

Adaptive Reuse and Heritage Perception: A User-Based Comparative Analysis of Two Historic Structures in Bursa

Uyarlanabilir Yeniden İşlevlendirme ve Miras Algısı: Bursa'daki İki Tarihi Yapının Kullanıcı Temelli Karşılaştırmalı Analizi

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Abstract

User reviews shared on digital platforms today provide qualitative data on the perception of cultural heritage sites. This study examines the impact of different management models on user perceptions through the use of two adaptive reused buildings in Bursa, the Kitapevi Hotel and the Balibey Han. The analysis, supported by text mining and AHP methods, was conducted under the headings of architectural continuity, cultural sustainability, and user experience. The study aims to use data derived from user reviews on digital platforms to reveal how adaptive reuse decisions are perceived from the user's perspective. It also aims to examine how this perspective can guide decision-making and contribute to the development of evaluation frameworks for the preservation of cultural heritage.

Keywords: Adaptive reuse, Kitapevi Hotel, Balibey Han, user perception, cultural heritage

Öz

Günümüzde dijital platformlarda paylaşılan kullanıcı yorumları, kültürel miras alanlarına ilişkin algı hakkında nitel veriler sunmaktadır. Bu çalışma, Bursa'daki iki yeniden işlevlendirilmiş bina olan Kitapevi Otel ve Balibey Han'ı örnek alarak, farklı yönetim modellerinin kullanıcı algıları üzerindeki etkisini incelemektedir. Metin madenciliği ve AHP yöntemleriyle desteklenen analiz, mimari süreklilik, kültürel sürdürülebilirlik ve kullanıcı deneyimi başlıkları altında gerçekleştirilmiştir. Çalışma, dijital platformlardaki kullanıcı yorumlarından elde edilen verileri kullanarak, yeniden işlevlendirme kararlarının kullanıcı perspektifinden nasıl algılandığını ortaya koymayı amaçlamaktadır. Ayrıca, bu perspektifin karar verme sürecine nasıl rehberlik edebileceğini ve kültürel mirasın korunmasına yönelik değerlendirme çerçevelerinin geliştirilmesine nasıl katkıda bulunabileceğini incelemektedir.

Anahtar Kelimeler: Yeniden işlevlendirme, Kitapevi Otel, Balibey Han, kullanıcı algısı, kültürel miras

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Introduction

Bursa, with its historical layers and urban structure dating back to the Ottoman period, holds a significant place in Türkiye's cultural heritage. Today, the historical structures within the urban fabric continue to exist as concrete examples of social collective memory. However, economic, social, or technological changes over time have led to some structures losing their original functions. The adaptive reuse approach proposed for such structures aims to sustain the structure's connection to its historical and cultural context. As in many other disciplines, sustainability has increasingly become a central concern within the field of conservation.

1. Research Purpose and Scope

1.1 Research Problem

The preservation and continuity of historical environments is an important issue that is also linked to sustainable development goals today. However, the success of architectural conservation is not only about protecting the physical structure but also about ensuring that the structure continues to be used.

This study examines the effects of different reuse approaches on spatial, cultural, and user-based outcomes through two example structures in Bursa's historical urban fabric that have undergone a reuse process: Kitapevi Hotel and Balibey Han. The study considers the ownership status of the structures, their new function, scale, accessibility, and physical location as independent variables related to the reusing process. The dependent variables are defined as architectural continuity, cultural sustainability, and user perception. Within the scope of this study, the effects of the independent variables on the dependent variables are analyzed comparatively.

The primary objective of this study is to examine how user perceptions of historic buildings, derived from comments on digital platforms and adapted for reuse, reflect the level of cultural heritage awareness. It aims to investigate whether a historical artifact presented to users with a new function achieves the outcomes intended by experts throughout the process. Finally, it seeks to explore how these perceptual data can be integrated into heritage conservation and decision-making processes. In this regard, user comments obtained from digital platforms form the basis of quantitative and qualitative analyses.

1.2. Research Hypotheses

Structures refurnished by local or general administration for cultural-commercial purposes, such as Balibey Han, offer spaces that clearly display their historical identity and original function, and are introduced in this way. In this way, such structures are more readily embedded in collective memory. Cultural heritage awareness is also expressed more frequently in these environments. On the other hand, in privately owned historical buildings that have been refurnished for accommodation, users focus mostly on comfort and service. However, this can overshadow the historical context of the space. Furthermore, the new function assigned to the structure takes precedence in the user's perception. This situation can lead to the perceptual “invisibilisation” of historical and cultural values. In this context, even if the structure possesses cultural heritage qualities, the user experience prevents these qualities from being noticed (Smith, 2006; Uzzell, 2006).

1.3. Research Scope

Various complementary criteria were decisive in selecting the Kitapevi Hotel and Balibey Han as case studies. Both structures are located in Bursa's historic city center and face

the same street. The process of their adaptive reuse has been documented. This makes them suitable for a comparative analysis of conservation outcomes. The aim was to ensure that the two selected structures differ in terms of scale, ownership model, and assigned new function. While Balibey Han represents a large-scale cultural-commercial transformation managed by the public sector, the Kitapevi Hotel is privately owned and offers small-scale lodging and restaurant services. This contrast provides a controlled comparative framework within which independent variables such as ownership, function, and scale can be examined against dependent variables such as architectural continuity, cultural sustainability, and user perception. Additionally, both structures have a sufficient number of user reviews to enable statistically significant text mining analysis on digital platforms. The final criterion is that the selected structures must be suitable for field observation throughout the research period.

