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Adaptive Reuse of a Historical Inn and Interior Interventions: The Case of Muhsinzade Han in Eminönü

Yeniden İşlevlendirilen Bir Han Yapısı ve İç Mekân Müdahaleleri: Eminönü Muhsinzade Han Örneği

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Abstract

This research investigates the refunctioning and interior interventions of the Eminönü Muhsinzade Han, a structure of significant historical and cultural importance within Istanbul's architectural context. The study aims to examine the inn's historical context, its transformation processes, and the interventions related to its interior design. Conducted as a qualitative case study, the research employs data collection methods including archival research, structural analysis, and interior assessments. The findings demonstrate that the historical attributes of the inn can be preserved while being integrated with modern functions. The interior interventions involve redefining historical functions and aligning them with contemporary design elements. The study's results contribute to the literature on refunctioning and architectural conservation, indicating that a successful balance has been achieved between preserving historical values and meeting modern functional requirements.

Keywords: *Preservation, Cultural heritage, Renovation, Re-use, Muhsinzade Han.*

Özet

Bu araştırma, Eminönü Muhsinzade Hanı'nın yeniden işlevlendirilmesi ve iç mekân müdahalelerini ele alarak İstanbul'un tarihi ve kültürel dokusunda önemli bir yer teşkil eden bu hanın tarihsel bağlamını, geçirdiği dönüşüm süreçlerini ve iç mekân tasarımı ile ilgili yapılan müdahaleleri incelemeyi amaçlamaktadır. Araştırma, nitel bir vaka çalışması olarak yürütülmüştür. Bu kapsamda tarihi belgeler ve arşivlerin taranması, yapısal analizler, iç mekân değerlendirmeleri gibi veri toplama yöntemleri kullanılmıştır. Araştırma, yapının tarihsel niteliklerinin korunarak modern işlevlerle bütünleşebileceğini ortaya koymuştur. İç mekân müdahaleleri, tarihi işlevlerin yeniden tanımlanması ve modern tasarım ögeleriyle uyumlu hâle getirilmesini kapsamaktadır. Çalışmanın bulguları, literatürdeki yeniden işlevlendirme ve mimari koruma çalışmalarını desteklemektedir. Araştırma, tarihi değerlerin korunması ile modern işlevsel gereksinimlerin karşılanması arasında başarılı bir denge kurulduğuna işaret etmektedir.

Anahtar Kelimeler: *Koruma, Kültürel miras, Yenileme, İşlev değişikliği, Muhsinzade Han.*

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1. Introduction

This study explores the transformation and refunction of the Muhsinzade Inn, examining its historical, cultural, and architectural significance. Inns historically played a key role in societal development, but their relevance has diminished due to technological advancements and shifting needs. The research evaluates how past interventions have affected the inn's integrity and whether the latest refunctioning has preserved its original characteristics. By analyzing spatial changes, the study assesses the suitability of the inn's new function and how its historical continuity, design, and architectural features have been maintained in the transformation. The focus is on ensuring that thoughtful refunctioning can protect and transmit cultural heritage to future generations.

1.1. Problem

The preservation of cultural heritage, often neglected in the past, has gained importance due to the growing recognition of its cultural and economic value. In the case of Muhsinzade Han, inadequate interventions and neglect have sometimes led to deterioration. This study evaluates the effectiveness of interior interventions during the adaptive reuse of Muhsinzade Han, focusing on six criteria: locational and functional setups, architectural language, structural elements, volumetric layout, circulation elements, and interior atmosphere (Figure 1).

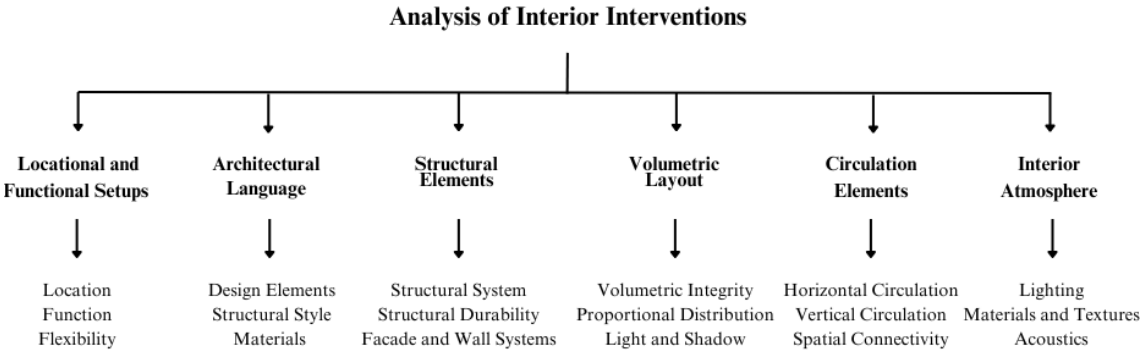

Figure 1. Analysis Parameters of Interior Interventions

1.2. Aim

This study aims to analyze the internal interventions made during the refunctioning of Eminönü Muhsinzade Inn, focusing on how these modifications affect the building's historical and architectural features. The research evaluates whether the interventions have preserved the building's original character while adapting it for modern use. Additionally, the study explores the challenges faced in this process and assesses the effectiveness of these interventions in maintaining the building's historical integrity while accommodating its new function. The goal is to gain insights into the adaptation of historical structures for contemporary purposes.

