

INTEGRATION OF DIGITAL ARTS INTO SPACES RESTORED BY IMM HERITAGE

•Asst Prof. Gülsüm Damla Aşkın*

•Asst. Prof. Onur Aşkın**

ABSTRACT

Integrating contemporary art into restored historical and industrial buildings has become a significant interdisciplinary practice that bridges heritage conservation, spatial design, and artistic production. This study investigates the conversion of Şerefiye Cistern, Çubuklu Silos, Museum Gashouse, Artİstanbul Feshane, Casa Botter, Cendere Art Museum, Metrohan, and Yedikule Gashouse, restored under the Istanbul Metropolitan Municipality (IMM) Heritage projects, into spaces that serve artistic functions. Post-restoration evaluations focus on spatial organization and interior components such as form, material, light, and color. The research is theoretically grounded in Henri Lefebvre's Production of Space and Christian Norberg-Schulz's Genius Loci. Within this framework, the study explores how space is shaped through perceived, conceived, and lived dimensions, and it offers a comprehensive analysis of spatial meaning and identity. The findings reveal that digital art interventions enhance space's aesthetic and functional qualities, while interior architectural decisions play a direct role in shaping artistic perception. Ultimately, integrating digital art into restoration processes, when approached holistically, supports both the cultural continuity and artistic transformation of historic spaces.

Keywords: Cultural heritage, Installation art, Interior Architecture, Space.

* Doğuş University, Faculty of Art and Design, Department of Interior Architecture, e-mail, gaskin@dogus.edu.tr, ORCID: 0000-0002-1406-1600

** Doğuş University, Faculty of Art and Design, Department of Digital Game Design, e-mail, oaskin@dogus.edu.tr, ORCID: 0000-0002-1928-474X

İBB MİRAS TARAFINDAN RESTORE EDİLMİŞ MEKANLARIN DİJİTAL SANAT ENTEGRASYONU

- Dr. Öğr. Üyesi Gülsüm Damla Aşkın *
- Dr. Öğr. Üyesi Onur Aşkın **

ÖZET

Tarihî ve endüstriyel yapıların restorasyon sürecinde çağdaş sanatın mekâna entegre edilmesi, kültürel mirasın korunması ile mekânsal tasarım ve sanatsal üretim arasında çok disiplinli bir etkileşim alanı yaratmaktadır. Bu çalışma, İstanbul Büyükşehir Belediyesi (İBB) Miras projeleri kapsamında restore edilen Şerefiye Sarnıcı, Çubuklu Silolar, Müze Gazhane, Artİstanbul Feshane, Casa Botter, Cendere Sanat Müzesi, Metrohan ve Yedikule Gazhanesi'nin sanatsal işlevler üstlenen mekânlara dönüşümünü incelemektedir. Restorasyon sonrası mekânsal organizasyon ile form, malzeme, ışık ve renk gibi iç mekân bileşenleri değerlendirilmiştir. Araştırma, Henri Lefebvre'nin Mekânın Üretimi kuramı ile Christian Norberg-Schulz'un Genius Loci kavramı temel alınarak kuramsal olarak yapılandırılmıştır. Bu çerçevede, mekânın algılanan, tasarlanan ve yaşanan boyutları üzerinden nasıl şekillendiği ele alınmış; anlamı ve kimliği kapsamlı biçimde analiz edilmiştir. Bulgular, dijital sanat uygulamalarının mekânın estetik ve işlevsel değerini artırdığını, iç mimarlık kararlarının ise sanatsal algıyı doğrudan etkilediğini göstermektedir. Sonuç olarak, restorasyon süreçlerinde dijital sanatın mekânla bütünleşik biçimde ele alınması, tarihî yapıların kültürel sürekliliğini desteklerken, sanatsal dönüşüme de olanak tanımaktadır.