Within the framework of this problem, the main objectives of the research are as follows:

- How does the new function assigned to architectural heritage affect architectural continuity and community memory?
- Does architectural scale create differences in the cultural and emotional experience users establish with the space?
- How do the locations of historical structures within the city, the entrance to the structure, and the areas of use affect satisfaction and awareness?

These questions suggest that the scales of the buildings, their old and new functions, and construction materials, as independent variables, are being investigated for their effect on dependent variables such as timing of service and target audience.

2. Theoretical Framework and Historical Context

2.1. Reuse and Their Impact on Cultural Continuity

All above/below ground, abstract/concrete entities that have survived from the past to the present are historical heritage. Some of the purposes that motivated the construction of structures with multifaceted transmissions such as historical layers, construction and material knowledge, and usage practices no longer exist today. Some functions are no longer needed in the locations where the structures are located. Another reason is the preference of the structure's owner. Continuing to use historical architectural heritage that is no longer used due to historical, environmental, physical, and legal reasons is only possible by giving it a different function. In this context, giving historical works new functions, i.e., adaptive reuse, is a frequently discussed topic in the discipline of conservation. Adaptive reuse refers to the integration of historic structures that are idle or have lost their original function with new uses appropriate to contemporary needs. This approach both preserves the physical structure and provides social and economic benefits.

The adaptive reuse of historic structures has long been a significant approach within conservation theory. The Venice Charter, considered the international law of conservation theory, refers to this issue in its Article 5. It states that monuments can best be preserved by assigning them a useful function for society, and that only limited changes can be made without modifying the layout or decoration (ICOMOS, 1964). The Burra Charter, created by ICOMOS in 2013, states that minimal intervention should be made when adapting a historic site to a new function. According to the Burra Charter, interventions required for a new function must be compatible and reversible (ICOMOS, 2013). As emphasised in the charters, the important elements in the preservation of cultural heritage are history, social memory and cultural

transmission. All interventions in the structure must be made with the aim of maintaining these processes.

Smith states that architectural heritage is not only about the past or the material; it is a 'process' that must be preserved (Smith, 2006). The preservation and sustainability of historical structures, along with their processes, are of great importance in terms of their transmission to future generations. Over time, the process of social patterns on historical spaces makes the structure unique (Özbek Eren, 2022).

The Madrid-New Delhi Document (2017), prepared by the ICOMOS International Scientific Committee on 20th Century Heritage (ISC20C), emphasizes the role of the structure's use in heritage preservation. It states that if a change in function is necessary, the new function must be of a nature that sustains the cultural significance. According to this document, new uses should be implemented in a way that best interprets the cultural meaning (ICOMOS, 2017).

The concept of cultural sustainability is also an important dimension that intersects with conservation theory. Although sustainability is often associated with economic and environmental components, true sustainability cannot be achieved without a cultural dimension (Soini & Birkeland, 2014). Cultural sustainability refers to the ability of a society's cultural values, practices and heritage to be transmitted to future generations. When historical structures are preserved with new functions, the history, identity and traditions of that society continue to exist. For instance, converting a traditional han building into an arts and crafts market both preserves the physical structure and provides a space for traditional handicraft culture to thrive. In this respect, adaptive reuse projects align with the United Nations Sustainable Development Goals, specifically 'Sustainable Cities and Communities' (Goal 11) and the preservation of cultural heritage (Target 11.4).

According to Kee (2015), when the new community-focused design dialectic is placed at the center, designers' professional influence becomes the most critical step in the design process. A study that examines in detail the various approaches to intervening in historic structures, based on recent publications, defines adaptive reuse as the transformation of existing materials. It further notes that this concept encompasses building transformation and material reuse, and includes modernization, renovation, and rehabilitation (Shahi et. al., 2020).

Yung and Chan (2012) highlight that adaptive reuse of heritage buildings represents one of the most effective strategies for reconciling the competing demands of sustainable urban development and cultural conservation, as it simultaneously addresses environmental, social, and economic dimensions of sustainability. On the other hand, Tweed and Sutherland (2007) argue that while debates on urban sustainability have long prioritized technical concerns such as carbon emissions and economic regeneration, the contribution of built cultural heritage to the social well-being of diverse urban communities has gained increasing recognition in policy and planning discourse. They further contend that the intangible features of the historic urban fabric, including street patterns and spatial continuity, are often precisely those elements that confer a city's distinctive character and underpin the sense of belonging that lies at the core of cultural identity.

A further dimension that warrants consideration is the role of user-focused evaluation models. User experience and perception are important indicators of the success of an architectural space. For this reason, user-based evaluation approaches have come to the fore in the field of conservation in recent years (e.g., post-occupancy evaluation, visitor surveys, online comment analysis). Especially in the digital age, comments, reviews, and social media posts shared by visitors online are primary data sources that reveal the public perception of a space.

The number of academic studies focusing on post-visit evaluations and data generated by visitors is steadily increasing, and these studies have demonstrated that user feedback serves as a valuable tool for assessing how cultural heritage sites are perceived and managed over time (Yung & Chan, 2012). Data collected from users' spatial experiences provides feedback for design and operational processes and enables continuous improvement. Therefore, in this study, findings derived from Google reviews will be used as a user-based evaluation model, and the dimensions of architectural continuity and cultural sustainability will be examined through user perceptions.

