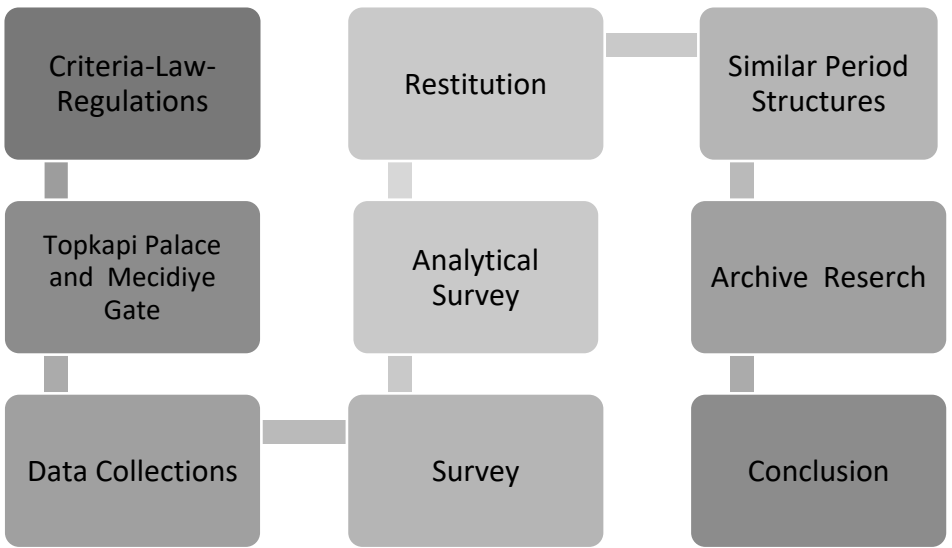
3. Findings and Discussions

In this section once providing information on the architecture of the Mecidiye Gate, later explains the processes involved in the survey and restitution studies.

3.1. Architecture of Mecidiye Gate

The Mecidiye Gate is located on the north side of the Sultana Wall surrounding the Topkapi Palace towards Sarayburnu. The gate, which connects the fourth courtyard to the Gulhane Park, consists of a low arched gate located between two square towers measuring 3.00 m x 3.00 m and a wall connecting the towers.
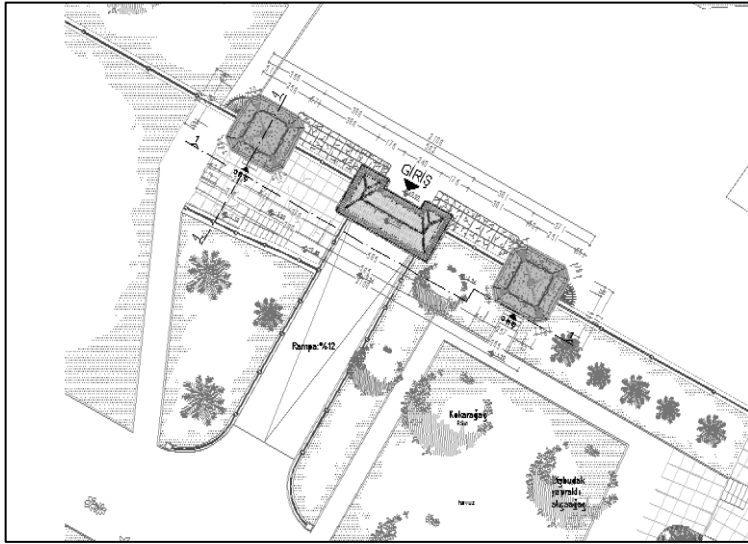
Figure 5. Mecidiye Gate Layout Plan (Author Archive, Bimtaş, 2009)

Due to the 4.00 meter difference in elevation between the palace courtyard and Gülhane Park, the entrance gate was designed with a ramp, and storage areas were placed on the lower level, which were entered by steps

descending from the ramp. The walls of these areas, which were covered with a vaulted roof, are plastered and plain (Figure 6,7)

Figure 6. Mecidiye Gate Topkapı Palace Facade, (Author Archive, Bimtaş, 2009)

There is a security area inside the towers on the upper level. The upper part of the spaces on the lower level becomes a terrace and forms a set in front of the entrance point of the towers. A double-winged iron gate providing access to Gülhane Park and the fourth courtyard of the palace is located in the center of the two towers. The gate is placed in a rectangular and hipped-roofed block. The upper part is covered with Turkish style tiles. The baroque decorations on the tower caps of the structure built as masonry are important in terms of the stonework mastery of the period.

On either side of the round-arched entrance, twin Corinthian capital columns ascend from recessed bases, which are in turn supported by pulpit stones. The eaves profile is supported by small grooved consoles from below. The façade has been given a degree of movement by creating joints in the walls connecting the main entrance to the towers. There are two round-arched windows on either side of the main entrance door; one of

these windows was later closed or never opened. There is a door on each of the towers on either side of the entrance.

Figure 7. Mecidiye Gate Northeast Entrance Facade (Author Archive, Bimtaş, 2009)

The tower and wall sections bear the characteristics of the neoclassical period. The Abdülmecit Period, when the towers were built, is the period when westernization took its most obvious form in art. Cezar stated that the phenomenon of change towards innovation in palace structures in Turkey during this period began in the form of additional works in the Topkapı Palace buildings. This beginning followed a path such as including western-sourced ornaments in some of the Topkapı Palace structures and making some changes in the furniture (Cezar, 1993)

The Mecidiye Pavilion and the Mecidiye Pavilion Tower Gates, constructed by Abdülmecit as the concluding addition to the Topkapı Palace, represent a 19th-century structure in which European eclecticism is interpreted in a distinctive manner. While there is no definitive source

attesting to the architect of the Mecidiye Towers, the Dolmabahçe Palace and its gates can be attributed to the Balyans due to their analogous characteristics.

Mecidiye Tower Gate is a structure where different ornamentation styles are seen on the cone and tower sections of the towers. The cones of the towers are the points where the ornamentation becomes more intense and concentrated. Baroque and rococo influences, which began to be seen from the 18th century onwards, are seen on the cone section. The Baroque style is seen in decoration and non-structural sections such as doors, windows and pediment frames in the Ottoman Empire (Arel, 1975).

The structure, located at the northern end of the palace overlooking the sea, has been worn out by external influences and has been subject to unsuccessful completion attempts from time to time. From the visuals in the board file mentioning the repairs of the gate in 1968, it is understood that the soil surfaces on the courtyard side were arranged and some superficial repairs were made (Figure 13).

Figure 8. View of the Gate from the Palace Direction (Author Archive, Bimtaş, 2009)

The decorations, which reflect the architectural character of the building, are concentrated on the towers and especially on the conical parts of the towers. On the upper floor there are windows on three of the elevations and doors on the inside. The doors and windows have moulded arches. The moulding of the arch continues along the façade and is surrounded by a frieze of acanthus leaves below. The window pediment is filled with an oyster motif surrounded by acanthus leaves forming 'S' and 'C' curves. In the areas of the corner chamfers, there are various relief motifs formed by acanthus leaves, the original conditions of which we cannot read today. The first floor is surrounded by a frieze made up of a series of egg motifs, then a second eaves cornice made up of acanthus leaves forming concave and convex shapes. The façade ends with an arched pediment. In order to soften the geometric air of these arched pediments and enrich the plasticity of the façade, there are acroterias on the corners of the pediment. Inside the pediments there is a decoration made up of acanthus leaves forming "S" and "C" curves around a medallion (Figure 9).
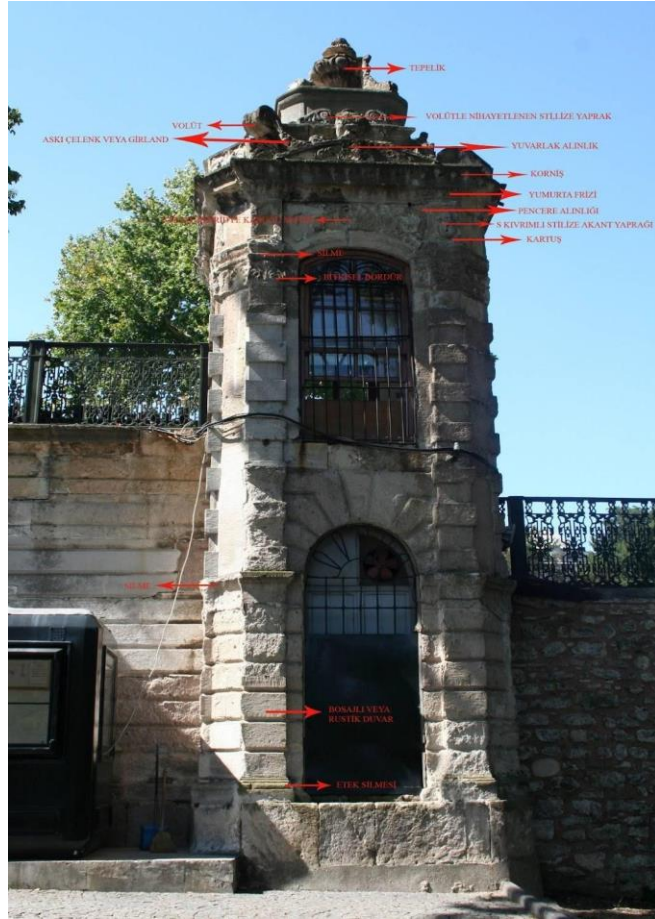
Figure 9. View of the Gate from the Palace Direction (Bimtas, 2009)
(Author Archive, Bimtaş, 2009)

Double wreaths were used in the transition to the top, these wreaths were connected by a motif of inverted acanthus leaves in the centre, we see these wreaths hanging from volutes in the corners. The gate towers were crowned with a vase shape surrounded by an egg motif with garlands. These arrangements can be seen on all four sides of both towers (Figure 10).

Figure 10. Cone, View of the Gate from the Palace Direction (2009)
(Author Archive, Bimtaş, 2009)

In 2009, when the survey of the structure was carried out, it was determined that there were material and surface losses, especially in the tower cone sections that were exposed to climatic conditions and could not be intervened due to the difficulty of completing the application.

Figure 11. Detail of the Decoration on the Corner Bevels of the West Tower of the Mecidiye Gate. (Author Archive, Bimtaş, 2009)

The decorations on the facades of both towers have been largely destroyed. Since the Mecidiye Towers were built with Kufeki, a porous type of stone, they underwent some repairs using cement during the 1968 repairs, which caused further damage (Figure11-12).

Figure 12. Detail of the Decoration on the Corner Bevels of the West Tower of the Mecidiye Gate. (Author Archive, Bimtaş, 2009)

3.2. Surveying Studies and Analyses

In the survey studies of the Mecidiye Gate, the 3D laser scanning method was used in conjunction with traditional surveying techniques. Thanks to advanced documentation methods (laser scanners, photogrammetry), which are now widely used, the margin of error in survey drawings is reduced and deterioration can be dealt with with high accuracy (Kan, 2023). These dimensions are also used to calculate the cost of restoration.

3.2.1. Surveying

An ultra-high speed (>100,000 points/sec) phase-based laser scanner was used to measure the structure, with its own software. With its wide field of view (maximum 360×310) and high point density capabilities, this scanner, which can obtain data sets of 100 million points or more, brings the data in the form of a 3D point cloud of the area to the office environment. It also has the ability to take photographs with the laser scanner's integrated camera.

Data acquisition was completed in 2 days with a single scanner at the Mecidiye Gate. Interior measurements were carried out using conventional methods to complete the measurement work in the same process. A more efficient basis for drawing was created by colouring the point cloud data according to their real colours with the camera integrated in the scanner. The 3D point cloud data obtained can be cut in CAD programs and two-dimensional drawings can be made (Figures 13-16).

Figure 13. Point Cloud Data (Palace Side Facade) (Author Archive, Bimtaş, 2009)
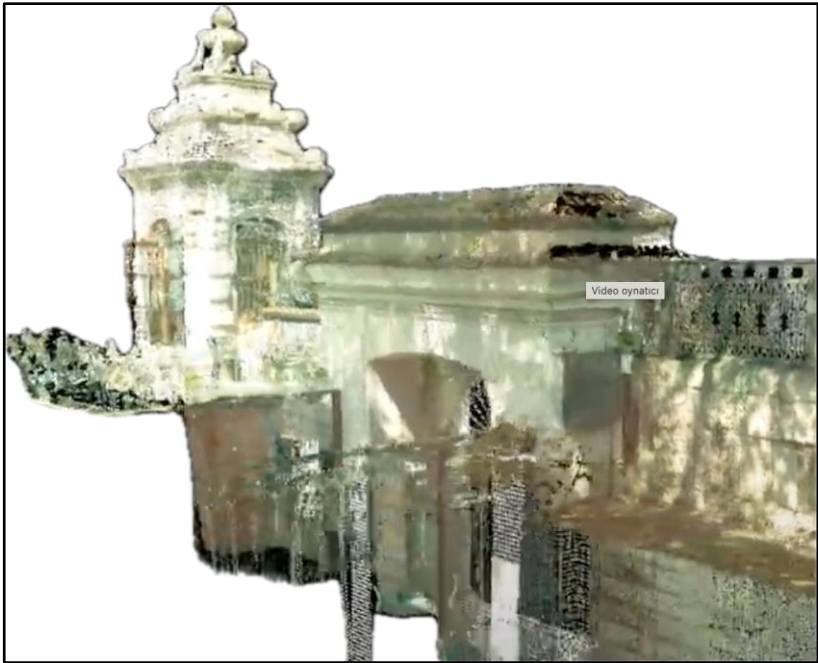
Figure 14. Point Cloud Data (Tower) (Author Archive, Bimtaş, 2009)
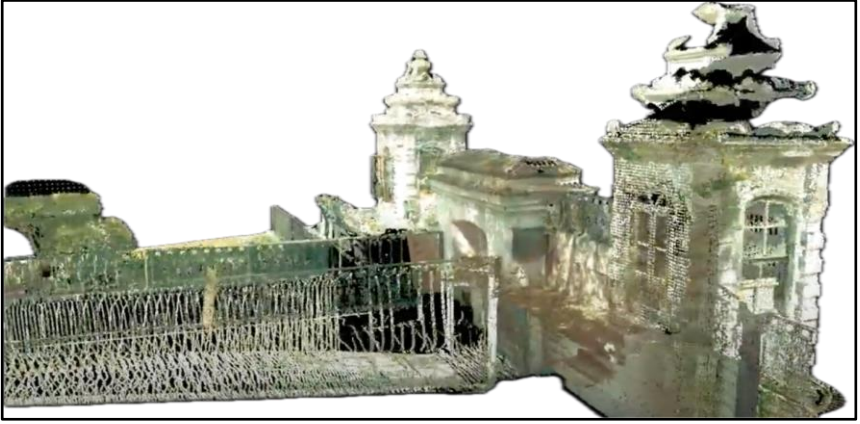
Figure 15. Point Cloud Data (Author Archive, Bimtaş, 2009)

Figure 16. Point Cloud Data (Author Archive, Bimtaş, 2009)

Plans, sections and views were created by slicing in two dimensions over the 3D point cloud data.
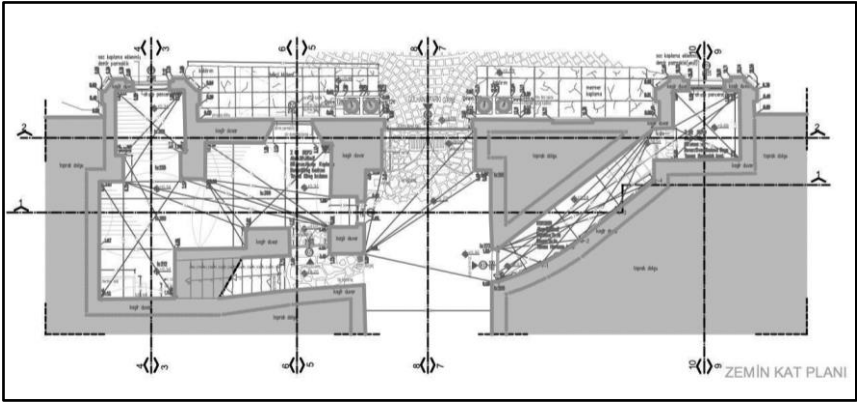
Figure 17. Mecidiye Gate Survey – Ground Floor (Author Archive, Bimtaş, 2009)

A ramp leads from the palace side to Gulhane Park. The towers on the Gulhane side are two-storeyed and receive daylight through an arched window on each floor. There is an entrance to the ground floors of the east and west towers from the triangular wall on the sides of the ramp. There is also a staircase leading to the ground floor of the west tower from the platform formed by the steps at the end of the ramp.

The three rooms that cover the base of the western tower, the tower and the door, and continue along the platform, are connected to each other. The ceiling of the square room under the tower is wooden, while the other rooms are vaulted. On the east side there is a corridor that only gives access to the ground floor of the tower. The ceiling of this corridor is also vaulted. The ground floors are lit by the windows on the Gulhane side.

The first floors of the towers are accessed by steps from the platform on the palace side. There are windows in 3 facades of both towers. The interior has wooden ceilings and floors (Figure 18, 19).
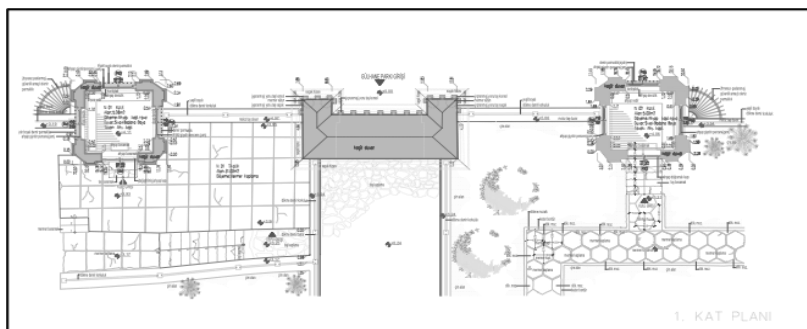
Figure 18. Mecidiye Gate Survey – First Floor (Author Archive, Bimtaş, 2009)

In the survey drawings, the ground and first floor plans, the palace view, and the rose garden view were drawn. Two sections passing through the middle of the gate and looking in both directions gave the facades of the towers facing the gate. In order to understand the details of the towers, a total of 10 sections were drawn, including 8 sections passing through the center of each tower, perpendicular to each other and looking in both directions (Figure 19, 20).
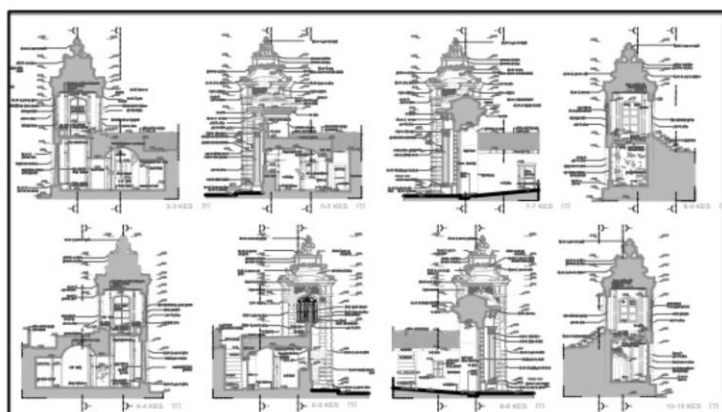
Figure 19. Mecidiye Gate Sections of Tower (Author Archive, Bimtaş, 2009)
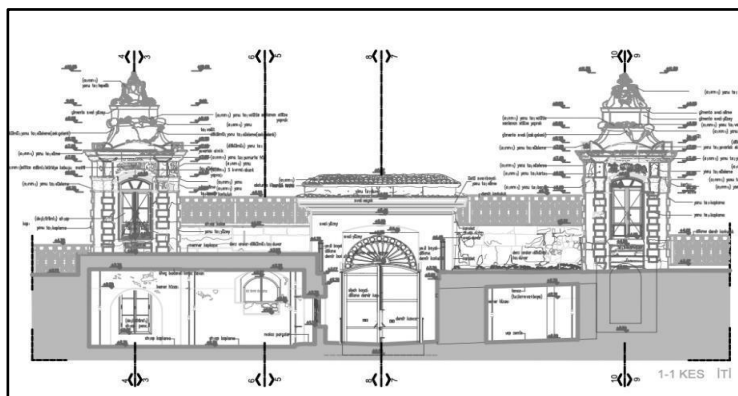
Figure 20. Mecidiye Gate Sections (Author Archive, Bimtaş, 2009)
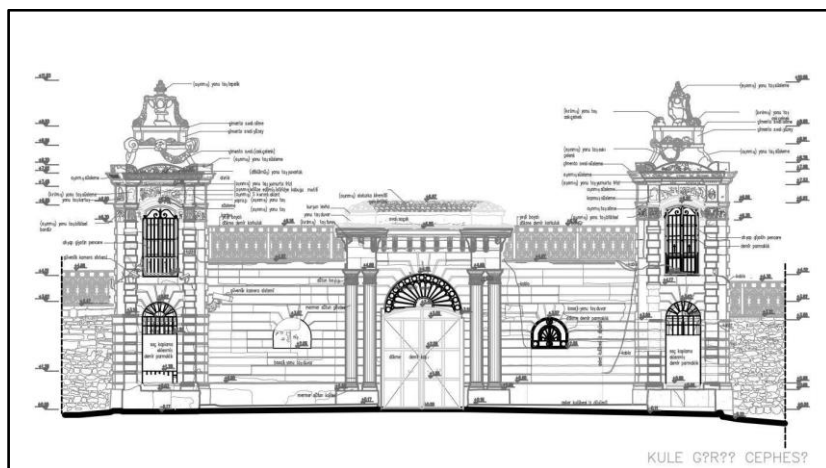
Figure 21. Mecidiye Gate Northeast Entrance Facade (Author Archive, 2009)

The facade is 20.50 metres long. The door in the centre is 4.95 metres high, the towers are 11.05 metres high and the walls are 3.08 metres high. In the centre there is a double iron door with a vaulted upper part. On either side of the door are two columns with Corinthian headstones. The door section is built higher than the side walls, starting from the outer alignment of the columns.

This section ends with a profiled stone moulding at the top. There are dendans under the moulding. It can be seen that plastic repairs have been made in places on the bossed wall up to the second window level where the decoration begins.

3.2.2. Analytical Survey Deterioration Analysis

The survey study is accompanied by a photo album, in which the photographic data are processed, and a survey report. On the basis of the survey drawings, the deterioration analysis of the Mecidiye Gate was carried out and sheets were prepared on which the damaged or wrongly intervened areas were defined and processed with colour legends.

As the Mecidiye Gate faces the sea, it has been significantly affected by humidity and salt from the sea due to the wind, in addition to the general climatic conditions. There is moisture, moss, material loss and surface loss, especially in the decorated areas of the façade. In the legend of surface losses, this legend has been applied to the areas where, for various reasons, there is a loss of texture, detail and mass in the original material (Figure 22).

	Abrasion

Figure 22. Mecidiye Gate Northeast Entrance Facade (Author Archive, 2009)

During periods when technical and scientific restoration of the building was not possible, the surface was filled with cement grout to prevent surface loss (Figure 23).

	Cement*
	*Interventions made with cement-based materials

Figure 23. Mecidiye Gate Northeast Entrance Facade (Author Archive, Bimtaş, 2009)

The most significant deformation in the structure is the breaking and fracturing of the masonry details that give the structure its architectural character. This deterioration is most visible in the conical section of the towers. The losses here make it difficult to understand the original details of the structure (Figure 24).

	Fractured Stone Surface* *Breaks on stone surfaces and details

Figure 24. Mecidiye Gate Northeast Entrance Facade (Author Archive, Bimtaş, 2009)

Another cause of deterioration is interventions that are not compatible with the original materials and details. This is most often seen in the wall section and the body walls of the tower (Figure 25).

	Repairs made contrary to the original character of the building

Figure 25. Mecidiye Gate Deterioration analysis (Author Archive, Bimtaş, 2009)

Algae growth is most noticeable on the tiled areas above the door, which are directly exposed to water. Moisture can be seen on the Gülhane façade, which is the sea side of the building, and on the floor joints (Figure 26).
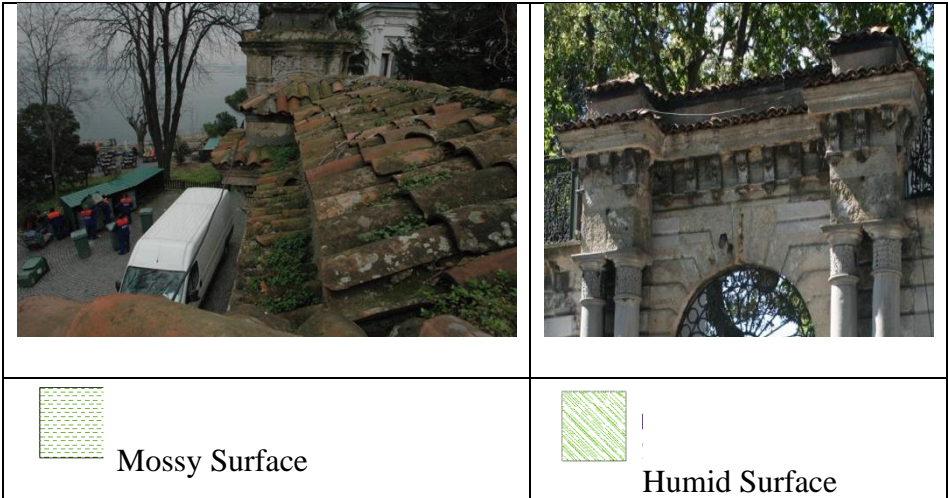
Figure 26. Mecidiye Gate Deterioration analysis (Author Archive, Bimtaş, 2009)

These deteriorations are illustrated in the survey study (Figures 27-32).

It can be seen that there are many breaks in the stone surface in the conical parts of the towers. There are also interventions with cement in the lower part of the cones. It can be seen that there are many surface losses and inappropriate plastic repairs on the body walls of the towers. Inappropriate plastic repairs and surface losses can be seen in the door and wall sections.
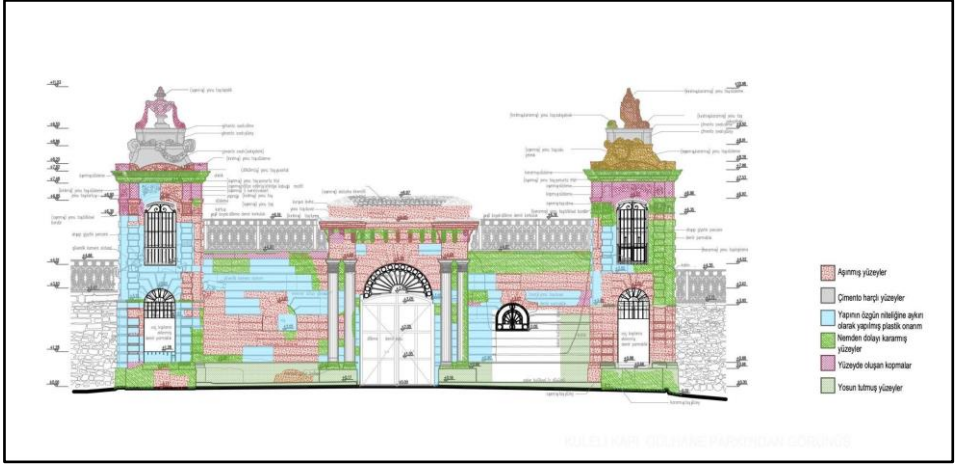
Figure 27. Mecidiye Gate Deterioration Analayze, Gülhane Facade (Author Archive, Bimtaş, 2009)
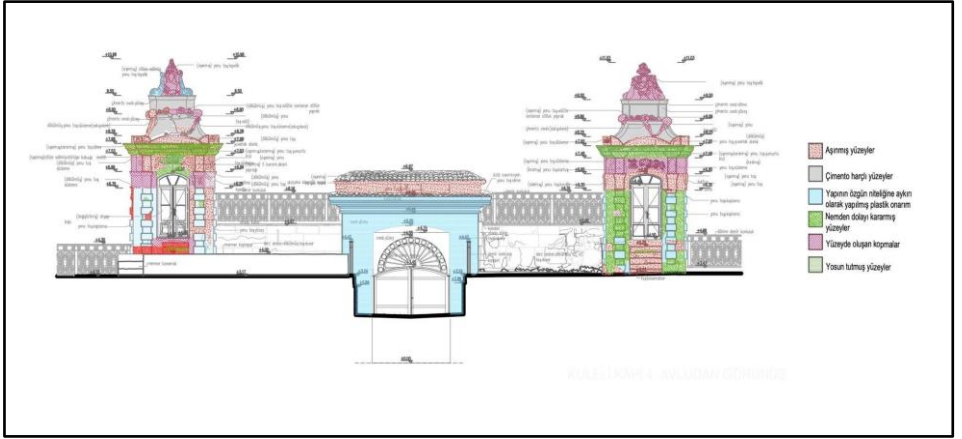
Figure 28. Mecidiye Gate Deterioration Analysis, Topkapi Palace Facade (Author Archive, Bimtaş, 2009)
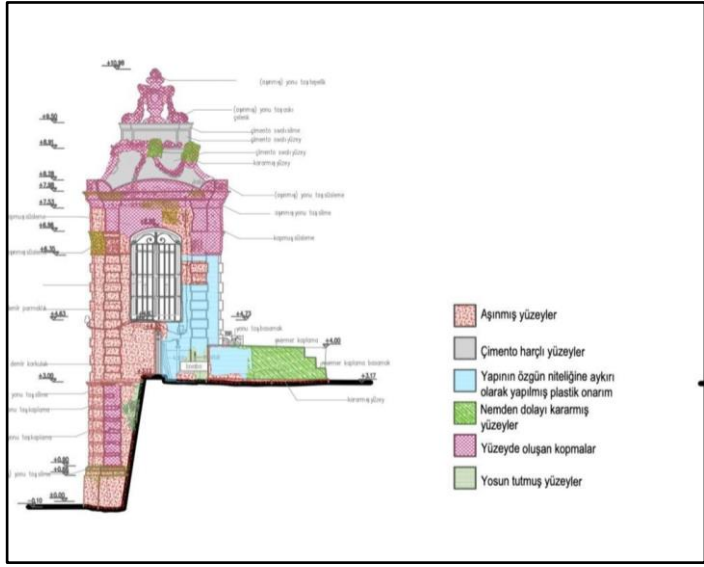
Figure 29. Tower 1 Deterioration Analysis (Author Archive, Bimtaş, 2009)
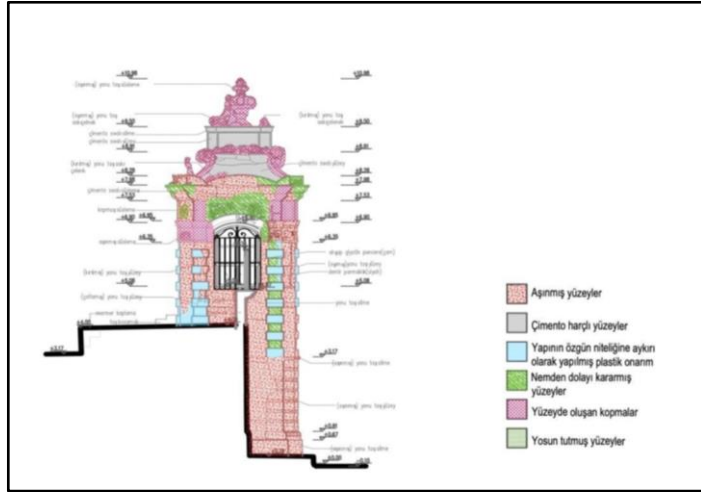
Figure 30. Tower 1 Deterioration Analysis (Author Archive, Bimtaş, 2009)
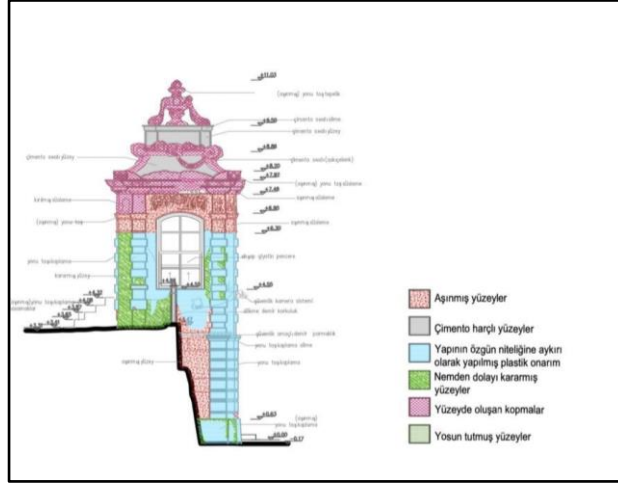
Figure 31. Tower 2 Deterioration Analysis (Author Archive, Bimtaş, 2009)
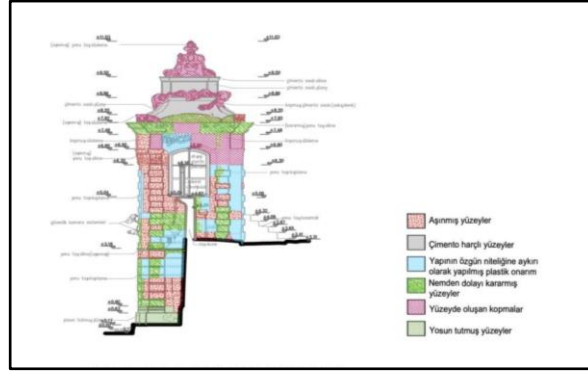
Figure 32: Tower 2 Deterioration Analysis (Author Archive, Bimtaş, 2009)

3.3 Restitution Studies

Restitution is a study that periods the initial construction and interventions of a cultural asset over time and is carried out to determine its condition when it was first built or in a certain period. It should be based on written, visual sources and traces on the structure. The objective of this study is to provide information regarding the original design of the structure, to

examine its development within the context of the historical process, to facilitate a more comprehensive understanding of the remains and traces, to ascertain the level of preservation, and to furnish data for the restoration project (Binan, 2017).

Restitution is the process of re-establishing the original conditions of elements, structures or settlements that have been altered, partially demolished or destroyed at a later stage, either in their initial designs or at a specific point in time. This is achieved through the use of a range of technical and visual documentation, including plans, sections, elevations and axonometric/3D drawings or models, as well as archive records, traces on the structure, drawings, photographs and documents related to the settlement of the structure and similar structures from the same period (Binan, 2017).

In Mecidiye Gate Case, due to the nature of the materials and the environment, there has been serious surface damage to the façade materials. In particular, most of the stone ornamentation that gives the building its character has been destroyed. The archives of the Topkapi Palace Museum and the Monuments Board have been scanned in order to determine what most of the ornaments looked like before. However, it was not possible to obtain visual data from the period when the building was in better condition. The photographs in the Monuments Board file date from 1968. The photographs show that the building was not in a very good condition at that time. As a source, some buildings built in the same period as the structure and having the same character were examined. However, it was found that this structure had a unique ornamentation.

One of the most important aspects of the restitution work was to complete the decoration of the façade. For this purpose, the Directorate of Monuments and the Board Archives were scanned and similar structures from the period were researched.

3.3.1. Comparison with similar period structures

In the restitution studies, a detailed examination and comparison of structures built in the same period and exhibiting similar architectural characteristics was conducted.

The precise date of construction of the Mecidiye Gate is uncertain; however, it is known to have been erected during the reign of Abdulmecid. The westernisation period, which commenced in the 18th century within the Ottoman Empire, manifested itself through landscaping, fountain and water fountain construction activities. Western-style decorations were employed in houses with a traditional plan scheme (Batur, 1993).

The architectural styles of Baroque, Rococo and Empire are employed in a combination on the facades and interiors. The 19th-century palaces are particularly noteworthy examples of the final period of Ottoman architecture. The number of palaces constructed during the Ottoman Empire is unparalleled in the history of the empire. The majority of these palaces are located on the shores of the Bosphorus, and they include the following names: Cemile, Münire Sultan Palace (1855), Göksu Palace (1856), Beylerbeyi Palace, Çırağan Palace (1871), and Kalender Palace. Additionally, some of these structures serve as summer resorts or recreation areas, including the IhIamur Pavilion (1848-1863), the Çağlayan Palace (1862), and the Alemdağ Pavilion. However, among these, the ones that were not temporary residences of the Sultan or his

family but also the Palace of the State, namely the Imperial Palace, are Dolmabahçe Palace, Beylerbeyi Palace, Çırağan Palace and Yıldız Palace. The construction of Dolmabahçe Palace was overseen by Garabet Balyan between 1846 and 1856 (Gülersoy, 1993).

The Abdülmecid Period represents the most conspicuous instance of westernisation in the realm of art. The phenomenon of change towards innovation in palace structures in Turkey commenced with the addition of new elements to existing buildings within the Topkapı Palace complex. This initial phase saw the incorporation of Western-sourced ornaments into select buildings within the Topkapı Palace complex, along with alterations to existing furniture. The Mecidiye Kiosk and Mecidiye Tower gates, constructed by Abdülmecid as the final addition to the palace, represent a unique 19th-century structure where European eclecticism was interpreted in an original manner.

In the nineteenth century, during the period of Westernisation, the architectural designs of architects educated in the West were incorporated into Ottoman architecture. During the reign of Abdülmecid, Nigogos Balyan, the palace architect, constructed the Dolmabahçe Palace treasury and imperial gates, the Topkapı Palace Mecidiye Pavilion, Küçüksu Pavilion, and Ihlamur Pavilion. While there is no definitive source regarding the architect of the Mecidiye Towers, it can be posited that they were erected in the Balyanlar style (Table 2).

Table 2: Analytical Survey Deteriorations and Display Form

Reign of Abdülmecid	Mecidiye Gate	Mecidiye Kiosk	Dolmabahçe Palace	Küçük Su Kiosk	Ihlamur Kiosk
Building Date	1839-1861	1858	1856	1856	1849-1855
Architect		Sarkis Balyan	Garabet ve Nikoğos Balyan	Nikoğos Balyan	Nikoğos Balyan

The decoration becomes more intense and concentrated at the Mecidiye Tower Gate, the upper floors of the adjacent towers and the pinnacles of the tower. The Corinthian columns seen on both sides of the Mecidiye Gate, the friezes, volutes, garlands and acroteria on the towers are representative of a completely Baroque style.

While the Mecidiye Towers bear resemblance to the Dolmabahçe Imperial Gates in terms of their façade decorations, they are executed with considerably less elaborateness and on a more modest scale. The volutes, garlands, acroterias, and the utilisation of the acanthus motif in its various forms, as well as the incorporation of oyster shells on the façade, are analogous to those observed in the Dolmabahçe Gates, Ihlamur Pavilion, Küçüksu Pavilion, and the Mecidiye Pavilion and Garment Room. The examination revealed that the applications of this decoration were handled in disparate ways. The multitude of variations observed among the same elements indicates that the stonemasons who crafted them reflected their own experiences and that their formation was influenced by the configuration of the façade (Tables 3 and 4).

Table 3: Mecidiye Gate Cone and Similar Structures

Mecidiye Tower	Küçüksu Pavilion	Dolmabahçe Palace

Table 4: Mecidiye Gate Window Decorations and Similar Structures

Mecidiye Gate	Mecidiye Mansion
Little Pavilion	Dolmabahçe Palace

3.3.2. Archive Research

In order to ascertain the historical alterations and modifications that the edifice has undergone, and to identify the specific projects that have been undertaken, the archives of the Istanbul Surveying and Monuments Directorate and the Monuments Board were subjected to a comprehensive examination. In this regard, photographic documentation of the building from 1968, along with a detailed restitution plan, were utilized as primary sources of reference.

Figure 33: East Tower (Koruma Kurulu Dosyası, 1968)

Photographic documentation of the Gülhane façade and the palace façade of the building is available for consultation in the board archives. The

building features a two-storey façade from the Gülhane side, with the lower floor windows protected by metal sheeting.
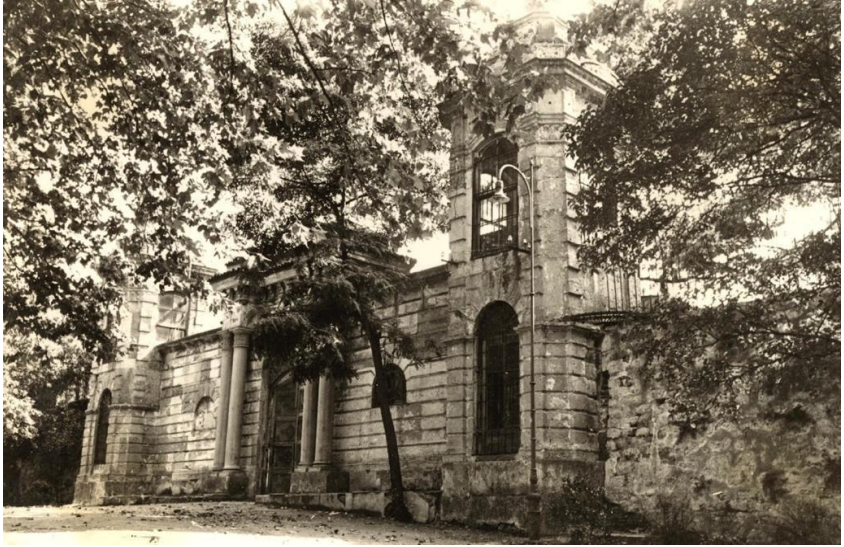
Figure 34: Mecidiye Gate, (Eldem- Akozan, 1982)
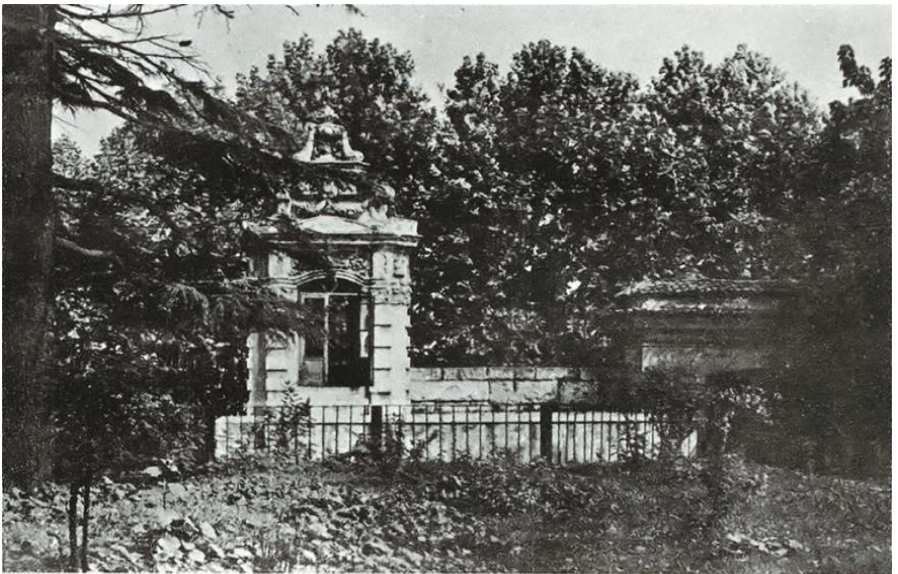
Figure 35: Western Tower (Koruma Kurulu Dosyası, 1968)

Figure 36: Gulhane Side Facade and Western Tower (Koruma Kurulu Dosyası, 1968)

The photographs dated 1968 reveal that the wall is devoid of cast iron bars. Additionally, the iron door leaf differs from the current iteration. It is evident that the lower portion of the ground floor windows is equipped with a wooden plate, while the upper section is fixed and the central portion features two wings that open.