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1.3. Questions

In the study focusing on the interior interventions implemented during the adaptive reuse of Muhsinzade Inn, the research questions are defined as follows: “To what extent are these interventions effective in preserving the building’s historical and architectural features while adapting it to modern functions?” and “What are the results of this evaluation based on the criteria of architectural language, structural elements, volumetric layout, circulation elements, and interior atmosphere?”

1.4. Scope

This study evaluates the internal interventions during the refunctioning of the Eminönü Muhsinzade Inn, focusing on modifications made to preserve its historical and architectural features. It compares the building's previous and current conditions to assess the impact of these changes on the structure's original character. The research examines how these interventions have affected the relationship between the building and its surroundings, and how successful the adaptation to its new function has been. The study aims to provide insights into the challenges and outcomes of adapting historical buildings to meet modern needs.

2. Conceptual Explanations

Conservation aims to preserve both tangible and intangible cultural assets, such as architecture, artworks, and traditions. Its primary goal is to extend the lifespan of these assets while maintaining their intrinsic qualities. Bektaş (1992) emphasizes that conservation should integrate historical buildings into modern life to ensure they remain relevant and functional, rather than isolating them. Similarly, Fakıbaba Dedeoğlu (2012) highlights the importance of adapting cultural heritage to contemporary uses for future generations. In architectural conservation, key principles include maintaining originality, continuity, and context, ensuring that buildings are preserved while allowing for necessary adaptations (Arabacıoğlu and Aydemir, 2007). Given the evolution of society, outdated buildings often require re-functioning to stay relevant while preserving their original features.

2.1. Re-functionalization and Re-Usage Concept

Refunctioning refers to the process of repurposing a building for a use different from its original purpose, often aimed at optimizing resources and reintroducing the structure into active use (Wilkinson and Reed, 2008). This approach not only preserves the building's historical and cultural significance but also benefits the community and the environment. Historical buildings link the past to the present and contribute to a city's identity by reflecting architectural and technological achievements. Through refunctioning, these structures are conserved, supporting urban identity and historical awareness while offering social, economic, environmental, and aesthetic benefits. However, the process must ensure the preservation of the building's historical value, adapt to its current condition, and align with sustainability principles. Key techniques include structural strengthening, system upgrades, interior reorganization, and façade modification, all aimed at maintaining the building's original character while making it suitable for new uses.

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2.2. Reasons for the Re-Functioning of Buildings

The preservation of historical and cultural heritage is essential for maintaining the connection between built environments and human culture. Adaptive reuse of buildings offers various societal, economic, and environmental benefits by preserving cultural heritage while adapting structures to modern needs. This approach supports cultural continuity and revitalizes economies, particularly in historically rich cities like Istanbul. From a cultural standpoint, adaptive reuse helps transmit heritage to future generations, and from an economic perspective, it enhances community identity, stimulates tourism, and generates job opportunities. Environmentally, adaptive reuse conserves resources, reduces waste, and contributes to sustainable urban development by preserving the integrity of historical structures while making them functional for contemporary uses.

2.3. Choosing the Right Function in Repurposing

Choosing the appropriate function for repurposing a historic building is a crucial decision that requires collaboration among architects, historians, sociologists, economists, and local community representatives. It is essential to consider the building's context and socio-economic environment. A successful re-functioning project also involves preserving the building's original character and ensuring it integrates well with its new purpose. The process should be carefully managed throughout all phases, from design to implementation, ensuring proper protection, necessary permits, and ongoing maintenance to support the building's long-term sustainability.

2.4. Interventions for Functionalized Buildings

In the process of refunctioning historic buildings, preserving the original character and historical value is crucial. Interventions can be categorized into repair and restoration, adaptation, and transformation, each with varying degrees of alteration. Repair and restoration focus on maintaining the building’s current state, ensuring necessary repairs without altering its original character (Feilden, 2003). An example is the restoration of Hagia Sophia, where mosaics and frescoes were preserved, and structural strengthening was done. Adaptation involves minor changes to make the building suitable for its new function, like in the case of Tate Modern, which converted an old power station into an art gallery by adjusting the interior layout and lighting while retaining the original structure. Transformation refers to significant changes that adapt the building to its new function while preserving its original character, as seen in the Pompidou Center in France, where an old factory was converted with modifications to the façade and structure (Birik, 2011). Interventions must respect the historical and cultural value of the building and adhere to sustainability principles. Structural strengthening, installation renovations, interior adjustments, and façade modifications are common techniques used to achieve these goals while ensuring the building serves its new purpose without compromising its historical essence.

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2.5. Interior Interventions in Repurposed Buildings Worth Preservation

Repurpose of historic buildings requires not only physical preservation but also the maintenance of their original character and spatial experience. In this process, it is of utmost importance to carefully design interventions that meet the needs of contemporary users while preserving the holistic identity of space. Interior interventions in repurposing projects should be in harmony with the existing structural systems and should be enriched in terms of aesthetics and functionality. "Interior interventions in repurposed buildings worth preservation" examines these interventions through various main and sub-parameters.