2.2. Historical Context

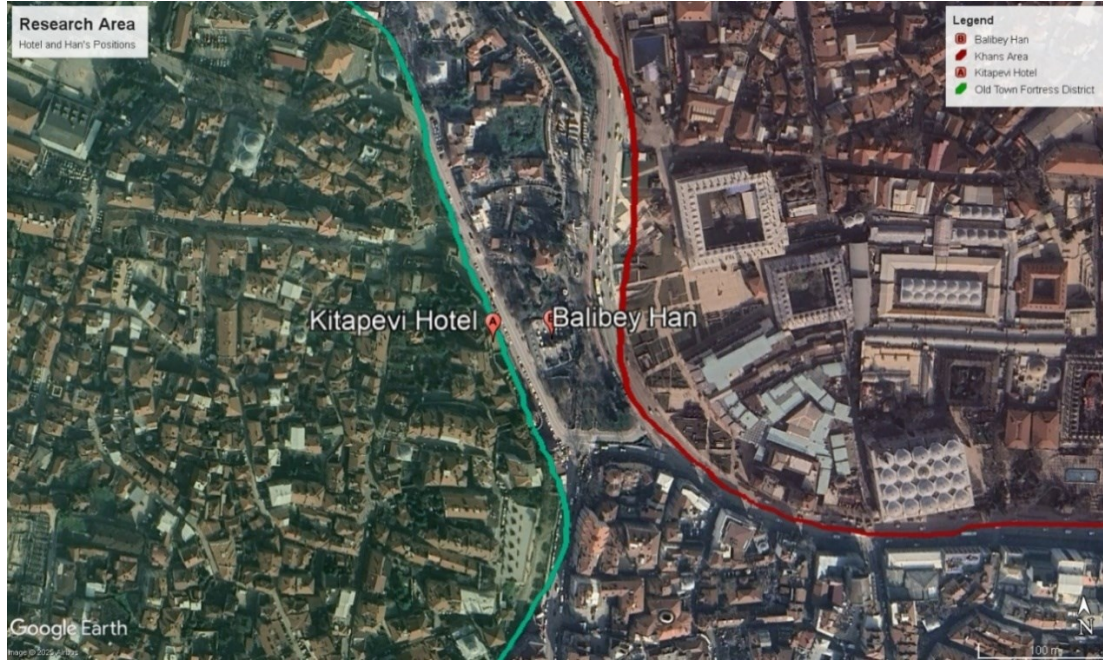


Figure 1: Locations of the Buildings Studied within the Historical Bursa Area
Source: own work based on Google Earth data.

As the first capital of the Ottoman Empire, Bursa has been an important center of trade, culture, and administration since the 13th century. Parts of the city are included in the UNESCO World Heritage List under the file "Bursa and Cumalıkızık: the Birth of the Ottoman Empire". The locations of the two structures selected for the research, Balibey Han and Kitapevi Hotel, are shown in Figure 1. The city walls begin at the end of the road in front of the hotel. The han structure is integrated with the axis adjacent to the city walls.

Balibey Han is located within the buffer zone of the World Heritage List boundaries. It is one of the important surviving han structures in Bursa. Built in the late 15th century, the han was commissioned by Bali Beyi, a governor of the Ottoman State. The main feature that makes Balibey Han unique is that it is the first three-story han built in Bursa; with a total of 64 rooms, this structure was designed at an unusual height for its time (Baykal, 1950).



Figure 2: Kitapevi Hotel is on the Left, Balibey Han is on the Right with the Grey Roof
Source: Author 2025

The Han is located on the very edge of the Bursa city walls. According to historical records, it had been restored several times in the 16th and 17th centuries with foundation incomes, but gradually fell into ruin in the following periods (Kaplanoğlu, 2003). At the end of the 18th century, it was even considered to be put on a competitive tender to find a tenant who would cover the restoration costs, but it could not be fully saved. In the mid-20th century, parts of Balibey Han were used as shelters and coffee houses, but the building remained largely unused for a long time (Sunay, 2007). According to Eyice, the Great Bursa Earthquake may have been the reason for the loss of a large part of the han (Eyice, 1992).



Figure 3: Balibey Han
Source: Author 2025

With the establishment of the Republic, and particularly from the 1980s onwards, work on historical heritage in Bursa accelerated. In the case of Balibey Han, the municipality cleared its courtyard and ground floor of the earth fill and debris that covered them during excavations and cleaning operations in 1983. Excavations conducted in 1984 as part of the Hisar renovations unearthed its arches (Url-1).

Following the restoration completed in 2009, Balibey Han was opened to the public as a traditional handicrafts bazaar. Today, there are approximately 30 workshops inside the han, as well as a restaurant and café on the upper floor (Figure 3). Various traditional handicrafts such as ebru, calligraphy, ceramics, glasswork, Karagöz puppet making, and weaving are practiced here, and it also hosts cultural events with its exhibition and meeting halls.

The Kitapevi Hotel is a 19th-century example of civil architecture that holds a notable place in the city's architectural memory. The entrepreneur who purchased it in 1996 wanted to bring the building into the present day with a bookstore function. In the year restoration work began, the building had suffered a fire and was in a state of disrepair (Kazmaoğlu, 2000).