No photographic documentation of the palace facade exists in our archives. The available evidence comprises a view of the East Tower. The photograph illustrates that the decorative elements are largely similar to their current state.

Figure 37: Eastern Tower (Kurul Dosyası, 1968)
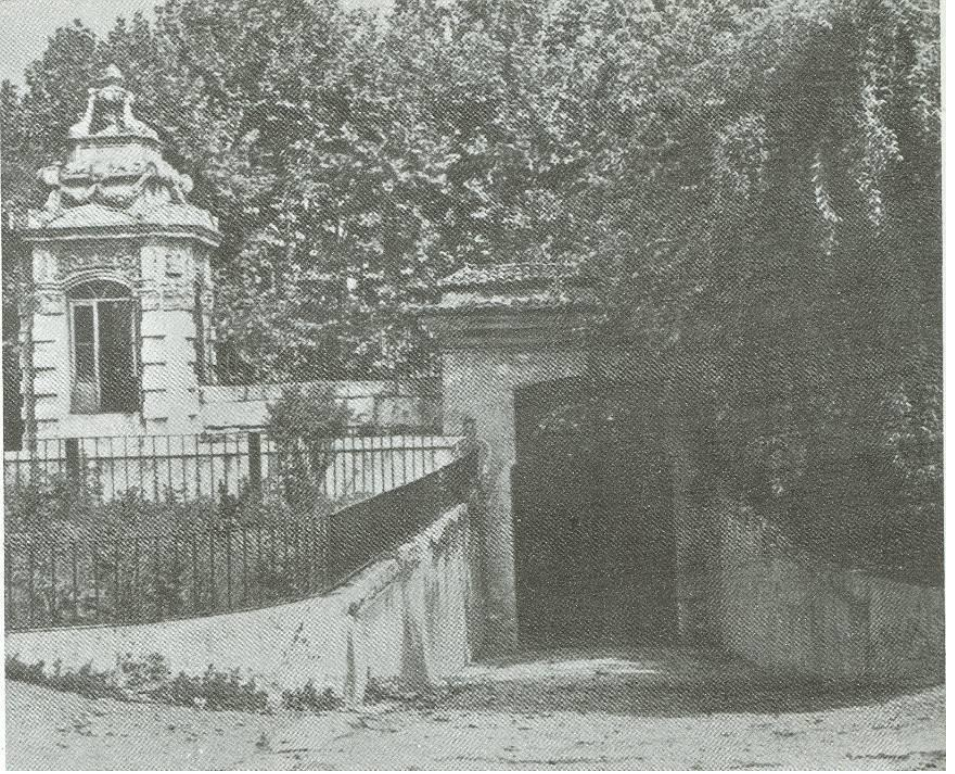
Figure 38. Western Tower and Gate (Eldem, Akozan, 1982)

The most significant document pertaining to the ornamentation of the edifice is the tower drawing, which is housed in the archives of the "Rölöve ve Anıtlar Müdürlüğü" (Figure 39).
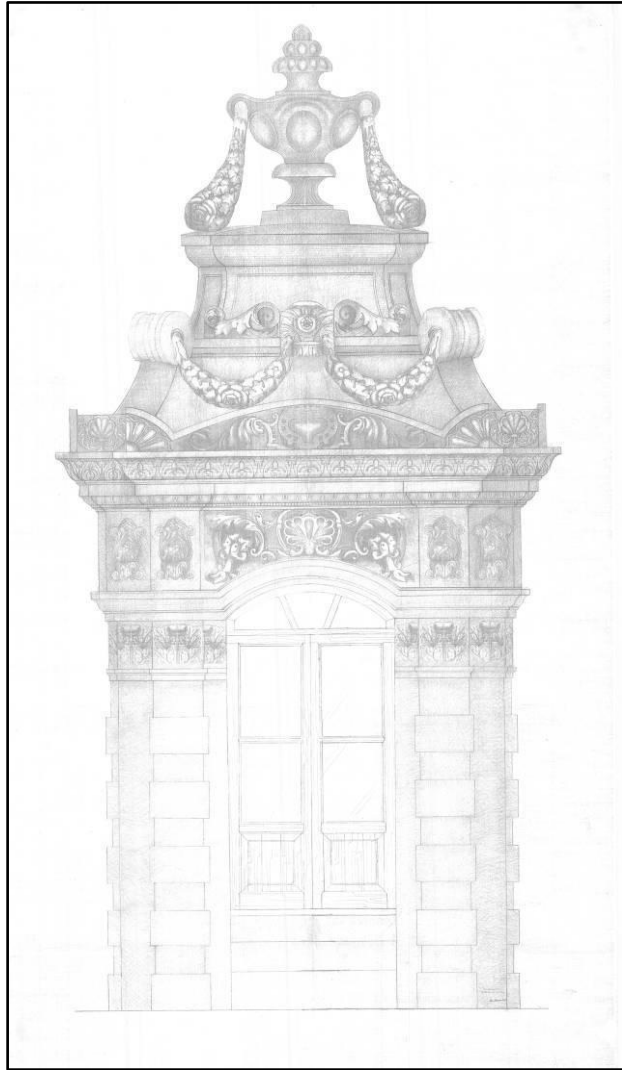
Figure 39. A Representation of the Restitution of the Tower (İstanbul Rölöve ve Anıtlar Müdürlüğü Arşivi, 2000)

Despite the evident deterioration of the exterior facades and towers, the interior of the building remains relatively well preserved. The ground floor comprises a single room, and there is no evidence to suggest that the

building, which was constructed for security purposes, had a different plan in the past.

It can be observed that there is a distinction between the subterranean spaces beneath the west tower and those beneath the east tower. It is postulated that this differentiation is contingent upon the nature of the ground on which the edifice is situated. When viewed through the lens of architectural elements, it can be discerned that the window and door joinery of the west tower has undergone a process of renewal.

4. Conclusion and Suggestions

It is observed that Western style architecture was generally used in smaller scale structures **b**such as mansions, summer palaces, and fountains, especially in the last period of Ottoman architecture. Although these structures are small in scale, they have quite ornate decorations with stone ornaments and plaster reliefs. The problems encountered especially in baroque ornament details in conservation practices show similar characteristics. In cases where continuous maintenance and preventive maintenance are not applied to cultural assets, losses in original materials increase. In particular, in structures with baroque ornaments such as three-dimensional ribbons and ropes, in cases where the material is completed or renewed, the situation of not being able to preserve original details may also arise.

The Venice Charter, while drawing attention to the dependence of restoration on original materials and reliable documents, states that the restoration ends where the assumption begins (Venice Charter, 1964). Accordingly, in conservation practices, in addition to the sensitive

documentation that reveals traces on the structure, the document must be original and reliable when using research data.

Binan highlights the importance of preparing the restitution project in accordance with the reliability and change analyses, which have been developed based on the information obtained from the sources (Binan, 2017).

In evaluating the reliability of the data utilized in the Mecidiye Gate Restitution Project, we employed a four-tiered classification system:

- 1st Degree: Very Highly Reliable Data (Data obtained from the structure itself)
- 2nd Degree: Highly Reliable Data (Drawing, project)
- 3rd Degree: Moderately Reliable Data (Photo)
- 4th Degree: Weakly Reliable Data (Analysis method from similar structures)

Table 5: The Data Employed in The Restitution Process, Along with an Evaluation of İts Reliability.

Building Part	Historical Photograph	Drawing	Similar Structure	Building itself
Tower	3rd Degree	2 rd Degree		1 rd Degree
Cone	3 rd Degree	2 rd Degree	4 rd Degree	
Gate	3 rd Degree			1 rd Degree
Wall	3 rd Degree			1 rd Degree

In order to gain insight into the structural damage that occurred, old photographs and archive documents were consulted with regard to the cone sections of the towers (Figure 40, 41).
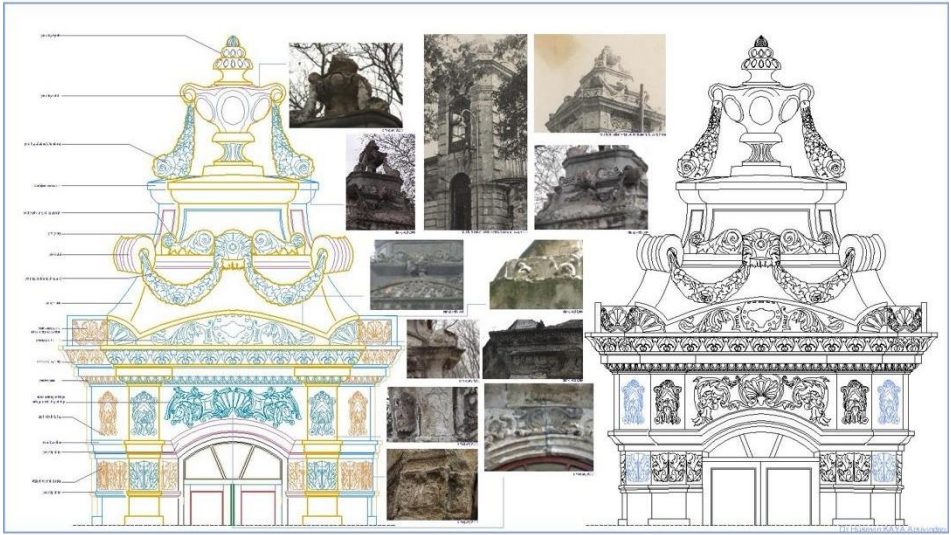
Figure 40: Tower Cone Resarch Documents and Restitution Drawing (Author Archive, Bimtaş 2009)
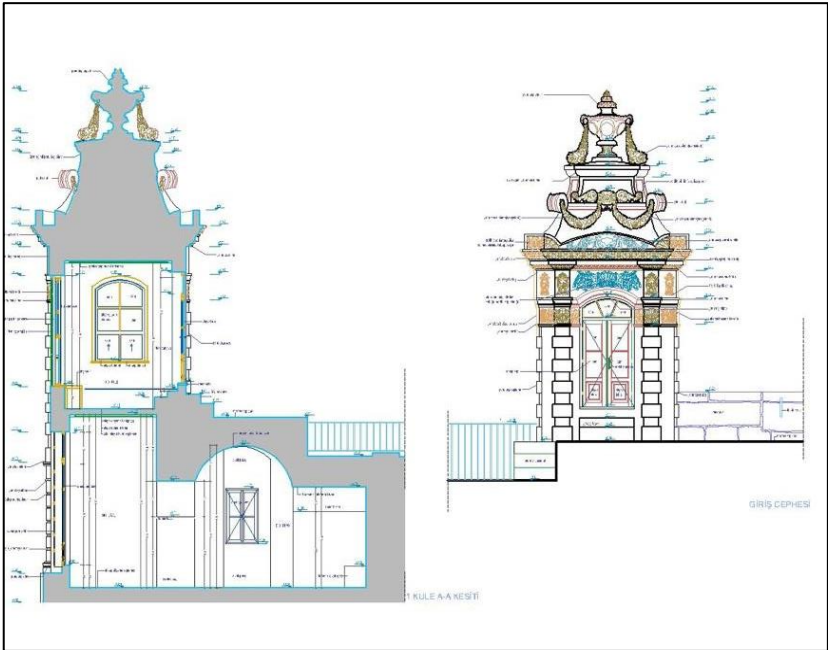
Figure 41: Tower Cone and Facade Restitution Drawing (Author Archive, Bimtaş 2009)

The restitution project may propose multiple alternatives as a research project. Four distinct alternatives were proposed with regard to the window top detail of the Mecidiye Gate (Figure 42). The details approved by the Directorate of Surveying and Monuments and the board were subsequently employed in the restoration project. The eaves cover of the entrance door is currently covered with tiles. Despite the absence of any pertinent data during the course of the research, the possibility that its original state was lead coated, given that it is a palace structure, was reflected in the restitution project (Figure 43).
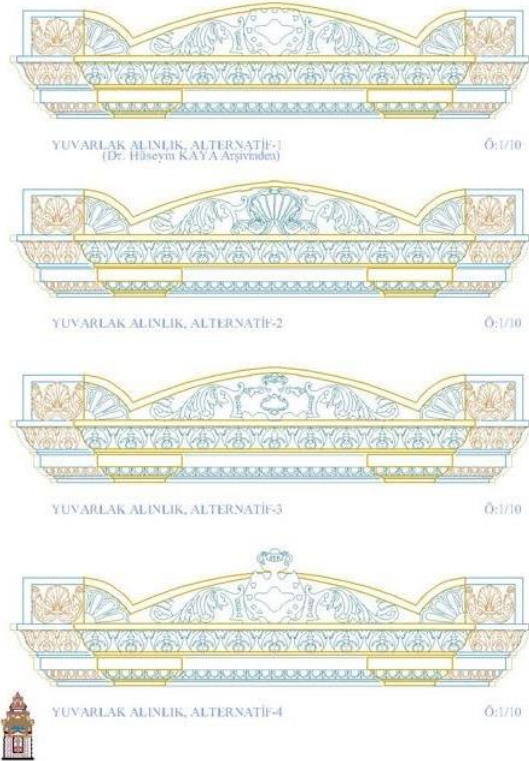
Figure 42: Tower Detail Restitution Suggestions (Author Archive, Bimtaş 2009)
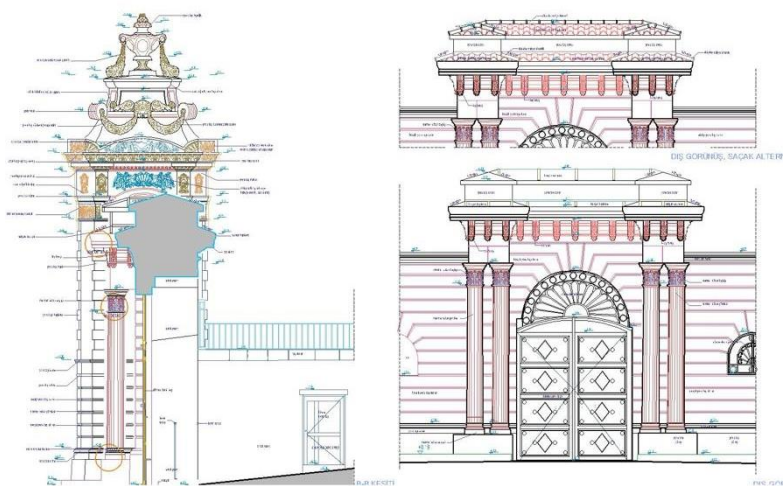
Figure 43. Gate Restitution Project (Author Archive, Bimtaş 2009)

Figure 45. West Tower, 2024 (Author Archive, 2024)

Figure 45. West Tower, 2024 (Author Archive, 2024)

The Mecidiye Gate is an exemplar of the Baroque structures that are prevalent in Istanbul. The methodology for preparing restitution projects outlined here is a standard practice in conservation. However, despite its status as a component of a significant heritage site like Topkapi Palace, it has experienced a considerable loss of original materials and details due to prolonged periods of neglect (Figure44-45).

The contemporary availability of measurement methods that facilitate regular control of losses is a notable development. The utilisation of digital methodologies in surveying enables the comparison of measurements taken at specific intervals (Kan, 2023). Conversely, as these methods yield three-dimensional data on the structure, they can be employed in edifices featuring three-dimensional stone ornamentation, as illustrated by the following example. The Mecidiye Gate Restoration project was concluded in 2012. In this undertaking, the three-dimensional restoration project model was utilized in conjunction with the three-dimensional survey data, thereby ensuring the most accurate completion of the missing components. According to Ruskin, preserving an architectural work with its original materials and details ensures that it becomes a part of the national memory and preserves its historical value. Periodic and regular maintenance is recommended and in this way, the preservation of the heritage in its original state can be guaranteed (Ersen, 2012).

Ruskin's statement that when the last inch (2.54 cm) of the decorated stone surfaces has melted, no restoration can bring them back is strikingly evident in the example of the Mecidiye Gate. On the other hand, the Venice Charter, which is the turning point of modern conservation theory, draws attention to the use of modern techniques at the point where traditional techniques are inadequate (The Venice Charter, 1964)

The Mecidiye Gate study draws attention to the importance of continuous maintenance and repair of structures with baroque and rococo decorations in particular. Continuous maintenance of the architectural heritage will prevent costly improvement processes in the long term (Ahunbay, 1999).

Thanks to the use of advanced documentation techniques in documentation and the data obtained in archival research, a restoration based on reliable sources has been able to be carried out. When we consider the current state of the building, it is seen that no maintenance has been done in the past 12 years and the facade has started to become damp, dark and moss. This study draws attention to the importance of periodic maintenance of such structures.

Author Contribution and Conflict of Interest Declaration Information

There is no conflict of interest.

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Evaluation of Structural Elements in the Conservation of Historical Buildings on Mardin Architectural Heritage

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1. Introduction

Historical buildings are the basic elements that form the cultural and architectural identity of a society. Carrying the traces of the past, these buildings not only offer an aesthetic value, but also provide important information about historical processes, social life styles and technological developments (Harrison, 2013). They also fulfill an important function of transferring information between the past and the present, and between the present and the future (Ertaş & Bekar, 2020). In this context, Anatolian lands have a rich historical heritage as a meeting point of different civilizations and cultures. Many civilizations, from the Hittites to the Byzantines, from the Seljuks to the Ottoman Empire, have left their mark on this geography and each has developed its own unique architectural techniques. Each architectural technique contains important data about the period in which it was built. Therefore, the protection of these heritages is of vital importance in terms of both cultural continuity and social memory (Tatoğlu, 2023; Viejo-Rose, 2015).

The role of load-bearing elements is of critical importance in the preservation of historical buildings. Arches and vaults stand out as elements that increase the load-bearing capacity of the structure and allow for the expansion of interior spaces. Pointed arches, especially used in Gothic architecture, determined the structural and aesthetic identity of this period (Viollet-le-Duc, 1866). Dome elements have played a central role throughout history as a structural component that combines load-bearing and aesthetic functions in both religious and monumental structures (Taylor, 1996). Columns and piers, as elements that transfer loads to the ground, have maintained their importance both structurally and

aesthetically from ancient Greek and Roman architecture to the present day (Summerson & Powers, 2023). Walls are the basic elements that provide structural durability of historical buildings and determine both the interior organization and exterior aesthetics of these buildings (Arun, 2005). Foundation systems transfer all the loads of the structure to the ground, ensuring the stability of the structure (Fathi et al., 2020). Floors are components that connect the floors of a structure and play a critical role in distributing loads (Ross et al., 2021; Garcia-Castillo et al., 2021). These load-bearing elements should be prioritized in conservation strategies as elements that ensure the physical integrity of historical buildings while also preserving their aesthetic and historical values.

Mardin, which has important values in Anatolia, is a city that attracts attention with its historical buildings and unique architectural style. Mardin has become a center of attraction not only locally but also internationally with its historical buildings and stonework, unique ornaments and architectural details (Dinç, 2021). With its traditional urban heritage, it was taken under protection as an "Urban Protected Area" in 1979 and attracted international attention by being included in the UNESCO World Heritage Temporary List in 2000 (Çağlayan, 2021). The architectural buildings of the city were characterised in a geography where different cultures and beliefs lived together. This situation contributed to the buildings having different architectural features (Alioğlu, 2000; Aydın et al., 2000). However, the preservation of historical buildings in Mardin is under great threat due to natural disasters, human interventions and environmental factors that they have encountered over time. This study focuses on the evaluation of load-bearing elements in the preservation of

historical buildings in Mardin. The load-bearing elements of historical buildings in Mardin play a significant role in preserving not only the durability of the structure but also the cultural heritage. While emphasizing the richness of Mardin's architectural heritage and the importance of preserving these structures, the study also examines the effects of load-bearing elements on functionality and aesthetic values. In order to develop more conscious and effective approaches for the preservation of Mardin's historical buildings, current research on these structures is also included. Thus, it is aimed to raise awareness about the restoration and preservation of historical buildings and to improve sustainable conservation strategies.

1.1. Preservation of Historical Buildings

The preservation of historical buildings is of great importance in terms of ensuring the continuity of cultural heritage and keeping social memory alive. Preserving these buildings is not only limited to protect their physical integrity, but also aims to pass on the aesthetic, historical and socio-cultural values of the building to future generations (Mısırlısoy & Günçe, 2016; İslamoğlu, 2018; Kutlu et al., 2022; Yanılmaz & Yalçınkaya, 2022; Bekar & Cürgül, 2024; Figure 1). The conservation process includes both structural and superficial interventions to increase the resistance of buildings to the physical and environmental effects they are exposed to over time. (Feilden, 2007; Günçe & Mısırlısoy, 2016).
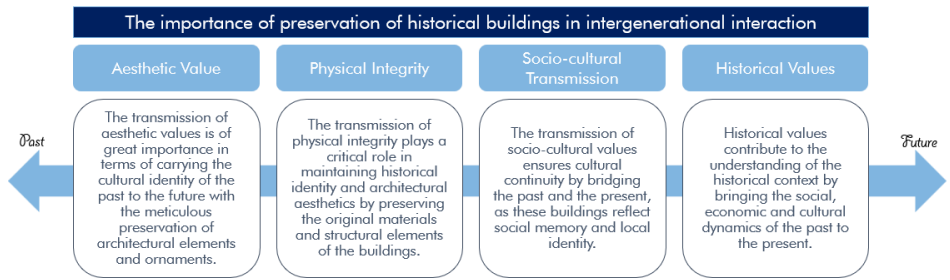
Figure 1. The importance of preserving historical buildings (Created by the author.)

Conservation practices have been shaped by changing techniques and methods throughout history, and each period has developed its own characteristic approaches. Since ancient times, restoration and conservation methods have developed with the aim of preserving the original form and material of the structure (Jokilehto, 2017). The history of conservation practices dates back to the beginning of the art of construction; however, restoration began to be carried out based on scientific methods and certain principles in the 19th century. The transfer of real estates with the French Revolution and the pacification of public anger with the destruction of these real estates caused many monuments to remain in ruins and neglected for many years (Arabacıoğlu & Aydemir, 2007). Between 1820 and 1830, the public's perspective on historical buildings began to change, and in this period, ancient artifacts from the Greek and Roman periods as well as structures from the recent past gained importance. Inventory studies on the construction periods of buildings and their additions have begun to play a critical role in conservation practice. Viollet-le-Duc, the leading conservationist of this period, aimed to bring a systematic approach to repairs based on haphazard and personal decisions. He used the term "restoration" for the first time in his 10-volume work

"*Rational dictionary of French architecture from XI to XVI centuries*" (Viollet-le-Duc, 1866). However, according to Viollet-le-Duc, restoration does not mean preserving, repairing or rebuilding the monument, but rather that the person carrying out the restoration puts himself in the place of the architect of the monument and completes the building in the unity of style of its period.

John Ruskin and William Morris, pioneers of the Romantic View that developed as a reaction to these practices, put forward important ideas in the field of conservation (Spear, 2014; Faulkner, 2000). According to John Ruskin, the best method of preservation is to maintain the structure and leave it alone; he regards the works carried out under the name of stylistic recomposition as "dishonorable false copies" (Ruskin, 1858; Landow, 2015). In his manifesto, William Morris draws attention to the damage caused by personal decisions in such practices and emphasizes that more importance should be given to the concept of preservation rather than restoration (Morris, 1995). These discussions paved the way for a more ethical and scientific approach to conservation practice.

In the 1860s and 1870s, restoration and anti-restoration debates intensified, and experts considered to be conservationists were accused of "destruction in the name of repair". These debates led to the questioning of the methods and materials used in the preservation of historical buildings. Therefore, it has been concluded that a more careful and conscious approach should be adopted in conservation practice (Ersen, 2011; Cürgül & Bekar, 2024).

Scientific methods and debates that emerged in the preservation of historical buildings, especially in the 19th century, increased the importance of preserving historical buildings. In the 20th century, the

importance of the conservation area became widespread at the global level by publishing international regulations and declarations.

The first efforts of the world countries to establish a common attitude and cooperation on natural and cultural values began in the 1930s with the International Council on Monuments and Sites (ICOMOS). The "Carta Del Restauro", prepared by the Supreme Council of Antiquities and Fine Arts in Italy in 1931 and accepted and published by ICOMOS, can be considered the first document in this field (ICOMOS, 1931). The United Nations Educational, Scientific and Cultural Organization (UNESCO) established the Council of Europe in 1954. In the same year, the "Convention for the Protection of Cultural Property in the Event of Armed Conflict with Regulations for the Execution of the Convention", which can be considered the first international official document, was prepared in The Hague, the capital of the Netherlands (UNESCO, 1954). In 1964, the presentation to the public of the "Venice Charter" prepared by a group of experts regarding the principles of conservation is considered as the first steps of institutionalization and legislation (ICOMOS, 1964). The resulting charters and declarations have been updated and new ones published to guide conservation processes up to the present day. In this context, the limits of the emerging regulations, the contributions of Viollet-le-Duc and the influence of other thinkers such as John Ruskin and William Morris shaped the debates on structural conservation. These debates brought conservation not only to be an engineering problem but also to be treated as an art and a science.

In the modern period, approaches to the preservation of historical buildings have developed more integrated methods, taking into account the

multidimensional structure of cultural heritage. Especially with technological developments, many disciplines can be included in the field of conservation (Örmecioğlu, 2010; Coşkun, 2019). A multidisciplinary approach in the preservation of historical buildings requires the collaboration of various disciplines such as architecture, archaeology, art history, engineering, chemistry/material science and landscape architecture (Figure 2). Each discipline contributes to its own field of expertise in the process of preservation and restoration of the building, ensuring the sustainable conservation of the historical heritage in scientific and artistic terms.
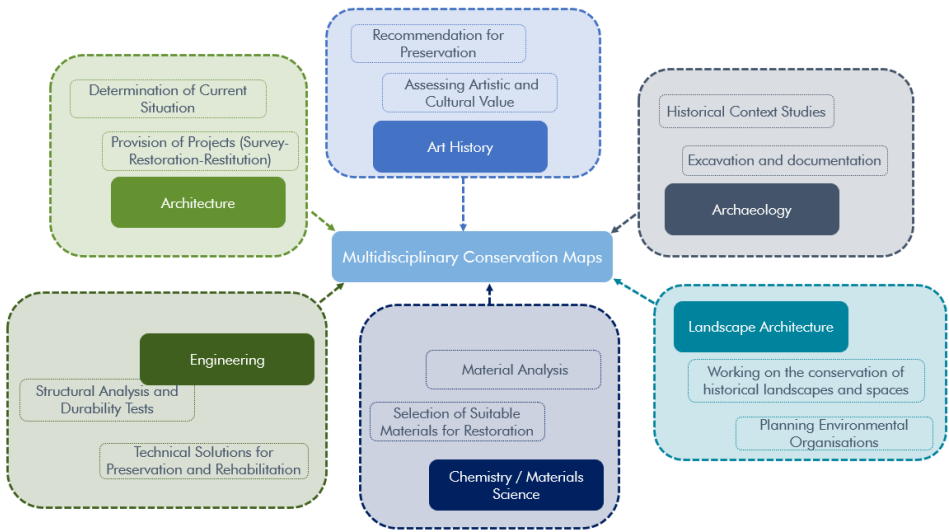
Figure 2. Disciplines that should be included in the preservation of historical buildings and their relationships with each other (Created by the author)

In the 21st century, conservation requires a multidisciplinary approach and the development of a comprehensive strategy that takes into account not only environmental, social and economic factors but also the physical condition of the structure (Duval et al., 2019; Delegou et al., 2019). In this

regard, in the development of conservation strategies, the load-bearing elements should be meticulously analyzed and methods for the preservation of these elements should be determined.

1.2. Load-bearing Elements in Historical Buildings

The load-bearing elements that ensure the physical condition of the building survives have an essential role in the preservation of historical buildings. Elements such as arches, vaults, domes and walls stand out as elements that preserve the character and aesthetic value of the structure while at the same time preserving the physical integrity of the building by ensuring its strength (Mainstone, 2013). Studies conducted in recent years focus on the use of new technologies to increase the durability of these elements (Cruz et al., 2022). In the study conducted by Soyluk and Tuna (2011), the seismic base isolation application used in the dynamic analysis of Şehzade Mehmet Mosque reveals the effectiveness of the techniques that have increased with technological developments. Similarly, research on the reinforcement of dome structural forms with clamps is an example of innovative approaches in this field (Fırat et al., 2022). Mazzarella (2015) stated in his study that the reinforcement works carried out in terms of energy efficiency had a positive effect on masonry structures. Studies on nonlinear seismic responses in the L'Aquila basin also drew attention to the importance of the differences in materials and structural systems in historical buildings (Ragozzino, 2014). Studies on the seismic repair and rehabilitation of the church in San Giuliano di Puglia demonstrate the effectiveness of techniques used to increase the earthquake resistance of masonry structures (Foraboschi, 2013). Tests on the Seville Cathedral and the diagnostic process carried out with the finite element method show that

incremental techniques are only applicable under certain conditions (Diz-Mellado et al., 2021). İlerisoy & Soyluk (2012) investigated the effects of an earthquake of magnitude 7 or greater on the structural system of the Şehzade Mehmet Mosque in Istanbul through structural analysis using SAP2000 software.

Strengthening or improvement methods in masonry structures made of different materials can produce different results. The unique properties of each material prevent the production of a standard model and a standard strengthening, conservation and restoration strategy in historical masonry structures. In the analysis of such structures, simulations using the finite element method show how different materials can react (Aydın & Özyaka, 2018). The same situation applies to all sections in the masonry structure. The strengthened/improved masonry structure element can change the original period of the entire structure, and therefore the dynamic performance under earthquake effects. Therefore, considering the entire structure in the strengthening/improvement processes gives more accurate results. The effectiveness of such approaches should be aligned with the principles set by The International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage (ISCARSAH). The criteria set by ISCARSAH emphasize that, instead of a standardized model, solutions specific to each structure's unique characteristics and materials should be developed, especially in the reinforcement and preservation of historical buildings (ISCARSAH, 2003).

In the preservation of historical buildings, load-bearing elements play a critical role in terms of both ensuring structural stability and preserving the historical and aesthetic identity of the building. Structural elements such

as arches and vaults, domes, pillars and piers, walls, foundation systems and floors have been shaped by advanced engineering solutions in different periods throughout history, increasing the load-bearing capacity of the structure and contributing to its spatial organization (Figure 3). Each of these load-bearing elements, together with the architectural concepts of the period, are the basic components that ensure the survival of the building.
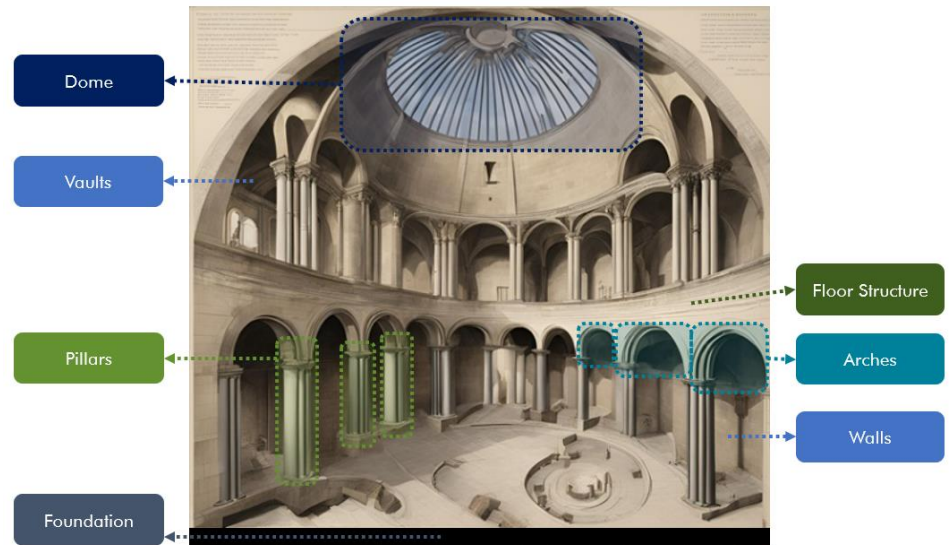
Figure 3. Load-bearing elements in historical buildings (Image generated by the author using AI.)

1.2.1. Arches and vaults

Arches and vaults are important elements that increase the load-carrying capacity of historical buildings and allow the expansion of interior spaces. Arches distribute the vertical loads of the structure to horizontal components in a curved form, ensuring the stability of heavy stone or brick structures. The curved structure of the arch transfers the load to the supporting walls or pillars on the sides, while allowing these loads to be

directed directly to the ground. Vaults are structural elements formed by the sequential arrangement of arches and are used to cover large spaces. Vaults, which are frequently encountered especially in medieval and Gothic architecture, allow interior spaces to be wider and higher by spreading the load transfer principles of arches to wider areas (Viollet-le-Duc, 1866). Creswell (1958) detailed the evolution of vaults in Islamic architecture and their role in load-bearing systems in his studies. These elements are one of the most important components of both architectural aesthetics and structural durability in historical buildings (Mainstone, 2013).

1.2.2. Domes

The dome plays an important role as a structural element in historical buildings and plays a critical role in load transfer. The geometric form of the dome distributes the loads coming from its central point outwards and evenly to the walls or pillars of the building. Thanks to this distribution, domes are ideal for supporting large interior spaces and providing balance between load-bearing elements. In particular, the huge dome in Hagia Sophia transmitted its weight to the side walls and floor through half domes and buttresses, making it possible for the structure to have large openings (Çakmak et al., 1995). In addition, in Islamic architecture, there is usually a quadrangular structure under the domes and the loads coming from the corners are transferred to the dome by means of pendentives or squinches. In this way, larger areas in front of the mihrab are covered (Sağlam, 2020). This function of the dome helps to transfer the loads in a balanced manner in historical buildings and to maintain the stability of the structure.

1.2.3. Pillars and piers

In historical buildings, load-bearing pillars and piers are critical to transfer the vertical loads of the building to the ground and ensure structural stability. In ancient Greek and Roman architecture, pillars are not only an aesthetic element, but also fundamental elements that support large sections of the structure from an engineering perspective. Choisy (1899) has examined in detail the functions of pillars in the structural systems of historical buildings. The Doric, Ionic and Corinthian orders in Greek architecture have improved the aesthetic forms of columns as well as their functionality, providing both a supporting and artistic dimension (Jones, 2000). Analyzes carried out today on vertical load-bearing elements examine how load transfer principles change with different materials and techniques used in historical buildings (Sarhosis et al., 2019; Papaloizou & Komodromos, 2012; Pitilakis et al., 2017).

1.2.4. Walls

In historical masonry structures, the main load-bearing elements of the structure, or interior walls, are usually the main load-bearing elements of the structure and play a critical role in transferring the vertical and horizontal loads of the structure to the ground. In masonry structures, these walls are usually constructed with materials such as stone, brick or adobe. The walls must provide a homogeneous distribution of the loads acting on the structure to the ground. The load transfer principle is based on the transfer of the weight to the walls and the transfer of this load to the ground via the walls. In this system, the thickness of the walls and the durability of the material used directly affect the overall stability of the structure (De Vita et al., 2018). Internal walls increase structural rigidity and provide

resistance to horizontal loads such as earthquakes and wind. The resistance of masonry structures to shear forces depends on factors such as the thickness of the walls, material properties, and structural geometry. However, masonry structures are generally less resistant to shear forces and therefore may require additional support elements or design measures to maintain their structural integrity, especially under dynamic loads such as earthquakes (Lourenço, 2006). In the past, these measures were provided by buttresses, but today stability can be increased by means of connecting elements. In addition to the material properties used in the walls, factors such as the strength of the connections between the walls, the regular construction of the walls and protection from moisture also affect the load-bearing capacity of the walls.

1.2.5. Foundations

In historical masonry structures, foundations are critical elements that safely transfer all the loads of the structure to the ground and form the basis of structural stability. The load-bearing capacity is generally related to the total weight of the structure, ground conditions and the dimensions of the foundation. In masonry structures, foundations take the vertical loads of the superstructure and transfer these loads to the ground by spreading them over a wide area (Przewlocki & Zielinska, 2016; Kassem & Abd El Samee, 2013). The width and depth of the foundation are important factors in the load transfer process, and the risk of collapse or sliding of the structure is reduced by using foundation widening or deepening techniques, especially in weak soils. The durability of the foundations built from stone, brick or mortar materials in historical buildings must be compatible with the ground and be flexible against ground movements (Puncello & Caprili,

2023). In addition, waterproofing techniques have been used to prevent moisture from reaching the foundation. In these types of foundations, it is important that the foundation is placed on solid ground and has sufficient rigidity to provide resistance against horizontal forces.

1.2.6. Floors

In historical masonry structures, floors are elements that transfer loads between floors and contribute significantly to the stability of the structure. The load-bearing capacity depends on the material used in the floor, the structural system and the strength of the walls on which the floor rests. These systems, which are usually made of wood, stone or brick floors, distribute the load evenly and transmit it to the load-bearing walls, and this load is transferred to the ground through the walls (Fletcher, 1924). Floors not only reduce vertical loads but also horizontal forces by increasing the rigidity of the structure. In wooden floors, it is critical that the beams are placed properly and frequently to ensure load distribution. In stone or brick floors, load transfer is optimized by using tight connections and filling materials (Paz, 2012). In addition, reinforcement elements are generally used to increase the durability of the floors, thus increasing the resistance of the structure to horizontal loads such as earthquakes.

The load-bearing elements of historical buildings are the basic components that increase the load-bearing capacity of the building and shape its spatial organization, playing an important role in preserving the historical and aesthetic identity as well as structural stability (Figure 4).
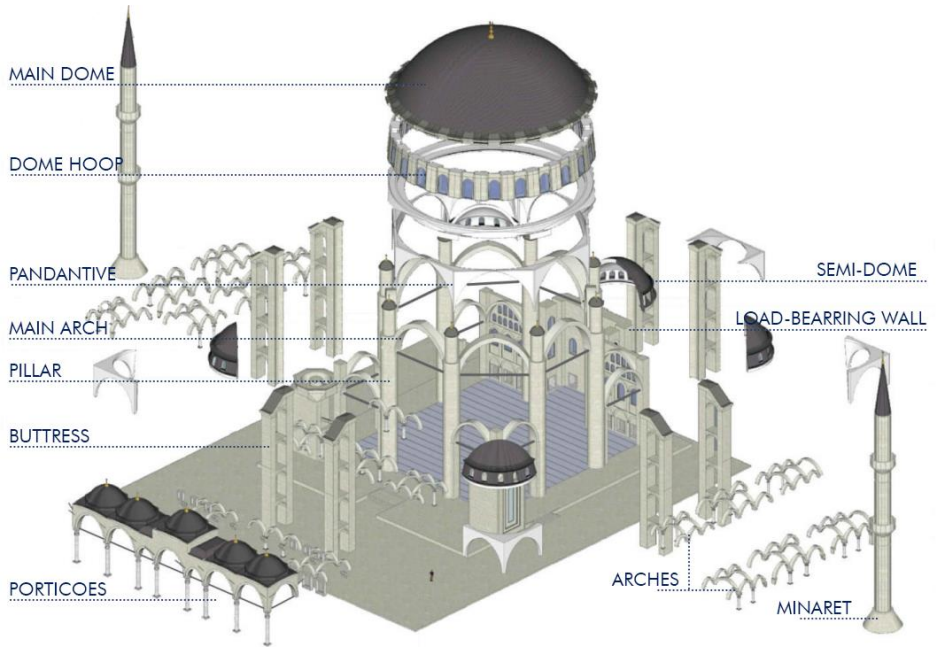
Figure 4. Axonometric view of load-bearing elements in historical buildings (adapted from Akyürek & Kahraman, 2021)

Preservation of historical buildings plays a vital role in transmitting cultural heritage to future generations. However, this process requires a comprehensive approach to the preservation of the historical, cultural and aesthetic values of the building, rather than a simple restoration application. Therefore, when developing protection strategies, the unique characteristics of each building and its environment should be taken into account and interventions should be shaped accordingly.

1.3. Mardin Architectural Heritage

Preservation of historical and cultural heritage does not only mean preserving material elements that have survived from the past to the present; it is also of great importance in terms of keeping the identity, culture and sense of belonging of societies alive. Architectural heritage

areas contribute to the provision of cultural continuity by reflecting the aesthetic, technical and social developments of a society in the historical process (Aydın et al., 2024). Preserving these areas is both a responsibility for the future and a duty to ensure that works bearing the traces of the past are transferred to future generations. In particular, historical buildings and their original load-bearing elements have great value not only in terms of structure but also as representatives of cultural identity.