Locational and Functional Setups

Locational and functional setups are a concept that deals with the dynamic relationship between the spatial arrangement and functionality of a building. Especially in historic buildings, this relationship is critical in terms of both preserving the original spatial features and adapting them to contemporary needs. Such buildings both connect with the past as representatives of cultural heritage and respond to the needs of modern society through refunctioning. Therefore, the preservation and sustainable use of historic buildings depends on a proper understanding of the concept of locational and functional setups. The concept is analyzed through three main sub-parameters:

- Location: The spatial layout determines the relationship between structures and their surrounding environment, as well as the contextual connections between different spaces. Caravanserais typically feature courtyard-centered plan schemes, serving as hubs for commerce and social interaction. In adaptive reuse projects, preserving this spatial organization ensures continuity in user experience. For instance, repurposing the courtyard for cultural events or exhibitions integrates the historical context of the space with contemporary needs (Kuban, 2017).

- Function: The functionality of a historical structure depends on how its spaces are utilized. While caravanserais were originally designed to serve as hubs for accommodation and commerce, adaptive reuse processes can repurpose them for various purposes such as culture, art, or tourism. In this context, adapting spaces to new functions not only meets contemporary user needs but also ensures the preservation of the historical fabric (Kostof, 1995).

- Flexibility: Flexible spaces are designed to quickly respond to changing needs. Ensuring flexibility in historical structures involves preserving the original features of the building while adapting to the requirements of new functions. Elements such as modular furniture and movable wall systems support this adaptability (Schittich, 2013).

Architectural language

Architectural language is a dynamic concept in which a building develops a unique form of expression through its aesthetic, structural and material choices. This language reflects not only the physical appearance of a building, but also its cultural identity and historical

context. Especially in historic buildings, the preservation of this language and its development in harmony with contemporary additions is of vital importance in terms of maintaining both the historical value of the building and its contemporary functionality. Architectural language is analyzed through three main sub-parameters:

- Design Elements: The aesthetic values of space emerge from the harmonious integration of its design elements. In historical caravanserais, geometric patterns, ornamentation, and natural materials contribute to a cohesive aesthetic. During adaptive reuse processes, it is crucial to integrate modern elements without compromising these aesthetic values (Semper, 2004).

- Structural Style: The structural style reflects the historical context and cultural identity of space. Buildings such as the Eminönü Muhsinzade Han exhibit the characteristic features of Ottoman-period architecture. This identity must be preserved during modern interventions through the use of historical materials and techniques (Goodwin, 1997).

- Materials: The selection of materials determines the visual perception and textural quality of a space. In a historical building, preserving original materials or using modern materials with similar characteristics helps maintain the spirit of space. For example, textural interventions using materials such as natural stone and wood balance the historical and contemporary context of space (Feilden, 2003).

Structural Elements

Structural Elements are the basic components that support the spatial and aesthetic values of a building and ensure its physical durability. In historic buildings, these elements preserve not only the stability of the building, but also its cultural identity and aesthetic integrity. In repurposing projects, these elements need to be carefully considered in terms of both physical durability and historical context. The concept of structural elements is analyzed through three sub-parameters:

- Structural System: In historical buildings, the strength of the structural systems ensures both the building's stability and the preservation of spatial perception. The stone or wood columns and beams used in caravanserais contribute to both the visual aesthetics and the structural integrity of the space. In adaptive reuse projects, these elements must be both reinforced and their aesthetic values preserved (Çelik, 2018).

- Structural Durability: Strengthening interventions enhance the seismic resistance of historical buildings while bringing their structural stability in line with modern standards. Techniques commonly used for reinforcement include carbon fiber applications, steel anchors, and concrete injections. These interventions ensure the safety of the structure without compromising the historical fabric (Icomos, 2004).

- Facade and Wall Systems: Facade elements reflect the aesthetic and functional identity of a building. In historical structures such as the Muhsinzade Han, facades constructed with materials like stone and brick reveal the building's historical identity. Interior walls, while serving modern functions, must maintain aesthetic continuity (Jencks, 2000).

Volumetric Layout

Volumetric Layout refers to the integrated consideration of volume, scale, proportion and light-shadow relationships in the spatial organization of a building. This concept defines both the physical dimensions of the space and the spatial experience it offers to users. Especially in historic buildings, volumetric arrangement preserves the original character and monumentality of the building while enriching the user experience. In repurposing projects, careful consideration of this parameter is of great importance in terms of both aesthetics and functionality. Volumetric layout is analyzed with three sub-parameters:

- Volumetric Integrity: Volumetric integrity creates a sense of spaciousness and monumentality. Historical caravanserais typically feature high ceilings and large rooms. These characteristics should be preserved during modern interventions to ensure functionality while maintaining the historical character of the space (Norberg-Schulz, 1980).

- Proportional Distribution: The scale and dimensions of spaces directly impacts user experience. In historical caravanserais, large courtyards offer users a broad view and opportunities for social interaction. While adapting these spaces to new functions, their proportional balance must be maintained (Ching, 2015).

- Light and Shadow: Natural light shapes the atmosphere of a space and enhances its spatial depth. In historical buildings, large windows and courtyard arrangements enrich the aesthetic perception of the space through the interplay of light and shadow (Corbusier, 1960).