Figure 4: Kitapevi Hotel
Source: Author 2025

The mansion, which served as a bookstore between 1998 and 2009, was redesigned to serve as a hotel following renovation (Url-2). Thus, it became one of the first projects in Bursa to transform a historical example of civil architecture into a boutique hotel (Figure 4).

In summary, Balibey Han and Kitapevi Hotel present two examples of reusing in Bursa's historical fabric, differing in scale and nature. Balibey Han has been transformed into a large-scale commercial-cultural space as part of a public restoration project, while Kitapevi Hotel has been converted into a smaller-scale accommodation facility under private ownership. Both structures, which would have been demolished if left vacant and unused, have been saved for the city thanks to their new functions. The following sections will explain how these two examples were analyzed methodologically, followed by a multidimensional assessment, including user perception.

3. Method

In architectural research on historical structures, the comparative analysis method plays an important role, particularly in understanding the spatial and typological characteristics of structures from different periods and with different functions (Lynch, 1960; Tzonis & Lefaivre, 1981). This method aims to identify transformations, commonalities, and differences over time by placing the physical and functional characteristics of multiple structures side by side (Groat & Wang, 2013). In this context, comparative analysis, supported by methods such as on-site observation, historical document review, spatial analysis, and user comments provide a comprehensive assessment in both architectural and cultural heritage contexts (Hillier & Hanson, 1984).

The methodological design of this study is structured to ensure a direct alignment between the research questions formulated in Section 1.3 and the analytical procedures applied. Specifically, the first research question regarding the impact of the new function on architectural continuity and social memory is addressed through an AHP analysis that evaluates historical functional compatibility and architectural integrity as separate criteria. The second

question, regarding the role of architectural scale in shaping cultural and emotional experience, was examined through a comparative thematic analysis of user comments; in this analysis, special attention was paid to the differing distribution of heritage-related language between the two structures. The third research question, concerning the impact of location, entrance configuration, and spatial accessibility on satisfaction and awareness, was examined through both the social accessibility criterion of AHP and the thematic categories “Building and Space Assessment” and “Cultural Heritage and Historical Fabric,” derived from n-gram analysis. The following sections provide a detailed explanation of each of these analytical procedures.

In this study, the Analytic Hierarchy Process (AHP) method, developed by Thomas L. Saaty, was used to systematically structure the decision-making process. The "analytic" nature of the method allows complex decision problems to be broken down into their basic components for analysis, while its "hierarchical" structure provides the opportunity to model the problem within a multi-layered structure. In this context, the Balibey Han and Kitapevi Hotel examples were analyzed within the framework of six main criteria to reevaluate their post-restoration functions in terms of historical, architectural, functional, economic, environmental, and social dimensions. Within the scope of the AHP approach, each structure was evaluated with scores ranging from 1 to 5 according to the defined criteria.

The six evaluation criteria used in the AHP analysis were determined through a three-step process. First, a systematic review of the literature on adaptive reuse and heritage assessment was conducted to identify commonly applied evaluation dimensions (see Bullen & Love, 2011; Langston et al., 2008). These theory-based criteria were subsequently refined through on-site observations of both structures; during this process, the physical counterparts of documented comments regarding the structures were interpreted. This integrated approach ensured that the criteria were both theoretically justified and grounded in the specific contexts of the two case studies.

User-generated data has become an important resource for understanding the social perception of public spaces, particularly cultural heritage and architectural structures. Visitor comments are evaluated not only as a transmission of individual experiences but also as linguistic representations showing how these structures are positioned in the public memory. Methods such as text mining, natural language processing (NLP), and frequency analysis offer new opportunities for systematically examining these comments and converting them into numerical data. In particular, n-gram analysis and thematic frequency methods reveal the concept clusters and discursive intensities highlighted by users, producing valuable findings on how the space is perceived.

Prior to the analysis, a comprehensive data preprocessing process was carried out for online user comments. During this process, a series of cleaning and standardization operations were performed on text data obtained from various digital platforms, primarily Google reviews. First, obvious spelling and grammar errors in the comment texts were corrected; linguistic consistency was ensured to preserve meaning integrity and enable accurate n-gram generation. Subsequently, comments written in different languages were professionally translated into a single language and included in the analysis. Furthermore, comments that were nearly identical in content, whether from the same user or different users, were removed from the dataset. This prevented statistical deviations that repetition could cause in the analysis outputs.

In preparation for frequency analysis, certain key concepts were grouped thematically to more accurately represent the semantic content of the comments. For instance, synonymous expressions such as "prices are high," "very expensive," and "not worth it" were grouped under the common indicator keyword "expensive" and included in the frequency process. This

prevented superficial variations from fragmenting the data content and ensured a more linear thematic match.

The obtained format was subjected to thematic n-gram analysis. It aimed to identify the most frequently recurring word combinations (two-word or three-word groups, i.e., bigrams and trigrams) within the review texts. In the analysis conducted separately for each structure, n-grams reflecting the themes emphasized by users were identified. For example, word groups such as "historic atmosphere," "Ottoman texture," "comfortable room," and "smiling face" were identified and their frequencies calculated. These n-grams were then conceptually categorized by the researcher.