Mardin is an important cultural heritage city that has hosted many civilizations throughout its history and contains traces of these civilizations in its architectural buildings. Mardin's architectural heritage, which stands out with its stonework, draws attention especially with the local stone material used in its structures, unique load-bearing systems and structural solutions (Kutlu & Şimşek, 2024; Işık & Güneş, 2015). In the buildings built with the masonry construction technique of Mardin, it is seen that stone has become an aesthetic and functional element. Historical houses, madrasahs and mosques have created an architectural language specific to the region by blending both Islamic and Syriac architectural elements (Çağlayan, 2017). The arch, vault, dome and buttress systems used in these structures not only provide structural balance but also provide aesthetic richness. Especially in the districts of Artuklu, Midyat, Nusaybin, Savur and Dargeçit, there are historical buildings within important archaeological and urban sites. In the districts of Kızıltepe, Mazıdağı, Derik, Ömerli and Yeşilli, there is a settlement with a high density of reinforced concrete (Figure 5).
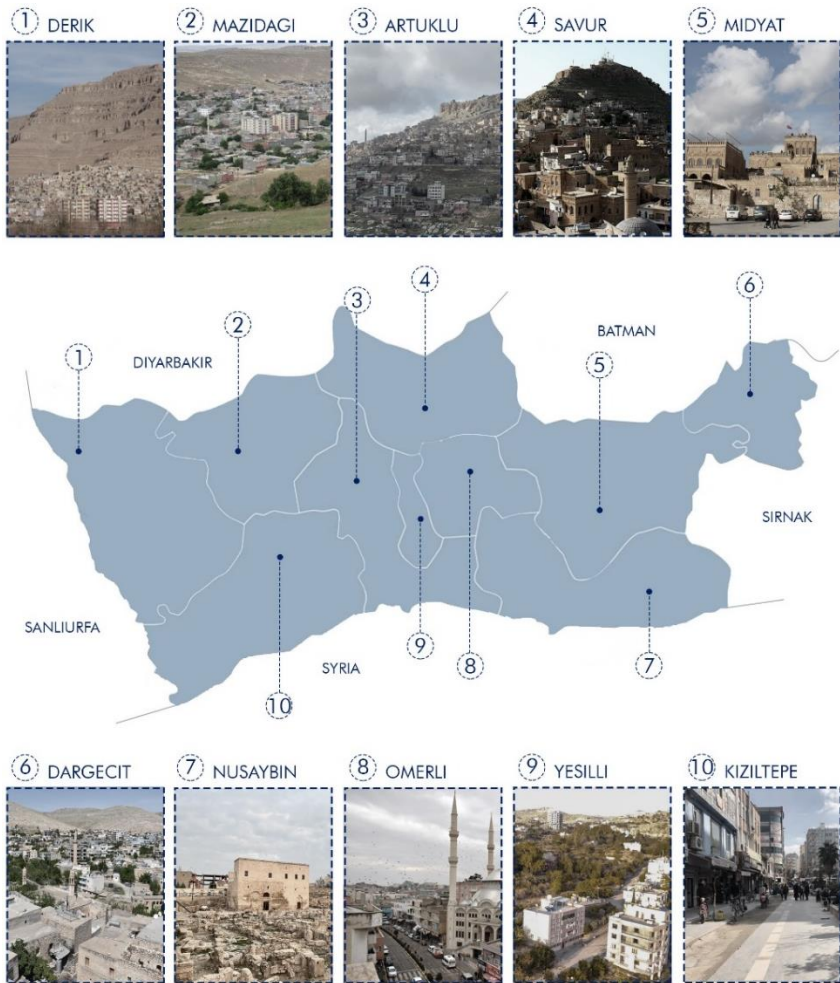
Figure 5. Mardin city (Created by the author.)

The architectural heritage of Mardin stands out as an important value that needs to be preserved in terms of structure and art (Bekar et al., 2024). The sustainable protection of this heritage is a source of inspiration for future architectural and cultural studies.

2. Material and Method

Historical and cultural heritage buildings are important in conveying the cultural, social, historical and religious values of the period in which they

were built. Therefore, it is necessary to carry out comprehensive studies to protect such architectural buildings that are in danger of collapse. This process contributes to ensuring cultural continuity and identity between the past and the present (Saygı & Sahil, 2017; Bekar & Şimşek, 2023). Turkey is located in Anatolia, which has hosted many different civilizations for many years. These lands have a rich cultural heritage that includes traces of many great civilizations such as the Hittites, Urartians, Romans, Byzantines, Seljuks and Ottomans. The protection of these heritage structures is of great importance both in terms of transferring the aesthetic and engineering heritage of these civilizations to future generations and in terms of preserving important data on human history.

The study reaches its target result after a 4-stage process (Figure 6). In the first stage, the load-bearing system elements in masonry structures and the architectural heritage of Mardin are discussed. This stage provided the information on the load-bearing elements and the richness of the historical heritage of Mardin. This process includes a systematic literature review (Yıldırım & Şimşek, 1999). The existing studies on load-bearing elements in the literature were examined. In the second stage, the information obtained was analyzed and the studies in the literature on load-bearing systems were presented in a table. In this way, the ground was prepared for the field study carried out in Mardin structures. In the third stage, field studies based on observation were carried out in Mardin. Damaged structures located in different locations within the city, which has a rich heritage area, were identified. In this way, the current damage status of the structures in 2024 was recorded. In the final stage of the study, the detected damages were addressed under 3 separate headings: at the load-bearing

element, structure of building and urban-heritage. This situation facilitated the documentation and presentation of important historical urban areas. The tables created for damage types included the building name, location, function, situation and visual reference.
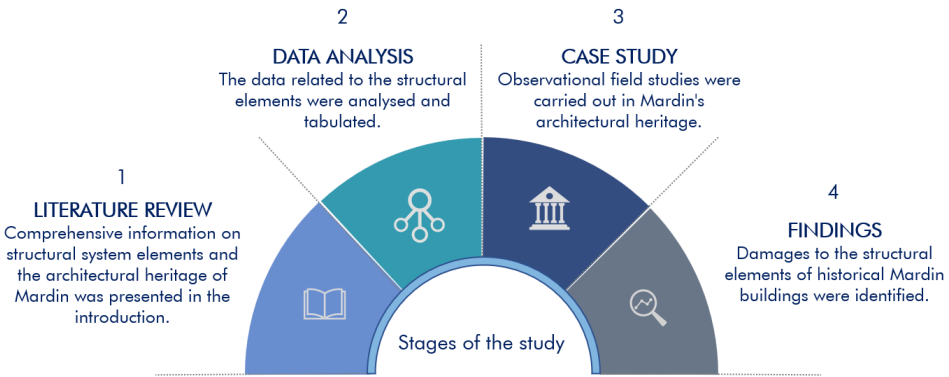
Figure 6. Stages of the study (Created by the author.)

These stages carried out in the study provided the information in the literature regarding the load-bearing systems of historical buildings. In addition, it brought current information to the literature regarding the conservation status of the city of Mardin and its historical structures, which have important cultural heritage values.

3. Findings and Discussions

Historical masonry buildings may lose their structural integrity over time due to exposure to various physical and environmental effects over many years. This situation may endanger the structural safety of these buildings and necessitates the development of solutions such as repair and reinforcement for their protection. The main purpose in the repair and reinforcement processes of historical buildings is to preserve the original qualities and cultural values of the buildings, as well as to ensure their safe

transfer to future generations by increasing their structural strength. In this direction, observing originality and integrity constitute the main principles in the selection and application of the applied techniques.

The selection of the method to be applied in the reinforcement of historical buildings depends on many factors such as the original characteristics of the building, the environmental conditions in which it is located, the existing damages and the protection targets. Therefore, it is important to determine the most appropriate reinforcement strategy by making a holistic assessment. A careful analysis of the advantages and disadvantages of all these approaches plays a critical role in preserving the originality of historical buildings and ensuring their sustainable use.

The socio-cultural values of historical buildings convey abstract data about the period in which the buildings were built. Concrete access to this data is provided by the load-bearing elements that ensure the structure remains standing. The load-bearing elements that ensure the resistance of historical buildings against natural or human-induced loads prevent the structure from being damaged by external loads for many years. With the developing technology, the number of studies on these elements is increasing and new tools can be used to analyze the damage status of these elements. Studies on these elements that provide transfer between generations constitute the most important field of study in historical building protection. Table 1 summarizes the studies on masonry structures and load-bearing elements in the literature in the last 10 years.

Table 1. Studies carried out on the load-bearing elements of masonry structures (Created by the author.)

Author(s)	Load-bearing Elements	Method	Conclusion
Soyluk & İlerisoy, 2013.	Tower	Finite Element Analysis	It was concluded that different recordings of a single earthquake under different ground conditions would have different effects on the same historical building.
Bartoli et al., 2015.	Dome	Finite Element Analysis	By determining the internal stress and crack structure of the Brunelleschi Dome, important findings were provided regarding the safety of the structure and its vulnerability to earthquakes.
Kržan et al., 2015.	Pillar	Prototype Model and Experiment	The mechanical properties and limit state parameters required for masonry pillar classification and seismic evaluation are presented.
Ilharco et al., 2015.	Floor	Non-Destructive Tests	It has been determined that more effective reinforcement techniques can be applied in the rehabilitation of historical wooden floors.
Sarhosis et al., 2016.	Arch	Systematic Literature Review	A comprehensive review of the factors affecting the structural behavior of masonry arch bridges is presented. Recommendations for restoration and strengthening strategies are developed.
Crespi et al., 2016.	Stone Columns	Finite Element Analysis	The findings, presented through the force–displacement curve and stress contours, have allowed for the identification of potential explanations regarding the seismic response of the columns.
Przewlocki & Zielinska, 2016.	Foundation	Finite Element Analysis	The behavior of a typical stone foundation from the 16th century was determined by analysis.

Ricci et al., 2016.	Arch	Finite Element Analysis	A numerical method for the behavior evaluation of historical masonry arches is presented.
Erdil et al., 2018.	Masonry Wall	Finite Element Analysis	Diagonal cracks were found to be likely to develop under earthquake loading.
D'Altri et al., 2020.	Vault	3D Contact-Based Model	By identifying complex damage patterns of historical brick vaults resulting from differential displacements, it helped to understand the deformation processes of these structures.
Micelli & Cascardi, 2020.	Masonry Wall	Finite Element Analysis & 3D Photogrammetry	The stability and earthquake sensitivity of the bell tower were evaluated with drone-based data.
Öztürk et al., 2020	Dome	Finite Element Analysis	The study concluded that the inverted dome in Ahmed Al Jazari Mausoleum demostrated remarkable structural stability under gravity and seismic loads, and specific damage patterns and stress responses were identified.
Grillanda et al., 2021.	Stellar Dome	NURBS-based upper-bound limit analysis	In-depth investigation of the static properties of star domes
Alforno et al., 2022.	Cross Vaults	Finite Element Analysis	Analysis results demonstrates that both the boundary conditions and the brick pattern considerably effects the seismic response of the vault in terms of stiffness, ductility, and overall capacity.
Funari et al., 2023.	Dome	Finite Element Analysis	The development and applicability of a user-friendly digital tool for rapid structural assessment of a cracked historical dome was presented.
Kutlu & Soyluk, 2024.	Masonry Wall	Finite Element Analysis & 3D Photogrammetry	It was emphasized that photogrammetric data obtained from masonry wall could be integrated into the finite element analysis program sap2000.
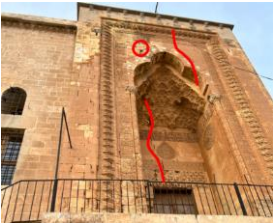
Nowadays, rapidly developing technology and increasing number of tools contribute to the revealing and investigating unknowns about historical buildings. Analyses performed in recent years have revealed important results about the load transfer capacitiy and structural behavior of the load-bearing elements of historical buildings. For example, Bartoli et al. (2015) investigated the internal stress and crack formation in Brunelleschi Dome using finite element analysis to determine earthquake vulnerability, providing critical findings on the seismic resistance of such structures. Similarly, Kržan et al. (2015) explored mechanical features and seismic behavior with prototype masonry models on pillars, providing classification parameters. Additionally, Micelli and Cascardi (2020) have deeply researched the stability and deformation processes of stone walls against earthquakes by combining 3D photogrammetry and finite element analysis. In general, the studies demonstrate that the use of numerical modeling techniques is important to understand the load transfer principles of the structural elements and contribute to a better understanding of the behavior of each element against earthquakes. These analyzes enligten the development of engineering solutions required for the safe preservation and reinforcement of historical buildings.

3.1. Damages on the Load-bearing Elements

Historical buildings in Mardin offer examples of the intensive use of masonry architecture and the attentive design of the basic load-bearing elements. However, over time, serious damage can occur to the load-bearing elements as a result of earthquakes, climatic conditions and human interventions (Table 2). Discussions on how historical buildings in Mardin can preserve their original architectural identity along with their load-

bearing elements should be conducted by taking into account the balance between traditional restoration techniques and modern approaches.

Table 2. Examples of damage to load-bearing elements in Mardin architectural heritage (Created by the author.)

Building	Location	Funciton	Situtation	Image
Zinciriye Madrasa	Artuklu	Religious Building	Damaged	
Private Residence	Artuklu	Traditional House	Heavily Damaged	
Hacı İbrahim Şatana House	Mardin Artuklu	Traditional House	Damaged	
Private Residence	Mardin Artuklu	Traditional House	Damaged	
Mor Sobo Monastery Tower	Midyat	Religious Building	Damaged	

The data in the table show that historical buildings in Mardin are exposed to different levels of damage on the load-bearing elements. The cracks on the eastern door of Zinciriye Madrasah indicate that structural deterioration has begun in the load-bearing system and may progress if not intervened. The cracks and stone losses in traditional houses draw attention to material deterioration that occurs over time and wear due to climatic conditions. The collapses seen in the tower of the Mor Sobo Cathedral indicate that not only a single load-bearing element but also the overall stability of the structure is in danger. These findings reveal that the load-bearing elements of historical buildings should be carefully monitored and preserved with appropriate strengthening methods.

3.2. Damages on the Structure

Structural damage is not limited to damage to individual load-bearing elements; on the contrary, it can threaten the integrity of the entire structure. Historical structures in Mardin have been subject to various structural deteriorations over time, and these deteriorations can affect the functionality and safety of the structure (Table 3). Damage that begins in load-bearing elements can cause structural damage over time. Repairing damage that affects structural integrity involves an important work process, taking into account the historical and sociocultural values that the structures have in their past.

Table 3. Examples of structural damages in the architectural heritage of Mardin (Created by the author.)

Building	Location	Funciton	Situtation	Image
Private Residence	Artuklu	Traditional House	Heavily Damaged	
Cistern of Dara Ancient City	Nusaybin Dara	Cistern	Heavily Damaged	
Gate of Dara Ancient City	Nusaybin Dara	Historical Gate	Heavily Damaged	
Mor Sobo Cathedral	Midyat Anıtlı	Religious Building	Heavily Damaged	
Muhammad Al Ghazi Mosque	Mardin Artuklu	Religious Building	Heavily Damaged	

Windmill of Dara Ancient City	Nusaybin Dara	Windmill	Heavily Damaged	
Private Residence	Midyat İzbırak	Traditional House	Heavily Damaged	
Monastery of Mor Abay	Savur Dereiçi	Religious Building	Heavily Damaged	
Private Residence	Midyat	Traditional House	Heavily Damaged	
Mor Loozor Monastery	Midyat Mercimekli	Religious Building	Heavily Damaged	

The findings in the table show that historical buildings in various regions of Mardin face serious structural damage. The collapse of historical civilian residences in the Artuklu district highlights the vulnerability of

structures to time and environmental factors. The severely damaged conditions of the historical gate, windmill and cistern in the ancient city of Dara show that there are intense external effects on these structures and that the restoration processes are delayed. The surviving wall and nave of the Mor Sobo Cathedral indicate that only certain parts of the building remain intact, but its overall structure is in danger. The collapses seen in certain parts of the historic residences and monasteries in Midyat and Savur can be evaluated as the results of weaknesses in the material quality of the buildings and long-term neglect. These findings draw attention to the need to protect and restore the historic buildings of Mardin, and reveal that urgent interventions are necessary to prevent structural damage from causing greater losses.

3.3. Damages on the Urban Heritage

Mardin stands out not only with its individual buildings but also with its holistic cultural and historical texture on an urban heritage. Urban-heritage damages include elements that threaten the historical identity and integrity of the city, beyond the damage to individual buildings. Unless the damage to the load-bearing elements is prevented and protective measures are applied to building-scale damages, damages on an urban heritage will occur. Especially since this region is a border region, the conflicts that have occurred have caused some settlements to be completely evacuated over time. With the local people leaving these settlements, it can be seen that many historical houses are in ruins and out of use today. In this case, conservation and restoration measures should be developed in historical urban heritage areas together with international and local approaches.

Table 4. Examples of damages in the architectural heritage of Mardin (Created by the author.)

Building	Location	Funciton	Situtation	Image
Traditional Houses	Savur Dereiçi	Settlement	Not in use.	
Traditional Houses	Midyat İzbırak	Settlement	Not in use.	
Traditional Houses	Kızıltepe	Settlement	Not in use.	

The findings in the table reveal that the abandonment of rural historical settlement areas in Mardin and their devastation over time is an important urban problem. The evacuation of settlement areas such as Savur-Dereiçi, Midyat-İzbırak and Kızıltepe-Başdeğirmen has not only led to the collapse of physical structures but also to the loss of historical and cultural heritage values. These abandoned rural areas have been neglected and unprotected for many years, and local architectural examples have been seriously

damaged. In terms of urban heritage damages, this situation indicates that urgent measures must be taken not only for the preservation of the buildings, but also for the sustainability of the socio-cultural texture in these regions. The reuse and revitalization of these residential areas is of critical importance in terms of preserving the historical values of the region so that the traces of traditional life are not removed.

4. Conclusion and Suggestions

The preservation of historical buildings is not only limited to preserving tangible traces of the past, but also plays a critical role in ensuring the continuity of cultural identity and social memory. Anatolia have been the cradle of various civilizations for thousands of years, and the architectural heritage of these civilizations has formed the basis of today's historical urban heritage. The preservation of this heritage means not only preserving buildings with historical value, but also the common heritage of humanity. Mardin is one of the regions that contains the richest examples of this heritage. The city, which stands out with its religious and civil architectural buildings, has a multi-layered historical texture that bears the traces of different cultures. However, these buildings have suffered serious damage over time as a result of various natural disasters, human effects and neglect, and many of them are struggling to survive. In this study, the damage status of the load-bearing elements of historical buildings in Mardin, examined within the scpoe of structural and urban heritages, revealed the important problems encountered in the protection of the cultural heritage of the region and the solution suggestions. It is observed that the load-bearing elements play a critical role in the preservation of structural integrity, but these elements are exposed to serious damage. In addition, structural and

urban damages have not only caused physical damages but also led to the loss of function of the historical buildings and its surroundings over time. This situation reveals the elements that threaten the sustainability of both individual buildings and the historical identity of Mardin. In this context, the following suggestions offer solutions for the preservation of historical buildings in Mardin:

- *Inventory and Digital Archiving Studies*: A detailed inventory of all the load-bearing elements of historical buildings in Mardin should be prepared and this data should be archived in a digital environment. In this way, a continuous database will be created about the buildings and the data that will form the basis of restoration studies will be preserved.

- *Damage Detection with Advanced Technology*: It is important to use advanced technology methods (such as drone-based photogrammetry, 3D modeling and finite element analysis) in the damage detection of traditional buildings. Periodic inspections with these methods will ensure timely detection of damage and more effective intervention.

- *Strengthening Conservation Policies at Local and National Levels:* In order to protect historical buildings, more comprehensive conservation policies need to be developed and implemented at the national level as well as local governments. These policies should also include incentive mechanisms that will ensure the sustainability of historical heritage in the region.

- *Participation of Local People and Awareness Raising:* Participation of local people is of critical importance in the

preservation of historical buildings. Therefore, raising awareness of local communities and their active involvement in the preservation of historical buildings will be effective in preventing structural and urban damage.

- *Emergency Response Programs:* Emergency response programs should be implemented for critical damages, especially in load-bearing elements. These programs can prevent the collapse of buildings by providing rapid intervention, especially in disaster situations such as earthquakes.

- *Social and Economic Support Programs:* Economic incentive programs should be implemented to revitalize abandoned rural settlements. These programs can be supported by sustainable tourism activities that will preserve the historical values of the region and contribute to the local economy.

- *Education Programs in the Field of Conservation and Restoration:* Mardin is a region with a rich historical urban heritage. Education programs focused on conservation and restoration should be created for architecture and engineering students in these regions. Experts specific to the region should be developed.

These suggestions will contribute to the sustainability of the historical heritage of the region by providing more comprehensive and holistic approaches to the preservation of historical buildings in Mardin. Repairing the damages in the load-bearing elements of historical buildings and reusing are not only a physical conservation process but also critical for the preservation and survival of cultural identity.

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Ottoman Court Theaters in 19th-Century Istanbul

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1. Introduction

The concept of theater began to develop as a form of entertainment through theatrical performances in the Ottoman capital. Subsequently, theaters evolved spatially. The first theaters were established around the Beyoğlu/Pera (Non-Muslims living in Beyoğlu referred to the area as Pera) area. Many theaters opened in consecutive years; some were lost to fire, while others were closed down.

Starting from the early 18th century, the Ottoman Empire began to turn its gaze towards the West, entering a period in the 19th century marked by rapid modernization efforts in the Western sense. The physical appearance of Beyoğlu, Istanbul's window to the West where all these developments were observed, became enriched with the inclusion of various spaces and types of buildings. These locations not only contributed through diverse architectural styles but also invigorated social life with their distinct functions.

In 19th century Istanbul, the Ottoman Court placed significant importance on the arts and cultural life, actively supporting the theater arts. The theater venues within the court contributed to the artistic and cultural development of the era while also serving as a means of social interaction and a demonstration of the imperial power.

Theater movements in the 19th century developed significantly within Ottoman cultural life. The theater garnered considerable interest from the sultans of the time, which led to its growth under imperial patronage. During this period, Western-style theater venues emerged. Unlike traditional Turkish theater, the architectural layout of these venues attracted wide public interest with performances by Western actors on tour

from Europe. Decrees were issued for opera and theater performances, granting privileges to the venues hosting these events. The establishment known as the Naum Theater became a prominent hub for Western music in Beyoğlu. Supported by the court, this theater operated for many years, hosting sultans and foreign royal guests until it was destroyed in the 1870 Beyoğlu fire. Additionally, there was a demand for a court theater, which led to the construction of the Dolmabahçe Palace Theater as the first of its kind. The building reflects the characteristics of its era and has been integrated into the palace and urban landscape. However, this unique theater venue unfortunately perished due to a fire. Subsequently, the Yıldız Palace Theater was constructed and has survived to the present day within the palace courtyard. It has reached us thanks to various users and restoration efforts, and it is now used as a museum.

2. The Theathers of the Westernizing Ottoman Capital

Theater encompasses various aesthetic and technical disciplines such as painting, music, dance, cinema, literature, photography, sculpture, architecture, set design, acting, costume design, and lighting. Compared to other arts, theater is more relevant to everyday life. This performing art is performed not only in ceremonies and entertainment but also in the normal flow of daily life. This characteristic enables theater to exist in urban locations.

Theater has evolved throughout human history as a form of spectacle and performance art, establishing a significant presence in various cultures. Notably, in the 19th century, theatrical movements thrived in Istanbul, leading to considerable cultural and artistic growth. During this period,

theaters flourished and diversified in the Beyoğlu area and its surroundings.

Theatrical movements in the Ottoman Empire began to develop significantly, particularly from the mid-19th century onward. Theater gained importance not only as a form of entertainment and art but also as a social and political platform. Supported by the sultans of the era and intellectual circles, the theater thrived under royal patronage and enriched the cultural fabric of Istanbul.

The theater movements in 19th century Istanbul captivated both the imperial court and the public, becoming a significant part of cultural life under the Ottoman Empire. The theaters in Beyoğlu emerged as essential venues reflecting the artistic and cultural vibrancy of the era, remaining as cultural heritage elements that shed light on the present day.

Our culture has unique traditions such as music and folk theater. Theater performances were incorporated into Ottoman cultural life in the nineteenth century, alongside many Western concepts—this institution, like many innovations, primarily developed under the patronage of the imperial court. Sultan Mahmud arranged for a stage to be set up in a room of the palace to watch operettas performed by amateur artists from the court. In a letter dated 1846, Giuseppe Donizetti mentioned his interest in obtaining certain operetta scores, if published, in correspondence with Dolci in Bergamo. These scores were staged at high schools in Italy during that era (Donizetti, 1917). During the reign of Abdülmecid, the Naum Theatre was used as the "Court Theater," and on rare occasions, the Sultan attended performances there. During this period, the Sultan felt the necessity to construct a private theatre for the palace. The new building

was designed as a venue not only for plays but also for musical works like operas and operettas, as well as concerts.

Changes in the city plan, neighborhoods that had to be rebuilt due to fires, new lifestyles, and structures reflecting local variations of European architecture have given a distinctive appearance to the 19th century Istanbul skyline. During this period, Western culture merged with traditional Ottoman architecture to create the characteristic features of 19th century Istanbul.

2.1 Changing Understanding of Entertainment and Venues

The popular folk theater known as Karagöz has profoundly influenced the lives of individuals through its terminology. By the late 19th and early 20th centuries, it had become a prominent subject in humor magazines. This phenomenon is also reflected in urban contexts, particularly in Istanbul, where street names have been inspired by these performances. Names such as Hokkabaz Street, Cambaz Street, Meddah İsmet Street, Karagözcü Street, and Oyuncu Alley continue to be used today.

During the Ottoman Empire, particularly in the 15th, 16th, and 17th centuries, grand festivities lasting several days were organized in the city for occasions such as royal weddings, circumcision ceremonies, and the arrival of foreign guests. During these times, the city transformed into a large theater stage, showcasing colorful spectacles that included performance plays, military games, athletic activities, parades, and musical events. The primary venues for these activities were public squares such as Atmeydanı and Okmeydanı (And, 2019; Sevin, 1968; Fuat, 2000).

The contributions of theater to urban life are of great significance. In particular, theater has facilitated the development of urban life through cultural vitality and diversity, social interaction and communication, as well as aesthetic and spatial organization. Conversely, it is also acknowledged that urban environments contribute to the development of theater. For instance, the diversity of audiences and mass participation, along with artistic creativity and economic and social contributions, are undeniable realities that highlight the city's impact on theater.

Theater addresses life in every performance, examining not only the individual but also the relationships between people. It is an art form that explores the events they experience, revealing the rhythmic order of daily life. While it contemplates death, it primarily conveys the essence of life. Theater enacts these situations not only through the performers on stage but also through the audience in the hall.

In conclusion, elements of folk theater, such as Karagöz, have become integral to daily life and have been deeply woven into the cultural fabric of cities. Their use as titles in humor magazines during the 19th and 20th centuries, as well as their presence in street names in Istanbul, illustrate the social impact and enduring legacy of theater. The grand festivities and events of the Ottoman period transformed cities into theatrical stages, reflecting the richness of social life and cultural heritage.

The theater has made significant contributions to both the cultural and social aspects of urban life, playing an important role in cultural diversity, social interaction, and aesthetic organization. At the same time, the contributions of cities to the development of theater cannot be overlooked;

elements such as audience diversity, mass participation, and economic support have bolstered the growth of this art form.

By bringing human life and relationships to the stage, the theater offers a shared experience for both performers and spectators. This art form reflects the rhythms and dynamics of life, addressing fundamental themes such as death and existence. Consequently, theater continues to be an important art form that mirrors the emotional, intellectual, and social experiences of society, uniting these experiences on a common ground. Examining theater from both artistic and sociological perspectives allows us to better understand its societal impacts and its relationship with the community.

2.2. The First Theater Buildings of the Ottoman Empire

Istanbul has been a city where various cultures converge throughout history, enriched by the vibrant presence of art and cultural activities. Theater has held a significant place in this great metropolis, profoundly influencing the city's social, cultural, and artistic fabric.

The structural features of the theater buildings constructed in Istanbul reflect the architectural forms of theater halls in Europe. The first example of this theater form, characterized by its horseshoe-shaped plan, is the Farnese Theater, built in the 17th century in Parma, Italy. A smaller model of this structure was implemented in the same century within the French Embassy in Istanbul. Designed by architect Aleotti, the Farnese Theater is considered an important precursor to the architectural evolution of theater buildings in 19th century Europe and, consequently, in Istanbul.

The establishment of independent theaters in Ottoman territories dates back to the early 19th century. During this period, theaters were

constructed not only in Istanbul but also in cities such as Izmir, Bursa, and Adana. Notably, it is known that a theater existed in Galata in 1827, which was later moved to Beyoğlu. Additionally, there are mentions of a French Theater that was anticipated to exist before 1831. Beyond these examples, the first structures built as independent theaters were those constructed in 1838 for two circus troupes. As noted by Clémant Huart, John Reid also refers to an amphitheater established in Pera in 1838. Reid's book includes a section dedicated to this theater, which lacks further information.

Before 1838, the development of dramatic arts in Istanbul was limited, and the prohibition against leaving home after sunset further restricted such activities. However, in the spring of 1838, an Italian Company arriving from Greece changed this situation. This troupe consisted of a clown, five to six acrobats, eight dancers, two male actors, one female actor, and six female figurantes. Accompanied by a local band, the company prepared for several weeks and, after obtaining the necessary performance permit, began their shows in a venue organized as a theater at 106 on Pera's main street. However, due to the small size of the venue and low ticket prices, the performances ended after two months.

In response, the company's manager requested a decree from the Sultan for an amphitheater surrounded by high walls. A wooden theater structure was built in the northern part of Pera, which included a circus area in front of the stage and an amphitheater section with spectator seating arranged around it, leaving some space. The outermost ring of the amphitheater consisted of upholstered seats and a few loges designated as a privileged section. This area was referred to as "primo posto," while the area with unupholstered seats in front was called "secondo posto." The section

between the performance area and these seats, which allowed standing spectators, was named "terzo posto." This amphitheater, with a capacity of approximately two thousand, became operational in June. The theater primarily featured circus performances, along with two tragedies, several comedies, and farces.

The first theaters in Istanbul were opened in Beyoğlu, and the initial performances were conducted in foreign languages. Two significant early theaters observed in Beyoğlu are the French Theater, located in Galatasaray, and the Naum Theater. The French Theater was destroyed in a fire in 1831. Following this incident, the Naum Theater was constructed on a vacant lot to the right of the intersection of Sahne Street and İstiklal Avenue, directly across from Galatasaray High School. This theater was destroyed by fire in 1847. Although it was rebuilt shortly thereafter, it again suffered a fire in 1870, after which a different structure was erected in its place (Figure 1).
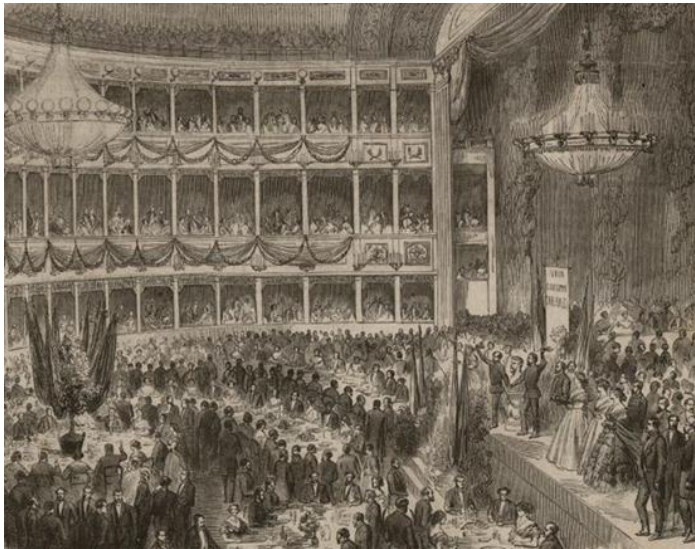
Figure 1. Naum Theater (Wikipedia, (n.d.) Naum Theater)

In the later years of the period, three more theaters opened adjacent to Naum Theater. The first of these was the Rumeli Theater, established in 1861, but it closed just a year later. The second was Café des Fleurs, which began operating as a theater in 1861. The third was the Şark Theater, opened in 1862, which was subsequently demolished during tramway construction in 1914.

Many theaters are known to have existed in Istanbul. For instance, the Concordia Theater, demolished in 1906, was located where St. Antoine Church currently stands. The City Theater, built in 1881 in Tepebaşı, had sections for drama and comedy. The Drama Theater was destroyed by fire, while the Comedy Theater was demolished. These two theaters were referred to as Petit Champs during their time. A seasonal theater was constructed in Tepebaşı in 1889, but it was also destroyed by fire a year later; however, a new theater was built in its place the following year. In 1905, an amphitheater with a capacity of 1,200 was opened, which could be covered.

The circus located next to Ağa Mosque began operating as Elhamra Theater in 1871. In 1874, a two-balcony Variety Theater was built to replace the burned theater in 1875. The Eldorado Theater was established in 1877, followed by the Verdi Theater in 1897, and finally, the Odeon Theater in 1914, which was known by this name throughout the Second Constitutional Era. In 1914, the theater was converted into a cinema and continued to be known as Lüks Sineması until the construction of Demirören AVM began in 2006 (And, 2019; Akıncı, 2021).

Turkish plays began to be performed at Gedikpaşa Theater, which later changed its name to Ottoman Theater. Gedikpaşa Theater was converted

from a circus, featuring a wooden exterior and three tiers of loges inside. A section reserved for the Sultan is located opposite the stage. Despite the renovations and design changes made to this theater, it could not entirely escape its circus appearance (Figure 2).
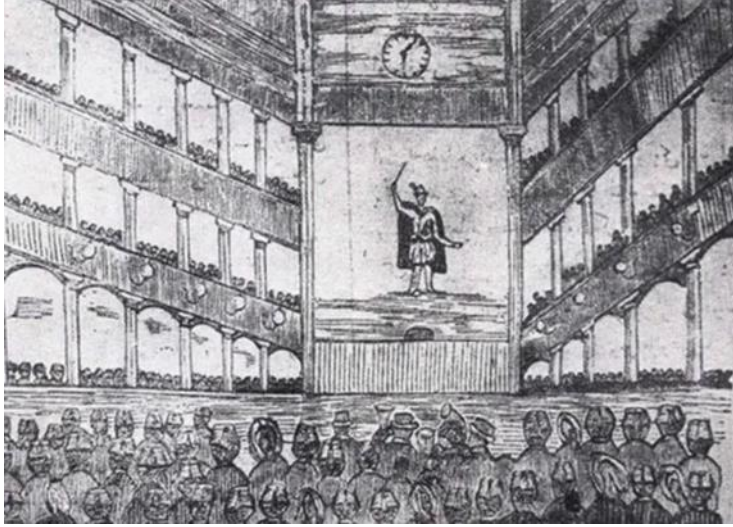
Figure 2. Gedikpaşa Theater (Wikipedia, (n.d.) Gedikpaşa Theater)

In addition to Gedikpaşa Theater, there were also theaters in Aksaray with a capacity of 300, and in Beyazıt with a capacity of 800. Notable theaters included Direklerarası Theater and Ferah Theater in Şehzadebaşı, as well as various theaters derived from coffeehouses in the same area and Vezneciler. Additionally, an open-air theater was established in Sultanahmet in 1880 (And, 2019; And, 1972; Sevengil, 1969).

In 1859, Abdülmecit commissioned the construction of Dolmabahçe Theater. Initially, foreign groups performed there, but later, Turkish-produced plays were staged. The theater was destroyed by fire in 1863 and was not rebuilt. Another palace theater was the Yıldız Palace Theater, built by Abdülhamit, which reopened in 1987 after undergoing renovations.

Other theaters in Istanbul included Aziziye Theater in Üsküdar, which was first mentioned in an announcement from 1866. In 1876, additional theaters such as the one on Libade Street in Bulgurlu Karyesi, the Terakki Bahçe Theater, the Bağlarbaşı Çiftlik Gazino Theater, a new theater in Horhor, and Beyleroğlu Bahçe Theater were also established (And, 2019). In Kadıköy in 1876, theaters included Zamboğlu Theater on Söğütlüçeşme Street, Kuşdili Papaz Bahçe Theater, a theater near Yoğurtçu Fountain, and Kadıköy Winter Theater (And, 1972).

3. The Theaters of the Palace in Istanbul

3.1. Naum Theater

During the reign of Sultan Mahmud, a stage was set up in a room of the palace to enable the performance of operettas, which were executed by the palace's amateur artists. These operettas included certain scores that Giuseppe Donizetti expressed a desire to obtain in a letter written in 1846 to Dolci in Bergamo. Donizetti's works were staged in high schools in Italy during that period.

In the era of Abdülmecid, Naum Theater was utilized as the "Court Theater," with the Sultan occasionally attending performances there. During this time, the Sultan felt the need to have a dedicated theater building constructed for the palace. The newly built theater was designed as a venue not only for plays but also for musical works, including operas, operettas, and concerts.

Naum Theater operated in the Beyoğlu (Pera) district of Istanbul during the second half of the 19th century. It was named after its owner, Naum Bey, a well-known businessman and theater enthusiast in the Ottoman Empire. The theater building was constructed in the European style, like

other theaters of the time in the Beyoğlu (Pera) district, and was used for staging performances.

In Turkey, theater and operas began to be performed on public stages in the years following the Tanzimat; however, regular opera performances were only made possible with Naum's Italian Theater (Umur, 1987).

In 1846, a fire in Beyoğlu destroyed the wooden theater building, prompting Naum to undertake the construction of a larger and more robust structure in the same location. The new theater was larger compared to its predecessor, featuring three tiers of loges in addition to the orchestra level and a gallery. On the first floor, directly opposite the stage, there was an exquisite loge reserved for the Sultan, accessible through a small lobby. This lobby was entered through a separate door from the street and accessed via a private staircase. The Sultan's loge was lined with silk, and a gold-fringed red velvet curtain descended from the gilded cornice on the ceiling. The theater's loges and corridors were designed to be spacious, with separate entrances for the orchestra, front rows, and gallery. Acoustic principles were carefully observed (Umur, 1987).

The architectural style of Naum Theater reflects the influences of 19th century European theaters. Typically rectangular in layout, the auditorium was arranged with a wide stage and rows of seating surrounding it. The decoration of the theater auditorium featured details that mirrored the wealth and luxury of the era.

Naum Theater served as a venue for significant theater groups of its time and became a center for staging various plays. It contributed to the development of theatrical arts in the Ottoman Empire and became an important meeting point for art enthusiasts.

In 1840, French actors obtained the necessary permit to stage French comedies and operas at the ' Odeon' theater (Umur, 1987). Additionally, it is noted that Bosco, an Italian from Sardinia, constructed a theater on the land of Michel Naum Duhani, a Catholic from Aleppo (And, 1985). In its early years, this theater presented performances such as pantomime and vaudeville, brought by troupes from Europe, alongside magic shows. The theater is located in the area of what is now Galatasaray High School, opposite the Mekteb-i Tıbbiye.

In September 1841, it was reported that a theater in Beyoğlu had been rented by a German (Austrian) individual (Umur, 1994). This person was identified as Basile Sansoni, an Austrian who rented Bosco's theater during the 1841-1842 season and applied for a permit to stage opera (Umur, 1994). According to newspaper reports, opera performances were held here until June 1842 (Sevengil, 1968).

Detailed information about operas staged at the Italian Theater in Beyoğlu (Pera) appears in newspapers from 1843. However, it is understood that this theater was likely initially designed for circus performances and had certain issues, leading to discussions about its renovation. In November 1843, the season opening of the Italian Theater was marked by an opera performance presented by a new troupe from Italy, featuring Vincenzo Bellini's opera "Straniera" (J.C. 11.11.1843). Conversely, in an 1844 issue of Ceride-i Havadis, it is noted that the Italian Theater, taken over by Naum, had commenced operations, but no performances were given during the preceding winter.

In light of this information, it is evident that the Italian Theater mentioned in 1843 is distinct from Naum's theater. However, since the texts discuss

experiences acquired over the two years, it appears to be an Italian Theater operating since 1841, similar to Bosco's theater. According to an article assessing the situation in Beyoğlu (Pera) in 1861, after the fire of 1831, Michel Naum had rented his expansive land to tightrope walkers. This area was used for a time for performing acrobats and exotic animal shows, gradually transforming into a theater. The first Italian opera was also staged at this venue in 1840 (J.C. 12.01.1860).

In May 1844, an article written upon the closing of the season emphasized the necessity for a larger, more comfortable hall suitable for the voices of opera singers to ensure the satisfaction of the people of Beyoğlu (Pera) (J.C. 01.05.1844). It was announced within the same month that the contract had been signed, the plan approved, and that construction would begin shortly.

It is noted that the new hall is designed to be larger, more spacious, and better ventilated than the existing hall in the center of Beyoğlu (Pera), with a well-organized layout and comfortable circulation. The contract states that, as a result of three years of experience, necessary precautions against fire and other natural disasters have been meticulously implemented. This building is set to commence operations in the upcoming season. The impresario, M. Papanicola, will bring a new troupe from Italy (J.C. 11.05.1844). This information is corroborated by a petition submitted by Papanicola through the Sicilian Consulate and the response provided by the Tophane Command (O.A. 1844).

Papanicola, who had obtained permission to stage plays at the theater opposite the "Saray-ı Sultani" in Beyoğlu, requested permission to build a new theater on another plot of land at the Dörtyol junction due to the

unsuitability of the existing building. In the document, the landowner is referred to as "Düzoğlu" Agop, but it should be Rozoğlu Agop. The new building of the Italian Theater is being constructed on the property of "Güllü Agop," who holds significant importance in the history of Turkish theater. However, since Güllü Agop's date of birth is not definitively known, consideration should also be given to the possibility that this individual may be the father or grandfather of the mentioned Agop.