Circulation Elements

Circulation Elements is a fundamental concept that addresses horizontal and vertical circulation systems and spatial connections in the spatial organization of a building. This concept aims to optimize the user experience and increase accessibility while providing the connection between spaces. Especially in historic buildings, preserving circulation elements and adapting them to modern requirements is critical to maintain both the functionality and aesthetic integrity of the building. Circulation elements are evaluated through three sub-parameters:

- Horizontal Circulation: Corridors and passageways provide connectivity between spaces. In caravanserai buildings, corridors arranged around the courtyard create a platform for commerce and social interaction. During adaptive reuse, these circulation elements should be organized to optimize the user experience (Erzen, 2002).

- Vertical Circulation: Vertical circulation elements connect the different levels of a building. Traditional stone or wooden stairs preserve the historical atmosphere, while modern elevators provide accessibility and comfort. This balance offers both an aesthetic and functional solution (Schittich, 2013).

- Spatial Connectivity: In modern architecture, accessibility is a crucial criterion to ensure equal access to space for all individuals. In historical buildings, the addition of ramps, elevators, and wide passageways creates an inclusive design for people with disabilities (Bandarin and Van Oers, 2012).

Interior Atmosphere

Interior Atmosphere is a fundamental concept that defines the emotional and physical experience that a space creates for its users. The lighting, material-texture and acoustic properties of space play a critical role in shaping the interior atmosphere. Especially in historical buildings, the preservation and adaptation of these elements to current needs is of great importance in terms of both aesthetics and functionality. Interior atmosphere is analyzed with three sub-parameters:

- Lighting: Lighting directly influences the perception and atmosphere of space. In the interiors of historical buildings, large windows and courtyards are favored to increase the use of natural light. Artificial lighting, on the other hand, enriches the atmosphere of space, offering users diverse experiences (Zumthor, 2006).

- Materials and Textures: Materials and textures shape the emotional and aesthetic perception of a space. Floor coverings provide textural richness, while walls and furniture create visual balance and contrast. Preserving original materials supports the historical integrity of the space (Frampton, 1995).

- Acoustics: Echo and sound insulation issues are common in the interiors of historical buildings. Therefore, acoustic panels, sound-absorbing ceiling systems, and specialized coatings should be used to ensure acoustic comfort. These interventions enhance the user's experience and create an appropriate auditory environment for the function of the space (Barron, 2010).

3. Method

3.1. Model

This study examines the historical Muhsinzade Inn, built in 1772, located in Istanbul's Hobyar Neighborhood. It evaluates the architectural and structural transformations the inn has undergone as part of its adaptation and refunctioning process. Key materials for the research include surveys, past and current photographs, and restoration projects. The study compares the building’s previous and current uses and assesses the architectural interventions, interior modifications, and refunctioning strategies applied to preserve the building's original character.

The study follows a qualitative research design, consisting of three stages: data collection from academic sources, gathering visual and literary information on the building's history, and applying six criteria for evaluating the interior interventions. These criteria include locational and functional setups, architectural language, structural elements, volumetric layout, circulation elements, and interior atmosphere. The study emphasizes the importance of refunctioning in maintaining the building's cultural and historical value.

3.2. Working Area

Muhsinzade Inn is also known as Muhsinoğlu Inn among the public. The inn is located on Büyük Postane Avenue, in the Hobyar District of Fatih (Eminönü) district in Istanbul Türkiye (Figure 2). It is located between Hamidiye Türbesi Street and Mimar Vedat Tek Street. It is stated that there are 22 rooms on the upper floor of the inn, 12 rooms and 8 cellars on the lower floor. In addition, the inn has 2 cellars opening to the public road, 10 shops and a water tank built for drinking clean water (Akçıl Harmankaya, 2016).

Figure 2. Figure Showing the Location of Muhsinzade Inn

In order to better understand the interveners of the Eminönü Muhsinzade Inn's refunctioning, it is necessary to understand the architectural structure of the inn. The inn measures 12.60 meters x 18.75 meters and has a trapezoidal rectangular plan. It consists of two floors over the basement. It was built with masonry material. It has two entrances from Mimar Vedat Tek Street and Hamidiye Türbesi Street. The upper floor is accessed by a spiral iron staircase in the courtyard and stone stairs in the southwest corner. On the interior facades facing the courtyard, the basement floor is made of rubble stone, the ground and first floors are made of stone and brick. Cut stone material was used on the exterior facades. In this 2008 image, the original wall facade can be seen under the cut stone cladding (Akçıl Harmankaya, 2016). In today's survey of Muhsinzade Inn, it was determined that the number of rooms increased compared to the pre-functionalization period. Looking at the northeast of the inn, it was determined that the spaces there present a complex plan. In order to emphasize the entrance, the door opening of the Muhsinzade Inn was constructed as a projection supported by profiled stone brackets from below. In this way, the barrel-vaulted corridor was extended to the facade and the light problem of the rooms on both sides of the corridor was solved. The re-functioning works lasted 14 years. The ground floor plan and section of the building are as follows (Figure 3).