Based on the obtained n-gram frequencies and general comment content, user feedback was classified under four main themes:

A. Cultural Heritage and Historical Fabric: Historical, wooden, stone, traditional, cultural, etc.

B. Structure and Space Evaluation: Architectural, location, aesthetic, transportation, etc.

C. Food, Drink, and Atmosphere: Breakfast, service, staff, comfort, etc.

D. Price and Negative Experiences: Expensive, noisy, cleanliness, service, etc.

These themes are consistent with the research questions of the study and are also related to the adaptive reuse process criteria in the literature. For example, the perception of historical value emphasized in the Burra Charter and ICOMOS principles is reflected in user comments with an emphasis on "historic atmosphere." Similarly, the continuity of architecture can be traced with expressions such as "preservation of the original fabric."

The multiple counting (non-exclusive frequency) technique was also applied during the analysis process. In this approach, each comment was included independently in every theme it contained, rather than just one thematic category. For example, if a comment referred to both the historical fabric and the dining experience, it was counted separately for each heading. This allowed for a more comprehensive and distributionally realistic modeling of content representation. The advantage of this method is that it provides a richer analysis output by considering the overlap and co-occurrence frequency of multiple themes in user comments. The obtained n-gram frequencies and distributions per theme provide a robust quantitative framework for describing linguistic patterns.

In the final stage, the distribution of relevant n-grams and keywords for each theme was visualized. For this purpose, bar charts were created using Python's data visualization tools. These charts show the proportion of comments grouped under each main theme within the total.

In terms of the robustness of the method, it should be noted that different data sources were used through triangulation. Historical and architectural data (literature, archives, observations) were interpreted together with user comments in an attempt to reach a more comprehensive result. Furthermore, on-site observations at the locations supported the qualitative data. Field visits were conducted to both structures in April 2025; aspects such as the current state of the physical space, restoration quality, and user behavior were examined on-site. These observations served as a control function to understand whether the findings obtained from digital data corresponded with reality.

In sum, the methodological approach adopted in this study quantitative content analysis with qualitative reading and a theoretical framework. This has yielded a rich dataset that allows for the discussion of cause-and-effect relationships, rather than merely providing a numerical

satisfaction survey. However, certain methodological limitations must also be acknowledged. User-generated content on digital platforms, by its very nature, cannot be verified in terms of authorship and authenticity. For instance, the possibility that some reviews were submitted at the request of business owners, or that dissatisfied users are less likely to write reviews, introduces a potential selection bias into the dataset. Furthermore, the analysis is limited to reviews available in the languages covered by the translation and cleaning process; this may exclude the perspectives of certain visitor groups. These limitations do not invalidate the findings, but they should be taken into account when interpreting the results. Future studies could seek to strengthen the reliability of user-based heritage assessments by comparing digital review data with structured visitor surveys or ethnographic observations.

4. Finding

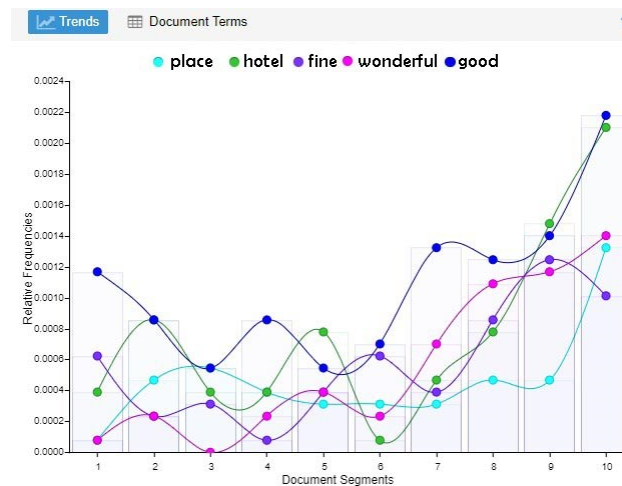
In the AHP analysis conducted, the scores assigned for each structure based on the six evaluation criteria were determined by considering the current state of the structures, their usage patterns, and their levels of public accessibility (Table 1). These scores were determined through observation-based expert evaluations and indicators supported by qualitative literature. According to the analysis results, Balibey Han exhibited a stronger profile in terms of historical function compatibility, social accessibility, and cultural continuity, while Kitapevi Hotel was found to be advantageous in terms of economic sustainability and functional adaptability. This highlights the relationship between different types of interventions and conservation objectives in a comparative manner and emphasizes the importance of evaluating reuse decisions within a multi-criteria framework.

The following findings are organized to address each of the three research questions in turn. The first question, regarding how the new function assigned to the heritage structure affects architectural continuity and social memory, is reflected in the AHP scores for historical functional compatibility and architectural integrity; according to these scores, Balibey Han demonstrates a significantly stronger alignment with its original public and commercial functions. The second question, regarding the role of architectural scale in shaping cultural and emotional experience, was examined through the thematic distribution of user comments. This analysis reveals that Balibey Han's larger, public-scale setting accounts for a significantly higher proportion of heritage-related language use compared to the more intimate, lodging-focused Kitapevi Hotel. The third question, regarding how location, entrance configuration, and spatial accessibility shape satisfaction and awareness, is addressed through both the social accessibility criterion of the AHP and the thematic categories of 'Building and Space Assessment' and 'Cultural Heritage and Historical Fabric' derived from n-gram analysis.