After Bosco and Sansoni, the renewed theater building was taken over by the Aleppine tobacconist Naum Duhani. Initially, a disagreement arose between the impresario and Naum; however, following the management change, the theater opened in December 1844 with Donizetti's Lucrezia Borgia. It is understood that the former impresario, Papanicola, retired, while Naum assumed both ownership of the theater and the role of impresario (J.C. 01.01.1845). After Naum's death, references to him as impresario appeared in an article published in The Levant Herald (L.H. 19.06.1868) and in an article by his grandson G. Donizetti (Donizetti, 1917). The theater underwent extensive renovations under Naum, including the addition of a special section for smokers and a separate area for servants, who generally had to wait outside. Furthermore, the cloakroom and orchestra were expanded, the hall was repainted, and inadequate lighting in the loges was improved with a more effective lighting system (J.C. 01.01.1845).

Despite the renovations carried out in 1844, the wooden building was completely destroyed in a major fire that ravaged Yeniçarşı and Galatasaray in 1847 (L.H. 19.06.1868). Following this event, Naum Duhani requested loans from embassies and Sultan Abdülmecid. Initially,

in response to the request for a loan of 250,000 kuruş, the Sultan agreed to provide a total of 60,000 kuruş: 50,000 kuruş to Naum and 10,000 kuruş to the remaining theater crew (Umur, 1994). The Sultan supported the construction of a new building with the aim of ensuring the presence of cultural activities observed in European cities in Istanbul.

In 1846, drawings related to the Fossati brothers' masonry theater project, located in the Bellinzona Cantonale Archive in Switzerland, likely remained merely a proposal. Gertraud Heinrich's work, which examines the theaters designed by the Fossati brothers for Istanbul, notes, based on information from Semavi Eyice and Metin And, that this project was indeed realized (Heinrich, 1989). The date of the Fossati project is February 20, 1846. However, it has been clarified that the fire occurred not during the 1845-46 season as previously thought, but in January 1847 (Mueller, 1984). Performances continued uninterrupted in December 1846. Furthermore, a petition dated February 19, 1847, stated that the building needed to be rebuilt due to the recent fire (O.A 1847).

In February 1846, a newspaper reported that the necessary approval for the construction of a larger and more functional building than the existing theater had been obtained from the prominent figures of Beyoğlu (Pera) (J.C. 06.02.1846). Approximately one year later, it was anticipated that this wooden building would be renovated according to the Fossati brothers' masonry plans. However, after the fire in 1847, the new building was constructed in 1848 by English architect William Smith (J.C. 04.11.1848). According to a report published in July 1847 in "Revue et Gazette Musicale," the new building would feature three tiers of loges and accommodate approximately 1,200 to 1,400 people (Mueller, 1984),

which aligns with the Fossati project. Giuseppe Donizetti noted that the New Naum Theater was modeled after the "La Canobiana Theater" in Milan and included five tiers of loges, with a special loge in the center of the second tier for the Sultan and his entourage (Donizetti, 1917). The location of this building corresponds to the area where the Hristaki Passage is now situated in "Cité de Pera." Additionally, the name "Sahne Sokağı," formerly known as "Tiyatro Sokağı," also references the theater that once existed there (Gerçek, 1941).

The new building, larger in size, was constructed on Naum's land, while the previous building was located on Güllü Agop's lot at the Four Roads. Thus, the Italian Theater moved to its third and final building. It suffered a fire in 1853 and was restored to its original design by Architect Smith (Can & Polat, 1993). However, archival documents suggest that this event occurred in 1852 and that the repairs led to disputes between Smith and Naum (O.A 1852). There is no record of the building burning down, and it continued to operate until it was destroyed in a fire on June 5, 1870, which devastated a significant portion of Beyoğlu.

The success of the new theater is attributed to the contributions of Architect Smith, Alleon, and Naum, and the building's advantages over its predecessor are detailed extensively. This new structure, designed by Smith, stands out among other elegant buildings constructed after the fire. With its aesthetic beauty, it was poised to become one of the most prestigious in Pera, rivaling famous theaters in Europe (J.C. 09.09.1948). The theater's interior features a spacious design with an open sightline, adorned with walls painted in white and gold gilding, complemented by decorative elements made of gold papier-mâché. The ceiling fresco is

bordered by medallion portraits of famous musicians, and from the center of the ceiling hangs an opulent crystal chandelier with 42 lamps, produced in London. The stage is designed to optimally present the effects of performance and decoration. The loges are unique in both aesthetic appeal and comfort, upholstered in vibrant fabrics and supported by gilded cast-iron columns, decorated with ribbons that merge with canopies at the corners. Additionally, there are armrests cushioned with red velvet.

Directly opposite the stage is the Sultan's private loge, which leads to an elegant salon accessible via a private staircase opening onto Cadde-i Kebir. This loge is draped in wavy silk and topped with a golden baldachin. A dark red velvet curtain, embellished with gold tassels, hangs from this loge. The theater's loges and corridors are wide and spacious, with three separate entrances for the orchestra, front seats, and galleries. The salon's acoustics exhibit a rare harmony, with vocal artists expressing that their voices easily reach every corner of the hall (J.C. 04.01.1948).

During the opening of the Naum Theater for the 1869-1870 season, it was observed that the auditorium had been elegantly redecorated, although the gilding appeared somewhat dulled. Smoking was strictly prohibited in the corridors, and ballet performances were incorporated between the first and third acts, with reports indicating that the ballerinas showcased greater opulence than in previous seasons. (L.H. 28.10.1867). Following the visit of the Prince and Princess of Wales in 1869, it was announced that other special guests would also be welcomed. It was noted that the upcoming visits of Empress Eugenie of France and Emperor Franz Joseph of Austria to the Ottoman capital influenced these changes. The imperial court

contributed 2,000 lira to ensure the theater's early opening (Vakanüvis Ahmed Lütfi Efendi Tarihi, 1999).

Unfortunately, the year 1870 marked the theater's final period. On Sunday, June 5, 1870, a fire that began in a wooden house in Valideçeşme quickly spread to Beyoğlu (Pera) Street, devastating more than half of the area (L.H. 02.03.1868). This fire marked the conclusion of the long-standing Naum Theater. Subsequently, the activities of other theaters in Beyoğlu (Pera) began to take center stage.

3.2. Dolmabahçe Palace Theater

On April 27, 1857, the Journal de Constantinople reported that Sultan Abdülmecid wished to construct a new theater next to Dolmabahçe Palace. The site for the building was the location of the old arms workshop. The newspaper articles emphasized the Sultan's generous support for the arts and detailed the characteristics of the theater being built. The design of Dolmabahçe Palace was carried out by Garabet Balyan and his sons. Cengiz Can stated that the theater project prepared by the Fossati family was suitable for the theater hall of Dolmabahçe Palace, and therefore, the design could potentially be attributed to Fossati-Barborini. However, there is no information in newspapers or archives to confirm this claim. Among the architects of the Court Theater are the names of Schau, Diéterle, and Hammond. The neoclassical building was handed over to the French decorator Séchan upon its completion. Newspaper reports also confirm that, like some of the palace's halls, the theater was decorated by Séchan.

The Dolmabahçe Palace Theater was commissioned by Abdülmecid (1839-1861), who had a great interest in the performing arts. The theater's official opening took place in 1859, three years after the palace was put

into use (Sevengil, 1962). The interior of the building was destroyed in a fire and could not be repaired, leaving it in a dilapidated state for a long time. It was later used as a tobacco warehouse. The structure was demolished in 1937 due to road works when Dolmabahçe Square was being arranged (Figure 3).

Figure 3. Route to Dolmabahçe Palace Theater (Aracı, 2014).

The Dolmabahçe Palace Theater is a type of structure not commonly found within palace complexes. It is located outside the palace and directly opposite Dolmabahçe Mosque. The building features terraced courtyard walls that are 2.5 meters high and has entrances from three different directions. The main entrance is on the side of Dolmabahçe Palace, while the other entrances are situated opposite the portico of the Sultan Mosque and Istabl-ı Amire. The structure extends vertically towards the sea and consists of two parallel rectangles measuring 16.5 by 31 meters, symmetrically intersecting a larger rectangle of 68 by 16 meters (Polat, 2001) (Figure 4).

Figure 4. Dolmabahçe Palace Theater (Aracı, 2014)

The Dolmabahçe Palace Theater features a total of thirty loges across three levels in its interior layout. With more than thirty loges arranged in three tiers, the theater has a total capacity of three hundred people. Entrances to the grand theater allow high-ranking guests to use the closest entrances appropriate to their social status, with each guest's seating predetermined. The Sultan's loge, centrally located on the first floor and adjacent to special chambers prepared for the Sultan, features a cherry-red floor covered with brocade fabric. A staircase before the entrance provides access to the upper sections for the Sultan and his court. The ladies' loge is enclosed with a lattice and offers freedom of movement without requiring the occupants to remain seated during performances. The walls of this area are covered in gold and silk, while the ceiling is draped in the imperial color of poppy red fabric. The interior is decorated in the style of Louis XV, embellished with elegant elements such as the windows, sofas, carpets, and chinoiseries associated with Madame Pompadour. There are separate entrances, salons, and loges reserved for princes, pashas, and ambassadors. The theater hall was constructed similarly to the design of the Opera at the Palace of Versailles, featuring Corinthian columns that separate the loges and gas

lamps illuminating the hall like daylight. Comfortable seats are provided at the orchestra level (J.C. 06.03.1958).

The grand hall consists of a floor plan featuring the orchestra and three levels of loges. Aside from the performance hall, the building also contains dressing rooms for artists, makeup rooms, salons for the Sultan's receptions and rest, and service rooms for attendants (Sevengil, 1962). According to Umur, the Dolmabahçe Palace Theater includes a large hall measuring 28 by 14 meters suitable for diplomatic meals. The hall has twelve windows on all sides, with two large doors located in the center of its wider sides. Behind one of these doors is a private loge for the Sultan to observe meetings without being seen, while behind the other is a space for the orchestra to perform discreetly. The upper floor houses the Sultan's main apartment, providing access to the Sultan's loge. One of the two rooms behind the loge contains a spiral staircase leading to the harem. The richly decorated theater section consists of the ground floor, the first floor with the loges, and the harem level. The harem opens to the hall as a single loge with a lattice front (Figure 5).

Figure 5. Interior of Dolmabahçe Palace Theater (Aracı, 2014).

Various sources indicate that the Dolmabahçe Palace Theater has a capacity of three hundred people. All floors are separated by columns and surrounded by loges. In the exact center of the first floor is the Sultan's private loge, which is surrounded by lattice-enclosed loges designated for the harem. The theater's columns support the dome drum, which in turn holds the main dome from which a crystal chandelier is hanging. The walls are adorned with red silk fabric.

The theater building not only includes a performance hall but also a banquet hall suitable for diplomatic meals. Behind one of the doors lined along the wall is a special Sultan's loge where the Sultan can attend the banquet incognito, while behind another door is a concealed area for the orchestra. A staircase from the Sultan's loge leads to a room, which then provides access to the Sultan's upper apartment. A staircase leading from

the room behind the royal loge connects to the harem section. The columns that separate the loges support the dome drum, which supports the dome itself. The loges are separated by low walls, with velvet curtains adorned with gilded valances hanging from above and in front of the loges (J.C. 06.03.1858).

The furnishings in the Dolmabahçe Palace Theater were reminiscent of the small salons in Louis XV's apartments. In early 1858, French journalist Jules Janin visited this new opera house in Istanbul before it had opened and detailed his observations in a column published on February 8, 1858, in the Journal des Débats. According to Janin, the theater resembled a smaller yet more magnificent copy of the opera hall at the Palace of Versailles. Mirrors, chandeliers, sofas, carpets, and tiles reflected all the elegance of Madame Pompadour. All of these elements were being prepared in Séchan's workshop in Paris, where carpenters, joiners, embroiderers, wall covering specialists, marble workers, and technicians had been working for six months under the direction of Séchan, "the life, movement, spirit, painter, and machinist of this grand theater," who was a master from Lyon, Tours, Baccarat, Aubusson, and Saint Gobain. The prepared objects and upholstery materials were soon to be sent by rail to the port of Havre and then by sea to Istanbul (Aracı, 2014).

The theater building consists of two wings, which are symmetrically arranged in a rectangular shape and connected to each other (Figure 6). One of these wings contains the theater, while the other wing houses a banquet hall designed for hosting the Sultan's diplomatic guests. This hall features two large symmetrical doors: one is designated for the Sultan's

entrance and exit, while the other is designed to allow the orchestra to enter and play music discreetly during events.

Figure 6. Dolmabahçe Palace Theater, aerial photograph taken during the Armistice years showing Dolmabahçe and the Court Theater (left). Pervititch insurance maps depicting Dolmabahçe and the Court Theater building (above) (Aracı, 2014).

The walls of the hall were adorned with carved wooden panels up to a height of 2.5 meters, topped with embossed and gilded leather up to the cornice. The door pediments were covered with a bronze grille shaped like a round window. The room was illuminated by eleven large chandeliers made of cut crystal and candle holders mounted on Chinese vases. The 300-seat parquet was furnished with poppy red upholstered chairs. The stage was equipped with the most advanced machinery of the time (Umur, 1993).

Dolmabahçe Palace incorporates European elements not only in its architectural design but also in the types of music heard under its roof.

There are almost no rooms in the harem section that lack a piano. The music room of Dolmabahçe features string instruments like the cello and double bass, and it displays a tapestry portrait of the famous opera composer Verdi on its wall. Additionally, it contains a rich and extensive collection of sheet music that could naturally be found in any European prince's music library. This collection, consisting of 233 volumes and music loges, includes quartets by Haydn, Mozart, and Beethoven, piano reductions of famous Italian operas, and Bach's 48 Preludes and Fugues along with Czerny's piano methods. This library is an important clue to understanding the musical life of Dolmabahçe Palace. The compositions of the Sultan reflect the influence of Western harmony and the forms in the lives of the dynasty (Aracı, 2006).

In a fire that broke out in 1863, the interior of the building was partially burned and was never fully repaired. Adolphe Thalasso also noted that the theater had burned down. A document dated 1866 from the Topkapi Palace archives shows that the building was subsequently evacuated. This document lists the items belonging to the theater, which had been placed in the Imperial Treasury. The building, which was later converted into a tobacco warehouse, was demolished in 1937 due to road construction.

3.3. Yıldız Palace Theater

Yıldız Palace began to be used by the War Academies in 1924, following the proclamation of the Republic. While the buildings such as the Büyük and Küçük Mabeyn, Çit Kasrı, and Hususi Daire were utilized by the commandership, in 1937, buildings like Çukur Saray, Şehzadeler Dairesi, and Hareket Köşkleri were assigned to the Technical School of Command

(now Yıldız Technical University). Meanwhile, the Theatre Hall was converted into a cinema and conference hall for the War Academies. After restoration, the building was reopened for use in 1987, but it was closed shortly after due to security concerns. Today it operates as the Theater Museum.

The primary development of Yıldız Palace, completed in the second half of the 19th century and the early 20th century, took place in the area known as Yıldız Grove, which was a hunting ground during the reign of Suleiman the Magnificent. The first construction activities in the grove, which was incorporated between Kazancıoğlu Garden and Hadaik-i Hassa during the reign of Ahmed I, began during the reign of Selim III, although only the known fountain from that period remains today. Abdulhamid moved to Yıldız in April 1877, residing in what is now the YTÜ (Yildiz Technical University) Rectorate building until the Hususi Daire (no longer extant) was constructed, which had previously been referred to by names such as the Hünkar Dairesi, Yıldız Kasrı, and Valide Sultan Köşkü (Şehsuvaroğlu, 1951).

The Yıldız Palace Theater, constructed in 1889 by Abdulhamid II for Yanko, the son of Kalfa Vasilaki, became one of the prominent venues for opera and theatrical performances of its time. The theatre building features a narrow and elongated hall, with its walls covered in plush, velvet-like fabric, and the ceiling adorned with gold leaf (Sevengil, 1962). Located in the Second Courtyard of the Yıldız Palace garden, adjacent to the Hünkar Dairesi, Gedikli Cariyeler Dairesi, and Musahip Ağalar Dairesi, the theater was likely built upon the remnants of earlier stable structures. When Sultan Abdulhamid wished to attend the theater, he could access it via an enclosed

corridor and stairs, without leaving the building where he worked and resided. This passage corridor was situated in the Musahip Ağalar Dairesi which no longer exists today (Polat, 2001).

The Yıldız Palace grounds comprise a visually closed official section (official offices, service buildings, etc.), a private section (pavilions, kiosks, and gardens belonging to the harem), an outer garden (outer pavilions and a large promenade park), and surrounding structures. Access to the theatre is via the First Courtyard through the Valide Kapısı and Harem Kapısı, after passing through the inner courtyards.

The Yıldız Palace Theatre, located in the northern section of the Yıldız Palace garden in the Second Courtyard, was built in 1889 by Abdulhamid II for Yanko, the son of Kalfa Vasilaki. Abdulhamid grew up in a rich cultural environment during his period as a prince, having watched many performances at the Naum and Dolmabahçe Palace Theatres. This appreciation for theatre encouraged him to construct a venue within the palace where he could enjoy performances without needing to leave the palace grounds (Polat, 2001) (Figure 7).

Figure 7. Yıldız Palace (Gravürler, (n.d.) Gravür Dünyası)

After its construction, the Yıldız Palace Theater employed two groups of salaried local and foreign performers, staging numerous operas and plays. Foreign dignitaries were invited to the palace to attend these performances. By the end of the 19th century, a permanent theater company was established under the auspices of the Müzika-i Humayun, enabling Abdulhamid to watch plays at his convenience (Osmanoğlu, 1960) (Figure 8).

The theater building features a simple floor plan. The entrance to the theatre, accessed through a narrow passage, leads into a small lobby before opening into a rectangular hall measuring 11 x 10.5 meters. This ground-level hall serves as the theatre's parterre section. The stage area is elevated and has a depth of 4.6 meters. The exterior walls of the building are constructed of stone, and the hall is encircled by a gallery supported by twelve wooden columns arranged in pairs (Figure 9).

Figure 9. Interior of Yıldız Palace Theater (Pinterest, (n.d.) Yıldız Palace Theater).

The theater hall consists of a parterre and a single row of loges. Opposite the stage is the sultan's loge, with a total of four loged areas on the sides designated for members of the Harem-i Hümayun, equipped with grilles. Guests from the princes and ministers take their places on either side of

the sultan's loge. High-ranking officials of the palace occupy a small room adjacent to the sultan's loge, while attendants and aides stand inside the entrance area below it. Part of the parterre is occupied by the orchestra, while another section is reserved for bendegân, pashas, and beyler. Occasionally, when ambassadors attend, performances are exclusive to men, and the grilles of the harem loge are opened.

Today, the spaces used as the foyer and costume department are thought to be constructed of reinforced concrete due to the thickness of the flooring. The building features a rather simple façade, and the sloping roof is not visible from ground level due to the rising parapet walls. The roofing material is Marseille tiles, and there are two ventilation openings on the roof.

The known passages used by Abdulhamid and the harem to access the theatre from the eastern façade are no longer in use, and the doors connecting to these passages have been sealed for security reasons.

The theater's hall features a wooden dome with Ionic and Corinthian columns, wooden motifs on the parapets and ceilings, rich red velvet fabrics, and opulent wooden decorations in the sultan's loge (Figure 10).

Figure 10. Ceiling view of Yıldız Palace Theatre (Pinterest, (n.d.) Yıldız Palace Theater).

The ground floor features wooden columns with Ionic capitals, while their bases are also made of similarly profiled wood in matching colors. The columns on the first floor are Corinthian and intricately carved in wood. The ceiling of the hall is adorned with golden star and flower motifs on a blue background, and musical instrument motifs decorate the parapet walls.

Emperor Wilhelm II of Germany had the opportunity to attend opera performances at the Yıldız Theatre during its inauguration in 1889 and during his visit to Istanbul in 1899, hosted by Sultan Abdulhamid. The Yıldız Theater not only welcomed foreign dignitaries visiting the Ottoman capital but also hosted many renowned artists of the time, including Sarah Bernhardt, Madame Judith, Violette, Monsieur de Remier, the Coquelin Brothers, Le Loin, Mademoiselle Suzanne Desprès, and Chaliapin, who came to Istanbul with the imperial theater's musical ensemble sent by the Russian Emperor (Sevengil, 1962). Sarah Bernhardt and Coquelin Cadet

were brought to the palace by the French Ambassador Constance, and after their performance, they were awarded decorations (Osmanoğlu, 1960).

The Yıldız Theater not only hosted Italian operas, operettas, and classical music concerts but also featured Turkish plays. Before the Yıldız Theater, portable stages set up in the palace showcased Turkish musical plays performed by the young musicians of the Muzıka-i Humayun (The Imperial Band), directed by Yakup Güllü (Güllü Agop). The works of Ahmet Mithat Efendi, who joined the Imperial band in 1884, were also staged on these portable platforms. Subsequently, Zati Bey and Saffet Bey, who were conductors of Muzıka-i Humayun, participated in these performances, with Zati Bey taking the lead role and Ali İlyas Bey performing in female roles. During this period, Zati Bey also served as the theater's director (Sevengil, 1962). Among the Turkish plays staged at the Yıldız Palace Theater were Ahmet Mithat Efendi's operetta "Çengi," which led to the closure of Gedikpaşa Theater, and the operetta "Pembe Kız," performed three times at Şehzadebaşı Mesire-i Efkâr Theater.

After Abdulhamid's reign, a few performances continued at the Yıldız Palace Theater, although court artists were not involved. In February 1910, two performances exclusively for women took place in this venue, featuring some marches and songs performed by the Navy Band. Ultimately, like many beautiful initiatives, the activities of this theater weakened and came to an end following Abdulhamid's deposition.

4. Conclusion

The theatrical movements in Ottoman Istanbul developed through interactions with Western culture, with imperially supported theater venues playing a significant role in this process. However, a large portion of these theaters has gradually disappeared or transformed for various reasons. Today, the historical and cultural heritage of these venues serves as an important resource for understanding the theater culture and social life of the Ottoman period.

Theater and its spatial development should be viewed as a reflection of the cultural and social dynamics of the Ottoman era. Theater garnered significant interest from both the imperial palace and the public, playing a crucial role in the cultural and architectural evolution of Istanbul. This process is also critical for understanding Istanbul's historical and cultural heritage.

Throughout history, Istanbul has been a meeting point for various cultures and artistic movements, and within this dynamic environment, theater has significantly shaped the city's social, cultural, and artistic fabric. The architecture of theater buildings constructed in Istanbul from the 19th century onwards reflects the influences of theater halls in Europe. In particular, theater halls designed in a horseshoe plan are seen as part of an architectural evolution that began in Italy in the 17th century and reached Istanbul in the 19th century. The architectural form of the Farnese Theater has served as an inspiration for the design of theater buildings during this period.

Like many european concept, the theater performances have been involved in the cultural life of the Ottoman in the nineteenth century, and this

institution has been able to progress under the auspices of The Ottoman Court. The establishment of independent theaters in Ottoman lands dates back to the early 19th century. Among the first theaters built in Istanbul, structures in the Galata, Beyoğlu, and Pera regions stand out. These theaters were typically shaped by influences from Europe and made significant contributions to the cultural life of the period. Notably, the amphitheater established in 1838 enriched the theatrical environment in Istanbul and hosted various performances. During the reign of Abdülmecid, the Naum Theatre had been characterized as the court theater, and the Sultan had rarely graced the theater performances. During this period, the Sultan required a theater building in the palace. The Dolmabahce Palace Theatre has been a place where musical plays such as operas, operettas and concerts have been performed, as well as the theatre plays. The three rows of the theater that hosts more than thirty chambers were sized to receive three hundred people. As well as the theater hall, the building embodied a banquet hall for the diplomatic dinners. Operating between 1859-1863, the theater became disused as a result of a fire. Furthermore in 1889, built by Abdulhamid II, Yildiz Palace Theatre had been a stage for many operas and plays. The theater consisted of a parterre and a row of loges. The royal lodge was located across the stage. A total of four grilled chambers in the sides have been dedicated to the members of the Harem-i Humayun. Yıldız Theater regaled some of the foreign dignitaries visiting the capital of the Ottoman Empire, and hosted many famous artists of the period.

The establishment of independent theaters in Ottoman lands dates back to the early 19th century. Among the first theaters built in Istanbul, structures

in the Galata, Beyoğlu, and Pera regions stand out. These theaters were typically shaped by influences from Europe and made significant contributions to the cultural life of the period. Notably, the amphitheater established in 1838 enriched the theatrical environment in Istanbul and hosted various performances.

This study deeply examines the theater culture of the Ottoman Empire during the 19th and early 20th centuries, revealing the artistic and cultural dynamics of the period. The Dolmabahçe Palace Theater, Yıldız Palace Theater, and Naum Theater emerge as concrete examples of this cultural richness and play a critical role in the development of Ottoman Theater. The architectural features, functions, and interactions of each theater with historical events provide an important resource for understanding the social life and cultural interactions of the period. Fires, reconstructions, and theater activities carried out under imperial patronage are factors affecting the continuity of these venues. Additionally, interactions with Western culture have been decisive in the formal and aesthetic development of Ottoman theater.

In conclusion, these theaters represent valuable structures reflecting the artistic heritage and cultural evolution of the Ottoman Empire, continuing to offer significant areas for research today. The history of Ottoman Theater gains meaning not only in terms of artistic development but also regarding social change and cultural interactions, necessitating a broader historical perspective in this context.

Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article. There is no conflict of interest.

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Spatial Characteristics of Ancient Theaters in Türkiye

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1. Introduction

Theater buildings that have continued since Ancient Times are important in cultural, artistic, and architectural terms. The contribution of Greek, Hellenistic, and Roman societies to developing civilization is significant. These civilizations built ancient theaters with fascinating architecture known for their excellent acoustics. The performances exhibited in these buildings, although initially existing with religious rituals, have changed with the development of art. Thanks to this change, the buildings that were shaped have hosted activities such as shows, entertainment, ceremonies, sports, and music in society.

The performance of sound, acoustics, and dialogue in buildings has gained importance in reaching the audience. For this reason, there has been a continuous development in the architecture of the building to improve the stage setup, seating arrangement, and acoustic management. The learning of architectural construction techniques initially eliminated the necessity of building on the edge of a slope and made it possible to construct theater buildings in city centers. This situation has brought the urban dwellers closer to theater buildings. This situation has allowed the building to increase its usage diversity and enabled the emergence of different functional uses.

In Türkiye, which has hosted many civilizations, it is possible to see ancient heritage in almost every region. We know that these buildings, which reflect the development and change of humanity, were particularly of interest to Western Orientalists after the 19th century and have been the subject of many studies.

This study is based on an inventory work that includes the origins, architectural development stages, and the distribution and sampling of ancient theaters, which are important witnesses of cultural heritage.

2. Material and Method

This study was conducted to examine the architectural development stages of ancient theaters, which are the most important architectural elements in the development of art and space in the ancient period, and to document and report the cultural heritage related to the social and cultural characteristics of the period, spatial and structural formations, materials used, and methods employed.

In this study, a qualitative research method based on a detailed archival study related to the subject was used with a survey model. The survey method is a research model aimed at identifying a past or present situation in the most accurate way possible. In the applied screening model, data analysis related to the subject was first conducted. At this point, efforts have been made to access the most reliable archival documents that align with historical reality.

In almost every part of Türkiye, which has hosted ancient cities for many years, one can see theater buildings of various sizes.

At the beginning of this study, comprehensive research on the history of theater was conducted, and in-depth information about the architectural formation of ancient theater buildings was compiled. Subsequently, the ancient city regions in Türkiye were identified, and a representative building was selected for each region. Regarding the selected building, a detailed inventory study has been prepared on the history of the region

where it is located, the architectural and mass characteristics of the building, the materials used, and the construction techniques.

This study is aimed to create a resource for future research and to bring new research topics to the agenda.

3. The Concept of Theater and the Emergence of Theatre Buildings

The concept of theater in Greek society, like other art forms, originated from religious ceremonies in the 6th century BC and then became an independent art form evaluated with different aesthetic and spatial criteria. For ancient societies, this art form also became a social element.

"Apart from the straightforward factor of enjoying it, attendance at the theatre had become a social practice which Greeks in general shared. Theatrical performance was a common language. The subject-matter of comedy was everyman. Theatrical motifs were universally understood "(Green, 1996, p:106).

Ancient societies held various festivals, ceremonies, and rituals to express their love and gratitude to their gods, to achieve good harvests in agriculture, to win battles, or to celebrate their victories. These rituals have gained a different dimension and meaning over time.

"The essence of the theater is the "orchestra," a circular space in the middle where the choir recites laments. In the early days, people would gather around this square, watching the performance either standing or sitting on wooden benches. "(Mansel, M. 1999, p:420).

In the staged theater performance, there were artistic displays such as music, dance, entertainment, and ceremonies, as well as different themes like educating the community, developing aesthetic sensibility, and showcasing power.

The places where theaters, which began to be seen in ancient Greek culture and continue to this day, are performed can be found in the Dionysian festivals. In these festivities, choirs, dances, and competitions were organized.

In Ancient Greece and Rome, Dionysus was defined as the god of entertainment and inspiration. In these buildings, initially, comedies, tragedies, and humorous plays were performed during festivals held in honor of Dionysus. The most important art in Greek Theater, 'tragedy,' was born in these architectural buildings (Özer, 2017).

In Türkiye, traces of the Dionysus cult have been found in the Knidos region, located within the borders of the Datça district of Muğla. There are two epigraphic pieces of evidence indicating the existence of the Dionysus cult in Knidos. From the first inscription dated to 307–301 BC, it is understood that a crown (or crowns) and a statue were dedicated to Lykaithion, the daughter of Aristokleides from Knidos, during the Dionysus festival (Marshall, 1883-1916, pp.4-5, *transmitted by* Pişkin,2007). According to the second inscription dated to the 3rd century BC, not everyone has the right to build a house wherever they want, but foreigners who come to the city to participate in the Dionysian festivals are allowed to settle temporarily (Nilson, 1957, pp 1-2, transmitted by Pişkin ,2007). These inscriptions indicate that the cult of Dionysus and the festivals held in honor of the god in Knidos date back to the 4th century BC (Pişkin, 2007).

The first theaters were chosen in the most magnificent areas of the city and began to be performed in the places with the most beautiful views. In fact, empty spaces like marketplaces were chosen for these mass

demonstrations. The significant interest shown by society and the rapid adoption of these performances for both entertainment and religious reasons has allowed them to appeal to broader communities. In this context, buildings capable of hosting large communities for the performance of artistic plays and music have begun to be constructed.

With the continued increase in social interest and the adoption of new construction techniques, aesthetic, functional, and safe buildings began to be constructed.

The materials used in architectural buildings have changed over time. The place of wooden materials has started to be taken by more durable materials like stone and marble. Thus, some of these magnificent public buildings have survived to this day.

Greek theaters have been among the most magnificent and intriguing buildings in architecture. For the Greeks, theater buildings were as important as temples. Wooden theater buildings, which could be assembled and disassembled, were built in the 5th and 6th centuries BC. Then, stone open-air theater buildings were built on a hillside (Akdeniz, 2016).

These magnificent buildings considered the cornerstone of Greek ancient theaters consist of three main sections: the Orchestra (orchestra), the Stage (Skene), and the seating area (theatron) (Akdeniz, 2016). (Figure 1.)
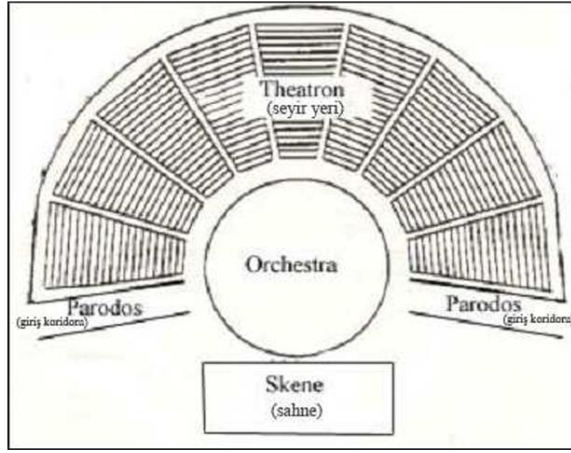
Figure 1. Parts of Ancient Greek Theater (Yaşaroğlu, 2006)

Orchestra (orkhestra)

The Greek word "orchestra," meaning the place where dancing is performed, forms the focal point of Greek theater. The circular area where the show is presented to the audience is performed and where dancing takes place. As the performing arts developed and changed, the audience, who were previously seated in a complete circle, were arranged around the orchestra in a parallel series, surrounding only a part of the orchestra due to the necessity of the play being performed in a specific direction (Parlak,2010).

Scene (Skene)

The word "scene" is derived from the word "skenas," which means tent. It means stage building. As a result of the game being played in a single direction, there arose a need to define and limit the game's area and to hang the decorations. Although the scene initially appeared as a tent where actors changed their costumes, over time it was constructed as a wooden

building and eventually became an integrated part of the building (Parlak,2010).

Viewing area (Theatron)

  The word "Theatron" in Greek means to see, hear, and watch. Theatron is the name given to the section of the Ancient Greek theater where the audience sits. It mostly leans against the slope of the hill. It takes shape according to the orchestra circle (Akdeniz,2016). The sections created by the stairs radially dividing the theatron section are called "kerkides." The corridor that runs transversely through the audience area is called the "diazoma" and the seating sections are called the "cavea" denir (Parlak,2010).

The oldest and most comprehensive single scientific work on architecture that has come down to us from antiquity is Vitruvius's "De Architectura" In this work, Vitruvius offers some advice on the construction of theater architecture (Vitruvius ,2015).

 If we were to list these pieces of advice;

I.   A healthy site should be chosen for hygiene.

II. Not looking towards the south direction is an important factor.

III. If the building is being built on flat ground, the seating areas rising from the foundation walls should be made of stone and marble.

IV. For the sound to reach those sitting in the upper sections, the diazomas (intermediate aisles) must be proportional to the height of the theater.

V. The lower and upper sections of the theater should be independent of each other, with wide and numerous entrances.

VI. For the sound to rise clearly, the terrain must not be a deaf terrain.

VII. Unless there is an obstacle in front of the sound, it should be considered that it spreads and rises not only horizontally but also vertically forever (Özer, 2017, pp.5-6).

The theaters of ancient Greece hold an important place in the culture of that period. It contributes to the unity and development of society. In theaters, in addition to entertainment, festivals, and celebrations, they also host sporting activities, competitions, religious rituals and ceremonies, weddings, funerals, and even political topics. Any kind of collective action is organized in these venues. In fact, in ancient times, participation in all activities held in theaters was seen as a civic duty, and participation became mandatory.

3.1. Hellenistic Period Theater Buildings

In ancient times, the theater buildings we encountered in Greek culture hosted the area where art was exhibited in both Hellenistic and Roman cultures. Helen's culture is a continuation of Greek culture.

Helen theaters were mostly built on a slope. In these buildings, the orchestra has been considered a central core. The orchestra area where the play is performed is constructed adjacent to the stage, similar to Greek theaters.

In the theaters of this period, there are three main architectural elements: the place where the audience sits (theatron), a circular plaza where the performance is staged (orchestra), and the building (skene) where the stage is located (Figure 2.)
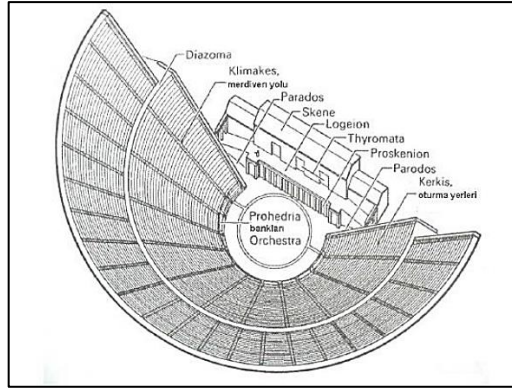
Figure 2. Perspective of Hellenic Theater (Yaşaroğlu, 2006)

Like in Greek period theaters, actors performed their plays in the orchestra in front of the proscenium (front stage). However, from the mid-2nd century BC onwards, for reasons that have not yet been determined, the plays began to be performed on the proscenium (front stage) as we know it today. Naturally, this situation has made it necessary to make changes to the theater building. With this change that occurred in the 2nd century BC, a second level was added behind the scenes (stage), providing a backdrop for the play (Mansel,1999).

With the architectural changes during the Hellenistic period, the plays performed in theaters were not only for Dionysus but also to showcase the victories of the important emperors of the time. They used theater to show their respect for the emperor. On this occasion, the leaders of the era began to see these organizations, which provided an opportunity to address large communities, as a chance to demonstrate their power.

Since the Hellenistic period, the increase in festivals has contributed to the rise in the number of professional actors and the organization processes of these individuals. During this period, actors have been more accepted and

appreciated by society. As a result, the social status of players has significantly risen. These developments have reinforced the role of theater art within social and cultural dynamics.

3.2. Roman Period Theater Buildings

The Roman period is a continuation of the Hellenistic period. It is observed that the buildings built during the Roman period lost their Greek and Hellenistic characteristics due to efforts to change, improve, and renovate the existing Greek and Hellenistic buildings. For the Romans, architecture is a symbol of power. The Romans had significant knowledge in terms of architectural construction techniques. While theater buildings were necessarily constructed on hill slopes during the Hellenistic period, with the development of vaults and arches in the Roman period, they could be built on flatter areas. For this reason, they built more magnificent and monumental buildings (Özer, 2017). Thanks to the remarkable architectural point that theater buildings reached from the Middle Ages to the Roman period, the sensory and intuitive relationship established between the audience and the venue has strengthened.

"The differences between medieval and Roman ideas of the theater amount to a difference between an organic, intuitive sense of space and a constructed, rational sense of space. The informality and pragmatism of medieval staging stand in sharp contrast to Vitruvius's geometrical ground plan and his "scientific" working out of sightlines and acoustics. Each of these two different senses of space sets the viewer in a different relationship to what he sees. Standing about "the place" in the middle of a great hall or a city square, the viewer of medieval drama is simply a part of the space around him; his relationship to that space is immediate and

wholistic. Seated in Vitruvius's cavea, the viewer of classical drama is positioned on a geometrical grid that forces him to "place himself" with respect to what he sees; his relationship to the space around him is detached, self-aware" (Smith B, 1988, pp:61-62).

Theaters are candidates to be the most important element in leading societies. Thanks to these buildings, administrators are offered the opportunity to demonstrate their power, increase respect for the emperor and the administration, and enable the formation of national consciousness. For this reason, the construction of the buildings was also supported by the administrators of the period. In Roman period theaters, performances were not limited to religious ceremonies, festivals, and entertainments; public spectacles such as gladiatorial games brought from various regions were also held. Additionally, performances were organized to reenact the naval battles of the Empire, where the orchestra section was filled with water.
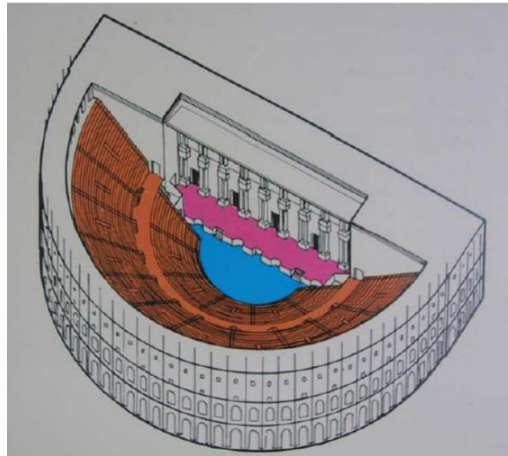
Figure 3. Typical Roman Theater (Pereira, 2007)

Roman theaters are larger compared to Helen and Greek theaters. Roman theaters consist of three main sections. In Figure 3, the sections of a typical Roman theater building are shown. The area surrounding the orchestra in a semicircle is the audience seating area (cavea), the rectangular area behind the orchestra is the stage, the columned section behind the stage is the stage building, and the semicircular area is the orchestra.

While the building where the stage was located and the audience section were two separate units during the Hellenistic period, these two units became integrated during the Roman period. During the Roman period, water and gladiator games began to be held in the orchestra section. To adapt the building for these plays, the orchestra section, which was circular during the Hellenistic period, was reduced to a semicircle in Roman theaters (Özer, 2017). In the Roman period, class differences were also reflected in the buildings of theaters. The seating arrangement has been organized according to social class hierarchies. In Roman theaters, the hierarchy was consciously taught to society through the seating arrangements.
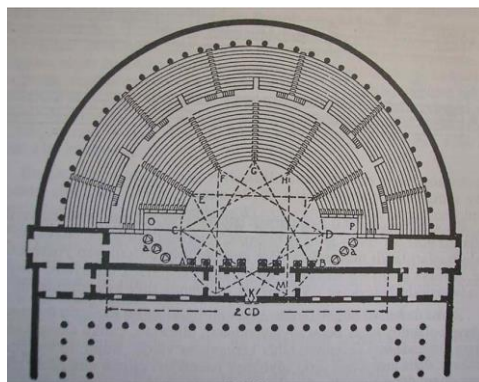
Figure 4. Vitruvius' Plan for the Roman Theatre (Pereira, 2007)

Vitruvius' plan of the Roman theater is provided in Figure 04. According to Vitruvius, the platform of the Roman theater should be deeper than that of the Greek theater; because while the actors perform on stage, the orchestra also includes the seating areas allocated to the senators. Vitruvius also requires that the height of the platform should not be more than five feet so that those sitting in the orchestra can comfortably see all the actors on stage. The audience's seats in the theater should also be divided according to the angles of the triangles around the circle, in a way that the steps separating the sections up to the first curved horizontal walkway indicate their direction. The seating sections above should be arranged to align with the centers of those below, and the stepped passages should be placed with one step between them according to the below (Pereira, 2007). Considering the conditions of the period it was made in; it can be said that it provided every kind of comfort for its user.

In his study, Özer (2017) emphasizes that canopies were built to protect the audience from heat and rain. It is noted that the fresh fruit vendors circulating in the audience section enrich the theater experience by offering refreshing snacks to the spectators. Additionally, it is stated that water mixed with perfume is sprayed to cool the audience on hot days. These elements are considered part of a design philosophy aimed at enhancing viewer satisfaction.