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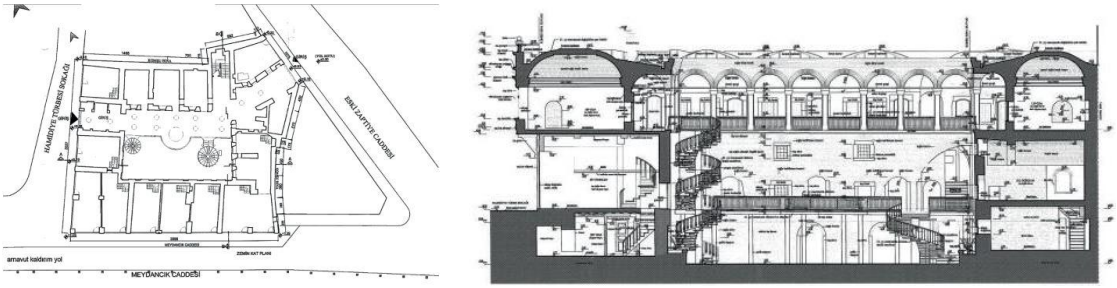

Figure 3. Muhsinzade Inn - Ground Floor Plan and Section (Akçıl Harmankaya, 2016)

4. Results

The findings of this study on the repurposing and interior interventions of Eminönü Muhsinzade Han have been evaluated across six fundamental parameters: locational and functional setups, architectural language, structural elements, volumetric layout, circulation elements, and interior atmosphere. The results of the study are outlined as follows:

Locational and Functional Setups

While the historic building had a courtyard-centered plan focused on commerce and accommodation, it has been transformed into a building that includes exhibition, restaurant and cultural event spaces with the re-functioning process. By preserving the central courtyard, social interaction was increased, and the spaces were reorganized to serve different functions such as art galleries, cafeterias and museums. Trade-oriented shops, warehouses and accommodation rooms have been replaced by functional diversity that appeals to a wider range of users. Previously monofunctional and inflexible spaces have evolved into multifunctional and flexible spaces that can be transformed for different activities (Figure 4b).

a) Original b) After Refunctioning

Figure 4. a) Central Courtyard (Ersoy, 2017)
b) Central Courtyard-Social Interaction Areas (Olden 1772, n.d.)

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Architectural Language

The architectural language of the building combines traditional Ottoman details with a minimal design approach, blending aesthetic elements with modern touches. The traditional style is supported by modern additions, preserving the historic identity but also responding to contemporary needs. The use of materials ranges from classical elements such as stone, wood and traditional plaster to glass, steel and modern cladding, providing visual and textural richness and creating a balanced harmony between history and modernity (Figure 6).

a) Original b) Original

Figure 5. a) Traditional Ottoman Details in Architectural Language (Akçıl Harmankaya, 2016) b) Use of Traditional Materials (Akçıl Harmankaya, 2016)

a) After Refunctioning b) After Refunctioning

Figure 6. a) Traditional Style Blended with a Minimal Design Approach (Grablocals, n.d.) b) Use of Modern Materials (Sluurpy, n.d.)

Structural Elements

The structural system of the building has been modernized from the traditional stone and timber column-beam layout with reinforced concrete support elements, increasing structural durability and preserving aesthetic elements. The structural durability provided by traditional

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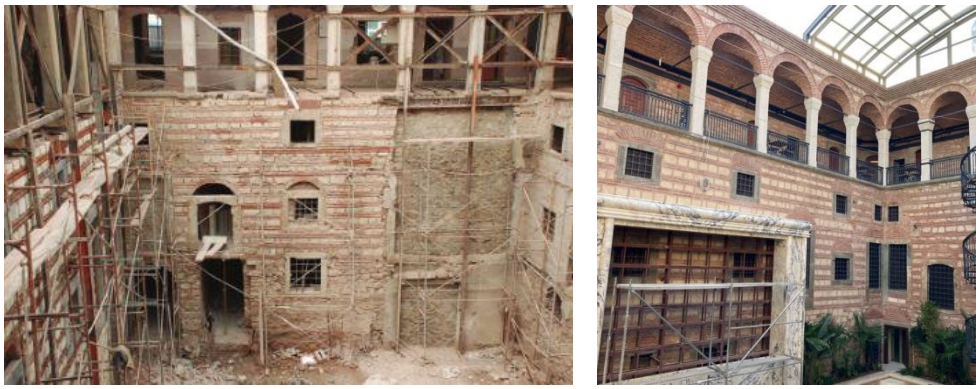
methods has been supported by modern retrofitting techniques, thus significantly improving safety against earthquakes. In the façade design, the traditional stone facade and small windows have been preserved, while glass panels and modern lighting systems have been added to increase visual permeability and harmonize the historical texture and contemporary design (Figure 8).



a) Original b) Original

Figure 7. a) Traditional Ottoman Details in Architectural Language (Akçıl Harmankaya, 2016)
b) Use of Traditional Materials (Akçıl Harmankaya, 2016)

a) Original b) After Refunctioning

Figure 8. a) Original Structural System of the Building (Yapı, 2022)
b) Structural System Supported by Modern Reinforcement Techniques (Foursquare, n.d.)

Volumetric Layout

The volumetric layout of the building enriches the spatial experience by transforming high-ceilinged commercial and accommodation rooms into spacious exhibition halls and event spaces. The rooms, which were previously designed in proper proportions and in accordance with their function, have been optimized according to modern usage needs and rescaled to serve different functions. Spaces with limited natural light from small windows have been made brighter with glass panels and artificial lighting, and the balanced use of natural and artificial light has improved spatial perception and enhanced the user experience (Figure 9b).

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a) Original b) After Refunctioning

Figure 9. a) Rooms Originally Designed with the Right Proportions (Akçıl Harmankaya, 2016)
b) Rooms Designed According to Modern Usage Needs (Han 1772, n.d.)