Table 1: AHP Analysis

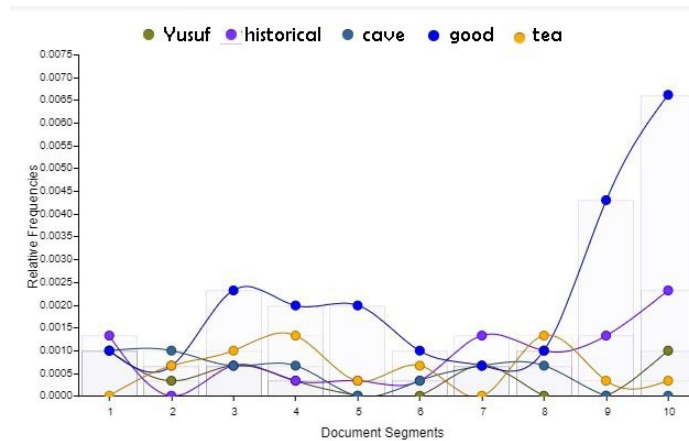
Criterion	Description	Balibey Han (Score + Justification)	Kitapevi Hotel (Score + Justification)
Historical-Cultural Integrity	Compatibility of the new function with the historical identity and originality of the building	5 Public cultural use close to original 'han' function	3 Private lodging function, moderately compatible
Architectural-Technical Quality	Preservation of architectural elements and construction quality	4 Façade and interiors preserved, public visibility ensured	5 High interior quality, authentic materials preserved
Functional Adaptability	Suitability of spatial structure to new function	4 Courtyard structure supports multi-purpose use	5 Room-based layout perfectly matches hotel use
Economic Sustainability	Long-term income generation potential of the function	3 Municipality-run with limited economic model	5 High commercial viability through boutique hotel
Environmental and Energy Impact	Environmental footprint and energy efficiency of the building	4 Open to the public, but energy efficiency limited	3 Commercial use implies more consumption per room
Social Accessibility and Inclusion	Level of public access and community engagement	5 Open to public, hosts cultural events	2 Access limited to paying guests only

Source: own work



Graph 1: Word Segments of Kitapevi Hotel Reviews

A total of 529 visitor comments were analyzed using text mining techniques within the scope of this study. In addition to the content analysis of the comments, a trend analysis graph visualizing the distribution of specific keywords within the text was also examined. This graph comparatively presents the relative frequencies of positive words such as "place," "hotel," "good," "great," and "beautiful" across sections obtained by segmenting user comments (Graph 1). This visual analysis reveals where the positive aspects of the visitor experience are concentrated in the comment text; in particular, the increase in word frequency in the last segments shows that satisfaction at the end of the stay is emphasized more.



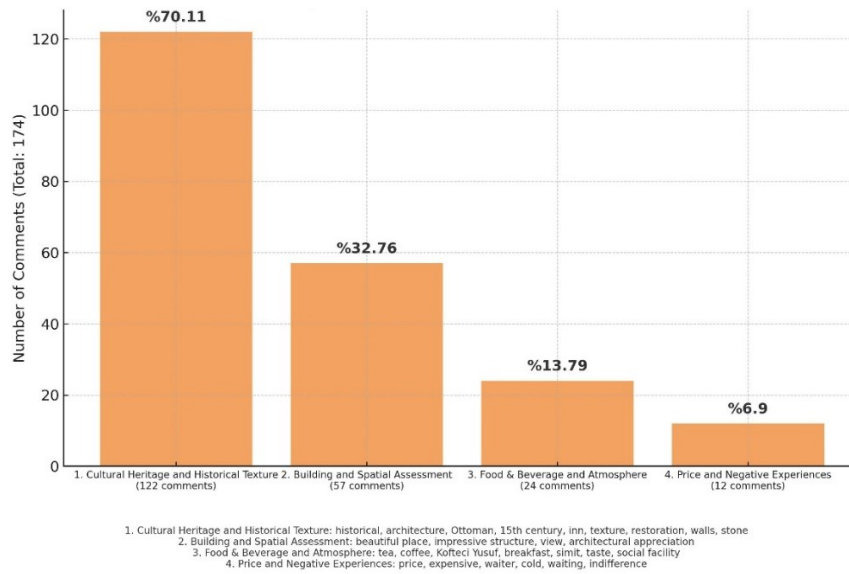
Graph 2: Word Segments of Balibey Han Reviews

This graph shows how certain keywords (tea, cave, beautiful, historical, Yusuf) are distributed throughout the user reviews of Balibey Han (Graph 2). The horizontal axis shows the segmented parts of the reviews; the vertical axis shows the relative frequencies of the contextual use of these words.

Table 2: Top N-Gram Frequencies in User Reviews of Balibey Han Reviews

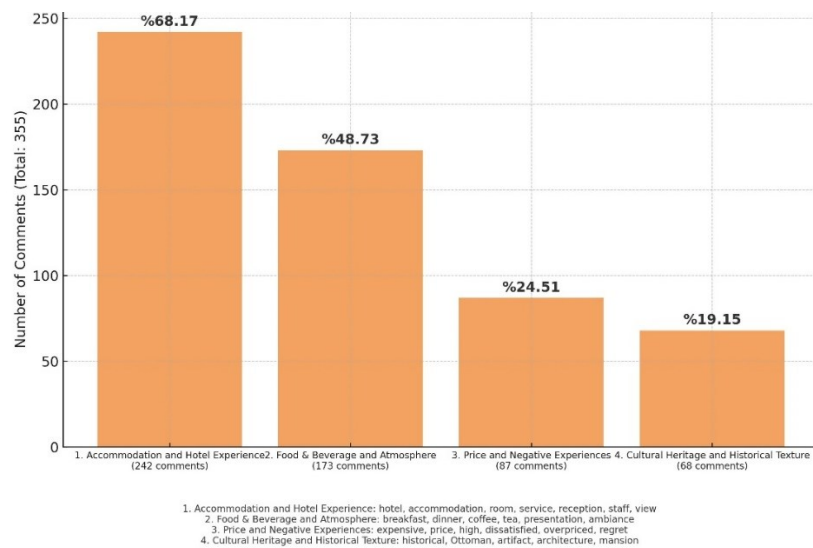
Expression	Frequency
A nice place	6
a nice han	5
a nice venue	5
very beautiful place	5
Yusuf kebab restaurant	4
Handicrafts Market	3
A wonderful place	3
Bali Bey's son	3
A historic han	3
a historic place	3
from outside the city	3
by Bali Bey	3
a place very	3
Bali Bey Han	3
the top floor	3
late 15th century	3
for commercial activities	2
drinking tea/coffee	2