Known for its grandeur and magnificence, the Roman-era theater building still stands firmly today. It can be said that cultural and social activities were more effectively utilized thanks to the theater buildings that could be established in city centers during the Roman period.

If we need to compare the theater buildings of the Roman period with those of the Hellenistic period in a table **(Table 1.)**;

Table 1. Comparison Table of Hellenistic Period Theater Buildings and Roman Period Theater Buildings (Created by the author)

	HELLENISTIC PERIOD THEATER BUILDINGS	ROMAN PERIOD THEATER BUILDINGS
Architecture	*Built on the hill slope. *The stage and the audience are two separate architectural buildings.	*Built in the city center with the development of vaults and arches. *Vaults and arches both represent magnificence and serve as transition elements and awnings.
Interior Architecture	*The orchestra section is in the shape of a circle. *There are multiple entrance and exit doors in the interior and parallel passageways between the audience and radial paths that intersect these paths.	*The orchestra section has been reduced to a semicircular shape. *Dividers are placed between the orchestra section and the audience to protect against dangerous games. *In the interior, there are multiple entrance exit doors and parallel passageways between the audience and radial paths that do not follow each other.
Spatial Character	*Religious and monumental building.	*A complex monumental building.
Show area, Music, Sound Acoustic	*Sound-acoustic coordination was partially achieved because of the disconnected audience-stage section. *Backstage props are not seen very often.	*Sound-acoustic coordination for water and gladiator games is more successful as architectural integrity is ensured. *Backstage decorations are used for the regular distribution of sound in musicals.
Social and Cultural Order	*No Social classification in design.	*Social class arrangement in the seating design.

4. Examples of Ancient Theaters in Türkiye

Considered the world's first geographer, the Greek historian and philosopher Strabo (64 BC-24 AD) gained fame through his studies on the migrations to known places during his time and the settlements of various nations. Ancient Anatolian Geography Book: XII-XIII-XIV / Geopraphika is among the first works referenced when examining the history, geography, and archaeology of Türkiye. This work has been considered a fundamental source in all Ancient Age research conducted in Türkiye and worldwide. It contains writings that describe ancient heritage that has not yet reached the present day or has not yet been discovered. The sections describing the ancient heritage found on Türkiye's lands have always been a subject of interest for research topics in history, archaeology, architecture, and engineering.

It is an evident truth that the geography we live in has left us with a vibrant and deep-rooted history. These lands, where we have been together for thousands of years, host important works of cultural heritage. In Türkiye, which has hosted ancient cities for many years, ancient theater buildings, which can be considered fundamental works of cultural heritage, are frequently encountered. The ancient cultural heritage in Türkiye, especially after the 19th century, has attracted the attention of many Orientalists in the West. They have conducted significant studies and research on this topic.

According to Moretti (1992), it is mentioned that archaeological excavation activities in Türkiye have increased along with De Bernardi, F. (1966-1974) four-volume work titled "Teatri Classici in Asia Minore." With the studies conducted in the last century, interest in the ancient values

of Anatolia has increased. In Moretti (1992), more than twenty works that De Bernardi's did not mention in his work are also included. In this work, there are deductions regarding the architectural elements such as stage decorations, orchestra sections, and seating arrangements of important ancient theaters in Anatolia, such as Miletus, Ephesus, Nysa, Side, and Perge.

De Bernardi has been part of a team conducting excavations of ancient theaters in Anatolia. Through extensive research conducted here, a comprehensive resource has been created that enables chronological historical sequences to be established, allowing for the identification of the initial construction phase and subsequent modifications, thanks to the precise analysis of the history, spatial formation, and architectural elements of the cities where the ancient theaters in Anatolia are located. One of these sources, the work titled Teatri classici in Asia Minore, I, Cibyra, Selge, Hiérapolis; II, Città di Pisidia, Licia e Caria; IV, Citta dalla Troade alla Pamfilia, mentions in a review published by the Brussels Society for Latin Studies in 1973 that it covers all the elements determining the evolution of Asian theaters from the mid-1st century BC to the end of the 9th century AD. (Foucher, 1973).

In 1958, the ancient excavation works in the Lydia region were initiated by Prof. Dr. George Hafmann from Harvard and Cornell Universities, and after 1974, they were continued by Prof. Crawford H. Greenewalt. Professor Dr. Crawford H. Greenewalt, a retired faculty member of the University of California, Berkeley, and former excavation director of Manisa/Sardis (Salihli), focuses his work on Archaeology and Ancient Studies. Prof. Crawford H. Greenewalt, known as an expert on the Lydia

region, passed away in 2012. Before passing away, he donated his entire personal library to the Department of Archaeology at Ege University.

The Mysia region, encompassing the provinces of Balıkesir, İzmir, and Manisa, has begun to be found interesting in the fields of fine arts and medicine. In the 1870s, the Pergamon Altar of Zeus was discovered by the German engineer and archaeologist Carl Human. After this discovery was reported to Germany, archaeological excavation work was carried out with permission from the Ottoman Empire, and all the artifacts unearthed were taken abroad. The works are currently on display at the Pergamon Museum.

The Sagalassos archaeological site has been excavated since 1990 by a team from the Catholic University of Leuven, Belgium, under the direction of Marc Waelkens. Marc Waelkens was the director of the excavation in the Pisidian city of Sagalassos in Türkiye. Thanks to Marc and his team, Sagalassos has become one of the largest and most interdisciplinary excavations in the Mediterranean. The foot and head of the statue belonging to the 14th Roman Emperor Hadrian, discovered in excavations in 2007, attracted great interest in the world of archaeology, and the artifact was temporarily exhibited at the British Museum. The artifacts unearthed in the city are exhibited at the Burdur Museum (Wikipedia, (n.d.)). Sagalassos).

Fieldwork in Assos was carried out between 1881 and 1883 by an American expedition led by J.T. Clarke and F.H. Bacon. Currently, excavation and restoration efforts are being conducted by Professor Ümit Serdaroğlu (Akurgal, 2019).

In 1870, after studying the Iliad, the German merchant and archaeologist Heinrich Schliemann began excavation work in the area where small-scale studies had previously been conducted, driven by the desire to find the Troy described by Homer. In 1882, they made significant discoveries in collaboration with Wilhelm Dörpfeld. Following these discoveries, new excavations were conducted from 1932 to 1938 under the leadership of Cari W. Blegen. Thanks to archaeological advancements, Americans have continued their work in this region with a more conscious technique. The ruins of the Nicaea Theater in the Bithynia region have attracted the interest of various travelers and researchers for many years and have been featured in publications. The most detailed information about the theater is provided by Pococke, Texier, and Schneider. Richard Pococke (1745, pp.121-123 *transmitted by* Kardoruk,2022) indicated that the remains belonged to a theater, Charles Texier (1862, p.106 *transmitted by* Kardoruk,2022) placed the theater's location within the city on a plan, and Alfons Maria Schneider (1943, p. 8, Textabbildung 2-3 *transmitted by* Kardoruk,2022) conducted excavations to examine the underground sections of the remains and published them along with sketches and photographs. The first scientifically qualified excavations began in 1980 and the excavation work is still ongoing (Kardoruk,2022).

Ancient regions frequently studied by Western researchers house many works of societies with a rich history that have attained urban culture. One of the most important works reflecting the urban structure and urban culture is the ancient theater buildings. The theater buildings, which cannot be thought of independently from their location, serve as a brief history of the city and its inhabitants. Ancient theaters establish historical and

cultural   connections   from   the   past   to   the   present.
In this section of the study, an examination of the architectural, spatial, and
cultural aspects of the ancient theater buildings in the early cities of
Türkiye is presented. It is possible to find ancient theater buildings in
almost every part of Türkiye. While examining the ancient period
buildings in these lands where different societies lived in different periods,
Türkiye has been divided into 17 regions. (Figure 5).
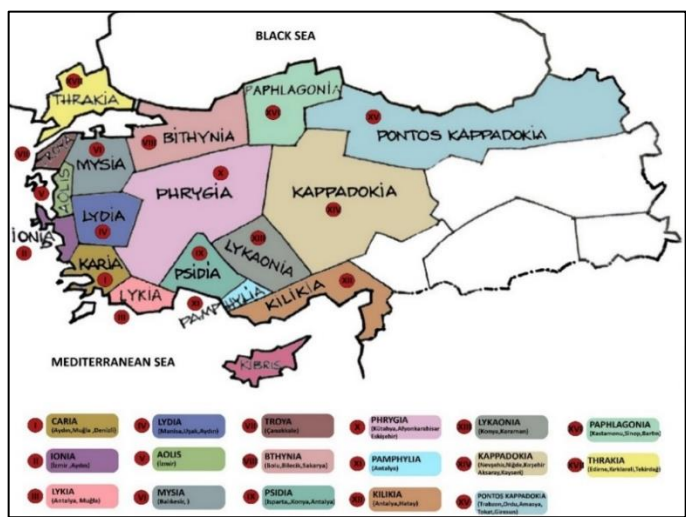
Figure 5. Key Map Showing Ancient Period Regions (Yılmaz, 2010 has
been adapted by the author himself.) (Yılmaz, 2010)

The representative buildings of the cultural heritage important to each
region have been selected. It is observed that these selected buildings have
the quality of representing their periods in cultural, social, religious, and
architectural aspects. In this context, it is aimed to evaluate the
construction techniques of the period, the materials used, the elements of
social and societal balance, and cultural connections, along with the
examples examined spatially and structurally.

Table 2. Region I – Caria (Created by the author)

REGION I (CARIA)		
	Location: The Caria region includes parts of present-day Aydın, Muğla, and western Denizli provinces in southwestern Anatolia	**Knidos**: Knidos, an important ancient port city in Caria, is located on the Datça Peninsula and is known for its art and architecture.
	Ancient Borders: In antiquity, Caria was bordered by Phrygia and Lycia to the east and southeast, and by Lydia and Ionia to the north, with the Aegean Sea to the west and south.	**Cultural Heritage**: Knidos has a rich cultural heritage and features two theaters: one by the harbor and another on the city's highest terrace.
KNİDOS THEATRE	Fıgure 6: Knidos Theatre (Yılmaz, 2010 p.26)	Fıgure 7: Knidos Theatre (Yılmaz, 2010 p.27)
	SPATIAL CHARACTERISTICS	
	Theater by the Shore: This seaside theater by the harbor is built against a slope and has an estimated capacity of about 4,500 people. (Figure 6-7)	**Structural Remains:** Aside from the right support wall, not much of the grand theater remains.
	Vitruvios Canon: American expeditions indicate that the theater's design conforms to the Vitruvian canon for Hellenistic theaters (Akurgal, 2019, p.353).	**Materials:** The theater features white marble, with seating areas made of roughly hewn stones topped with marble benches.
	Great Theatre: Located above Knidos, this theater can accommodate approximately 10,000 people.	**Decorations:** A small section of colorful plaster decorations has survived, suggesting the orchestra wall was originally vibrant (Yılmaz, 2010, p.28). Access is through vaulted passages, though some have collapsed due to earthquakes.

Table 3. Region II – Ionia (Created by the author)
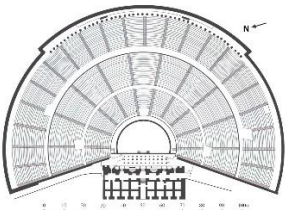
REGION II (IONIA)		
	Location: Ionia is a region in western Anatolia, primarily along the coastal areas of İzmir and Aydın provinces.	**Cultural Significance**: Ionia developed significantly in trade, culture, and philosophy, greatly contributing to art and science and producing influential philosophers.
	Historical Background: Ionia was established by Achaeans fleeing Greece during the Dorian invasion around 1200 BC and is known for cities like Ephesus, Miletus.	**Geography**: The region features wide, low bays and coves surrounded by steep mountains. These provide fertile agricultural land and rich natural harbors, ideal for maritime trade.
EPHESOS THEATRE	Figure 8: Ephesus Theatre Plan (The Ancient Theatre Archive, (n.d.) Ephesus (modern Selçuk, Türkiye) 01)	Figure 9: Ephesus Theatre (The Ancient Theatre Archive, (n.d.) Ephesus (modern Selçuk, Türkiye) 02)
	SPATIAL CHARACTERISTICS	
	Significance: The Ephesus Ancient Theatre is a key building in Ephesus.	**Heritage:** It showcases rich architectural and cultural heritage.
	Capacity and Acoustics: The theater seats about 24,000 people and has excellent acoustics. (Figure 8).	**Construction Timeline**: Built in the Hellenistic period, expanded under Claudius (A.D. 41-54) and completed in Trajan's time (A.D. 98-117) (Akurgal, 2019, p.159).
	Seating Design: The seating is marble, with 12 paths in the first tier and 23 in the others. (Figure 9).	**Historical Context**: It is the largest semi-circular orchestra theater in Türkiye, with Hellenistic remnants providing insights into its Roman-era building.

Table 4. Region III – Lykia (Created by the author)

REGION III (LYKIA)		
	Location: Lycia, the ancient name for today's Teke Peninsula, is the southern neighbor of Caria, starting from the border town of Daidala (İnlice).	**Historical Name**: The mountainous area south of a line from present-day Köyceğiz to Antalya was known as "Lukka" in the 2nd millennium B.C. (Kaya, 2016).
	Myra: Myra is one of the most important cities in Lycia, renowned for its captivating tombs.	**Myra Theater**: Near the tombs, there is a well-preserved Roman theater featuring numerous inscriptions and reliefs on its walls.
MYRA THEATRE	Figure 10: Myra Theatre (TC. Kültür ve Turizm Bakanlığı, (n.d.) Myra 01)	Figure 11: Myra Theatre (TC. Kültür ve Turizm Bakanlığı, (n.d.) Myra 0)
	SPATIAL CHARACTERISTICS	
	Significance: The Myra Theatre is a magnificent example of Roman period theaters.	**Architectural Advancements**: The building showcases the architectural and engineering advancements of the Roman era. (Figure 10).
	Safety Features: A safety wall was built along the edges of the orchestra for gladiator battles.	**Viewing Areas**: The theater includes an administrative viewing section and honorary seats.
	Decoration: Decorative animal motifs are present on the special seats for management. A portion of the stage building has survived to this day.	**Infrastructure**: The stage building features dirty-clean water systems, rainwater drainage, and vaulted passageways that have also survived. (Fİgure 11).
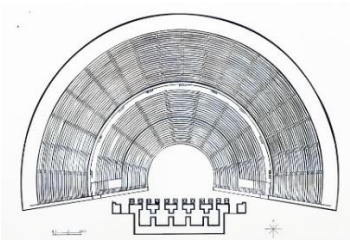
REGION IV (LYDIA)		
	Location: Lydia is in Western Anatolia, encompassing present-day Manisa, Uşak, and İzmir provinces in Türkiye.	**Time Period**: Lydia existed from 1200 to 546 BC, known for its wealth, trade, and cultural development.
	Civilizational Influence: The region was dominated by various civilizations, including Assyria, Persia, and Rome, from the 7th century BC.	**Strabo's Description**: Strabo, a Greek geographer, described Nysa as "a double city" divided by a torrential stream forming a gorge (Akurgal, 2019, p.234).
NYSA THEATRE	 Figure 12: Nysa Theatre Plan (The Ancient Theatre Archive, (n.d.) Nysa (modern Sultanhisar, Türkiye) 01)	 Figure 13: Nysa Theatre (The Ancient Theatre Archive, (n.d.) Nysa (modern Sultanhisar, Türkiye) 02)
	SPATIAL CHARACTERISTICS	
	Significance: The ancient theater of Nysa is one of the best-preserved theater buildings in the region.	**Location**: It is one of three theaters in Türkiye built over a stream, alongside those in Bergama and Kyzikos.
	Architectural Features: The Nysa Theater exhibits characteristic features of Anatolian-Roman theaters. (Figure 12).	**Decoration**: The theater's stage building is adorned with marble decorations.
	Shows: Gladiator shows were held in the theater.	**Seating Capacity**: The two-tiered theater has 24 seats in the first tier, 25 in the second, and a total spectator capacity of approximately 12,000 people. (Figure 13).

Table 6. Region V – Aiolis (Created by the author)

REGION V (AIOLIS)		
	Location: Aiolis is in the Aegean Region of Western Anatolia, covering modern Manisa, Izmir, and Çanakkale.	**Economy:** The region borders the Aegean Sea and is known for agriculture and maritime trade.
	Cities: Notable ancient cities include Lesbos, Pitane, Elaea, Gryneion,	**Cultural Contributions**: Inhabitants focused on agriculture but excelled in music and poetry (Akurgal, 2019, p.111).
AIGAI THEATRE	Figure 14: Aigai Theatre (Aigai Excavations and Research, (n.d.). Aigai 01)	Fıgure 15: Aigai Theatre (Aigai Excavations and Research, (n.d.). Aigai 02)

SPATIAL CHARACTERISTICS	
Location: The Aigai Theatre was built on sloping land west of the Sacred Area of Athena.	**Excavation Status:** Archaeological excavation of the theater is still ongoing.
Building: It appears to be a two-tiered theater (Figure 14).	**Orchestra Circle**: Preliminary data suggests the orchestra circle is less than a semicircle.
Decoration: Stones covering the seating rows are secured with a keystone, and there is stonework on the support wall.	
Infrastructure: The theater has a rainwater collection system and vaulted entrances (Figures 15 -16).	Figure 16: Aigai Theatre (Yılmaz, 2010, p.146)

Table 7. Region VI – Mysia (Created by the author)

REGION VI (MYSIA)		
	Location: The Mysia region includes present-day Balıkesir and Çanakkale provinces and is characterized by fertile plains and valleys.	**Economic Importance:** Despite its mountainous terrain, Mysia has become an agricultural and trade center due to its proximity to the Aegean Sea.
	Pergamon: Pergamon, the most important city of Mysia, is known for its library of 200,000 books, the altar of Zeus, and the healing center (Asklepeion).	**Historical Influence:** Pergamon's name likely comes from the Luwian word Barga (High Hill) and the city was protected by the Lydians, Persians, Macedonians, and Romans (Özer, 2017, p.17).
PERGAMON THEATRE	Figure 17: Pergamon Theatre (Pereira, 2007)	Figure 18: Pergamon Asklepieion Theatre (The Ancient Theatre Archive, (n.d.). Pergamon Asclepieion Theatre)

	SPATIAL CHARACTERISTICS	
	Oldest Theater: The Pergamon Theatre is the oldest theater in Anatolia, with a capacity of approximately 10,000 people.	**Location:** It is situated on a steep slope, blending architecture with the natural landscape.
	Hellenistic and Roman Influence: The current building reflects an enlarged version from the Roman period, built during the Hellenistic age (Figure 17).	**Cultural Events:** The theater hosted competitions in literature, poetry, and music, with events lasting from morning to night (Akurgal, 2019, p:83).
	Asklepion Theater: The Asklepion Theater has a capacity of about 3,500 people, with three middle rows reserved for important individuals (Figure 18).	**Decoration:** Decoration: The Theatron, made of andesite stone, has eighty rows divided by two diazomas for easy access. The wooden stage could be stored beneath the terrace after performances (Gür, 2007, p:169).

Table 8. Region VII – Troas (Created by the author)
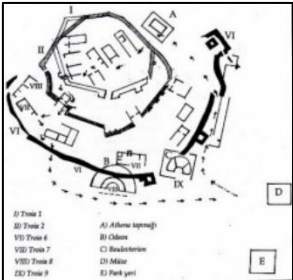
REGION VII (TROAS)		
	Location: The Troas region, encompassing ancient Troy, is in northwest Türkiye, west of Çanakkale province.	**Historical Significance:** Troas is known for its association with the Trojan War and Homer's works, hosting important cities like Assos, Alexandria Troas, and Gargara.
	Strategic Role: Troy has served as a significant strategic and commercial center throughout history.	**Archaeological Findings:** Troy has been inhabited from 3500 BC to 1000 AD, with excavations revealing nine layers that represent nine different cities (Gür, 2007, p:155) (Figure 21).
TROIA THEATRE	Figure 19: Troia Theatre (Yılmaz, 2010 p.160)	Figure 20: Troia Theatre (Yılmaz, 2010 p.161)
	SPATIAL CHARACTERISTICS	
	Significance: The Troy Theater is an early-period building carved into the hillside.	**Dimensions:** The stage wall is two stories high, and the theater has a capacity of approximately 2,000 people (Figure 19-20).
	Material: Colored marbles were used in the theater's construction.	**Orchestra:** The semicircular orchestra is 1.3 meters below ground and 10 meters in diameter
	Influence: The theater likely served as an inspiration for Aspendos, built 50 years later (Özer, 2017, p:15).	
	Acoustic Features: The backdrop wall is over 22 meters wide, with posts supporting a wooden sound barrier for better acoustics (Özer, 2017, p:15)	Figure 21: Troia (Gür, 2007, p:15)

Table 9. Region VIII – Bithynia (Created by the author)
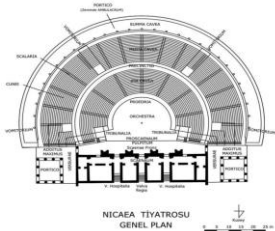
REGION VIII (BITHYNIA)		
	Strategic Location: Bithynia is at the crossroads between Asia and Europe, facilitating significant settlements (İhtiyar, 2021, p. 621).	**Geographical Significance:** The region lies between the Black Sea and the Sea of Marmara, important for trade routes.
	Cities: Notable ancient cities include Prusa (Bursa), Nikaia (İznik), and Kios (Gemlik).	**Cultural Influence:** The Hellenistic period saw the blending of Greek and Roman cultures, enriching the region's heritage.

NICAEA THEATRE

Figure 22: Nicaea Theatre (Dokuz Eylül University, Faculty of Letters Department of Archaeology, (n.d.)

Figure 23: Nicaea Theatre (Wikipedia, (n.d.). Nicaea)

SPATIAL CHARACTERISTICS	
Construction: The Nicaea Roman Theater was built on flat land, showcasing Rome's architectural expertise.	**Show:** The stage pit indicates that gladiatorial contests occurred in this theater.
Capacity: The theater can accommodate approximately 3,500 to 4,000 spectators (Figures 22-23-24).	**Decoration:** The analemma wall surrounding the caveas is unique among Roman theaters and has no similar examples in contemporary designs.
Cultural Continuity: The orchestra's horseshoe shape reflects Anatolian culture's ties to Hellenistic roots during the Roman Period (Kardoruk, 2022, p. 35)	
Plan: The theater features a hybrid plan, combining Greek and Roman architectural elements.	Figure 24: Nicaea Theatre (Kardoruk,2022, p.56)

Table 10. Region IX – Pisidia (Created by the author)

REGION IX (PISIDIA)		
	Location: The Pisidia region includes present-day Isparta and parts of Burdur, Konya, and Antalya.	**Historical Inhabitance:** It was inhabited from the Hellenistic to the Roman period.
	City: Sagalassos is a major city in the region	**Architectural Remains:** The city features important buildings like temples, agoras, aqueducts, and public buildings reflecting the era's architecture.
SAGALASSOS THEATRE	Figure 25: Sagalassos Theatre (Turkish Museum, (n.d.) Burdur Sagalassos Örenyeri 01)	Figure 26: Sagalassos Theatre (Turkish Museum, (n.d.) Burdur Sagalassos Örenyeri 02)

	SPATIAL CHARACTERISTICS	
	Figure 27: Sagalassos Theatre Plan (Vici.org., (n.d.) Theatre of Sagalassos 01)	**Location**: The Sagalassos Theater is the highest in the world. **Building:** It has a seating capacity of approximately 9,000, with a two-story stage building.
	Figure 28: Sagalassos Theatre Elevation (Vici.org., (n.d.) Theatre of Sagalassos 02)	**Design:** The theater features a horseshoe-shaped orchestra and two tiers of seating, with 24 rows in the first tier and 15 in the second. (Yılmaz, 2010). (Figure 25-26-27-28)

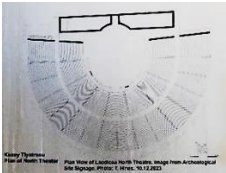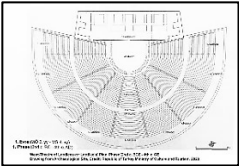| REGION X (PHRYGIA)		
	Location: Phrygia was an ancient region in western Anatolia, mainly in present-day Afyonkarahisar, Kütahya, and Eskişehir.	**Historical Inhabitance:** It was inhabited from the Hellenistic to the Roman period.
	Laodicea: One of its key cities, known for its woolen textiles from a local sheep breed, which was a major income source.	**Excavations:** Archaeological work from 1961-1963 by Laval University uncovered an interesting fountain (Akurgal, 2019, p.236).

LAODIKEIA THEATRE

Figure 29: Laodikeia Theatre (The Ancient Theatre Archive, (n.d.). Laodicea ad Lycum, North Theatre (near modern Denizli, Türkiye) 01)

Figure 30: Laodikeia Theatre (The Ancient Theatre Archive, (n.d.). Laodicea ad Lycum, West Theatre (near modern Denizli, Türkiye) 01)

SPATIAL CHARACTERISTICS	

Figure 31: Laodikeia North (Grand)Theatre
(The Ancient Theatre Archive, (n.d.). Laodicea ad Lycum, North Theatre (near modern Denizli, Türkiye) 02)

Figure 32: Laodikeia West Theatre (Laodikeia Theatre)
(The Ancient Theatre Archive, (n.d.). Laodicea ad Lycum, West Theatre (near modern Denizli, Türkiye) 02)

Significance: Laodicea has two theaters: the Western Theater (2nd century BC) and the Northern (Great) Theater (2nd century AD). (Figure 29-30).

Western Theater: This theater faces west, with a raised orchestra pit indicating it hosted late-period gladiatorial fights (Yılmaz, 2010, p.192). (Figure 32).

Northern Theater: Built to accommodate larger audiences, this theater holds approximately 15,000 people and features marble construction; the stage is now destroyed. (Figure 31).

Table 12. Region XI – Pamphylia (Created by the author)

REGION XI (PAMPHYLIA)		
	Geographical Location: Pamphylia is on the southern coast of Anatolia, covering the eastern part of present-day Antalya, Türkiye.	**Key Ancient Cities:** Significant cities include Aspendos, Perge, Side, and Attalieia (Antalya).
	Cultural Interaction: The region facilitated the blending of Hellenistic, Roman, and local cultures, enriching art and architecture.	**Historical Significance**:"Pamphylia" means "The Land of All Tribes," reflecting its diverse heritage and competitive cities in the Hellenistic and Roman periods (Alanyalı, 2011, s.80).
ASPENDOS THEATRE	Figure 33: Aspendos Theatre (Parlak,2010, p:41)	Figure 34: Aspendos Theatre Plan (Pereira, 2007, p:50)
	SPATIAL CHARACTERISTICS	
	Figure 35: Aspendos Facade View (Pereira, 2007, p:50)	**Historical Context:** Built in the 2nd Century, Aspendos Theater is the best-preserved Roman theater, reflecting Vitruvius's design.
		Capacity: Seats about 8,000 people with two tiers (20 rows in the first, 10 in the second). (Figure 33-34-35).
		Design: Features a two-story stage, Corinthian and Ionic columns, and decorative niches.
	Figure 36: Aspendos Honorary Chairs (Yılmaz, 2010, p:207)	**Acoustics:** Renowned for excellent acoustics and includes honorary chairs at the orchestra pit. (Figure 36).
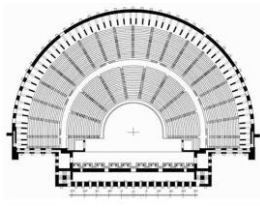
Table 13. Region XII – Kilikia (Created by the author)

REGION XII (KILIKIA)		
	Location: Cilicia is on the southern coast of Anatolia, covering present-day Adana and Mersin in Türkiye.	**Historical Significance:** The region has hosted many civilizations and is strategically important due to its natural harbors and arable land.
	Cities: Important ancient cities include Tarsus, Mopsuestia, Kydnos, Seleucia, and Diocaesarea, founded in the 4th century BC.	**Cultural Heritage:** Diocaesarea features significant remnants from the Roman and Byzantine periods, such as temples, aqueducts, church ruins, and theaters.
DIOCAESAREA THEATRE	Figure 37: Diocaesarea Theatre (Uçar, 2022, p:9)	Figure 38: DiocaesareaTheatre (Özdemir, 2023, p:21)
	SPATIAL CHARACTERISTICS	
	Figure 39: DiocaesareaTheatre (Özdemir, 2023, p:25)	**Cavea**: The theater has 7 cuneus arranged sequentially, as per Vitruvius, centered on the orchestra's end (Özdemir, 2023, p.24).
	Historical Context: The theater was built during the reigns of Roman emperors Marcus Aurelius and Lucius Verus (A.D. 161-180) (Yılmaz, 2010).	**Seating Levels:** The theater features two tiers of seating. (Figure 39)
		Capacity: The approximate audience capacity is 3,000 people. (Figure 37-38).

Table 14. Region XIII – Lykaonia (Created by the author)

REGION XIII (LYKAONIA)		
	Geographic Location: The Lykaonia region is bordered by Lake Beyşehir in the west and south, and extends towards Tuz Lake in the east, covering parts of Konya, Karaman, and Aksaray provinces (Pehlivan, 2018, p.6).	**Strabo's Description:** Strabo described the region as cold, treeless, and with little water, but suitable for wild donkeys (Strabon, 2000, p.65 transmitted by Işık, 2018, p.194)
	Texier's Boundaries: Lykaonia's borders bordering Cappadocia to the east, Galatia and Phrygia to the north and northwest, and the Taurus Mountains to the east (Texier, 2002, p.289 transmitted by Işık, 2018, p.194).	**Cities:** The most significant town in Lykaonia is Ikonium, along with the cities of Derbe and Laranda.

VASADA (OUASADA) THEATRE

Figure 40: Vasada (Ouasada) Theatre (Türkiye Kültür Portalı, (n.d.))

Figure 41: Vasada (Ouasada) Theatre (Seydişehir Belediyesi, (n.d.))

SPATIAL CHARACTERISTICS	
Discovery: The Vasada theater was uncovered in the 1970s during water reservoir construction for the village.	**Decoration**: The radial stairs feature unique lion paw motifs.
Orchestra Shape: The orchestra is nearly a perfect circle.	**Seating:** Unlike other Anatolian theaters, its seating stones are long and made from a single piece. (Figure 42).
Capacity: The theater has an approximate capacity of 2,700 people, though it remains partially excavated. (Yılmaz, 2010). (Figure 40-41)	

Figure 42: Vasada (Ouasada) Theatre (Yılmaz, 2010, p:234)

REGION XIV (KAPPODOKIA)		
	Historical Significance: Cappadocia, located in central Anatolia, is rich in history and culture.	**Major Cities:** Under Roman rule, four major cities emerged: Caesarea (Kayseri), Koloneia (Aksaray), Melitene (Malatya), and Tyana (Kemerhisar), all rooted in Hittite times (Cooper ve Decker, 2012).
	Strategic Locations: These cities thrived due to their strategic positions at the intersection of important ancient roadways (Cooper ve Decker, 2012).	**Komana:** The ancient city of Komana, now part of Şarköy, became a significant religious center during the Hellenistic and Roman periods, with a theater and some buildings still protected (Akıl, 2008).
KOMANA (ŞAR) THEATRE	Figure 43: Komana (Şar)Theatre (Akıl, 2008, p.77)	Figure 44: Komana (Şar)Theatre (Akıl, 2008, p.77)
	SPATIAL CHARACTERISTICS	
	Roman Characteristics: The two-tiered Komana/Şar theater shows Roman design, with a residence on the ruins.	
	Current Use: The stage wall is part of the home, and the orchestra is covered in soil. (Figure 45).	Figure 45: Komana (Şar)Theatre (Akıl, 2008, p.79)
	Capacity: Some seating is underground, with an estimated capacity of about 4,500 people. (Yılmaz, 2010). (Figure 43-44).	

Table 16. Region XV – Pontos Kappodokiasi (Created by the author)

REGION XV (PONTOS KAPPADOKIASI)		
	Geographical Scope: Pontos includes modern provinces like Amasya, Trabzon,Tokat and Rize.	**Historical Establishment:** Established in the 3rd century BC, Pontos has a rich history.
	Fertile Valleys: Features fertile plains divided by rivers like Halys (Kızılırmak) and Iiris (Yeşilırmak) (Rende, 2021).	**Economic Significance:** Became a key economic and cultural center due to agriculture and trade routes.
ANZILIYA (ZELA) THEATRE	Figure 46: Anziliya (Zela) Theatre (Yılmaz, 2010, p:242)	Figure 47: Anziliya (Zela) Theatre (Yılmaz, 2010, p:240)
	SPATIAL CHARACTERISTICS	
	Natural Design: Anziliya Theater features seating carved into native rocks, harmonizing with nature.	
	Capacity: Total of 16 rows—6 in the first tier and 10 in the second—accommodating approximately 2,400 people. (Yılmaz, 2010). (Figure 46-47-48).	
	Excavation Status: Excavations have not yet been conducted.	Figure 48: Anziliya (Zela) Theatre (Yılmaz, 2010, p:242)

Table 17. Region XVI – Paphlagonia (Created by the author)

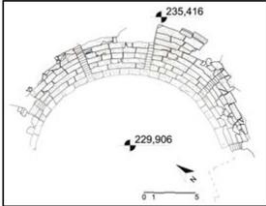| REGION XVI (PAPHLAGONIA)	
Geographical Borders: Paphlagonia, described by Strabo, was bordered by Bithynia, Pontus, Phrygia, Galatia, and the Black Sea (Strabon,2000 transmitted by Bazna, 2014).	**Important Cities:** Gangra (Çankırı) served as the capital, while Hadrianapolis and Pompeiopolis were significant for trade (Bazna, 2014).
Coastal Significance: Sinope, Amastris, and Tios held key positions in coastal Paphlagonia (Bazna, 2014).	**Amastris**: Amastris, an important port city, served as a trade center and cultural hub, with ruins that highlight the region's history.

AMASTRIS THEATRE

Figure 49: Amastris Theatre (Yılmaz, 2010, p:244)

Figure 50: Amastris Theatre (Yılmaz, 2010, p:245)

SPATIAL CHARACTERISTICS	
Location: The Amasra theater dates to the Roman period on Aya Yorgi Hill.	**Current Use:** The site is a cemetery, with only remnants of the entrance visible (Figures 49-50). (TC. Amasra Kaymakamlığı. (2024)).
Capacity: It held about 5,000 people but is now in ruins.	**Historical Significance:** Amasra has artifacts from various periods, and the theater has been a cemetery since the 19th century (TC. Amasra Kaymakamlığı. (2024)).

Table 17. Region XVII – Thrake (Created by the author)

REGION XVII (THRACE)		
	Geography: The Thracian Plain, the largest in the Balkans, is flanked by the Balkan and Rhodope Mountains (Beygo, 2015).	**Settlements:** Thrace hosted many significant ancient cities established by various civilizations.
	Cultural Heritage: The region is notable for its rich cultural heritage.	**Cities:** Important cities include Bizye, Aenos, Maroneia, Thasos, and Selymbria.

BIZYE/BIZYA (VIZE) THEATRE

Figure 51: Bizye/Bizya (Vize) Theatre
(Yılmaz, 2010, p:248)

Figure 52: Bizye/Bizya (Vize) Theatre
(Yılmaz, 2010, p:249)

SPATIAL CHARACTERISTICS

Figure 53: Bizye/Bizya (Vize) Theatre
(Yılmaz, 2010, p:249)

Figure 54: Bizye/Bizya (Vize) Theatre
(Beygo, 2015, p:182)

Historical Significance: Bizye was likely the capital of the Odrysian Kingdom, with visible ruins primarily from the Roman era (Sayar, 2010).

Seating: Audience members descend to the orchestra section via radial stairs. (Figure 51-52-53-54).

Theater: The theater faces south, with some middle rows still underground and simple stair edges (Yılmaz, 2010).

Artifacts: Stage wall decorations are displayed at the Kırklareli Museum (Yılmaz, 2010).

5. Conclusion and Suggestions

Ancient Theatre is considered one of the architectural cornerstones of Western civilization. It has profound effects in many fields such as philosophy, art, science, literature, and politics.

These buildings not only played an active role in the development of art but also had a critical role in the expression of philosophical thought, social criticism, and religious rituals. The theater events of the ancient period brought together different segments of society, creating a shared experience and reinforcing cultural identity. The architectural design of ancient theaters, with its innovations in sound and acoustics, has been meticulously crafted to offer the audience an unforgettable experience.

These builds should be regarded as a product of philosophical and aesthetic understanding.

Moreover, they offer an important window into understanding the cultural and social dynamics of ancient societies and continue to inspire architectural and cultural works today.

Ancient theaters are an important part of the cultural heritage, defined as objects, traditions, and buildings that reflect the historical, artistic, and social values of society and should be passed on to future generations. This heritage reflects the artistic understanding, social structure, and intellectual development of many cultures from the past to the present. Buildings that still exist today constitute an important part of humanity's common heritage both historically and culturally; they allow for the reinterpretation of works that reflect humanity's universal emotions, problems, and thoughts.

It would not be correct to define the ancient culture of Anatolia as Greek culture. The structure that presents itself as Greek culture has formed through the interaction of many civilizations coming together over the years. The multifaceted cultural interaction here can be attributed to many factors. In his work "Black Athena: The Afroasiatic Roots of Classical Civilization," Bernal, (2006) argues that Greek culture should not be considered the foundation of Western culture.

As seen in the inventory study conducted in Chapter 4, Türkiye's lands have hosted many civilizations throughout history. This has also allowed for the interaction of a wide variety of cultures.

As seen in the 17 regions examined and their representative buildings;

- Architecture: With the development of construction techniques, the theater buildings that have continued since the Hellenistic period became more magnificent during the Roman period.

- Structure: Architectural elements such as vaults and arches have been used to transition between building spaces.

- Infrastructural: During the Roman period, architectural additions such as drainage and infrastructure were made to buildings.

- Material: Although the first buildings were made of wood, marble is used in the buildings that have survived to the present day.

- Decoration: Colorful decorations can be seen on the walls of the Stage structure from the Roman period. This also suggests that the decoration element is prominent in theater plays.

- Social Order: During the Hellenistic period, seating units served the function of providing a place for the audience to sit, whereas

by the Roman period, class distinctions emerged, leading to the creation of honorary seating units.

As a result, we observe cultures that feed off each other and the affected societies that emerge. With our research, it is evident that the ways of life, cultures, and skills of societies continue to evolve and change upon each other, and in our rich geography, many untouched areas need to be explored. With this study, attention is drawn to the fact that ancient theaters, considered cornerstones of human history, are architectural cultural heritage elements that need to be preserved, maintained, researched, and worked on. In this sense, the primary goal of this research is to raise awareness about the need for interdisciplinary exploration projects that require multidimensional joint coordination to ensure the continuity of cultural heritage and the preservation of human history. This study examines the theater culture of the ancient period and its remnants in Türkiye, revealing the artistic, cultural, and architectural dynamics of the era.

In conclusion, these theaters continue to offer an important area of research today as valuable buildings reflecting humanity's artistic heritage and cultural evolution. The history of ancient theater gains significance not only in terms of the development of architecture, engineering, archaeology, and art but also in terms of social change and cultural interactions, necessitating a broader historical perspective in this context.

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Consolidation and Reintegration Techniques for The Restoration of Wooden Structures: Practices and Challenges

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1. Introduction

The objectives, rationale, principles, and intervention approaches of conservation and restoration have undergone continuous positive evolution and development from the 19th century to the present. In the architectural context of 19th-century Europe, dominated by historicist and revivalist architectural styles, similar approaches emerged in restoration practices. From 1840 onward, Viollet-le-Duc (1814–1879), who undertook responsibilities for numerous historic buildings in France, argued that restoration was not merely about preserving, repairing, or renovating a building. Instead, it was about returning it to a completed state that may never have truly existed. This approach necessitated reimagining the past, emphasizing the most rational harmony between form and function, and recreating structures in their hypothetical original states. Viollet-le-Duc advocated for and implemented concepts such as *stylistic reconstruction* or *stylistic unity* in restoration practices of significant historic structures. Additionally, through his technical and constructive choices, he prevented historic buildings from falling into ruin. His restorations sometimes involved non-historic additions, either to ensure the structural integrity of the building or simply to maintain design cohesion (Viollet-le-Duc, 1860, 1866, 1854–1868, 1879, 1881, 1990; Lassus & Viollet-le-Duc, 1843; Poisson & Poisson, 2014). In England, a similar attitude was adopted by Sir Gilbert Scott (1811–1878), who actively engaged in the restoration of historic buildings. He introduced his ideas in 1848 through a paper titled *A Plea for the Faithful Restoration of Our Ancient Churches*. In 1849, Scott supplemented these ideas with various explanations addressing issues related to church

restoration and the revival of Gothic architecture. Ironically, in 1854, Scott oversaw the redevelopment project of the Camden Chapel in Camberwell, a project in which John Ruskin was deeply involved and for which he made numerous recommendations (Scott, 1850, 1863).

Despite the stylistic reconstruction or stylistic unity approaches, which gained acceptance and support in many European countries, the anti-restoration or conservation movement, led by John Ruskin (1819-1900) and William Morris (1834-1896) in England, opposed even partial interventions and reconstruction. According to Ruskin, restoration was the greatest destruction a building could endure, and restoring anything grand or beautiful in architecture was as impossible as resurrecting the dead. In other words, a restored building could never be the same as the original, because the vision of the original craftsman who built the monument could not be replicated. Therefore, repairing or trying to replicate a building to its original form was unacceptable. Ruskin believed that historical buildings did not belong to us but to the past and to those who built them, and thus, we had no right to intervene in them (Ruskin, 1889, 1897, 1908, 1909; Collingwood, 1911). Although Ruskin was a pioneer of the anti-restoration movement, his early views on restoration were even more radical. He believed that a building should be cared for, and if it could not be, it should be left to decay, whereas Viollet-le-Duc held the view that if a building was not cared for, it should be restored (Poisson & Poisson, 2014; Jokilehto, 2017).