Circulation Elements

The circulation elements of the building facilitate user movement by optimizing the horizontal circulation provided by narrow corridors around the courtyard with wide corridors and open circulation areas. As a vertical circulation element, the staircase is positioned and designed to provide vertical movement comfort. Spatial connections, limited by compartmentalized spaces and narrow passages, have been improved with reinforced passages; connections between the ground and upper floors have been developed to meet modern access needs (Figure 11).

a) Original b) Original

Figure 10. a) Original Vertical Circulation Element of the Building (Ersoy, 2017)
b) Original Narrow Corridors of the Building (Akçıl Harmankaya, 2016)

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a) Original b) After Refunctioning

Figure 11. a) Stairs Designed to Satisfy Modern Access Requirements (Oggusto, 2023)
b) Optimized Wide Corridors (Naif Design Project, n.d.)

Interior Atmosphere

The interior atmosphere of the building has been improved by supplementing the windows facing the courtyard, which provide limited natural lighting, with modern artificial lighting systems. Traditional stone floors and wooden claddings are blended with modern materials to harmonize both historical and contemporary textures in the spaces. The natural acoustic properties of the stone walls are optimized for events and collective use, supported by velvet acoustic elements. This acoustic solution has enriched the space both functionally and visually, thus increasing the sound comfort for users (Figure 12b).

a) Original b) After Refunctioning

Figure 12. a) Windows Providing Limited Natural Lighting (Ersoy, 2017)
b) Lighting and Acoustic Solutions Blending Historical and Modern Elements (Tripadvisor, n.d.)

The table below summarizes the transformation in the spatial structure and relations of Muhsinzade Inn after its original function and re-functioning (Table 1).

Table 1. Spatial Structure and Relationships Following Original Function and Repurposing

Parameter	Sub-Parameter	Original Function (Historical Inn)	After Refunctioning	Change and Impacts
Locational and Functional Setups	Location	Courtyard-centered, commerce and accommodation-oriented plan.	Exhibition, restaurant, and cultural event spaces.	The central courtyard has been preserved, enhancing social interaction.
	Function	Commerce-oriented shops, storage rooms, and accommodation chambers.	Art galleries, cafeterias, and museum areas.	Functional diversity has increased, broadening the user profile.
	Flexibility	Single-purpose, non-flexible spatial usage.	Multi-functional, flexible use spaces.	Spaces have been made adaptable for various activities.
Architectural language	Design Elements	Traditional details with a minimalist design approach.	A design approach blending aesthetic elements with modern touches.	Visual harmony has been achieved, balancing historical and modern elements.
	Structural Style	Identity and character are specific to Ottoman architecture.	Traditional style enhanced with modern additions.	While maintaining historical identity, modern needs have been addressed.
	Material	Stone, wood, and traditional plaster.	Glass, steel, and modern cladding materials.	Material diversity has been enhanced, providing visual and textural richness.
Structural Elements	Carrier System	Stone and wood column-beam structural system.	Reinforced concrete support elements.	Structural durability has been improved, while aesthetics has been preserved.
	Structural Durability	Structural durability is achieved through traditional methods.	Modern reinforcement techniques.	Seismic resilience has increased, improving safety.
	Facade and Wall Systems	Traditional stone facade with small windows.	Glass panels and modern lighting.	Visual permeability has been enhanced, harmonizing with the historical fabric.
Volumetric Layout	Volumetric Integrity	High-ceilinged commercial and accommodation rooms.	Spacious exhibition halls, high-ceilinged event areas.	Perception has been maintained, enriching the spatial experience.
	Proportional Distribution	Uniform room sizes with spaces tailored to their functions.	Spaces are optimized according to their functions.	Spaces have been re-scaled according to varying needs.
	Light and Shadow	Limited natural light from small windows.	Bright spaces with glass panels and artificial lighting.	The combination of natural and artificial lighting has improved spatial perception.
Circulation Elements	Horizontal Circulation	Circulation around the courtyard with narrow corridors.	Wide corridors and open circulation areas.	User circulation has been optimized, facilitating movement.
	Vertical Circulation	Narrow staircases.	As a vertical circulation element, the staircase is positioned and designed to provide vertical movement comfort.	Accessibility has increased, ensuring comfort in vertical circulation.
	Spatial Connectivity	Divided spaces, narrow passages, and limited access.	Reinforced connections, improved transitions, and accessibility features.	Connections between different parts of the building have been strengthened, and transitions between the ground and upper floors have been improved.
Interior Atmosphere	Lighting	Limited natural light with windows oriented toward the courtyard.	Increased natural lighting, with added artificial lighting systems.	The lighting quality of the spaces has been enhanced.
	Material and Texture	Stone flooring, wood paneling.	Historical textures combined with modern materials.	Traditional and modern textures have been blended.
	Acoustics	Natural acoustic properties of stone walls.	Velvet acoustic elements and sound insulation.	Acoustic arrangements have been made for events and public uses, ensuring sound comfort.