Anahtar Kelimeler: Kültürel miras, Enstalasyon sanatı. İç Mimarlık, Mekân

* Doğu Üniversitesi, Sanat ve Tasarım Fakültesi, İç Mimarlık Bölümü, gaskin@dogus.edu.tr, ORCID: 0000-0002-1406-1600

** Doğu Üniversitesi, Sanat ve Tasarım Fakültesi, Dijital Oyun Tasarımı Bölümü, oaskin@dogus.edu.tr, ORCID: 0000-0002-1928-474X

1. INTRODUCTION

The conservation and re-functionalization of historical buildings is of great importance for the sustainability of cultural heritage. Buildings that have suffered physical deterioration or fallen out of use over time are brought back into public life through restoration works, preserving the traces of the past and adapting to contemporary needs. In this process, it is not enough to preserve only the exterior or load-bearing elements of the buildings; at the same time, interior architectural elements such as interior arrangements, material use, light and color preferences should also be meticulously handled. The integration of art, especially installation art, with spatial design in restoration projects ensures that the spaces are preserved structures representing the past and transformed into contemporary experience spaces. Istanbul offers important examples in this field, with its transformation projects that combine art and design with historical and industrial heritage buildings.

This study discusses the processes of re-functionalization of historical buildings restored within the scope of Istanbul Metropolitan Municipality (IMM) Heritage through interior architecture and installation art. IMM's cultural heritage projects aim not only at the restoration and preservation of historical buildings, but also the transformation of their interior spaces by contemporary art and spatial experience. The Şerefiye Cistern, Çubuklu Silos, Museum Gashouse, Artİstanbul Feshane, Casa Botter Art and Design Center, Cendere Art Museum, Metrohan, Yedikule Gashouse are notable examples in this context. These buildings were built in different periods and with different functions, and today they have been transformed into cultural and artistic spaces through architectural/interior architectural transformations. Issues such as the preservation of industrial heritage and its transformation into art spaces, how Ottoman and Art Nouveau style architectural elements are reflected in interior space organizations, and the effect of light on spatial perception are the main examination points of the study.

Especially industrial buildings, such as gasworks, factories and grain silos, were built in the past as structures that prioritized functionality. However, these buildings have gained a new identity today by being transformed into art galleries, cultural centers, and interactive exhibition spaces. In this process, industrial materials such as brick, metal, and glass were preserved and spatial arrangements supported by natural and artificial lighting systems were made. Traditional Ottoman or Art Nouveau buildings have been restored by preserving their original ornamental elements, and their interiors have been organized to host art and design events with contemporary exhibition techniques.

In this context, the study focuses on the effect of interior architecture elements on the

space after restoration. The restoration process is not limited to the physical preservation of a building; it also means rebuilding its connection with society and transforming it into a contemporary experience space. In this respect, it is important to examine the integration process of Istanbul's historical and industrial buildings with art after restoration to understand how spatial design is shaped.

The article's primary purpose is to analyze the interior architecture, material use, lighting arrangements, and artistic integration processes of these spaces and to reveal how they blend both their historical identities and the innovative spatial experiences offered by contemporary art. These analyses will shed light on future restoration and interior design studies and provide important data on how art can re-functionalize historical spaces.

2. THEORETICAL FRAMEWORK

The restoration of historic sites and their integration with contemporary art should be considered not only as a process of physical conservation, but also in the context of spatial identity, social memory and cultural interaction. Restoration projects, while preserving the site's past, give it new meanings and shape the visitor experience. In this context, theoretical approaches emphasizing that space is not only a physical entity but also produced with its social and experiential dimensions gain importance (Lefebvre & Nicholson-Smith, 1991). This study evaluates the effects of spatial organization and artistic interventions after restoration within the framework of Henri Lefebvre's theory of space production and Christian Norberg-Schulz's concept of Genius Loci.