William Morris, whose thoughts were greatly influenced by John Ruskin, was driven by a profound love for architecture and a disdain for the restoration approaches aimed at idealizing historical monuments. This

sentiment led him to establish the Society for the Protection of Ancient Buildings (SPAB) in 1877. Like Ruskin, Morris found the tendency of architects to remove original details and add new elements in an attempt to restore buildings to an idealized state disturbing. For Morris, conservation replaced restoration; no matter how much damage or decay a building had endured over time, all surviving fabric of the structure should be preserved. He advocated for resisting any intervention that altered the texture or ornamentation of historic buildings and called for repairs to be carried out in methods that did not make the building appear as a new work of art. Morris championed an alternative conservation model that focused on minimal intervention and essential reinforcement without substantial repairs, aiming to prevent future damage through regular, ongoing maintenance (Morris & Webb, 1877; Slocombe, 2017).

Camillo Boito (1836-1914) attempted to reconcile the conflicting views of his contemporaries, such as Viollet-le-Duc and John Ruskin, regarding the restoration of historic buildings. In 1883, Boito presented a document titled *Prima Carta del Restauro* at the *III Conference of Architects and Civil Engineers of Rome*, where he outlined a series of principles for the restoration and conservation of monuments. By 1893, he had further developed his thoughts on architectural restoration, presenting them in a series of dialogues. Boito emphasized that architectural monuments should be reinforced rather than restored and that repairs, rather than full restorations, were needed. He also stressed the importance of avoiding unnecessary additions and renovations in the process. Boito developed a philosophy that advocated for a clear distinction between the original parts of a building and its newly restored sections, with due respect for

all the historical layers of the building's narrative. He suggested that any replacement elements or new forms should be made from different materials or marked in such a way as not to contradict the artistic integrity of the whole structure. Boito's approach represents the transition between the classical conservation philosophy and a more scientific understanding of conservation (Boito, 1883, 1884, 1893, 2018; Mezzi, 2018).

The classical restoration and conservation philosophy in Europe evolved into a scientific understanding with Cesare Brandi (1906-1988). According to Brandi, restoration is the process of re-establishing the potential integrity of an artwork within historical and aesthetic contexts, without falsifying its essence and while preserving the traces of time and lived experience. Even if a work has been damaged over time and has lost its physical integrity, its potential integrity remains intact. The restorer's role is thus solely to restore the material of the original work. Brandi's aesthetic-centered theory has been criticized for not addressing the needs of more ordinary, contemporary buildings with practical functions. Additionally, his emphasis on the image and form in conservation, while sidelining structural preservation, has been a point of critique. However, his work was pivotal in the formation of the 1964 Venice Charter, which established the restoration principles that define scientific restoration. Brandi is considered the founder of the theory and practice of conservation science. He defined the methodologies and boundaries for interventions on works of art, advocating for a case-by-case approach to each intervention. His theoretical-scientific and

conceptual attitude transcended previous empirical and approximate methods in conservation and preservation practices (Brandi, 1963).

Inspired by the Roman conservation-restoration school represented by Cesare Brandi, the Florence school soon adopted a new perspective on conservation and restoration, as articulated in the works of Umberto Baldini (1921-2006) and his wife Ornelle Casazza (1943-2020). Their major contribution was the development of innovative solutions for painting the voids in fine art works in aesthetically pleasing shapes using techniques they called chromatic abstraction, color selection, and gilding. With this approach, they led the restoration and cleaning project of Masaccio's frescoes in the Brancacci Chapel. By using colors taken from a section of the fresco hidden behind an altar as a guide, they brought Masaccio's work back to life with vibrant colors. For Baldini and Casazza, a conservation-restoration intervention must be carried out in a manner that respects the artwork's importance or value, as well as its historical, aesthetic, and physical integrity. For restoration to be applicable, an object must first be recognized as an artwork (Baldini, 1978; Casazza, 1981).

The classical theories of conservation, from Ruskin to Brandi, are characterized by their strong adherence to reality, exhibiting a general sense of superiority and dominance. In the 21st century, however, a growing number of studies continue to critique the classical restoration theories of the 19th century and the scientific approach of the 20th century. These efforts aim to create a new, contemporary attitude toward conservation, offering alternatives to previous models (Avrami et al., 2000; Baer and Snickars, 2001; Charola, 2002; Muñoz Viñas, 2005).

Contemporary conservation theories emphasize the maximum preservation of original material, considering objects as historical documents or aesthetic values, while also taking into account their age and utilitarian value. The focus is on preserving objects in situ, or in their original locations (Ersen, 2009).

Against the backdrop of all the theories, concepts, and approaches that have evolved since the 19th century, numerous conventions and charters have been published by UNESCO and ICOMOS, containing principles and recommendations for the protection, preservation, conservation, and restoration of cultural heritage. These documents are internationally recognized and accepted as fundamental texts. In Turkey, there exists a comprehensive theoretical foundation based on the accumulation of knowledge developed since the 19th century, framed by national regulations and decisions. For a long time, in Turkey as well as in many developed societies, the preservation of cultural heritage has been treated not as a marginal issue but as a primary objective in urban and national planning (COE, 1975).

Although Ruskin and Morris opposed it, as also addressed in the documents of UNESCO, ICOMOS, and COE, it is evident that restoration is necessary in many cases. Cultural heritage, which has been damaged and deteriorated due to various internal and external factors (Alsaç, 1992), requires preservation with appropriate techniques (Kuban, 2000) in order to be safely passed on to the future. This necessitates a series of activities including regular maintenance, conservation, restoration, and monitoring (Ahunbay, 2019; KTVKYK, 1999:660). However, restoration, as a historical process, uses both the past and the

present, with the past taking precedence. Artistic creations, fantasies, or personal contributions that could imply altering a completed historical process should be avoided. The objective is to present the object in a more readable manner for future generations (Mora et al., 1984). The preservation of the original material and structure of the cultural heritage is fundamental (Feilden, 2003). Before any intervention, the object to be restored must be understood and interpreted as an artwork. In fact, an architectural work conveys an architectural concept to the viewer in terms of material, structure, and spatial formation. In this context, it is inevitable to use intervention approaches, forms, and techniques that preserve the authenticity and context of the heritage, adhere to minimum intervention, and ensure the continuity of its historical, aesthetic, formal, and structural integrity (Osmanoğlu, 2019).

In light of all these theoretical developments and discussions, the restoration of numerous architectural works, including many timber structures, has been completed or is ongoing in Turkey. However, research comparing the findings and data derived from these practices with the current theoretical approaches and models in a systematic manner is limited. The analysis of the findings obtained from evaluating the interaction between the theoretical framework established by international and national conservation documents and their practical implementation will contribute to identifying inconsistencies or problem areas that may exist between theory and practice. This study aims to highlight the relationship and issues between consolidation and reintegration interventions, frequently applied in the restoration practice of timber structures, and theory, within the context of international

documents and national legislation regarding architectural heritage conservation. Such an examination is available in a fragmented form in only a limited number of publications, with very few exceptions. While the primary goal of this study is to discuss the relationship and issues between the theoretical approaches outlined in key conservation documents and practice in the framework of consolidation and reintegration techniques, it does not aim to provide definitive solutions to specific problems.

2. Material and Method

This study follows a methodology based on document analysis, archival, and field research. Initially, primary sources in the form of international and national conservation documents related to the conceptual and theoretical components of the research were thoroughly examined. These documents were reviewed in chronological order, and the intervention approaches, processes, principles, as well as the consolidation and reintegration techniques, were analyzed to determine whether they provided relevant information. During the review process, specific inferences were drawn by questioning whether these documents included definitions and scopes of the relevant techniques, procedures and actions to be carried out prior to intervention, intervention methods, and procedures to be followed during and after the application. In the next phase of the research, three building examples from Edirne, one from Tekirdağ, and two from Istanbul, whose restorations were completed or ongoing in the last decade, were selected as case studies (Table 1).

Architectural documentation and project processes, as well as procedures such as the removal and cleaning of modern additions or other

intervention techniques like renewal, are beyond the scope of this research. In this context, the focus of the study has been concentrated on the application of consolidation and reintegration techniques to wooden building elements, with the aim of conducting an in-depth analysis in the relevant areas. Documentation and reports related to the design and implementation processes are available for the selected case studies, and these documents enable the monitoring of the restoration process. The findings were compiled from both existing documents and data obtained through fieldwork. During the field study, a digital camera was used for identification and documentation purposes. As the structures under review are currently being used as cafeterias, residences, or for public purposes, the necessary permissions for detailed examination of these buildings were obtained from the relevant institutions and organizations.

Table 1. Examined Case Studies

No	City	District	Neighborhood	Block/Parcel	Application Year
1	Edirne	Merkez	Yahşıfakih	60/1	2016/2018
2	Edirne	Merkez	Mithatpaşa	71/10	2016/2020
3	Edirne	Merkez	Yahşıfakih	62/7	2016/2016
4	Tekirdağ	Çorlu	Silahtar	141/1	2017-2019
5	İstanbul	Fatih	Ali Kuşçu	1459/44	2010-2017
6	İstanbul	Kadıköy	Rasimpaşa	240/16	2016/----

In the final stage of the research, the findings obtained through document analysis and fieldwork were thoroughly interpreted and evaluated. In this context, the relationships between theoretical knowledge and data derived from practical applications were carefully examined, and

meaningful conclusions were drawn through comparison. The results are expected to expand the scope of the topic by providing new data and discussions on the existing theoretical knowledge and practical processes.

3. Consolidation and Reintegration Techniques According to National and International Conservation Documents

As outlined in the introduction, the conservation and restoration theories that have been ongoing since the 19th century, from Ruskin to Brandi and Baldini, were summarized in order to better understand the relationship and connections, or potential issues, between theory and practice. Undoubtedly, in addition to these theories and approaches, driven by individual efforts, many decisions regarding the protection, preservation, conservation, and restoration of cultural heritage were also made during international meetings in the first half of the 20th century (ICA, 1904; IMO, 1931; CIAM, 1933; PAU, 1935). However, the Venice Charter of 1964 represents a significant milestone in this regard. All these efforts from the 19th century to the end of the first half of the 20th century laid the foundation for numerous conventions and charters containing principles and recommendations for the protection, preservation, conservation, and restoration of cultural heritage, developed by the Council of Europe (COE, 1965, 1975), UNESCO, and ICOMOS. It is a fact that these discussions and views were also considered during the drafting of Law No. 2863, which continued the legal process that began with the Regulation on Antiquities issued in the 19th century (Akozan, 1977; Ersen, 2014) and continued with the Historical Monuments Law (RG, 14527/6.5.1973) in 1973. Therefore, for the international community, particularly UNESCO conventions and

ICOMOS charters, have established the fundamental framework for the protection, preservation, and conservation of cultural heritage.

The conservation of cultural heritage has evolved into an interdisciplinary approach that incorporates art, historical research, scientific analysis, and materials science to document, stabilize, and preserve historical artifacts over time. Although critical efforts have been made to develop contemporary approaches since the early 21st century, the ideas found in fundamental conservation documents continue to hold relevance (Avami et al., 2000; Baer and Snickars, 2001; Charola, 2002; Muñoz Viñas, 2005). According to both national and international texts, conservation encompasses all actions aimed at the protection and preservation of cultural heritage. Conservation must focus on the preservation of an artifact in its current state, using preventative measures to prevent both present and future deterioration. The primary goal of conservation is to preserve the historical document nature, authenticity, and all historical periods of a cultural heritage item, including its formal, aesthetic, physical, and historical integrity in all dimensions (ICOMOS, 1994, 1995, 1996a, 1999a, 2003a, 2013b, 2017; KTVKYK, 1999:660). This can be achieved by selecting methods, techniques, and materials that do not negatively impact the cultural heritage's original form, construction technique, structure, components, and materials, based on reliable information obtained. Ideal conservation treatments aim to preserve an artifact in its current state, prevent further degradation, and extend its life. It is essential that all actions are carried out with minimal intervention (UNESCO, 1976; ICOMOS, 1982a, 1995, 2003a, 2013b, 2017; KTVKYK, 1999:660).

The conservation methods applied to urban areas and individual buildings differ significantly in terms of scale, scope, and content. In particular, when conserving timber structures, an approach should be developed based on the principle of minimal intervention, taking into account the unique historical, artistic, cultural, and architectural characteristics of each building. Conservation is classified into three main categories in terms of scope, scale, and content: maintenance, rehabilitation, and restoration (UNESCO, 1972, 1976; IMO, 1931; ICOMOS, 1964, 1982a, 1982b, 1987, 1990, 1993, 1996b, 1996c, 1999a, 1999b, 2003a, 2003b, 2008, 2010, 2011, 2013a, 2013b, 2017, 2021; KTVKYK, 1999:660).

Theoretically, restoration refers to the process of returning a cultural heritage object to its original state. It involves comprehensive actions and interventions aimed at restoring the object to a known previous condition or its original state. The primary goal of restoration is to reveal the original state of the object while remaining within the limits of the existing materials still present in the piece. However, limited and distinguishable interventions may also be necessary and obligatory, provided they do not compromise the authenticity of the object. Any distinguishable intervention aimed at addressing the current state of decay, damage, or deterioration, and at improving or repairing the object, is considered part of the restoration practice. Restoration efforts focus on returning the damaged or fragmented materials, components, or sections of a structure to their original state, based on reliable documentation, information, and sources. These processes emphasize the safeguarding and preservation of the original form, structure, components, and

materials, as well as the integrity and authenticity of the historical and cultural elements of the object. The continuity of the historical, social, cultural, aesthetic, and technological attributes must also be ensured during restoration (UNESCO, 1972, 1976; ICOMOS, 1964, 1982a, 1982b, 1987, 1999a, 1999b, 2003a, 2003b, 2008, 2010, 2011, 2013b, 2021; RG, 16.06.2022/31868; KTVKYK, 1999:660; KTB, TYÖRRRPTŞ).

In restoration practice, the goal should be to minimize intervention on the original material and to ensure that as much of the original material as possible is preserved in its unchanged state. Any restoration action should not remove, alter, or permanently bond the original material to new or contemporary materials. All repair actions and additions must be distinguishable from the original work. Furthermore, interventions should be based on reversible, removable, or renewable techniques and materials that do not affect the current or future condition of the original material (UNESCO, 1972, 1976; ICOMOS, 1964, 1982a, 1982b, 1987, 1999a, 1999b, 2003a, 2003b, 2008, 2010, 2011, 2013b, 2021; RG, 16.06.2022/31868; KTVKYK, 1999:660; KTB, TYÖRRRPTŞ).

While the focus of the restoration process is to return a building to a known previous appearance or state, it is essential not to overlook the traces, alterations, or changes that have resulted from the passage of time and historical use. Therefore, interventions should not erase or alter original evidence and materials, nor should the physical marks and signs of the building's history be eliminated. For the restoration of cultural heritage, multiple intervention techniques can be applied together, and as the extent of damage increases, the scope of intervention also broadens

(ICOMOS, 2013b). However, all interventions should be implemented with the goal of ensuring the long-term preservation and sustainability of the structure. The intervention approaches, forms, and techniques can be classified as rehabilitation, liberation, consolidation, reintegration, renovation, moving, and reconstruction (RG, 16.06.2022/31868; IMO, 1931; ICOMOS, 1964, 1982a, 1982b, 1996c, 1999a, 2003a, 2003b, 2008, 2010, 2013a, 2013b, 2017, 2021; UNESCO, 1976; KTVKYK, 1999:660; KTB, 2015). The preference for original materials and techniques is important, but the historical, artistic, and archaeological traces of the building must be preserved, and its value in terms of form, spatial characteristics, and environmental context must be respected (KTVKYK, 1999:660).

Consolidation and reintegration techniques are frequently employed restoration intervention forms aimed at ensuring the conservation and sustainability of historic buildings. Consolidation is a repair and restoration practice that aims to restore a building component, element, or system that has partially or entirely lost its physical and mechanical properties or composition due to damage, back to its original integrity and load-bearing capacity, thus ensuring its sustainability. Interventions for consolidation typically involve repairs that use the original materials, construction techniques, and details, except in cases where the structure is under significant threat (KTB, 2015; IMO, 1931; ICOMOS, 1964, 2003b, 2013b, 2017; KTB, TYÖRRRPTŞ). Therefore, it is essential to have a thorough understanding and knowledge of the original technique, structure, and material properties. Consolidation aims to slow down or stop the deterioration process by improving the durability of the existing

material and load-bearing system of the building. As a result of the intervention, the progression of damage in the structure is typically halted, and the performance and resilience of building elements are enhanced (ICOMOS, 1964, 2003b, 2013b, 2017, KTB, 2015).

A frequently used intervention technique is reintegration. While the terms "integration" and "reintegration" in conservation or restoration terminology have different meanings, they are sometimes used interchangeably. However, in the field of conservation, "reintegration" is a more appropriate and useful term. While "integration" refers to the act of combining or uniting things into a single whole, "reintegration" implies re-integrating or reuniting in the original or a different manner. Reintegration is an intervention aimed at restoring the unity and integrity of a cultural heritage object, structure, or artistic artifact by renewing its missing or damaged parts with materials that are similar to the original and/or new ones, ensuring the continuity of its form (ICOMOS, 1964, 2003b, 2013b; KTVKYK, 1999:660; KTB, 2015).

The foundation of the intervention technique of reintegration is established by the 1964 Venice Charter (ICOMOS, 1964). The goal is to reconstruct the object's formal, physical, and aesthetic integrity, restore its visual appearance, ensure its structural and aesthetic unity, and recover its functionality. Instead of completing losses at any cost, the aim should be to reveal the original parts of the work that remain. Therefore, reintegration should be constrained by certain conditions and principles, and should only be allowed in cases where it does not damage the key sections of the structure, its traditional position, composition, balance, or its relationship with the surrounding context. Regardless of how small,

any reintegration must be easily distinguishable and identifiable from the original to avoid misrepresenting the artistic and historical testimony, and should integrate harmoniously with the work (ICOMOS, 1964, 2003b, 2013b).

Although there is no definitive technique for reintegration or completion, it should be employed sparingly and as a last resort, pushing the possibilities of preserving the work in its original form. This approach is more appropriate for the preservation of the structure, component, or object in accordance with its aesthetic and historical requirements, and for maintaining it as close to its original state as possible. In any case, the success of reintegration depends on accurate data and information, the reliable restitution of the structure, component, or object to be reintegrated, and the selection of appropriate methods and materials. It is necessary to assess the degree of damage caused by a lost or missing part in terms of its size or position, but it is also a fact that a missing or fragmented image encourages the viewer to engage in an imaginative reading. In all cases, the outcome is likely to generate highly diverse and unpredictable interpretations, depending on the user's cultural background. Therefore, after reintegration, it is expected that all historical, artistic, formal, and other content defined by the work will be conveyed adequately and accurately, eliminating the possibility of incorrect or fraudulent interpretations (ICOMOS, 1964, 1994, 1995, 1996a, 1999a, 2003a, 2003b, 2013b, 2017; KTVKYK, 1999:660; KTB, 2015).

Among the charters prepared by ICOMOS for the protection, preservation, and conservation of cultural and architectural heritage, and

accepted by the international community, there are two separate documents directly concerning timber structures and one document related to vernacular buildings. These documents are "*Principles for the Preservation of Historic Timber Structures*" (ICOMOS, 1999a), "*Charter on the Built Vernacular Heritage*" (ICOMOS, 1999b), and "*Principles for the Conservation of Wooden Built Heritage*" (ICOMOS, 2017). In addition to these three documents, other publications by UNESCO and ICOMOS also provide recommendations on the intervention approaches, techniques, processes, and principles for the preservation and conservation of cultural and architectural heritage, which include timber structures.

According to the documents, any intervention process encompasses various stages that can be grouped under the headings: "*inspection, survey, research and documentation; analysis, evaluation and diagnosis; interventions; recording and documentation; monitoring and maintenance.*" However, it is recommended that the scope and frequency of interventions should be based on defined and transparent processes (ICOMOS, 1964, 1996d, 1999a, 1999b, 2003b, 2011, 2013a, 2013b, 2017; ICOMOS & TICCIH, 2011). If emergency safety measures are required before intervention, they should be implemented without damaging the cultural values, and basic conservation principles should be followed (ICOMOS, 1987, 2003a, 2003b).

The processes of examining and documenting cultural heritage should be planned according to the specific characteristics of the relevant structures. All these activities must be carried out by expert teams from different disciplines, based on comprehensive research, analyses, and

evaluations. The processes should be conducted with the understanding that change and development are inevitable, while respecting the cultural identity of the community (ICOMOS, 1982a, 1987, 1999b, 2013b; UNESCO, 1970, 1972).

Before any intervention, the current condition of materials, the load-bearing system, and structural components, as well as previous repairs, features related to the original construction process and its history, changes made throughout its historical timeline, and all data, including hidden and invisible traces, should be thoroughly documented. To determine the diagnosis and approach for intervention, physical examinations and analyses should be conducted to assess the current state of materials, construction, and the load-bearing system, the intrinsic and extrinsic causes of degradation and damage, and any errors related to design, dimensions, or jointing. These processes should be carried out through tests, physical measurements, and laboratory experiments that use non-invasive techniques, while also considering human and natural resource-based multiple risks (ICOMOS, 1982a, 1994, 1999a, 1999b, 2003a, 2003b, 2013b, 2017; RG, 32428/13.01.2024). A detailed and accurate diagnosis should be based on the analysis and evaluation of the research findings, and a fundamental approach should be developed that guides interventions while minimizing any alterations to the structure (ICOMOS, 1995, 1999a, 2003a, 2013b, 2017). To create an action plan and projects for intervention, all the features that define the character of the structure should first be identified, and its value should be determined (ICOMOS, 2017). The intervention should proceed with the fundamental assumption that the authenticity, form, materials, joint characteristics,

historical integrity, architectural and cultural heritage values, and the original location within the environment will be preserved (ICOMOS, 1994, 1995, 1996a, 1999a, 2003a, 2013b, 2017).

Furthermore, within the framework of the intervention action plan, adequate attention should be given to the structure, installation systems, and functionalization aspects; the projects prepared to address these issues, while adhering to the existing data and fundamental intervention approaches and principles, should be integrated into the restoration projects (UNESCO, 1976; ICOMOS, 1995, 2003a, 2013b, 2017). The action plan, along with the associated conservation/restoration projects and applications, should be carried out under the supervision of a team of experts with the necessary knowledge and skills (ICOMOS, 2003b, 2013b). The documents, analyses, reports, and projects related to the research findings should be systematically recorded and archived (ICOMOS, 1964, 1987, 1993, 1996d, 1999a, 1999b, 2003a, 2003b, 2013b).

Although there has been ongoing debate for a long time regarding restoration-related issues, it is also an understandable fact that there is no consensus on whether any restoration intervention provides a complete and definitive solution, whether it is agreeable or not. Given the complexity of the issue, each intervention should be addressed and discussed on a case-by-case basis; alongside the option of minimal intervention, the possibility that not intervening at all could also be a viable solution should be carefully considered. No action should be taken without proving its necessity (ICOMOS, 2003a, 2003b).

Interventions that need to be carried out should be based on reliable principles and justifications for use, underpinned by a fundamental strategy (ICOMOS, 2017). In the intervention practice, which requires scientific principles and a high level of professionalism, collaboration between experts from various disciplines and professional craftsmen should be ensured (UNESCO, 1976; ICOMOS, 1982a, 1993). The aim of restoration interventions is not only to preserve the integrity of the object but also to reveal its cultural values and enhance the legibility of its original design. The spatial, formal, and structural characteristics that constitute the socio-economic, cultural, and historical identity of the building should be carefully preserved; traces with historical significance should be protected, and existing original marks should be maintained (ICOMOS, 1992, 1995, 1996a, 1999a, 2003a, 2013a, 2013b, 2017; ICOMOS & TICCIH, 2011). All materials should be treated equally, and repairs should be made without compromising the authenticity of the structure (ICOMOS, 2003a).

The principles established for wooden structures emphasize that the preservation of cultural meaning, authenticity, and formal and aesthetic integrity is fundamental during the consolidation and reintegration process. Both intervention techniques are frequently used practices to enhance the performance and durability of the existing material and structural system of cultural heritage, to restore its original load-bearing capacity, and to maintain the historical and aesthetic integrity as it was at the time of its initial design. Unless there is a critical threat to the object, these interventions should involve repairs that use the original material content, construction techniques, and details (KTB, 2015; IMO, 1931;

ICOMOS, 1964, 2003b, 2013b, 2017; KTVKYK, 1999:660; KTB, 2015; KTB, TYÖRRRPTŞ).

The removal or alteration of the original components, elements, and traces of the structure should be completely avoided. The contributions of different historical periods, the original designs of the building components, as well as the techniques, materials, and textures should be respected. All materials should be given equal attention (ICOMOS, 1982a, 1995, 1999a, 1999b, 2003a, 2013b, 2017; UNESCO, 1976).

Interventions should follow traditional methods, utilizing reversible and renewable techniques, and preserving traditional craftsmanship and techniques. The craftsmanship and application technology should, as much as possible, align with a known earlier state or the original form of the structure. Approaches that minimize intervention, keeping the existing materials and elements as intact as possible, should be preferred between traditional and new techniques. Methods and techniques that can preserve the original materials, building components, structural elements, and decorative details to the highest degree and extend their lifespan should be used. New materials, elements, or parts should be distinguishable from the originals, and their physical, chemical, and mechanical properties should be compatible with the existing materials (ICOMOS, 1992, 1995, 1996a, 1999a, 1999b, 2003a, 2003b, 2013a, 2013b, 2017; ICOMOS & TICCIH, 2011).

All traces that ensure the original condition of the structure, building component, or material can be understood in the future should be preserved (ICOMOS, 2003a). Natural wear or patinas, as evidence of time, should be respected, and if their removal would lead to irreversible

damage, they should be preserved in their current state (ICOMOS, 2003b).

In consolidation and reintegration interventions, existing materials and elements should be preserved as much as possible. The new wooden materials to be used should respect historical and aesthetic values, be made from the same type of wood, and be in better condition than the quality and capacity of the existing parts. The type, physical and mechanical properties, and moisture content of the new wooden materials should be compatible with the existing structure, and they should also have similar visual characteristics (ICOMOS, 1999a, 2017).

The craftsmanship and techniques used in interventions should be similar to those of the original construction, and original details and techniques must be employed. The wooden materials used should not replicate the natural deformations caused by time in the existing materials. Color harmony can be achieved through traditional or contemporary methods (ICOMOS, 1999a). In the context of conservation and reintegration, the repaired or missing parts should be compatible with the overall expression of the structure and should not alter the appearance, texture, or form of the existing structure. By ensuring harmony among building materials, changes should be consistent with the structural, historical, and aesthetic integrity of the building (ICOMOS, 1999b, 2017). New materials should be used only after their durability and performance have been thoroughly tested over time (ICOMOS, 2017). The use of contemporary materials and methods requires detailed scientific research, positive results from experiments conducted in the field and laboratory, and an understanding of the long-term effects of these materials and

methods. Chemical materials and preservatives should only be preferred when they provide clear benefits and do not pose a risk to environmental safety (ICOMOS, 1995, 2003a, 2003b, 2013b, 2017; UNESCO, 1976).

To determine the long-term effectiveness and performance of the interventions, mechanisms for regular monitoring based on measurements should be established (ICOMOS, 2003a, 2003b, 2013b). Every stage of the application, including the methods, techniques, and materials used, the removed components, and all other elements that underwent intervention, along with the results of inspections and observations, should be carefully recorded, documented, and archived as part of the structure's history and potential future operations (ICOMOS, 1995, 1999a, 2003a, 2003b, 2013b, 2017; UNESCO, 1976). The success of the applied interventions must be monitored and assessed (ICOMOS, 2003a, 2003b). Furthermore, to ensure the sustainability of preservation after the intervention, an action plan regulating maintenance and monitoring activities should be developed. Records related to these activities should be preserved as part of the structure's history (ICOMOS, 1999a, 2017).

The sustainable preservation of heritage can be achieved by assigning functions that respect its authenticity and integrity. In this context, appropriate functions should be introduced to the structure to prevent deterioration after the intervention and to ensure its maintenance. In cases where no damage is done to the authenticity or excessive intervention is not required, the continuation of the structure's original function should be ensured (ICOMOS & TICCIH, 1987, 2011, 2013a, 2017; UNESCO, 1972).

4. Findings

The buildings examined in this study include case examples from three different cities: Edirne, Tekirdağ, and Istanbul. Of the buildings studied in Edirne, two are privately owned, while one is publicly owned. The buildings selected from Tekirdağ and Istanbul are public structures. The study examines the application processes of interventions in accordance with the legal framework. Therefore, the processes of project preparation, implementation, and supervision are addressed within the context of the legal framework. Documents, reports, and projects are approved and archived by the Regional Council for the Conservation of Cultural Property. Additionally, reports containing the results of laboratory tests and physical measurements regarding the original materials and site conditions have been prepared either with the project for some buildings or during the restoration process for others. All consolidation and reintegration applications involved in the restoration of the examined structures are not included in this study. Only the selected intervention examples, within the scope of this study, have been evaluated (Table 2).

Table 2. Application of Consolidation and Reintegration Techniques on Samples C - Consolidation R - Reintegration X - Masonry structures where the consolidation and integration of wooden structural components have been examined.

No	Timber frame	Lath strips	Facade	Ceiling	Staircase	Door	Window	
1			C,R	C		C		
2				C	C	C,R	C	
3			C	C	C	S	C	
4		R		C,R				
5	X	X	X			C,R		
6	X	X	X			C,R	C,R	

4.1. Edirne

4.1.1. Yahşıfakih Neighborhood, Block/60, Parcel/1

The first of the three structures examined in Edirne is located in the Yahşi Fakih Neighborhood of Kaleiçi. The two-story, basemented wooden building underwent restoration work that began in 2015 and was completed in 2018. Upon inspection, it was observed that consolidation and reintegration interventions were carried out to a limited extent in this building. Prior to the restoration, it was found that the structure had been left neglected for an extended period and that the interior spaces had been altered with substandard materials during various interventions over time. Temporary solutions introduced by users at different times have damaged the building's authenticity.

Initially, the structure was cleared of substandard additions and interventions that accelerated deterioration. Original building

components that remained intact or could be preserved on-site through repair were left in place, maintaining their integrity. For this purpose, certain areas of the building were partially suspended and supported. To assess the condition of the load-bearing system, partial removal of plaster, lath strips, and both horizontal and vertical load-bearing elements was carried out, and all exposed elements were documented. Specifically, due to damage that rendered them incapable of fulfilling their functional and load-bearing capacities, certain structural elements such as main columns, intermediate columns, braces, pads, base, beams, etc., located on the exterior and severely deteriorated, were replaced with impregnated wood of original dimensions, type, and appropriate dryness, and reassembled according to the original technique, dimensions, and details. The lath strips in the wooden frame walls were also made from the same type of material and detail, fixed with nails to the main and intermediate columns, and then plastered. In the exterior cladding, it was observed that instead of using consolidation and reintegration techniques to preserve the original materials and elements, a more radical intervention approach of complete renewal was chosen (Figure 1, 2).

During the restoration work, low-quality interventions on the wooden ceiling elements of the interior were removed. The original ceiling battens and soffit moldings, partially damaged, were numbered and preserved for reintegration. As part of the ceiling repairs, both the preserved and those set aside for repair underwent paint removal and cleaning procedures. All wooden ceiling elements, including panels, battens, decorative braces, and ceiling-wall junction moldings, whether left in place or disassembled for conservation and reintegration, were first

subjected to cleaning. The surfaces of the wooden ceiling elements were cleaned using mechanical methods, heat guns, and chemical paint removers to eliminate dirt, dust, loose wood fibers, and paint. For areas where chemical paint remover was ineffective, sanding was applied. Holes and galleries caused by biological pests were treated through injection and brush-applied impregnation. Small cracks and holes in the elements were filled with wood filler made from sawdust, plastic wood glue, and cellulose varnish. Larger holes, greater than 7-8 mm, were filled with wooden sticks or dowels of the same type, color, and dryness, using wood glue. After these procedures, the wood was dried, the surfaces were smoothed with various grades of sandpaper, a protective primer was applied, and the consolidation process was completed. The reintegrated elements were reassembled with new pieces made from the same type of wood, matching the original dimensions and techniques. After reintegration, all repaired elements were reassembled in their original locations using traditional techniques. Finally, after applying a final layer of primer, paint was applied, and the restoration was completed (Figure 3, 4, 5, 6).

The original wooden elements of the building, including doors, windows, casings, and sills, were found to be in good condition, allowing for their conservation and preservation through appropriate techniques. The door casings were left in place for repair, while the door wings were carefully numbered and removed for workshop restoration. All surfaces of the disassembled door wings and the preserved door casings were thoroughly cleaned to remove dirt, dust, loose wood fibers, and paint. A combination of simple mechanical methods, such as wire brushes, and tool-based

mechanical methods, such as sanding, were employed, along with heat guns or chemical paint removers as necessary. Chemical paint remover was applied with a brush and left to soften the paint layer, which was then scraped off the surface. After the cleaning process, both the door casings and door wings were impregnated with a brush to enhance their durability. Capillary cracks and voids were filled using wood filler varnish. For smaller cracks and holes, a mixture of sanding dust, plastic wood glue, and cellulose-based filler varnish was applied to fill the gaps. Some larger cracks were repaired using a paste made of epoxy resin and hardener, which further increased the durability of the wood. After these processes, the wood was dried, and all surfaces were sanded to smoothness. Following the sanding, primer was applied to both the door casings and door wings, and after drying, the final layer of paint or varnish was applied, completing the consolidation process. Finally, all door wings were reassembled and mounted in their original positions (Figure 8, 9).

Figure 1. The restoration works included the renewal of the wooden frame system, lath strips, and plaster applications (Osmanoğlu, 2015).

Figure 2. The appearance of the exterior before and after restoration (Osmanoğlu, 2015; Mukoviç, 2024).

Figure 3. The conference hall's ceiling before and after restoration and stripping (Osmanoğlu, 2015).

Figure 4. The conference hall ceiling after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 5. The condition of the building's balcony ceilings before restoration and the scraping applications (Osmanoğlu, 2015)

Figure 6. The condition of the balcony ceilings after restoration (Mukoviç, 2024)

Figure 7. Doors Before Restoration (Osmanoğlu, 2015)

Figure 8. Cleaning Applications on the Doors (Osmanoğlu, 2015)

Figure 9. Doors After Cleaning and Consolidation (Osmanoğlu & Muković, 2024)

4.1.2. Mithat Paşa Neighborhood, Block/71, Parcel/1

The second building examined in the research is located in the Mithat Paşa District of Edirne. The structure consists of three floors: a basement, ground floor, and first floor. Built in the late 19th century using the timber-frame construction technique with infill, the building was originally designed as a residence and continues to serve this function today. Restoration work commenced in 2016 and continued until 2020. Prior to the restoration, the building was found to be generally well-

preserved. The structure was returned to its original condition with minimal intervention (Figure 10).

The consolidation technique was prominently and intensively applied to the wooden ceilings, stairs, cabinets, windows, doors, as well as decorative wooden elements in both the interior and exterior spaces of the structure. Initially, the wooden ceilings, which were preserved in their original location, had all dirt, dust, loose wood fibers, and multiple layers of paint removed from their surfaces. During the cleaning process, simple mechanical methods were used, along with heat guns or chemical paint removers where necessary. For areas where chemical paint remover was ineffective, sanding was employed. Additionally, in some sections, cleaning was carried out using low-pressure, controlled micro-abrasion, followed by an impregnation process using a brush on all surfaces. Cracks, holes, and galleries were then assessed based on their size, and appropriate interventions were determined. Small cracks and holes were filled with a wood paste prepared from sanding dust and plastic wood glue. After these procedures, the surfaces were sanded to smooth them. Finally, a protective primer and varnish were applied, restoring the wooden ceiling to its original aesthetic and structural characteristics (Figure 11). A similar consolidation intervention, involving the same processes and procedures, was also carried out on the original cabinets on the ground floor. This intervention ensured the preservation of both the cabinets' form, aesthetic, and material integrity, while also highlighting the historical texture of the surfaces (Figure 12, 13).

The damaged steps and risers of the staircase, which facilitate circulation within the building, were documented and then removed from the

structure. The better-preserved railing posts and balustrades were also documented, removed, and taken to the workshop for restoration. The decision was made to intervene on-site with the stair's skirting board and main supporting elements. All steps and risers that were deemed to have lost their function were reconstructed using wood of the same type and appropriate dryness, and fabricated according to the original measurements, dimensions, form, details, and technique. These newly produced elements were impregnated using the dipping technique. After their reinstallation, a protective primer and varnish were applied to the risers and steps. The railings and other railing elements, which were generally in good condition, underwent mechanical and chemical cleaning procedures. After treatment for biological pests, including injection of preservatives into the holes and galleries, they were further treated with brush impregnation. Cracks, holes, and galleries were filled with wood putty made from sawdust, wood glue, and cellulose-based varnish. After these interventions, the wooden surfaces were sanded smooth. A protective primer was applied, followed by varnishing to complete the consolidation process. The skirting and main supporting elements of the staircase, which were treated on-site, were impregnated with brush after cleaning. The cracks and holes in these elements were filled with wood putty, then sanded, and a protective primer was applied for their consolidation. The skirting also received a final coat of varnish. The interventions aimed to preserve the staircase's form and structural integrity were evident throughout (Figure 14, 15).

The detailed wooden decorative elements on the doorcase and door wings at the entrance of the building were carefully cleaned by removing

accumulated dirt, dust, paint, and degraded layers. After the cleaning process, the wooden surfaces were treated with impregnation using a brushing technique to make them resistant to biological pests. Cracks and gaps were filled using wood filler varnish and wood putty. The surfaces of the wooden elements were then sanded to smooth them out. Damaged or missing parts were completed using reintegration techniques, ensuring they matched the original structure. The reintegrated elements adhered to the original materials, dimensions, details, and technique, and the same type of wood with appropriate dryness was used.

For the reintegration process, the newly fabricated parts were impregnated and then reinstalled in their original positions. After these processes, a protective primer was applied to the doorcases and door wings, followed by a final layer of paint to complete the consolidation. Following all these interventions, except for partial reintegration, the aesthetic, structural, and detailed integrity of the door remained preserved (Figure 16, 17, 18).

Figure 10. The overall appearance of the building (Osmanoğlu & Muković, 2024)

Figure 11. Wooden ceilings before restoration (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 12. Ground floor original wooden cupboard before restoration (Osmanoğlu, 2015) and after restoration (Osmanoğlu & Mukoviç, 2019)

Figure 13. Ground floor original wooden cupboard before restoration (Osmanoğlu, 2015) and after restoration (Osmanoğşu & Mukoviç, 2019)

Figure 14. Staircase before restoration (Osmanoğlu, 2015) and after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 15. Staircase before restoration (Osmanoğlu, 2015) and after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 16. Entrance door before (Osmanoğlu, 2015) and after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 17. Cleaning processes of the entrance door (Osmanoğlu & Mukoviç, 2019).

Figure 18. Application of the reintegration technique on the details of the entrance door (Osmanoğlu & Mukoviç, 2019).

4.1.3. Yahşıfakih Neighborhood, Block/62, Parcel/7

The third building example examined in Edirne is located in Yahşıfakih Neighborhood, where maintenance and repair works began in 2016 and were completed within the same year. The building is constructed with a wooden frame system comprising a basement, ground floor, and first floor. Prior to restoration, static analyses revealed that the structural system of the building was in generally good condition and showed no significant structural issues. It was observed that the building had been

continuously maintained up until the present day, preserving its formal, aesthetic, and historical integrity. Therefore, the restoration process involved only minimal interventions, limited to maintenance procedures and consolidation applications.

It was observed that all original wooden cladding, windows, doors, doorframes, trims, cornices, soffit coverings, decorative corner columns, and skirting elements on both the exterior and interior façades of the building were subjected to consolidation and maintenance in accordance with the principle of minimal intervention, ensuring no harm to the overall structural integrity. The surfaces of these elements, including dirt, soot, dust, and paint layers, were cleaned and removed using heat guns, chemical paint removers, scalpels, and spatulas as needed. Following this, impregnation was applied to all surfaces using a brush. Cracks and holes on the wooden elements were filled with wood paste made from sawdust and plastic wood glue or cellulose varnish, depending on their size and condition. Larger holes were filled using wood glue and wooden dowels of the same type, color, and dryness. After the surfaces were smoothed with sanding, a protective primer was applied, followed by paint or varnish as appropriate to complete the consolidation and maintenance process. (Figure 19, 20, 21, 22).

In the interior, cleaning operations were carried out to remove accumulated dirt, soot, and paint layers from the original wooden ceilings, allowing the original surface texture to be restored. After the cleaning process, all wooden surfaces were impregnated with a brush to protect them from biological damage and enhance their durability. Subsequently, capillary cracks and voids were filled with wood filler. For

certain cracks, a paste made from epoxy resin and hardener was applied to increase the wood's strength. Following the repairs of the voids, the wooden surfaces were smoothed by sanding with varying degrees of fineness. Once the surfaces were sanded, a protective primer was applied, followed by paint, completing the consolidation process. (Figure 23, 24).

The wooden staircase connecting the ground and first floors of the building did not present any structural issues from a static perspective, so no structural intervention was required. To preserve its existing condition, only maintenance and consolidation procedures were carried out. All dirt, dust, loose wood fibers, and paint on the surfaces of the staircase were removed using simple mechanical methods such as wire brushes or tool-based mechanical techniques like sanding. In necessary areas, chemical paint removers were also used. Holes and galleries caused by biological pests were treated through injection and followed by impregnation with a brush. Cracks, holes, and galleries were assessed according to their size and filled with wood filler made from sanding dust, plastic wood glue, and cellulose-based varnish. Afterward, the surfaces were sanded and smoothed. As a final step, a protective primer was applied, followed by paint or varnish, completing the maintenance and consolidation process (Figure 25, 26).