The graph shows that adjectives such as "beautiful" and "historic" are particularly concentrated in the final sections of the reviews; that is, users tend to end their experiences with positive or nostalgic comments about the venue. More specific terms such as "Yusuf" and "tea" appear in a limited number of comments and in specific segments, indicating that certain service or staff experiences stand out for some users. This type of analysis is important in showing which themes user perceptions focus on and supports qualitative data analysis (Table 2).



Graph 3: Balibey Han Thematic Distribution of Comments

The 174 comments made by visitors were subjected to a three-level n-gram analysis. At the single-word (1-gram) level, the word "beautiful" stands out as the most dominant description with a rate of 30.46%. In the two-word (2-gram) and three-word (3-gram) groups, the expressions "a beautiful place" (2.3%) and "a very beautiful place" (0.57%) were observed, respectively. These findings show that visitors describe the place in emotional and aesthetic terms (Graph 3).



Graph 4: Kitapevi Hotel Thematic Distribution of Comments

The thematic classification of the comments resulted in a total of 174 user evaluations of Balibey Han being grouped under four main categories. The vast majority of these evaluations (70.11%) fall under the heading "Cultural Heritage and Historical Fabric"; concepts included in this category include terms such as "historical, architectural, Ottoman, 15th century, han, fabric, restore, walls, stone." This shows that users primarily perceive the historical continuity and unique identity of the structure. The theme of "Structure and Space Evaluation" ranks second with 32.76%, showing that users comment on physical qualities and spatial

experience. "Food and Drink and Atmosphere" (13.79%) and "Price and Negative Experiences" (6.9%) are quite limited (Graph 4).

An analysis of 355 user-generated reviews pertaining to Kitapevi Hotel reveals that the predominant thematic construct is "Accommodation and Hotel Experience," which emerges with a relative prevalence of 68.17%. This thematic cluster encapsulates a lexicon indicative of contemporary hospitality standards and user-centered services, featuring recurrent terms such as "hotel," "accommodation," "room," "service," "welcome," "staff," and "view."

Following this, the theme "Food, Beverage, and Atmosphere" is identified in 48.73% of the corpus. Expressions within this domain—such as "breakfast," "dinner," "coffee," "tea," "presentation," and "ambiance"; reflect users' attentiveness to sensory experiences and gastronomic satisfaction, underscoring the role of culinary quality and environmental aesthetics in shaping overall visitor perception.

In contrast, the theme of "Price and Negative Experiences" surfaces in 24.51% of the reviews, often characterized by affectively charged and evaluative terms including "expensive," "exorbitant," "dissatisfied," and "regretful." These entries articulate dissatisfaction related to cost–benefit expectations, suggesting a subset of users for whom economic valuation significantly influences experience appraisal.

The least frequently occurring thematic category is "Cultural Heritage and Historical Fabric," represented in only 19.15% of the dataset. This comparatively marginal presence implies that references to the historical identity and architectural legacy of the building are limited in user discourse, potentially indicating a lower level of heritage awareness or a prioritization of modern experiential dimensions over historical significance (see Table 6).

The differences between the two buildings are directly reflected in the content of user experiences. Balibey Han's location in the city center and its continued use in line with its original public function contribute to a more explicitly articulated sense of historical awareness. The structure's authenticity, preserved since the 15th century, and its perceived status as a "first" or "unique" example, are frequently emphasized through historically referential expressions in user reviews.

In contrast, user feedback regarding Kitapevi Hotel tends to focus more on service quality, comfort, and presentation, with historical layers appearing as a more subordinate or implicit theme.

Moreover, the scale and spatial organization of the buildings reinforce this differentiation. While Balibey Han allows for more extensive public engagement, Kitapevi Hotel is observed to contain private areas limited to its accommodation function. In terms of materiality, Balibey Han incorporates stone and timber elements that evoke the building's historic character, whereas the hotel features modern, comfort-oriented design choices.

Lastly, the circulation and spatial openness of Balibey Han appear to foster a stronger sense of public belonging among users. In contrast, Kitapevi Hotel offers an interior accessible only to guests, thereby constraining the degree of interaction with the historic environment. In this context, it can be asserted that architectural scale, function, and accessibility are critical variables in shaping perceptions of cultural heritage.

5. Evaluation

This comparative study shows that the adaptive reuse of historical structures is both a necessity and an opportunity when managed correctly. The most realistic way to preserve structures that have become obsolete over time is to give them new and meaningful roles;

otherwise, they risk falling idle and facing the threat of irreversible loss. At the same time, through adaptive reuse, cities gain livable spaces that bridge the past and the future, and cultural heritage ceases to be a display object and becomes part of everyday life.