5. Conclusion

The primary objective of this study is to examine how the architectural and interior interventions applied during the repurposing process of the historical building, Muhsinzade Han, adapt the structure to modern functions while preserving its original characteristics. Specifically, the study aims to analyze how the repurposing process addresses architectural language, structural elements, volumetric layout, interior atmosphere, and circulation elements, and to highlight the sustainability of such projects. This research makes a significant contribution to the literature on adapting historical buildings for modern use, particularly offering a model for the preservation and sustainable functionality of cultural heritage. Through the case study of Muhsinzade Han, the study demonstrates how historical fabric can be preserved and restructured for contemporary use. This work serves as a guide for similar projects in the fields of architecture and restoration. The findings of the study are presented in the table where the positive and negative aspects of the interventions made during the refunctioning process of the building are evaluated in detail (Table 2).

Table 2. Evaluation of Interventions in the Refunctioning Process

Parameter	Sub-Parameter	Positive Aspects	Negative Aspects
Locational and Functional Setups	Location	The courtyard-centered plan has been preserved, ensuring spatial integrity.	New functions have altered the original purpose of the plan.
	Function	Functional diversity and flexibility have been achieved.	The increase in commercial functions may reduce the priority of historical identity.
	Flexibility	The space has been adapted for various activities.	Constantly changing functions may weaken the spatial integrity of the identity.
Architectural language	Design Elements	Aesthetic and visual harmony have been maintained, with contemporary additions.	Modern design elements may be incompatible with the historical atmosphere.
	Structural Style	Historical identity has been preserved, strengthening the spatial character.	Added modern elements may damage the original character of the building.
	Material	Visual wealth has been enhanced through the harmonious use of traditional and modern materials.	The density of modern materials may diminish the perception of the original textures.
Structural Elements	Carrier System	Structural safety has been improved through reinforcement works.	Interventions to structural elements may lead to aesthetic losses.
	Structural Durability	Earthquake resistance has been increased, extending the building's lifespan.	Certain components of the original structural system have been lost.
	Facade and Wall Systems	Modifications to the facade have enhanced light permeability and modern aesthetics.	Facade modifications may partially disrupt the historical texture.
Volumetric Layout	Volumetric Integrity	Spatial experience has been enriched by maintaining ceiling height and room layout.	Some volumes have lost their original proportions to adapt to new functions.
	Proportional Distribution	Spaces have been made more efficient in their use.	When original spatial scales are altered, the historical experience may be weakened.
	Light and Shadow	Spatial depth has been emphasized through the use of natural and artificial lighting.	The intensity of artificial lighting may reduce the use of natural light.
Circulation Elements	Horizontal Tion	Corridors and passageways have been expanded, increasing user mobility.	The modernization of horizontal circulation may impact the historical use of the space.
	Vertical Circulation	The addition of new elevators and stairs has facilitated vertical circulation.	Modern elevators may conflict with the aesthetic of the historical building.
	Spatial Connectivity	Transitions between different floors of the building have been made smooth with clear directional signage.	Due to the physical constraints of the building and narrow passageways, some connections are limited.
Interior Atmosphere	Lighting	Increased natural light and modern lighting have made the spaces feel more open and spacious.	Intensive artificial lighting may cause the loss of the historical atmosphere.
	Material and Texture	A rich interior atmosphere has been created by blending traditional and modern textures.	Excessive use of modern materials may weaken the perception of historical textures.
	Acoustics	Sound insulation and acoustic panels provide a comfortable environment for events.	Added acoustic elements may disrupt the aesthetic integrity of the historical space.

The findings of this study support the literature on adaptive reuse and architectural preservation. As Wilkinson and Reed (2008) highlight, ensuring the preservation of historical structures during modernization is a key element of sustainability. The case of Muhsinzade Inn confirms the economic, social, and environmental benefits of preserving cultural heritage, as emphasized by Pırnar et al., (2011). Additionally, the study aligns with Arabacıoğlu and Aydemir's (2007) views on safeguarding cultural values during restoration and adaptive reuse processes.

The research details both positive and negative aspects of the interventions made during the refunctioning process. Spatial and functional interventions allowed the building to adapt to various uses, but this led to changes in some of the original layout. Efforts to preserve the historical identity through architectural language were balanced with the integration of modern design elements. Structural interventions successfully reinforced the load-bearing systems but caused some aesthetic loss.

The findings show that modern interventions had a minimal impact on the historical fabric of the building, indicating successful application of restoration techniques. The refunctioning process brought economic benefits through the integration of the building into the tourism sector, contributing to the local economy. However, the 14-year restoration period demonstrated the long-term time and cost impacts of such complex projects.

The study also emphasizes the critical role of public-private partnerships in achieving sustainable outcomes in these projects. While the findings are specific to Muhsinzade Inn, they provide valuable insights for similar projects. Further research could explore comparative studies of adaptive reuse in different regions and buildings, focusing on sustainability and long-term environmental impacts. Additionally, qualitative research on the socio-cultural effects of such projects on local communities and tourists would offer significant opportunities for future investigation.

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Author Note

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Conflict of Interest

The authors reported no conflict of interest related to this article.

References

Akçıl Harmankaya, N. Ç. (2016). Eminönü Muhsinzade (Muhsinoğlu) Hanı. *Sanat Tarihi Yıllığı,* (25), 73-104. https://dergipark.org.tr/tr/download/article-file/410001

Arabacıoğlu, P., & Aydemir, I. (2007). Tarihi çevrelerde yeniden değerlendirme kavramı. *Megaron, 2*(4), 204-212. https://jag.journalagent.com/megaron/pdfs/MEGARON-36349-ARTICLE-ARABACIOGLU.pdf

Bandarin, F., & Van Oers, R. (2012). *The historic urban landscape: Managing heritage in an urban century*. John Wiley & Sons.