Throughout these processes, the original architectural materials and structural components of the building have been largely preserved, following the principle of minimal intervention and avoiding unnecessary alterations. However, the building is currently being used as a café, and in line with this new function, it has undergone some inappropriate interventions. Notably, changes have been made to the original interior

elements of the building, negatively affecting its architectural integrity and aesthetic values. For example, a wooden cupboard on the ground floor, which showcases the building's original wood craftsmanship, has been covered by an added painting to accommodate the space's new use (Figure 26).

Figure 19. General appearance of the building before (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024).

Figure 20. General view of the interior before restoration (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024).

Figure 21. General view of the interior before restoration (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024).

Figure 22. General view of the interior before restoration (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024).

Figure 23. Restoration of the ground floor sofa ceiling before (Osmanoğlu,2016) and after restoration (Osmanoğlu & Mukoviç, 2024).

Figure 24. Ceilings of the rooms after restoration (Osmanoğlu & Mukoviç, 2024).
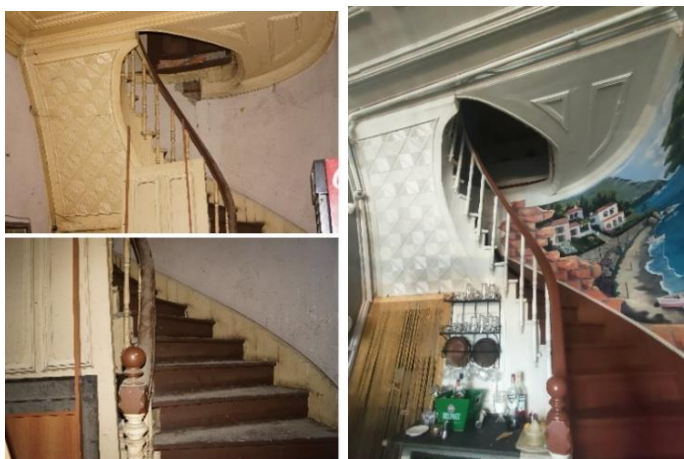
Figure 25. Staircase before restoration (Osmanoğlu, 2016) and after restoration (Osmanoğlu & Mukoviç, 2024)

Figure 26. Before and after restoration of the original wooden cabinet (Osmanoğlu, 2016) and (Osmanoğlu & Mukoviç, 2024).

4.2. Tekirdağ

4.2.1. Çorlu-Silahtar Neighborhood, Block/141, Parcel/1

The traditional wooden structure examined in Çorlu is located in Silahtar Neighborhood and stands out with its exceptional decorations and details. The restoration process of the building began in 2017 and continued until 2019. Before restoration, it was found that the building had been poorly maintained and had undergone repairs with substandard materials at different times. The building was primarily stripped of low-quality additions and materials. In order to assess the condition of the load-bearing system, partial removal of the exterior wooden cladding, interior plaster, and bagdadi laths was carried out, exposing the condition of the horizontal and vertical load-bearing elements. Due to the damage sustained, structural elements such as the main posts, intermediate posts, braces, pillows, base, and beams, which had lost their functionality and load-bearing capacity, were removed, as they could no longer be preserved in their original form. These elements were then reconstructed using treated wood of the same type and appropriate dryness, following the original techniques and details.

During the restoration process, elements that were to be preserved with only consolidation were identified and left in their existing positions. These elements underwent mechanical cleaning to remove dirt, dust, or loose wood fibers. After cleaning, the structural elements were impregnated with a brush to ensure their conservation. Additionally, elements that had partially decayed and lost their load-bearing capacity were inspected for the integrity of their cross-sections, and the decayed parts were removed. These elements were then reintegrated using treated

wood of the same type, dryness, and fiber direction, in accordance with the original form, size, and technique. For wooden load-bearing elements with missing parts, which were either to undergo reintegration on-site or in the workshop, the damaged sections were first removed. Subsequently, mechanical cleaning was applied to remove any dirt, dust, or loose fibers. Impregnation with a brush was applied to the elements. Reintegrated elements were reassembled with newly produced pieces made from treated wood, matching the original form, size, and technique. After reintegration was completed in the workshop, all the repaired elements were reassembled on-site using traditional techniques. Any sagging observed in the preserved or reintegrated wooden load-bearing elements was corrected during the process.

The exterior cladding elements that were consolidated in their original locations were first cleaned and then impregnated with a brush. Subsequently, protective primer and varnish were applied, completing the consolidation process. During this phase, damaged wooden exterior cladding elements, which were removed due to their poor condition, were recreated using the same type of treated wood, following the original dimensions and details, and then reinstalled on the facade. During the restoration, it was decided that decorative elements on the exterior facade, such as wooden moldings, battens, and vertical posts, which reflected the architectural identity of the structure, would be removed and repaired in the workshop. Elements that were too damaged to be consolidated in place were replaced with new ones made from the same material, crafted to the original size, details, and technique.

However, for structural elements that had been partially damaged and deteriorated, the decayed portions were removed, and the integrity of the remaining sections was assessed. These elements were then consolidated using the same type of material, following the original dimensions, details, and techniques, and reintegrated accordingly. Wooden decorative elements that were to be consolidated in their current state or reintegrated were cleaned of all dirt, dust, loose wood fibers, and paint using simple mechanical methods, such as wire brushes, sanding, or chemical paint removers. Injection treatment was applied to the holes and galleries in the elements, and after that, several layers of impregnation material were applied with a brush to make the elements resistant to biological factors. The wood materials to be added for reintegration were shaped to the original dimensions, technique, and details before being treated in an impregnation tank using the dipping technique to ensure resistance to harmful factors. Small cracks and holes were filled with the prepared wood putty, while larger holes were filled with wood dowels of the same type, color, and dryness. The surfaces were sanded smooth, and after applying a protective primer, varnish was used to complete the repair. All consolidated, reintegrated, or newly produced wooden decorative elements were mounted in their respective places on the façade (Figure 27).

Serious deterioration was detected in the wattle-and-daub walls and the plaster used on these walls in the interior. The plaster was carefully removed by scraping without damaging the wattle strips. The wattle strips in good condition were preserved in their original place, while the damaged and non-functional wattle strips were removed from the

structure. The removed wattle strips in the damaged areas were replaced with materials of the same type and dryness, manufactured to the original dimensions and details, and fixed with nails to the studs. All preserved and reintegrated wattle strips were re-plastered with the original plaster material. After the interventions, the aesthetic and architectural integrity of the interior space was restored (Figure 28, 29).

In the interior, while the structural system of the building was statically reinforced, the ceilings were suspended to prevent damage to the original ceilings (Figure 30). Following the examination of the wooden ceiling elements, including paneling, battens, and moldings, it was decided that these elements would be maintained and consolidated and preserved in their original positions. Layers of paint, soot, and dirt found on the surfaces of the wooden ceiling elements were carefully cleaned without damaging the original surfaces using mechanical methods, heat guns, and chemical paint removers. Afterward, all surfaces were impregnated with a brush. Small cracks and holes were filled with wood filler made from sanding dust and plastic wood glue. After these treatments, the surfaces were sanded. Finally, protective primer was applied to all wooden surfaces and elements, and then painted as required to complete the consolidation process (Figure 31, 32, 33).

Figure 27. The overall view of the building before and after restoration (Osmanoğlu, 2017-2019)

Figure 28. Application of the consolidation technique on the wattle-and-daub laths (Osmanoğlu, 2017-2019)

Figure 29. Interior Deteriorations (Osmanoğlu, 2017-2019)

Figure 30. Suspension of the Ceilings (Osmanoğlu, 2017-2019)

Figure 31. Interior Spaces and Ceilings Before and After Restoration (Osmanoğlu, 2017-2019)

Figure 32. Interior Spaces and Ceilings Before and After Restoration (Osmanoğlu, 2017-2019)

Figure 33. Interior Spaces and Ceilings Before and After Restoration (Osmanoğlu, 2017-2019)

4.3. İstanbul

4.3.1. Fatih Sultan Mehmed High School, Fatih-Ali Kuşçu Neighborhood, Block 1459, Parcel 44

Located in the Fatih district of Istanbul and built in 1873, Darüşşafaka High School, now known as Fatih Sultan Mehmet High School, underwent a comprehensive restoration process between 2010 and 2017. Although the structure has a masonry framework, it contains original wooden elements. Therefore, it was deemed appropriate for evaluation in this study. The non-original wooden elements such as doors, windows, and ceilings were identified, numbered, and documented before being removed from the building. Additionally, windows that were too damaged to be preserved in place were also documented, carefully dismantled, and removed. These elements were recreated using the same type of wood with appropriate moisture content, and produced according to the original dimensions, form, details, and techniques. Most of the original wooden doors were found to be in relatively good condition and could be repaired with minimal intervention, both on-site and in the workshop. For partially damaged elements, the damaged parts were removed, and reintegration was carried out using new pieces made from the same type of wood, adhering to the original details and dimensions. Original door wings were removed for repair and taken to the workshop, while the doorcases were repaired in place. All door elements, whether removed for workshop repairs or requiring on-site maintenance, were thoroughly documented, surveyed, and assigned inventory numbers.

The wooden door elements were first carefully stripped of multiple layers of paint and dirt accumulated on their surfaces. Mechanical techniques

such as sanding and scraping, along with chemical paint removers, were applied to clean the wooden surfaces, and stubborn paint layers and dirty coatings were removed through physical intervention (Figures 34, 35, 36). By carefully applying both methods, the original form and material characteristics of the doors were revealed, preparing the surfaces for further treatment. Structural integrity was restored by documenting and carefully dismantling damaged, worn, or poorly executed parts. The wooden elements were then treated with an impregnating substance using a brush to make them resistant to biological agents. Cracks, holes, and voids were assessed by size and filled with wood filler made from sanding dust, plastic wood glue, and cellulose-based varnish. Larger cracks that could not be filled with paste were filled with wooden sticks of the same type, color, and moisture content, using wood glue. For areas with missing parts, partial reintegration was carried out, staying true to the original material. New pieces made from impregnated wood of the same type, moisture content, and grain direction were used for reintegrating the missing sections in the door wings and doorcases (Figure 37). During the reintegration process, careful attention was given to selecting appropriate materials based on type, moisture content, grain, and cutting direction, using original details and techniques, and choosing the correct mounting elements. Once all reintegration steps were completed, the wooden surfaces were sanded smooth, protective primer was applied, and then appropriate paint or varnish was applied based on the needs of the surface.

With the interventions made, the consolidation of the original and relatively well-preserved elements was completed, ensuring their

protection. Where necessary, reintegration was carried out through part replacements and additions, completing the restoration process (Figures 38, 39, 40, 41). As a result, the original doors were preserved, maintaining not only their visual, formal, and aesthetic integrity but also ensuring their structural durability in a sustainable manner.

Figure 34. Mechanical and chemical cleaning applications (Osmanoğlu, 2012-2017)


Figure 35. Sanding Cleaning Applications (Osmanoğlu, 2012-2017)

Figure 36. Details of the Consolidation Technique for Integrating Inferior Sections Following Chemical Cleaning (Osmanoğlu, 2012-2017)

Figure 37. Disassembly of the doors and the integration of original components with newly manufactured elements using the consolidation technique (Osmanoğlu, 2012-2017)

Figure 38. First floor door example, details of the consolidation technique (Osmanoğlu, 2012-2017)
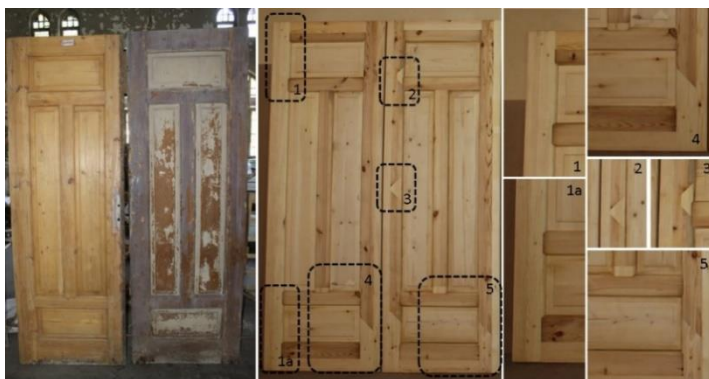
Figure 39. Firs floor door example, details of the consolidation technique 2012-2017 (Osmanoğlu)

Figure 40. Ground floor door example, details of the consolidation technique 2012-2017 (Osmanoğlu)

Figure 41. The condition of the ground floor and first-floor doors before and after the application (Osmanoğlu, 2012-2017)

4.3.2. Haydarpaşa Railway Station Building, Kadıköy-Rasimpaşa Neighborhood, Block/240, Parcel/16

The most recent restoration works of the Haydarpaşa Railway Station began in 2016 and are still ongoing. Although the structure was constructed using a masonry system, it incorporates original wooden elements such as doors, windows, casings, ceiling claddings, and roof structures. To evaluate the condition of these original elements and determine the appropriate intervention approaches and techniques, the

building underwent a comprehensive study. Damages, deteriorations, inadequate interventions, and previous repairs were meticulously investigated, documented, and analyzed. Non-destructive sampling methods were employed, and the collected materials were subjected to laboratory analysis and testing. In this context, the wooden doors and windows, alongside other historical elements of the structure, were carefully examined and analyzed. It was determined that the original components would be preserved and repaired in situ, while later additions of poor quality joinery would be dismantled and removed. As part of the ongoing restoration efforts, the windows and doors on the building's third floor have been thoroughly inspected for detailed assessment and evaluation.

The removal of inadequate interventions, dismantling of severely damaged and irreparable elements, and identification of structural components that could either be preserved in situ or restored in a workshop were all meticulously documented during the pre-restoration phase. A rare finding was encountered on this floor: the identification of an original, well-preserved wooden window shade. This unique element was thoroughly documented, photographed, and detailed measured drawings were produced.

For doors and windows that were beyond preservation due to severe damage, replacements were crafted using impregnated wood of the same species and dryness, ensuring adherence to the original details, shapes, and techniques. However, for partially decayed elements, it was determined that the damaged sections would be removed and replaced through reintegration. This process involved the use of impregnated

wood of the same species and dryness, carefully produced in the original dimensions and detailing, to restore the structural and aesthetic integrity of the elements.

The original door wings, window sashes, and wooden window shade were carefully dismantled and transported to the workshop for restoration, while it was decided that the doorcases and window frames would be conserved and repaired in situ. To uncover the historical characteristics of these elements, paint scraping was performed on all wooden components slated for conservation or reintegration, either in situ or in the workshop.

The analysis revealed multiple layers of paint on the doors and windows. Through the careful removal of the upper layers, the original paint was identified, allowing for precise determination of its color and type. This approach ensured that the restoration work respected the historical authenticity of the architectural elements.

To clean the paint layers and dirt on the wooden elements, a combination of heat guns, mechanical methods, and, where appropriate, chemical paint removers was employed (Figures 42, 43, 44). After cleaning, all wooden components undergoing conservation or reintegration, either in situ or in the workshop, were treated to address biological deterioration. Insect holes and galleries were injected with insecticides, followed by the application of impregnation materials using a brush to enhance resistance to biological agents.

Cracks, holes, and galleries were assessed based on their size to determine appropriate interventions. Capillary cracks and small voids were filled using wood filler varnish. For minor cracks and holes, a wood

filler composed of sanding dust, plastic wood glue, and cellulose-based filler varnish was applied. Larger holes were filled with wooden dowels of the same type, color, and dryness, secured with wood glue. After these processes, surfaces were meticulously sanded with different grades to achieve a smooth finish. Finally, a protective primer was applied to the surfaces, followed by paint or varnish as appropriate, completing the consolidation process (Figure 44).

In areas with missing components, partial reintegration was carried out while adhering to the original material of the elements. For reintegration and replacement processes, materials identified through laboratory analysis as matching the original wood species and possessing appropriate moisture content were utilized. All newly introduced wood materials were impregnated using the immersion technique to protect them from biological damage.

The original and structurally sound parts of the doors and windows were consolidated using the same method, preserving them effectively. Repairs were completed by replacing and adding new components where necessary. Missing door and window casings were also reconstructed in accordance with the original material, details, and craftsmanship.

During the restoration process, the original window shade box identified was subjected to the same detailed cleaning and consolidation procedures as the other elements. All wooden and metal components of the mechanism inside the window shade box were meticulously cleaned. Following this, these parts were carefully treated and restored to full functionality (Figure 45, 46, 47, 48).

Figure 42. The view of the window before conservasion and periodic paint stripping 2016-2024 (Osmanoğlu)

Figure 43. An example of a wooden door, showcasing its current condition and detailed stratigraphic paint layers (Osmanoğlu, 2016-2024).

Figure 44. a) Cleaning application on the wooden door example using heat guns, b) cleaning with sandpaper, c, d) filling of gaps, e) the condition of the door after cleaning, and f) application of protective primer and varnish to the door (Osmanoğlu, 2016-2024).

Figure 45. The condition of the shutter box lid before and after the cleaning process (Osmanoğlu, 2016-2024)

Figure 46. a) Interior of the shutter box, b) Example of the shutter during the repair process, c) Repaired shutter example installed on the window (Osmanoğlu, 2016-2024)

Figure 47. The front and back surfaces of the shutter box after cleaning tecniques (Osmanoğlu, 2016-2024)
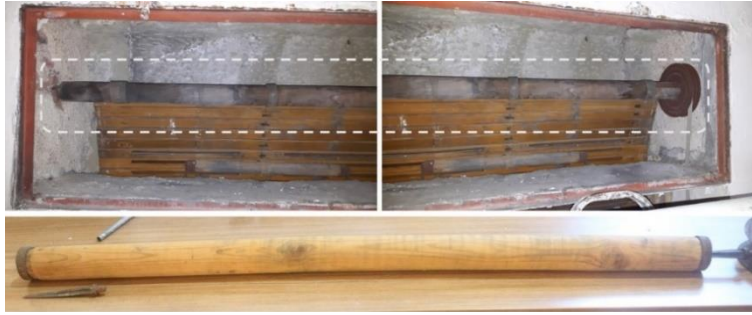
Figure 48. Condition of the wooden ring after cleaning tecniques
(Osmanoğlu, 2016-2024)

5. Conclusion and Suggestions

As outlined in the introduction, the conservation and restoration theories, frameworks, and approaches that have evolved from Ruskin to Brandi and Baldini since the 19th century have also laid the foundation for numerous conventions and charters issued by UNESCO and ICOMOS. These documents provide principles and recommendations related to the protection, preservation, conservation, and restoration of cultural heritage. It is evident that all countries, including Turkey, have taken these views and discussions into account when preparing their national regulations. While Ruskin and Morris opposed certain approaches, it is clear, as highlighted in the documents of UNESCO and ICOMOS, that restoration is often necessary in many cases. The restoration process involves several stages that can be categorized under headings such as 'inspection, survey, research and documentation; analysis, evaluation and diagnosis; interventions; recording and documentation; monitoring and maintenance.' In this context, the study has identified issues related to the process and content of conservation and restoration project preparation for the examined examples.

It has been observed that all of the restoration projects for the examined structures underwent legal approval processes. In most cases, however, it was found that the physical, mechanical, and chemical measurements, experiments, and analyses required to identify materials, degradation, and damage were insufficient in both qualitative and quantitative terms. As a result, the lack of thorough historical research, direct observation, physical examination, measurements, and numerical and experimental analyses makes it challenging to conduct a reliable assessment. This situation hinders the accurate diagnosis and determination of appropriate treatment methods. Additionally, it was noted that support from specialists in different disciplines and interdisciplinary collaboration was not sufficiently provided. Due to these factors, the diagnoses, treatment methods, and intervention proposals in the projects often do not align with the data from the field. The lack of adequate expert support during the project preparation phase indicates a gap in the initial planning of conservation and restoration projects. The absence of comprehensive analyses and evaluations jeopardizes the quality of restoration efforts and poses a potential risk to the decision-making process during the intervention phase. The lack of documentation related to damage assessments and signs of degradation highlights a critical issue within the conservation framework. These shortcomings in the projects are often addressed during the restoration implementation phase.

It was generally observed that after taking necessary safety precautions at the beginning of the intervention, the first steps typically involved liberation and cleaning processes. A correct approach was observed in the reanalysis and evaluation of the data after the structure was cleared of

poor-quality interventions and additions, as well as degrading measures that accelerated deterioration. Various cleaning techniques were employed depending on the nature of the contaminants, such as simple mechanical methods, tool-assisted mechanical cleaning, chemical cleaners, or controlled micro-abrasion. However, it was found that the cleaning techniques and conditions were not clearly defined in the projects. Given the risks associated with cleaning interventions, the materials, conditions, limits, and techniques used should be carefully specified and applied under expert supervision. Additionally, any cleaning technique, chemical cleaner, or mixture used on one material could potentially have negative effects on another material.

When comparing the consolidation and reintegration interventions observed in the examined structures with the principles, intervention definitions, and processes outlined in the fundamental conservation documents, both positive outcomes and some issues were identified. In some examples, original structural components in good condition that maintained their integrity were left as they were. Generally, wooden structures were partially suspended and supported where necessary for repair purposes. To assess the condition of the load-bearing system, partial removal of plaster and lath was performed, and the exposed elements were documented after damage assessment. In both the load-bearing system and other wooden elements of the structure, those that had deteriorated to the point where they could no longer be preserved in situ due to the damage they had sustained, losing their function, load-bearing capacity, and structural integrity, were identified and carefully dismantled after being inventoried and documented. These elements were

then entirely recreated. Frequently, inadequate analysis and evaluation of the damage or deterioration in the structure were observed, and insufficient expert contributions from various disciplines were provided. Due to issues in detection, diagnosis, and treatment methods, a more radical intervention, such as complete reproduction, was often preferred for components of the structure that should have been conserved through consolidation or reintegration. In many cases, the principle of minimum intervention and the preservation of as much original material as possible was overlooked. However, some of the consolidation and reintegration interventions carried out were largely consistent with the definitions of intervention processes outlined in the conservation documents. Consolidation and reintegration interventions were notably frequent in wooden ceilings, doors and window elements, stairs, skirting boards, as well as decorative elements such as moldings, cornices, and columns on the facade. In contrast, interventions on facade cladding and wooden frame load-bearing elements were observed less frequently.

Elements to be conserved either in situ or removed for workshop conservation are identified, inventoried, and documented. In consolidation interventions, wooden components are first cleaned, and then injections are applied into holes and galleries within the elements to treat them. Following this, several coats of impregnation material are applied with a brush to make the elements resistant to biological agents. Small cracks and holes on the surface of the components are filled with a wooden paste made from sawdust, plastic wood glue, and cellulose varnish. For the repair of some cracks, a paste made from epoxy resin and hardener is applied to the surfaces, thereby enhancing the durability

of the wood. Holes larger than 7-8 mm are filled with wooden sticks or dowels of the same type, color, and dryness using wood glue. After these processes, the wood is dried, and the surfaces are sanded to various degrees and smoothed. A protective primer is applied, and depending on the element, paint or varnish is then applied to complete the consolidation process.

For reintegration interventions, after the necessary assessments are made, documentation and inventories are prepared, and the integrity of the sections is checked. Elements to be reintegrated in situ or removed for reintegration in a workshop environment are identified. Components that have partially lost their load-bearing capacity and composition at a regional scale due to damage, or elements with missing parts, have the deteriorated sections removed first. Following this, cleaning processes are applied as needed to remove dirt, dust, paint, or loose wood fibers. For elements repaired in situ, impregnation is typically applied with a brush, while those repaired in the workshop are usually impregnated by dipping. The gaps in reintegrated components are filled with wood that is impregnated and matches the original material in color, texture, type, dryness, and fiber direction. New parts are produced in accordance with the original form, dimensions, details, and techniques. Therefore, the materials used in reintegration are compatible with the original material in terms of color, texture, and physical and mechanical properties. It has been observed that, when viewed from a distance, reintegration interventions generally do not disrupt the aesthetic integrity and blend harmoniously with the structure. All elements that undergo consolidation and/or reintegration in the workshop are reassembled in their original

positions using the original technique. The choice to avoid the use of imitation materials in reintegration is also considered a positive aspect.

Prior to the interventions, no information was found regarding tests that define the effectiveness and durability of the materials to be used in the consolidation of wood. It was determined that the physical and mechanical properties of the consolidation material and its compatibility with the original material in situ had not been tested in a laboratory environment, nor were the results observed. The potential mismatch of chemicals produced for this purpose or mixtures created in the construction/workshop environment with the original material was not considered. It was observed that the long-term outcomes and success rates of these materials were not monitored or documented, and their environmental impacts were not controlled or followed up. While reintegration interventions should have been considered a last resort, it was found that they were frequently employed. Even when examined up close, these interventions were often far from distinguishable from the original. Some interventions were found not to follow traditional methods, techniques, and crafts, highlighting the need for widespread professional expertise training to preserve and sustain these practices. The differences in the knowledge, experience, and understanding of different restoration teams have also positively or negatively influenced their approaches and applications for restoration interventions.

In cases where consolidation and reintegration techniques should be applied, it has been frequently observed that renewal methods are also preferred. The reasons for the insufficient use of consolidation and reintegration techniques are typically related to the expertise, time, cost,

and intensive labor required for the preservation of original wooden structures or structural elements. The complete reproduction of building elements and materials often appears as a more straightforward and economically advantageous option. However, the greatest disadvantage of this approach is the potential irreversible loss of the cultural heritage's originality, historical, aesthetic, and physical integrity, which poses a threat to its preservation.

During the application process, wooden materials and elements whose physical integrity has been partially damaged or whose strength and performance have been compromised, and thus require reintegration, are documented and removed after the dismantling inventory is prepared. However, it has been observed that, in addition to the newly discovered findings, new intervention decisions such as damage, deterioration, removal, cleaning, consolidation, reintegration, reproduction/re-manufacturing, etc., which were not included in the projects, are not reported to the Regional Council for the Conservation of Cultural Property and are not archived. Although the Regional Council for the Conservation of Cultural Property requests the submission of intervention decisions and revised restoration projects concerning issues arising during the implementation process, feedback is not provided. This gap should be addressed through regulatory amendments in the legislation.

A significant issue is the failure to record and archive every stage of the application process, including the methods, materials, techniques, and tools used in the interventions, in public archives. Documentation and archiving are essential not only for future potential operations but also as

part of the cultural heritage's history. These deficiencies negatively impact the transparency of the conservation process, the assessment of intervention effectiveness, and the decision-making process for future interventions. Another shortcoming is the inability to ensure continuous maintenance after restoration, as well as the failure to create suitable conditions to minimize deterioration. The lack of infrastructure to support maintenance and monitoring after intervention is a serious deficiency. Addressing these gaps in the intervention process could prevent various issues, such as the physical, aesthetic, and historical integrity and authenticity of the cultural property being compromised, damaged, partially or entirely lost, or the accurate transmission of historical testimony being hindered.

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All authors contributed equally to the article. There is no conflict of interest.

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Formation of Zingal Residences: The Impact of Forest Industry on Spatial Production in Ayancık

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1. Introduction

Ayancık district of Sinop province, which has a rich forest cover, is located in Northern Anatolia. The forests in this region to the east of the Küre and Isfendiyar Mountain range consist of tree species such as yellow pine, larch, fir, beech and oak.

The images of cities in their establishment, changes and memory are different from each other. They have gained a place in urban memory based on the reasons for their establishment and change. However, these reasons also vary. Some cities experience this transition for short periods of time with industrialisation, agricultural moves and development policies. In Ayancık, this situation has manifested itself through the Forest Industry. It has become more visible and known than other cities with the regional effects, the presence of raw materials and the rapid realization of the process with the establishment of a transportation network. Ayancık is known as a small town consisting of approximately 300 households in the first years of the Republic, with limited timber trade and fishing. In 1929, a sawmill was established in the district centre by Zingal T.A.Ş., a company with Belgian capital, in order to benefit from the rich forest cover in the region and to obtain timber from them. Experts and workers were brought from abroad to work in the factory. These foreigners and locals worked together in the factory, children were educated together in schools and thus an important cultural exchange took place. Thanks to the employment opportunities created by the factory, Ayancık attracted population from different parts of Turkey (Kaya ve Yılmaz, 2013).
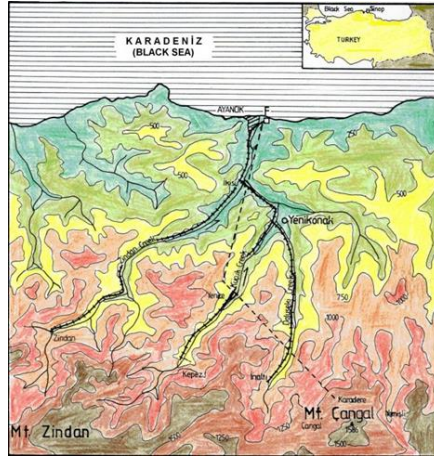
Figure 1. Map of research field, and The Zingal Company transportation system. (Yılmaz, 2004)

According to the decisions taken at the Izmir Economic Congress, on 10 February 1926, Turkey Kibrit İnhisarı T.A.S. obtained concession to operate the forests of Ayancık region for 50 years. The company transferred its rights to Zingal T.A.Ş., which was established with Belgian capital, with an agreement signed on 2 July 1928. Zingal takes its name from the combination of Zindan and Çangal forests in the region. In the 100 years since its establishment, the company has gone through the stages of foreign capital investment, expropriation by the state, division, privatisation and closure (Yılmaz, 2004).

It is an organisation known by different names at every stage. However, it has always been remembered by the republic as 'Zingal', its first name. For this reason, during the study, it is always characterised by its name in the city memory.

All the buildings needed at the time of the Zingal enterprise were produced in the factory with trees cut from Zindan and Çangal forests. The houses produced served as residences for the factory engineers and their families.

Judging by the shape and appearance of the Zingal house, it is understood that Zingal housing was simpler than the examples in America. Simplicity is important for introducing a new culture to the public and increasing demand. Simplicity and typological grouping is also a situation that provides ease of production. However, Zingal houses have not become widespread in our country (Adalı, 2019).

In today's world, where consumption is increasing rapidly, privatisation and various zoning decisions have left traditional textures idle, it is necessary to preserve such qualified buildings that bear witness to their period. For this purpose, projects were prepared and a typological study was carried out on Zingal residences. Based on historical documents and archives, their conservation-repair status was evaluated and approved ready for implementation. As stated in the subject of the study, in line with the historical testimony of the buildings in question, the sociocultural situation of Ayancık in the first years of the Republic and the situations affecting the architectural design were evaluated.

2. Ayancık and Zingal Forest Management

In 1926, Zindan and Çangal Forests Turkish Joint Stock Company was established in Ayancık. The founders, Turkey Kibrit İnhisarı T. A. S. and Turkey İş Bankası, who had the right to operate the forests, acted as intermediaries in the establishment of the company. The Ozin Alumetier de Flandre Company in Brussels, to which the Turkey Kibrit İnhisarı had transferred the forest management rights in 1928, was the foreign company holding the majority share (277/279 of it). The contract was terminated in 1945 due to the excessive use of the forests leased by the foreign capital company for 30 years (Yılmaz, 2012).

The Zingal Company became operational within a short period of 1 year after its establishment and operated the forests, which it had leased from the state for 30 years, for 17 years until its contract was terminated (nationalised) by the Council of Ministers on 14 March 1945 on the grounds of mismanagement and non-compliance with the terms of the agreement. Ayancık forests and Ayancık Sawmill were both operated by the state as a State Economic Enterprise (SOE) until 1970. At this date, the Forestry Enterprise and the Factory were separated by a government decision, and the Enterprise was transformed into two separate enterprises under the name of 'Ayancık Forestry Enterprise' under the Ministry of Forestry and the factory was transformed into two separate enterprises under the name of 'ORÜS Ayancık Factory' under the Forest Products Industry (ORÜS). While the Forest Enterprise has survived to the present day under the same name, the Factory was privatised in 1996, and after operating at low capacity for a while, production was halted due to poor management and other conditions outlined below, and finally ceased to operate completely in 2004 (Yılmaz, 2012).

The company's main field of activity is to cut trees from Zindan and Çangal, transport them to the factory established in Ayancık district center, and sell the timber processed here to domestic and foreign markets (Yılmaz, 2004).
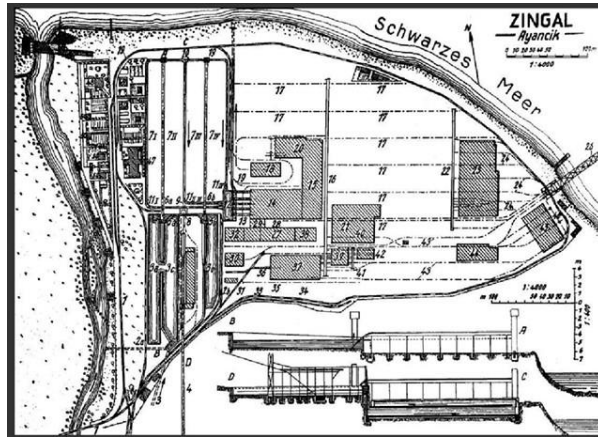
Figure 2. Map of Zingal Sawmill drawn by Zingal company (Yılmaz etc., 2015)

The factory and business organisation established by the Zingal Company laid the groundwork for today's modern Ayancık. At the time of the establishment of the factory, Ayancık was a small town of 300 households and 2000 inhabitants (Mithat, 1929). The influence of both the factory and the foreigners who came with their families to work in the factory made itself felt in all areas of the town. There was a rapid progress in many areas such as education, sports, clothing, social life and architecture. The forest villagers and the people of the district developed economically. Ayancık took on the identity of a small European town at that time. Special residences were built for the factory workers from different countries and barracks were built for the workers from the villages. The number of barracks was increased even after the factory was nationalised, and this area, which almost formed a separate settlement on its own, is called the Colony Quarter (Adalı, 2019).
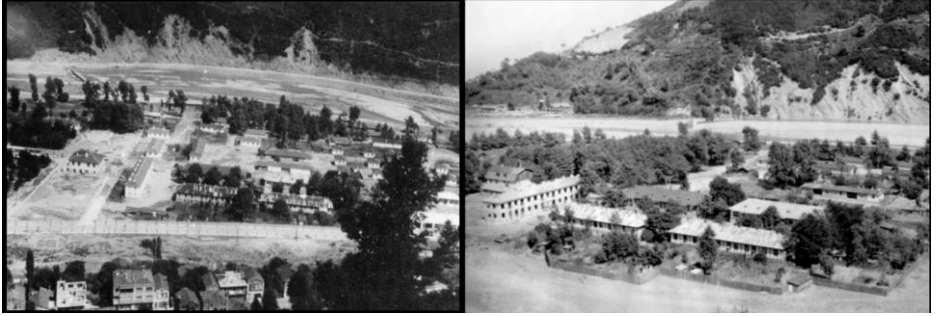
Figure 3-4. The area covered by the lodgings and sheds of the Zingal company in 1942 totalling 4,629 m² (Zingal, 1943)

The enterprise brought in specialized craftsmen and workers from abroad, and these specialists taught their arts to Turkish children and trained them. Starting from 1928, in 1929 and 1930, Austrian and Czechoslovakian experts and Turkish foresters carried out the work on the management of the forests of the region. The main Austrian experts were Franz Hafner, August Loos, Friedrich Zednik, Fr. Steiner, Richard Cieslar and Friedrich Stark. The Czechoslovakian experts were Huruby, Weigler, Hein, Larch and Dr Pöreny (Özdönmez and Ekizoğlu, 1994).

Ayancık has become a brand in forestry and forest industry. Many Turkish forest engineers had the opportunity to work with foreign experts and Ayancık became an internship place for Turkish foresters. In the following years, people from Ayancık have become sought-after qualified personal in their field of work. One of the most important features of Ayancık Sawmill is that it was able to produce almost all the tools and machines it needed. The craftsmen sent from Ayancık took part in the establishment of many sawmills established in Turkey in the following years. They provided training to the employees of the newly established factories. Machines produced in Ayancık were sent to many factories. Ayancık,

which is an important internship and training area in the field of forestry, has become a center specialising in the forest products industry.

The residences, administrative buildings, social facilities and industrial ruins in the sawmill compound in Ayancık district center are industrial heritage buildings. A total of 17 buildings in the factory compound have survived to the present day. These are 9 foreman's residences, 1 manager's lodging, 3 social facilities, 1 telephone building, 1 administration building, 1 crane control building and 1 fiberboard manufacturing building. In addition, one of the locomotives carrying logs to the factory, the chimney of the onga board mill, the log pool, old rails and barges used for loading timber to ships are also located in this compound (Adalı, 2019).

Figure 5. Aerial view of Ayancık Sawmill in the 1960s (Anonymous)

**2.1 Wooden Prefabricated Houses in Ayancık**

The value of industrial heritage buildings is not in the way they are built or their artistic value, but in their witness to an industrial process, social life and the processes that changed society (Edward and Llurdés, 1996). In this sense, the buildings of Zingal Enterprise in Ayancık are buildings produced for the needs arising as a result of industrial developments.

In Ayancık, elements such as construction timber, crates, furniture, standard doors and windows were produced and catalogue houses started to be planned in 1932. The first breakthroughs of Zingal houses emerged with the news of Cumhuriyet newspaper. It was announced that the Zingal company would build two, three and four bedroom houses on turnkey basis. At that time, it was also planned to sell furniture together with Zingal houses. In the second quarter of the 20th century, due to the poor condition of wooden dwellings in our country, type houses were characterised as high quality and healthy. According to Cumhuriyet newspaper in July 1932, old wooden houses were described as '...flat, sunless, airless, narrow...'. These wooden houses were said to have a negative effect due to their shapeless and styleless forms. In the face of this situation, it was written that it was difficult to build prefabricated houses, which were described as '...cheap, minimal, elegant...' and that the necessary know-how had not been formed (A Good Construction Project, 1932). Despite all these, it was stated that Zingal houses had a neat style and that they would have gardens where they could get air and light. The two most important features offered by the Zingal company were that they were healthy and cheap. (A Good Construction Project, 1932) According to the news published in August 1932, information about the cost of the houses was given as follows:

'*The value of the buildings we will construct is at a level that corresponds to the rent some people pay for their country houses for two or three years. In this way, the people will both go to their countryside and own a house with a garden. We are about to buy the licences of house types with a very large German company for a certain fee. Following this, we will build*

houses with two, three, five, six rooms. The interior of the house will be furnished with plaster or plywood according to the customer's desire. Turkish style architecture will be applied. We are also considering utilising a material for fire resistance. ' (Wooden Country Houses, 1932) It is planned to obtain the licences for the type dwellings from Germany. The fact that the cost of the houses is equivalent to a three-year rent shows that it is appropriate. While the number of rooms was varied, the choice of materials was influenced by the preferences of the users as it was practised in the USA. In 1933, the house built to be exhibited at the Domestic Goods Exhibition in the garden of Galatasaray School was announced in Cumhuriyet newspaper that it would be sold for 2000 liras. Heads of families who wanted to own a house showed great interest in the exhibited house. (A house for 2000 Liras!, 1933)
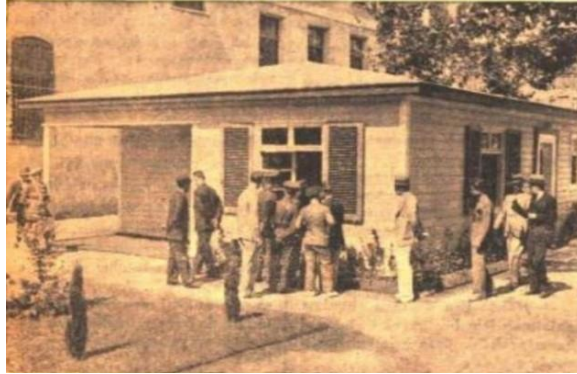

Figure 6. Zingal House (A House for 2000 Liras!, 1933)

An article by Sedat Emin and Suat Nazım about the Zingal pavilion was published in Arkitekt magazine. Not only the type of housing was designed. The Zingal Company also proposed furniture designs to be used in these houses. In addition to furniture, rugs with traditional patterns were

also used. Although it is not known whether the mentioned Zingal houses were built or not, it was determined that there were 9 wooden prefabricated houses used as residences on the site of the Zingal Sawmill. The remaining settlements other than the houses on the factory grounds are some factory ruins, pools, social facility, administrative building. It is thought that the type dwellings on the factory boundaries were produced during the Zingal period. Because all the buildings needed at the time of the Zingal enterprise were produced in the factory with trees cut from Zindan and Çangal forests. The houses produced served the factory engineers and their families as residences. The existing houses are identical. The map shown in was drawn by the Zingal company. Although the exact date of the map is not known, the road axis and structures where the residences are located can be identified.

The buildings known as colony houses built by Zingal company for the workers in Ayancık district are shown. Zingal residences are arranged in a rectangular form, like the Kızılay Pavilion Houses in Erzincan, with dwellings side by side.
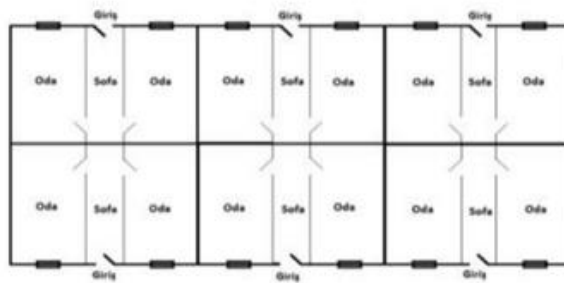
Figure 7. Kızılay Pavillion Houses (Orhan, 2019)

It is seen that there were more blocks at the time of the factory and today only two of them have survived. The basements of the houses with a high

entrance are also used. It is understood from the number of windows and the dimensions of the houses that they are slightly larger than the similarly built Kızılay pavilion houses in Erzincan. When the plan of the houses in Ayancık Sawmill is analysed, it is seen that they are prototypes suitable for fabricated production. Living spaces and service spaces are grouped within themselves.