In both structures examined in this study, cultural continuity appears to have been largely achieved. Kitapevi Hotel has adapted to its new function while preserving its original texture, and Balibey Han, despite having been partially demolished, continues to offer visitors a meaningful engagement with its historical process. This demonstrates that interventions have been carried out broadly in accordance with conservation principles. The Venice Charter's provision that monuments are best preserved by assigning them a useful function for society has been operationalized in both projects, albeit through different ownership models and at different scales.

An important dimension of architectural continuity is resistance to time. Balibey Han was restored and opened to the public fifteen years ago, and some wear and signs of neglect have since been identified in the structure. As underlined in the Burra Charter's principle of ongoing maintenance, regular monitoring, repair, and, where necessary, renovation interventions must be planned systematically for any heritage building. In this respect, Kitapevi Hotel holds a comparative advantage as a private enterprise subject to regular upkeep, whereas Balibey Han remains dependent on public budgets and administrative continuity. While both projects present a broadly positive picture in terms of architectural continuity, it is clear that sustained managerial attention is a prerequisite for the long-term success of conservation.

6. Conclusion

This study set out to examine how user experiences of adaptively reused historic buildings shape the perception of cultural heritage. The findings confirm that buildings undergo transformation not only at the physical level but also at the perceptual and interpretive levels, and that the nature of this transformation is significantly conditioned by the function assigned to the structure and the governance model under which it operates. In structures positioned within the high-price accommodation segment, user attention is predominantly directed toward service quality, comfort, and aesthetic expectations, a dynamic that can produce a form of spatial blindness in which the historical and contextual layers of the building become difficult to perceive.

In contrast, in cases such as Balibey Han operated by the public sector and integrating social and commercial functions, user comments indicate that cultural heritage is perceived more directly and more frequently. The visibility of the structure's historical identity appears to be reinforced by its public function and spatial openness. Nevertheless, the presence of modern interventions such as air conditioning units, elevators, and contemporary signage has emerged as a point of contention among users regarding aesthetic integrity. Furthermore, the absence or inadequacy of interpretive content, information panels, guided narratives, or contextual displays, limits the depth to which visitors can engage with the heritage significance of the space, suggesting that physical conservation alone is insufficient to communicate cultural meaning.

The findings of this study reveal that user-generated digital content constitutes a meaningful yet underutilized data source for heritage management. When systematically analyzed, such data can identify which aspects of a building's cultural significance remain visible to users and which are overlooked, thereby informing targeted interpretive interventions. In this regard, the contribution of this study to the literature lies in demonstrating that perceptual data derived from online reviews, structured through text mining and AHP, can serve as an evaluative instrument for assessing the cultural effectiveness of adaptive reuse projects.

Returning to the three research questions that guided this study, the findings offer the following answers. In response to the first question, the new function assigned to a heritage structure directly shapes both architectural continuity and community memory: the public-commercial reuse of Balibey Han has preserved a higher degree of historical function compatibility and generated stronger heritage awareness among users, whereas the accommodation function of Kitapevi Hotel has redirected user attention toward service quality, rendering the building's historical layers comparatively less legible. In response to the second question, architectural scale emerges as a significant mediating variable in cultural and emotional experience; the larger and spatially more open configuration of Balibey Han facilitates broader public engagement and a more explicit articulation of heritage values in user discourse, while the enclosed, guest-only interior of Kitapevi Hotel constrains the degree of heritage interaction available to visitors. In response to the third question, location within the historic urban fabric, spatial accessibility from street level, and the openness of circulation routes collectively shape both user satisfaction and heritage awareness; structures that are visually and physically integrated into their urban context demonstrate higher levels of culturally oriented user engagement than those whose interiors remain accessible only to a defined user group.

In this context, it is evident that interventions focused solely on the physical continuity of a structure remain insufficient. For cultural heritage to be understood and appreciated by a wider audience, structures must not only be preserved but also given meaning. Interpretive design strategies, information panels, experiential narration techniques, and spatial scenarios that involve visitors in the historical context of the structure are therefore of considerable importance. Future research may build upon this framework by expanding the case study sample, incorporating longitudinal data, or developing standardized criteria for heritage readability in digital user discourse. Ultimately, considering physical preservation and cultural continuity together is a fundamental requirement for ensuring the sustainable continuation of the meaning of heritage structures within contemporary urban life.

Etik Beyanı / Ethical Statement : Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur. / It is hereby declared that scientific and ethical principles were adhered to during the preparation of this study and that all studies used as references are listed in the bibliography.

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Yapay Zekâ Kullanımı /Use of Artificial Intelligence: Bu çalışmanın hazırlanma sürecinde yapay zekâ tabanlı herhangi bir araç veya uygulama kullanılmamıştır. Çalışmanın tüm içeriği, yazar(lar) tarafından bilimsel araştırma yöntemleri ve akademik etik ilkelere uygun şekilde üretilmiştir. / No artificial intelligence-based tools or applications were used in the preparation of this study. All content of the study was produced by the author(s) in accordance with scientific research methods and academic ethical principles.

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ⁱ He is the son of Hamza Bey, one of the viziers of Fatih Sultan Mehmet (Sunay, 2007, citing Mehmet Süreyya, 1996)