Barron, M. (2010). *Auditorium acoustics and architectural design*. Spon Press.

Bektaş, C. (1992). *Koruma onarım.* Yapı Endüstri Merkezi.

Birik, M. (2011). *Kentsel mekanın değişim sürecinde transformasyon ve deformasyon* (Publication No. 305202). [Doctoral dissertation, Mimar Sinan Fine Arts University]. Türkiye Council of Higher Education Thesis Center.

Çelik, Z. (2018). *The remaking of Istanbul: Portrait of an Ottoman City in the nineteenth century*. University of California Press.

Ching, F. D. K. (2015). *Architecture: Form, space, and order*. Wiley.

Corbusier, L. (1960). *The Modulor: A harmonious measure to the human scale universally applicable to architecture and mechanics* (P. de Francia & E. Bostock, Trans.). Harvard University Press. (Original work published 1948)

Ersoy, B. (2017). İstanbul Muhsinzade Hanı üzerine bir restitüsyon denemesi. *TÜBA-KED Türkiye Bilimler Akademisi Kültür Envanteri Dergisi*, (15), 95-106. https://www.tuba.gov.tr/files/yayinlar/ked/TÜBA-KED%20Sayı15.pdf

Erzen, J. N. (2002). *Estetik ve anlam üzerine*. Dost Kitabevi.

Fakıbaba Dedeoğlu, E. (2012). *Tarihi değer taşıyan kiliselerde yeniden işlevlendirme sürecinin ve iç mekân çözümlerinin irdelenmesi: Sivrihisar Ermeni Kilisesi örneği* (Publication No. 314899). [Master Thesis, Hacettepe University]. Türkiye Council of Higher Education Thesis Center.

Feilden, B. M. (2003). *Conservation of historic buildings*. Architectural Press.

Foursquare (n.d.). *Han 1772 Hotel*. https://tr.foursquare.com/v/han-1772-hotel/629894e6bbf7a05c221db77d/photos

Frampton, K. (1995). *Studies in tectonic culture: The poetics of construction in nineteenth and twentieth century architecture*. MIT Press.

Goodwin, G. (1997). *A history of Ottoman architecture*. Thames & Hudson.

Grablocals (n.d.). *Olden 1772*. https://grablocals.com/listing/olden-1772/

Han 1772 (n.d.). *Dünün tarihi, bugünün modernliği*. https://www.han1772.com/galeri-2/

ICOMOS. (2004). *Principles for the analysis, conservation and structural restoration of architectural heritage.* ICOMOS International. https://www.icomos.org/en/165-icomos-charter-principles-for-the-analysis-conservation-and-structural-restoration-of-architectural-heritage

Jencks, C. (2000). *The new paradigm in architecture: The language of Post-Modernism*. Yale University Press.

Kostof, S. (1995). *A history of architecture: Settings and rituals*. Oxford University Press.

Kuban, D. (2017). *Osmanlı mimarisi*. Yapı Kredi Yayınları.

Naif Design Project (n.d.). *Olden 1772*. https://naifdesign.com/project/olden-1772/

Norberg-Schulz, C. (1980). *Genius loci: Towards a phenomenology of architecture*. Rizzoli.

Olden 1772 [@oggustocom]. (2023, April 28). *İstanbul'da nefis kokteyller içebileceğiniz mekanlar* [Photograph]. Instagram. https://www.instagram.com/oggustocom/p/CrlqB6zt6Fg/

Olden 1772 (n.d.). *Tarihi atmosferde iddialı bir gastronomi deneyimi.* https://olden1772.com/hakkimizda/

Pırnar, I., Içöz, O., & Içöz, O. (2011, June). Affluent marketing and implications on hospitality: Case from Izmir. In *Advances in Hospitality and Tourism Marketing and Management Conference Proceedings* (pp. 19-24). Istanbul, Turkey: Washington State University & Bogazici University.

Schittich, C. (2013). *Building in Existing Fabric: Refurbishment, Extensions, New Design*. Birkhäuser.

Semper, G. (2004). *The four elements of architecture and other writings* (H. F. Mallgrave & W. Herrmann, Trans.). Cambridge University Press. (Original work published 1851).

Sluurpy (n.d.). *Olden 1772-İstanbul.* https://tr.sluurpy.com/istanbul/restaurant/8724603/olden-1772/photos

Tripadvisor (n.d.). *Han 1772 Hotel.* https://www.tripadvisor.com.tr/Hotel_Review-g293974-d24106278-Reviews-Han_1772_Hotel-Istanbul.html

Wilkinson, S. J., & Reed, R. G. (2008). The business case for incorporating sustainability in office buildings: The adaptive reuse of existing buildings. In *Proceedings of 14th Annual Pacific Rim Real Estate Conference* (pp. 1-18). Kuala Lumpur, Malaysia.

Yapı (2022, November 18). *250 yıllık Muhsinzade Han turizme kazandırıldı*. https://www.yapi.com.tr/haberler/250-yillik-muhsinzade-han-turizme-kazandirildi_193362.html

Zumthor, P. (2006). *Atmospheres: Architectural environments.* Birkhäuser.