Figure 8. View of the lodgings built for the workers called Colony Quarter (Ayancık Forest Management Archive)

3. Typological Examination of Zingal Residences

Cossons defines the scope of industrial heritage structures as the structures where production is carried out, additional support units (warehouses, hangars, hal structures, etc.) required in the production and post-production process, and transport structures (stations, canals, bridges, roads, etc.) related to production (Kazas, 2008). When the industrial facility in Ayancık is evaluated in this context, it consists of two sections: the facilities and transportation facilities in the forest established to provide raw materials to the factory and the production facilities and residences located in Ayancık district center.

Figure 9. Ayancik Zingal Residences conservation project site plan of the blocks

Zingal Residences, which is the subject of the study, is located in Ayancık district centre, Yalı Neighbourhood, Block 191, Parcel 1. There are four blocks with a common garden area and the entrances are provided from the garden. In the project phase, Blocks A and B are seen opposite each other, and Blocks C and D are also seen opposite each other. The basement floors of Blocks A and B were built as storage and coal storage. In Blocks C and D, from the ground floor with a high entrance, the basement floor is descended by rotational wooden stairs. Apart from this access provided from inside the building, it was observed that wooden doors were also opened from the garden section. The basement floor of these two blocks is designed as a residence for a different user like the upper floors.
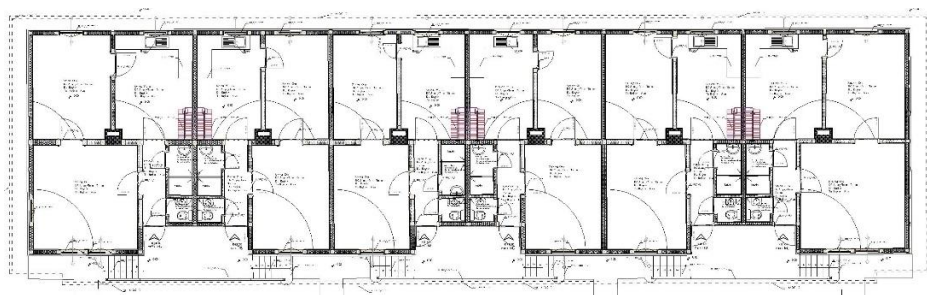
Figure 10. General plan diagram of blocks A and B
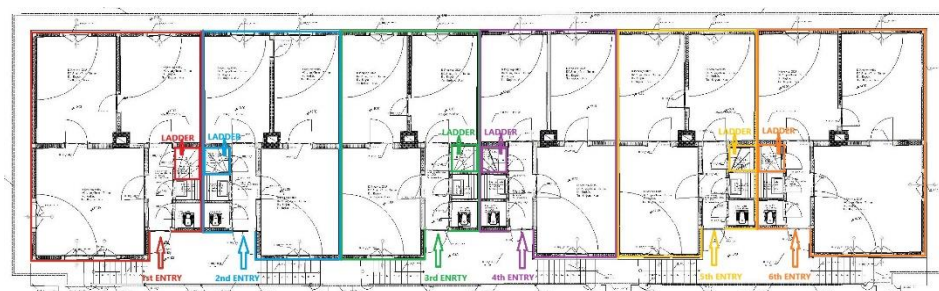
Figure 11. General plan diagram of blocks C and D
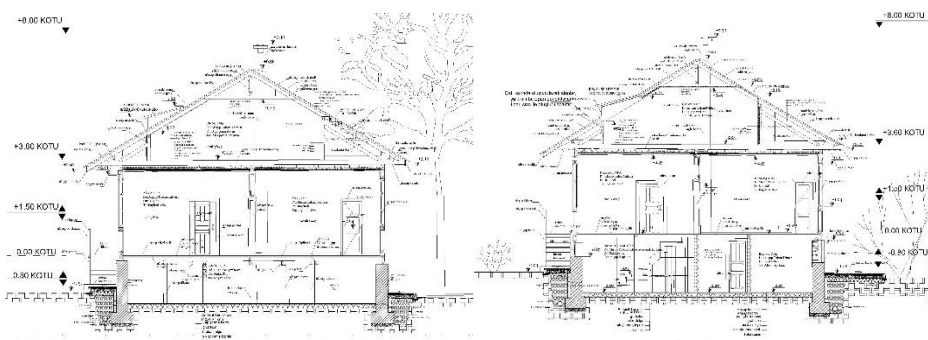
Figure 12. Sectional view of blocks A/B and C/D

The residences are built with stone walls up to the ground floor slab level, and the upper floors are built with brick filling technique between wooden carcasses. Bagdadi can be seen in the partition walls and firebrick can be seen in the chimneys. Although the construction dates are not clearly

known, they can be dated to the 19th century Early Republican Period like the other prefabricated houses built by the Zingal Company.

Table 1. Grouping of blocks according to number of storeys and plan style (Mert Kahraman, 2023).

The ground floors of all blocks are reached by wooden staircases starting with a 20 cm stone block elevation. There are three of these stairs in symmetrical order in each block. There are two separate entrance doors on

the landing reached by the stairs. Based on this and when the plan of the approved project is analysed, it is understood that the blocks contain 6 separate flats. Blocks A-B contain storage areas for 6 flats on the ground floor in the basement with wide openings and supported by wooden pillars. Ground floor plan schemes are similar in all blocks. However, the basement floors in Blocks C and D have a plan scheme with six separate flats. The spiral wooden staircases on the ground floor are designed instead of the bathrooms in Blocks A and B. The flats in these blocks are reverse duplexes. When the plan schemes are analysed, it can be evaluated that there are 24 separate flats in total in the lodging area with 4 blocks.
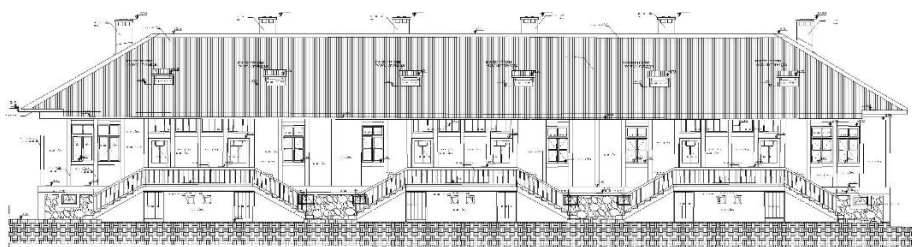
Figure 13. General view of the entrance facade

The facade layouts are in such a way that the symmetrical wooden stairs with landings at the entrances stand out. On the ground floor body walls outside these landings, there are a total of four windows with twin and opening 2/3 ratios and two windows in the centre. The rear facades are likewise the continuation of these windows. In this case, it is seen that the openings are arranged so that the living areas on the ground floor receive enough light. There are vertical and horizontal wooden mouldings on the façade of the buildings whose interior claddings and floors are also wooden. The buildings with a horizontal appearance attract attention with

their roof slopes. The ground floor flooring and roof system of the buildings built with a 65% slope so as to use the attics stand out typologically. It has the roof form of the German Embassy Building. Suggestions were developed by analysing these examples for the roof parts that were worn out and lost their originality during the project phase.

Figure 14. Original roof elements in the attic of the former German Embassy Building (Adalı, 2019)

For the building that has reached the stage of re-functionalisation, functional continuity as well as structural continuity has been proposed. Especially for Blocks A and B, the use of attics has been brought to the agenda in line with changing daily needs. Exits were designed according to the height of the attic carcasses and the attic attendance hatches on the ground floor ceilings. In addition to the naturalness and use of wood material, steps suitable for these exits were considered. The light metal structure of the steps distinguishes it from the original, and the fact that it is foldable is a situation that shows its adaptation to the modularity of prefabricated houses.
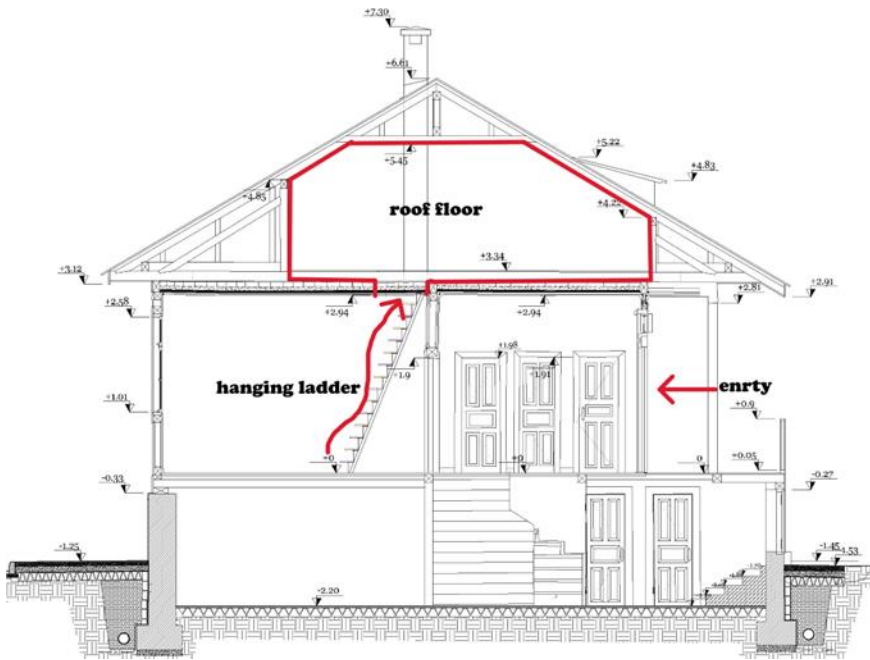
Figure 15. The proposed use of the attic floor in the conservation Project

These buildings, which reflect the housing needs of the period and the understanding of building construction, also reveal the relationship between architecture and industry. The building, which was abandoned as a result of zoning changes, road and landscape works especially in recent years, has completed the project design phase with the awareness of protection by its new owners. As a building that witnesses the history of the city and is one of the first buildings where civil architecture is experienced as a traditional residential building with stone masonry system, wooden carcass, sheet metal roof cover among the new construction, it is a building that should carry its importance today as a cultural asset, so the implementation phase should be started as soon as possible. The use of the garden, which is one of the most important features

of the period it witnessed, garden landscaping with common area sharing and the presence of local trees were also emphasised in the restoration project.

4. Conclusion and Suggestions

The transformation of social order and daily life requirements has always affected architecture. One of the example regions for this situation is Ayancık. The sawmill established in Ayancık in the Republican Period of 1929 affected the understanding of social life. It enables the understanding of the industrial factor in urbanisation.

After the wooden houses built for promotion at the Zingal Company factory site, residences known as colony houses were built in Ayanacik district. These buildings were produced in a carcass system from timber produced modularly in the sawmill. It has a plan scheme in which user requirements are observed one-to-one with local materials. The effect of industrialisation on cities has been examined in many economic studies. It is customary for economic changes to express themselves through social structure. However, especially in terms of Forest Industry, its effects in the architectural design phase are not sufficiently understood.

The sawmill in Ayancık reflected on the housing requirements and the architectural requirements created by the Forest Industry emerged. It has been one of the most special examples in its field with these developments revealing the sociocultural transformation of the city. It offers a different perspective with on-site solutions to the problems of building and space production. Although it was built in an area with an important location and circulation at the time it was built, the residences, which became idle over time, were tried to be saved from this situation by designing the project.

Acknowledgements and Information Note

Author Contribution and Conflict of Interest Declaration Information

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The New Face of Industrial Heritage: Evaluation of User Feedback on the "Müze Gazhane"

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1. Introduction

Industry refers to all the processes and processes that process raw materials or intermediate goods in factories or production areas using human labor or machine power to meet people's needs and ultimately transform them into goods, products or services. The phenomenon of industrialization, which emerged with the industrial revolution in the early 19th century, has also caused changes in society and city identity over time (Büyükaslan & Güney, 2013). The industrial revolution shattered the urban identity, and as a result, the concept of cultural heritage gained significance. Over time, the bounds of cultural heritage grew, and new dimensions formed, such as "industrial heritage" (Kaya & Yılmaz, 2018).

Industrial heritage, which bears the traces of the period in which it was lived and provides information about the production and lifestyle of the period can be defined in the most general sense as all the phenomena that existed in the past of the industrial society (Feroğlu, 2008; Bekar & Kutlu, 2021). Industrial heritage is, in general terms, a whole with all tangible and intangible values that have been the subject of industrial development and all information and documents that will ensure the survival of these values. The concept is defined in the Nizhny Tagil Charter as "Industrial heritage consists of the remains of industrial culture that have historical, technological, social, architectural or scientific value. These remains include: buildings and machines, workshops, workshops and factories, mines and processing and purification areas, warehouses and depots, places where energy is produced, transmitted and used, transportation and all infrastructure, as well as places used for social activities such as shelter, worship or education related to industry" (Nizhny Tagil Charter, 2003).

Feilden (2003) classified the value of industrial heritage structures into three categories. The first of these is emotional value, which includes identity, continuity, respect and symbolic spiritual value. The second is cultural value, which includes document quality, history, age, aesthetic and architectural values, importance in the city silhouette, landscape and ecological value, and technological and scientific values, supporting the monumental approach. The third category is usage value, which includes functional and usefulness, economic, social and political aspects and educational aspects. Industrial structures are priceless historical buildings whose survival needs to be guaranteed since they are critical to maintaining traditional values and maintaining a feeling of cultural continuity (Altınoluk, 1998; Günçe & Mısırlısoy, 2015).

With the developments in technology, industrial buildings are becoming obsolete over time due to production methods that cannot meet today's needs. The fact that these unused and idle structures have begun to disappear over time has triggered conservation efforts in this area. Reusing and maintaining these structures is acknowledged as a universal method with a sustainable conservation strategy, as opposed to dismantling them or abandoning them to a passive conservation approach. (Aksoya & Aydın, 2015; Günçe & Mısırlısoy, 2019; Bekar et al., 2024). Reusing of historical buildings is one of the most important tools for achieving sustainable conservation today (Bullen & Love, 2011; İslamoğlu, 2018; Kutlu et al., 2022). The importance of reusing is emphasized in the statement "The conservation of monuments is always facilitated by making use of them for some socially useful purpose" in Article 5 of the Venice Charter. Reusing is defined as the act of finding a new function for a structure that

has lost its original function, "the development of new uses for buildings with structural potential to be economically viable" (Cantell, 2005). With reusing, the lifespan of historical buildings can be extended and their adaptation to today's conditions can be ensured. By integrating historical buildings that have been destroyed over time into social life, the values of the building can be transferred across generations and the sustainability of its socio-cultural identity can be ensured (Jiun Wang et al., 2010).

Keeping the historical building texture alive with its new function, which is a prediction of the sustainable conservation approach, depends on its suitability for today's needs (Gültekin, 2007). In terms of sustainability and habitability as well as the service the building offers to society, it is crucial that the proposed function for the building be appropriate and that the user accept the new purpose (Bekar & Şimşek, 2023). When historical structures are repurposed, it is anticipated that the structure would satisfy users' needs and offer a physical balance between structure and function.

The success of a place offered to the public depends on meeting the satisfaction of its users. Therefore, one of the most important elements in the success of a place is to include users in the process and to investigate their expectations and satisfaction with the place. Historical buildings that cannot adapt to today's conditions face the danger of disappearing over time when user satisfaction is low. In this context, online comments are an important source of data in understanding users' experiences and opinions about the place.

Today, with the rapid developments in technology and informatics, the widespread use of the internet and its integration with smartphones have made online review platforms one of the most frequently used sources for

examining user experiences. Potential customers can find out more information before using a product or service by visiting websites, applications, and other platforms where users who have already used the product offer their reviews. Such platforms allow users to interact with each other, share their opinions and feelings, exchange information, convey their experiences and make suggestions (Anderson & Magruder, 2012; Racherle et al, 2013; Ye et al, 2014; Koç & Şahin, 2023). As the number of internet users and awareness on this issue increases, the use of online reviews and evaluation processes are also rapidly becoming widespread. Platforms such as Google Maps, TripAdvisor and Yelp are among the prominent examples in this field.

Examining the literature reveals that several studies have looked into online reviews, potential consumers' locations, the company's present state, and how these factors influence people's decisions. When these studies are examined, there are many different studies such as examining online reviews in restaurants (İbiş, 2021), examining online reviews for hotels (Doğan, 2017), the effect of online reviews on behavioral intention (Erdem, 2020), examining online reviews with sentiment analysis (Tuzcu, 2020), investigating the effect of cultural differences on customer satisfaction through online reviews (Muradi & Akbıyık, 2020), examining cultural landscape areas through online reviews (Ateş & Sunar, 2019), online purchasing behavior of online consumer and influencer reviews (Karataş, 2022), and investigating the place of online reviews in defining spatial features in coffee shops (Seymen & Bekar, 2024). The number of studies investigating historical buildings through online comments is quite low. These can be listed as examining user satisfaction of Trabzon Kızlar

Monastery through online comments (Cürgül & Bekar, 2024) and analyzing online user comments on traditional houses (Bekar & Cürgül, 2024). However, in these studies, online comments were evaluated and interpreted only on the basis of sentences and words. This study, on the other hand, includes systematic coding, categorization and creation of relationship maps between these categories of online comments belonging to the Müze Gazhane structure, which is currently functioning as a museum.

In this study, the comments made through Google Maps, one of the most effective platforms for online comments, are evaluated and the Müze Gazhane structure in Kadıköy, Istanbul, which was reused and opened for use as a museum, is discussed. The fact that it is an impressive example of the re-use of a historical industrial structure and its restoration to the city, that it revives the city's memory after re-functionalization, that it offers social and cultural contributions, and that its sustainability structure is an exemplary model were effective in choosing the Müze Gazhane as the study area. The purpose of the study is to ascertain how online comments define the structure, user satisfaction, systematic coding, classification, and relationships in the Müze Gazhane-user interaction following the reusing of data. In this way, an evaluation can be made that allows improvements to be made in the points where the satisfaction of use of the structure is determined by the content analysis method. It is thought that the study can contribute to the sustainable use of the structure.

1.1 Area of Study

Hasanpaşa Gasworks is one of the most important industrial structures in Istanbul. Hasanpaşa Gasworks, spread over an area of thirty thousand square meters, is located in Hasanpaşa district of Kadıköy district of Istanbul (Figure 1). Hasanpaşa District, which was an old recreation area, started to receive migration after the Gasworks was built and developed as an industrial area.

Figure 1. Müze Gazhane location (Created by the author)

According to the archive records of the Müze Gazhane, the Hasanpaşa Gasworks area has a building area of approximately 11,000 m², which originally served as an administration building, meter workshop, compressor, gasometer, gas cleaning facilities, water gas facilities, coal depot, old oven cleaner facility, workshop, shower, warehouse, lodging and children's home. The only buildings that have survived from their construction to the present day are the administration building and meter workshop. The structures built for cleaning the old and new furnaces and some of the equipment inside have survived to the present day. The outer surface and upper part of the gasometers consisting of three floors have been dismantled (Öztürk Yıldız, 2023). Müze Gazhane is known as a

building complex that undertook important functions from the Ottoman period to the Republic. It has gone through various functional periods (Table 1).

Table 1. Müze Gazhane transformation process (Created by the author.)

Period	Function	Explanation
1887-1993	Gasworks	Hasanpaşa Gasworks, established to meet the energy needs of Istanbul, met the lighting and heating needs of the city with the gas produced here. As a result of the widespread use of natural gas with the development of technology, gas production was stopped in 1993.
1993-2000	Abandonment and Idle Period	After the end of gas production, the Gasworks remained idle for a long time and the buildings fell into disrepair. During this period, architects and environmentalists made various attempts to protect the Gasworks.
2000-2021	Restoration Period	In the early 2000s, the idea of preserving and re-functioning the Gasworks was on the agenda, and restoration and landscaping works were carried out by the Istanbul Metropolitan Municipality.
2021-Today	Museum and Cultural Center	The Gazhane, whose restoration was completed in 2021, was opened to the public under the name of Müze Gazhane. Today, it is used as a cultural center with various functions such as a museum, art galleries, theater stages, library, science center and social activity areas. It also hosts events for sustainability and environmental awareness.

On July 9, 2021, Hasanpaşa Gasworks was transformed into a cultural living space by taking the name of Müze Gazhane. Müze Gazhane has many functions open to the public. Activities that will meet the social and cultural needs of the public are held in its open and closed areas. After the

transformation, the venues in the Gazhane are two museum exhibition halls, two stages, a science center, gallery gashane, event areas, workshops, a library, a sound work area, an observation terrace, a bookstore, a marketplace, a cafeteria and a restaurant, and a parking lot. There are areas where the findings of old structures are exhibited in order to preserve traces of the past and to make readings (Uygun, 2021; Öztürk Yıldız, 2023).

Table 2. Müze Gazhane fieldwork images (Photos belong to the author's personal archive)


Within the scope of the study, a field trip was organized to the Müze Gazhane building on September 4, 2024, and the building was first experienced by the author. All sections of the complex were visited and

the preserved old structures, newly added sections, businesses, exhibitions, workshops and library areas were examined. In addition, users who experienced the building were observed in the field. The connection of the building to the surrounding roads, transportation options, and the parking lot were also examined.

2. Material and Method

The study, which analyzed the online comments made on Google Maps about the Müze Gazhane in Kadıköy, was structured in four stages (Figure 2). The first stage is the information collection process in which literature information was collected on the relationship between the reuse of historical buildings, online comments and user satisfaction. Academic research on the topic was reviewed at this point, and a theoretical foundation was developed. In addition, the research conducted on online comments to date was reviewed.
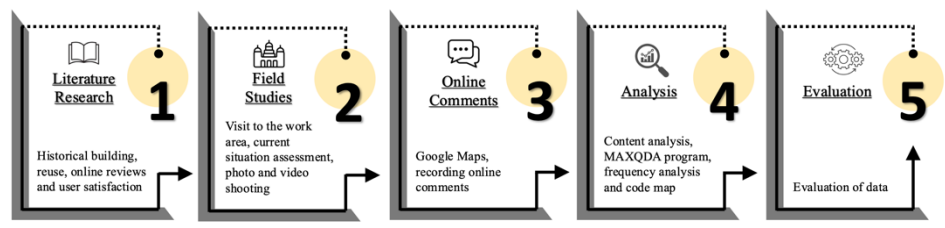
Figure 2. Stages of the study

The fieldwork phase, which takes place in the second stage, involves visiting the study location and gathering spatial and visual data related to the structure. Information about the Müze Gazhane's location, its interior areas, its connection to its immediate surroundings, and its current use are gathered at this point. Next, visual data regarding the structure's current condition is acquired. Consequently, a deeper comprehension,

interpretation, and assessment of the causes behind the data's emergence from the analysis will result.

The third step involves gathering the Müze Gazhane's online comments and deciding which platform the remarks will be examined on. Google Maps was selected as the online commenting platform in this instance. Markers, road lines, area shapes, vector and satellite maps, topographic maps, comments, integrated applications, and routing services are all included in Google Maps, a global online and offline map service (Yang & Hsu, 2016). The universe of the research consists of user evaluations that visited the Müze Gazhane until September 16, 2024. A total of 8175 evaluations were reached in the Google Maps application. 577 of them were made as comments, and 7598 of them were only scored. Visitors who only evaluated by giving a score were not included in the scope of the study.

In the fourth stage of the study, online comments were examined. Content analysis method was used in this process. Content analysis is a collection of methodological tools and techniques that aim to extract meanings from concepts, texts, oral or written materials based on predetermined criteria as an objective, systematic and deductive reading tool (Metin & Ünal, 2022). In this work, the MAXQDA tool was used to do content analysis. Using qualitative and mixed methodologies, MAXQDA is a data analysis software that facilitates the collection, organization, analysis, visualization, and publication of enormous volumes of data. 577 comment data obtained from Google Maps were converted into a text and analyzed using the MAXQDA program. First, the most frequently used words obtained from online comments were determined. Due to the large number

of words, words that were repeated at least 10 times were determined. The ways in which these terms determined the structure were taken into consideration while creating groups. Four groups—environmental, spatial, emotional, and temporal features—emerged in this way. The fact that the comments were generally made under these 4 main headings provided data for another leg of the study. In order to create a code map using the content analysis method, the concepts of "environmental, spatial, emotional and temporal" were entered into the MAXQDA program as codes, and then all comments were coded according to these headings. This coding method was preferred to reveal the density of the codes and the network of relationships between them, beyond the frequency of the words in the text. All this information was explained in graphs and evaluations were made.

3. Findings and Discussions

In the study, initially, the frequency of words used in internet comments regarding the Müze Gazhane building in Istanbul was disclosed with the MAXQDA qualitative analysis program. Only terms that characterize the structure and its attributes were chosen from the list of often used terms in online comments on Müze Gazhane; other terms were not assessed within the parameters of the study. In this context, words with a frequency of use of 10 and above were considered for frequency analysis.

The most repeated words for Müze Gazhane are as follows: Beautiful, museum, area, location, exhibition, activity, wonderful, cafe/restaurant, library, good, free, place, science, child, İstanbul, climate, Gazhane, parking lot, theatre, art, concert, entrance, open, Kadıköy, big, old, recommendation, visiting, thanks, time, pleasant, different, suitable,

culture, season, food, modern, large, central, city, interesting, ambiance, value, spacious, small, bookstore, new, successful, charming, cultural, nice, closed, social, clean, liked, fun, Hasanpaşa, quiet, historical, excellent, comfortable, quality, complex, restoration, Söğütlüçeşme, peaceful, magnificent, game, artistic, near, atmosphere, atelier. The usage frequencies of these words (Frequency/F) are given in Table 3.

Table 3. Sorting words by frequency

Word	F	Word	F	Word	F	Word	F
beautiful	281	theatre	58	modern	28	liked	14
museum	265	art	54	large	27	fun	14
area	259	concert	53	central	26	Hasanpaşa	14
location	242	entrance	52	city	25	quiet	14
exhibition	137	open	50	interesting	21	historical	14
activity	119	Kadıköy	48	ambiance	21	excellent	13
wonderful	117	big	47	value	20	comfortable	13
cafe/ restaurant	117	old	43	spacious	20	quality	12
library	102	recommendation	39	small	20	complex	12
good	86	visiting	39	bookstore	20	restoration	12
free	77	thanks	39	new	20	Söğütlüçeşme	12
place	76	time	38	successful	16	peaceful	11
science	73	pleasant	37	charming	16	magnificent	10
child	73	different	36	cultural	16	game	10
İstanbul	72	suitable	35	nice	15	artistic	10
climate	68	culture	34	closed	15	near	10
Gazhane	59	season	33	social	15	atmosphere	10
parking lot	59	food	30	clean	15	atelier	10

When the results of the frequency analysis are examined, it is seen that the most frequently used words are generally the words that describe the

function and location of the structure. Since it brings together a wide variety of functions, many different functions are mentioned in the comments such as museum, exhibition, cafe/restaurant, library, science, climate, theatre etc. In addition, words such as location, Istanbul, Gazhane, parking lot, Kadıköy etc. that describe the location and transportation of the structure are used quite frequently. Apart from this, since the comments are generally positive, positive adjectives such as beautiful, wonderful, good, pleasant, modern, interesting, quiet etc. are used. In addition, it is noteworthy that comments on the restoration of the building are also frequently made, as it was left idle for many years and then opened for use in 2021 as a result of its restoration. When we look at the most frequently used words, we see that users comment on various features of the building. These words were grouped according to which aspect of the structure they described. While grouping, the sentences in which the words were used in the comments were also used, and attention was paid to dividing the words into groups according to the context of use. In this context, four basic groups emerged: environmental features, spatial features, emotional features and temporal features.

Environmental elements cover things like the structure's location, features associated with it, how it interacts with its surroundings, and how to get to it. Spatial features include topics related to the structure, the spaces within the structure, the features of these spaces, the purposes of use of the structure, and the actions performed by the user in the structure. Subjective expressions and individual judgments based on the user's observations and points of view are examples of emotional features, where feelings and impressions are prioritized. Expressions that designate a specific time

period of the structure and make references to its past and historical context are examples of temporal features. When frequently used words obtained from online comments made for the Müze Gazhane are analyzed in this context, the results obtained are given in Table 4.

Table 4. Grouping of words

ENVIRONMEN. FEATURES	İstanbul Söğütlüçeşme city	Kadıköy near	entrance parking lot	central Hasanpaşa
SPATIAL FEATURES	museum activity child small ambiance place exhibition library	free Gazhane theatre bookstore game big science climate	location cafe/restaurant concert large artistic food modern restoration	area art culture cultural atmosphere clean complex atelier
EMOTIONAL FEATURES	beautiful suitable nice quality spacious excellent	wonderful thanks social peaceful quiet different	good interesting liked magnificent pleasant charming	recommendation value fun visiting successful comfortable
TEMPORAL FEATURES	open new	time closed	season historical	old

When evaluated in terms of environmental features, it is seen that words such as "Istanbul, Söğütlüçeşme, Kadıköy, near, entrance, central, parking lot, Hasanpaşa and city" are used to describe the location of the structure. When these words related to environmental features are evaluated, the results obtained are listed below:

- When we look at the statements, we see how important the structure and accessibility of the museum are for its users. Since the museum is located in Kadıköy, a central, historical and

culturally dense area of Istanbul, its connection with these iconic districts of the city is emphasized.

- The fact that nearby areas such as "Söğütlüçeşme" and "Hasanpaşa" also come to the fore in the comments is interpreted as the Müze Gazhane's strong connection with the city and the ease of access to the structure.

- Expressions such as "near" and "central" are frequently encountered in positive comments regarding the building's central location and transportation. In addition, it has frequently received positive comments due to its proximity to metro transportation and the presence of a parking lot.

- In addition, the frequent use of words such as "entrance" and "parking lot", easy access to the venue and the availability of infrastructure services such as parking for those arriving by car are reflected as important reasons for preference. These expressions show that the museum's richness, such as its central location and accessibility, positively affect the user experience.

The evaluations made in terms of spatial features show the versatile functionality of the Müze Gazhane and its positive effects on the users. When evaluated in terms of spatial features, it is seen that many different functions are mentioned in the structure. Words such as "museum, theatre, bookstore, cafe/restaurant, food, library, science, climate, atelier" are included in the comments that directly describe the spaces in the structure. Below are the evaluations in the form of items regarding the most frequent use of these words in spatial features:

- The Müze Gazhane stands out as a structure that houses many different functions. The presence of venues such as a theatre, bookstore, cafe/restaurant offers a wide range of experiences to visitors, and this diversity is supported by positive comments.

- The positive words (clean, modern, artistic) frequently found in user comments indicate how satisfying the overall atmosphere and experience of the place is. This leads visitors to find the place more attractive.

- The frequency of words describing the physical characteristics of the space (small, large, complex) indicates the awareness of visitors towards the design and layout of the space. This reveals how the various areas of the space are perceived by the users.

- The words "art, culture and artistic" show that the Müze Gazhane is perceived as a cultural center. Visitors consider it a positive feature that this place hosts cultural events and is intertwined with art.

- The frequent use of the word "event" reveals that the activities such as concerts, exhibitions and workshops held regularly by the Müze Gazhane increase the attractiveness of the place. This contributes to the visitors' perception of the place as a social meeting point.

- The frequent use of the term "free" emphasizes that visitors can access the events easily and affordably. This positively affects the user experience and attracts more visitors.

- The words "atmosphere" and "ambience", which are frequently encountered in user comments, reflect the general spirit of the place and its emotional impact on the users. This leads visitors to

evaluate the place not only as a physical space but also as an emotional experience area.

- Based on all evaluations, it can be said that the Müze Gazhane has positive experiences for visitors, reinforcing the versatility and functionality of the place. This makes the Müze Gazhane an attractive cultural center.

When evaluated in terms of emotional features, words such as beautiful, suitable, nice, quality, wonderful, thanks, social, peaceful, good, interesting, liked, magnificent, recommendation, value, fun, visiting, spacious, quiet, pleasant, successful, excellent, different, charming, comfortable are frequently used. At this point, it can be said that almost all comments are positive. When these words related to emotional features are evaluated, the results obtained are listed below:

- The most frequently used words in the comments are "beautiful, nice, wonderful", which show that the visitors are satisfied with the aesthetics and general atmosphere of the place. This situation reveals that the visual and emotional appeal of the Müze Gazhane is high.

- The terms "social" and "peaceful" emphasize that the place offers an environment that encourages interaction between visitors and that people feel comfortable there. This shows the importance of social interactions for users.

- The words "quality", "comfortable" and "quiet" express the quality of the services and environment offered by the venue. Visitors make positive comments about the food and beverage services and general venue comfort.

- Terms such as "interesting", "fun" and "different" indicate the variety of experiences that the Müze Gazhane offers and the interest it attracts from visitors. This indicates that the place is worth exploring.

- Expressions such as "successful" and "recommendation" reflect the visitors' general success of the venue and their willingness to recommend it to others. This underlines the value and impact that the Müze Gazhane brings to the city.

- The frequent use of the word "value" indicates that visitors feel that visiting this place offers an important experience. This emphasizes that the Müze Gazhane is a culturally and socially important place.

- There are also comments thanking those who contributed to the opening of the building and recommending that the building be visited.
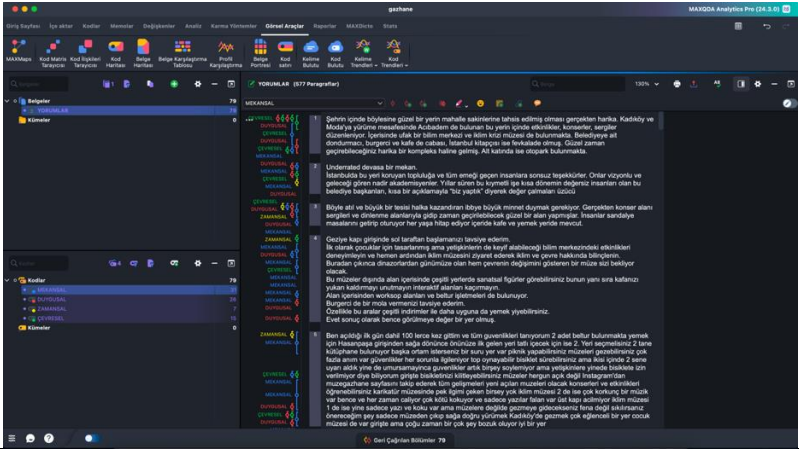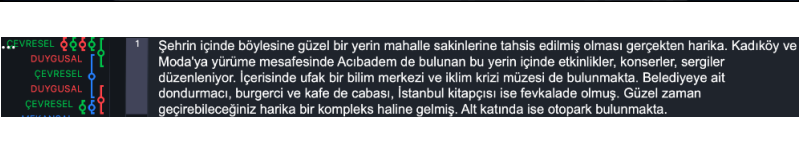
When evaluated in terms of temporal features, it is seen that words such as "open, time, season, old, new, closed, historical" are frequently preferred. These words reveal the effect of the Müze Gazhane's temporal features on visitors and how the historical and modern elements of the place are blended from the users' perspective. When these words related to temporal features are evaluated, the results obtained are listed below:

- The words "old" and "new" emphasize that the Müze Gazhane has a historical structure and has been transformed into a modern space through the restoration process. Visitors draw attention to how this transformation affects the identity of the space.

- The term "Historical" reflects respect for the history and cultural heritage of the building. Visitors state that this historical atmosphere increases the attractiveness of the place.

- The words "open" and "closed" refer to the visiting hours and accessibility of the Müze Gazhane. This reflects visitors' search for information about when the venue is open.

- The words "time" and "season" emphasize the periods in which visitors prefer the place and the importance of seasonal events. This can be evaluated among the factors affecting the visitors' experiences.

- The fact that the building is an old structure, that it has been restored and put back into use, and that it still maintains its historical atmosphere have been frequently mentioned in the comments. The restoration of old structures, combined with the words "new" and "historical", offers visitors both a connection to the past and integration with modern life. This transformation shows how the place has evolved over time.

In the second part of the analysis phase, the coding process was carried out in the MAXQDA program. For this, the "environmental, spatial, emotional and temporal" features previously determined according to word frequencies were used as codes. These determined codes were entered into the program, then the sections in the text consisting of user comments where these codes were used were scanned and code entries were made (Table 5).

Table 5. Coding process in MAXQDA program

| General View	
Coding Process	

For example, one of the user comments is as follows: "*It is really great that such a beautiful place in the city has been allocated to the residents of the neighborhood. Events, concerts and exhibitions are organized in this place located in Acıbadem, within walking distance to Kadıköy and Moda. There is also a small science center and a climate crisis museum inside. There is also an ice cream shop, hamburger restaurant and cafe belonging to the municipality, and the Istanbul bookstore is fantastic. It has become a wonderful complex where you can have a good time. There is also a parking lot on the lower floor.*" Within this comment, the sections "Such a beautiful place in the city has been allocated to the residents of the neighborhood" and "This place is located in Acıbadem, within walking distance to Kadıköy and Moda" were coded as "environmental." In addition, the sections "Events, concerts, exhibitions are organized in this place" and "There is also a small science center and climate crisis museum

inside. There is also an ice cream shop, hamburger shop and cafe belonging to the municipality, and the Istanbul bookstore is fantastic." were coded as "spatial." Additionally, the parts "really great" and "excellent" were coded as "emotional." This process was applied to all 577 user reviews obtained from Google Maps.

In this way, by applying content analysis to the comments, the environmental, spatial, emotional or temporal definitions mentioned were evaluated within their contexts and the relationships between these concepts within the text were revealed.

After the coding process, the spatial code was detected 622 times, the emotional code 527 times, the environmental code 307 times, and the temporal code 141 times in the comments (Figure 3). The thickness of the lines between the codes in Figure 3 also indicates how often the codes are used together.
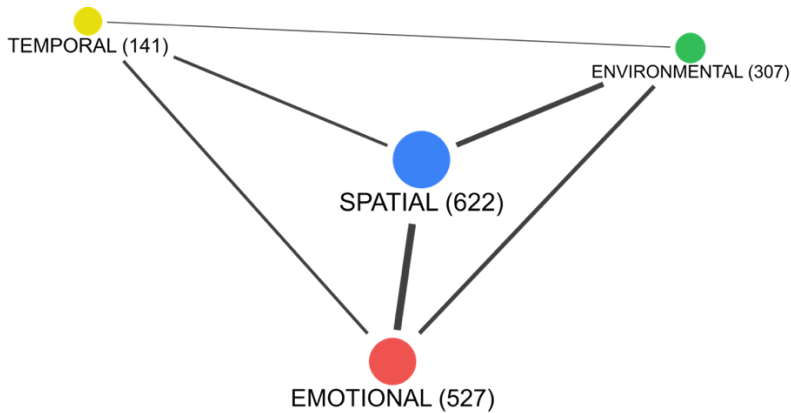
Figure 3. Code map

When spatial codes are examined, it is determined that the most frequently used expressions in the comments are seen under this code. This code is in

the first place because the structure serves multiple functions, adds value to its immediate surroundings as a public space, the restoration process and the fact that it has been reclaimed are frequently included in the comments. When the spatial code is examined in relation to others, it is seen that it is used together with emotional, environmental and temporal codes, respectively. In the light of the data obtained as a result of frequency analysis, considering that almost all of the emotional codes consist of positive adjectives, it is seen that spatial codes are used with positive emotional codes. Similarly, environmental and spatial codes are also frequently evaluated together in the comments.

The second most used code among the comments is emotional codes. The evaluations made regarding the spatial and environmental features of the building, the majority of which are positive, are gathered under this code. As a recycled industrial building, the fact that users frequently mention emotional codes is due to reasons such as positive views about the building, the positive approach to reuse, and the fact that it is seen as an added value to the city.

Environmental codes are seen as the third most used code in the comments. Considering that the building is a reuse project, creates a large public space, is located in the cultural center of the city and transportation facilities, this code was also frequently detected in the comments. Environmental codes were used most often together with spatial and emotional codes. These relationships came to the fore because spatial and environmental features were often included in positive comments with emotional codes.

Finally, temporal codes are ranked last among the comments. While most users primarily mentioned spatial and environmental features, a small number of users made comments on the history of the structure, its current status, the restoration process, etc. Temporal codes were also used most frequently with spatial codes.

As a result, the code map provides data on the content, context, and relationship of the comments, regardless of the number of words in the comments. Accordingly, it is possible to say that spatial and emotional codes are used both most intensively and most frequently together. It can be considered normal for users to give such intense answers when evaluating a public building that has been reopened for use. Environmental codes stand out as another important area of comment due to the environmental features and advantages of the building.

4. Conclusion and Suggestions

All societies have a shared responsibility to protect and maintain industrial heritage structures, which house diverse cultures and civilizations and serve as a link between the past, present, and future, and to pass them on to next generations. At this point, reuse is one of the most effective ways to keep industrial heritage buildings alive by using them. Today, these buildings are given new functions, but the user satisfaction resulting from the usage process and interaction with the user is not monitored. In this research, internet comments were utilized to analyze user experiences at Müze Gazhane in Kadıköy, Istanbul. This is because user opinions are one of the most effective ways to determine user happiness. Users' comments reflect the historical and cultural value of the structure, its spatial characteristics and emotional reactions.

The Müze Gazhane plays a critical role in ensuring user satisfaction in the process of reusing a historical structure in line with modern needs. Data obtained from online comments revealed the positive effects of the structure on users in both physical and emotional contexts. Positive expressions such as "beautiful, modern, enjoyable" frequently emphasized by users show that the structure is a successful example in terms of aesthetics and functionality. The analyses have revealed how environmental, spatial, emotional and temporal features affect user experience. The fact that spatial features in particular receive a high level of positive comments supports the versatile functionality of the Müze Gazhane and the variety of experiences it offers to visitors. In terms of emotional features, the depth of the users' connection with the space and the high level of satisfaction are noteworthy.

As a result, the reusing of the Müze Gazhane offers an important model for the preservation and sustainability of historical heritage. In this context, the implementation of strategies such as continuous monitoring of user feedback, increasing ease of access and diversifying activities will further strengthen the social and cultural contribution of the structure. In addition, developing programs that encourage local communities to participate in museum activities and organizing educational activities will both convey the importance of industrial heritage to young generations and contribute to the Müze Gazhane becoming a social center. The implementation of these suggestions will increase the importance of the Müze Gazhane not only as a cultural center but also as a place with social and educational value.

Author Contribution and Conflict of Interest Declaration Information

There is no conflict of interest.

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