Henri Lefebvre's *The Production of Space* is an important work that explains how space is produced within social practices. Lefebvre argued that space is both a physical and a social production process, distinguishing between perceived, designed and experienced space (Zhang Zi-kai, 2007). Perceived space refers to the spaces that individuals directly experience, designed space refers to the arrangements created by architectural and technical planning, and lived space refers to the spatial experience shaped by social memory and artistic practices (S. Elden, 2007; Stanek & Lefebvre, 2014). Spaces such as Museum Gashouse, Artİstanbul Feshane and Şerefiye Cistern can be evaluated in the context of these dimensions; the projection mapping applications in Şerefiye Cistern transform the space into not only a physical but also an experiential perception.

Christian Norberg-Schulz's *Genius Loci* is an important contribution to architecture and phenomenology, emphasizing historical places' physical and cultural identity (Rivero-Lamela, 2020). This approach, which suggests that space is a structure that individuals

make sense of and connect with, shows that restoration projects are not only a process of physical renovation, but also a process of preserving cultural continuity (Haddad, 2010). In order to maintain spatial identity, elements such as topography and natural context, architectural character and cultural identity, spatial experience and human relationship need to be preserved (Strecker, 2000). However, Norberg-Schulz's approach has also been criticized for applying Heideggerian ideas to architectural theory (Wilken, 2013).

Lefebvre's theory of spatial production and Norberg-Schulz's concept of *genius loci* reveal that not only the physical structure but also the social and cultural memory should be preserved in the restoration of historical sites. In this context, restoration projects should be considered as a holistic process that goes beyond the aesthetic and functional transformation of the space to sustain the spatial identity and the world of meaning.

3. LITERATURE

Cultural heritage is a broad concept encompassing historical, artistic and social values passed down from the past to the present. Cultural heritage conservation involves not only the preservation of physical structures, but also the sustainability of identity, collective memory and social belonging (Mk Buckland, 2015). This process is intertwined with social, economic and political contexts and faces various challenges in different geographies (Douwe Drijfhout & de Boer, 2015). Memory institutions, archives, libraries and museums play a critical role in documenting and preserving cultural heritage. Digital technologies provide important transformations in the preservation and experience of cultural heritage. Innovative methods such as augmented reality (AR) and virtual reality (VR) allow for the digital documentation and recreation of historical buildings, and allow physically damaged artifacts to be re-experienced in a virtual environment (Bekele et al., 2018). Technologies such as 3D modeling and projection mapping allow visitors to have an interactive experience by presenting the space's past, present and future together (Diaz Mendoza et al., 2023). These approaches make it possible to preserve cultural heritage and reinterpret it through artistic and spatial interactions.

Digital installation art reshapes artistic expression, combining traditional art forms with augmented reality, artificial intelligence and projection techniques, transforming the perception of space and transforming the viewer from a passive observer to an active participant (Crowe, 2015; Qi & Zhang, 2024). This art form enriches the spatial experience by providing multi-sensory stimulation and transforms cultural heritage sites from static exhibition spaces into dynamic, interactive experiences. Supported by projection mapping and motion sensors, the installations change the spatial composition in

real time in response to visitors' movements, customizing individual experiences (D'Alessandro et al., 2011). Materials and light are among the key components of this art form; transparent materials increase visual depth, while reflective surfaces create dynamic light interactions (Özdamar, 2022).

The approaches of Henri Lefebvre and Christian Norberg-Schulz in the context of the relationship between space and art address the social and experiential aspects of historical spaces beyond their physical existence. Lefebvre's theory of spatial production suggests that space is composed of perceived, designed and lived dimensions, and reveals how spatial organization is shaped by the experiences of individuals (Lefebvre & Nicholson-Smith, 1991). Artistic interventions with projection mapping in spaces such as Şerefiye Cistern enable the space to be considered as a physical entity and a dynamic process in the context of social memory and cultural production. Norberg-Schulz's concept of *genius loci*, on the other hand, focuses on the identity and meaning of the space, emphasizing that the physical preservation of historical buildings is not enough; the cultural and artistic context must also be sustainable (Rivero-Lamela, 2020). Digital art, interactive installations and augmented reality applications enrich the spatial perception and contribute to evaluating historical buildings as living spaces, not just as objects on display.

Preserving cultural heritage, combined with digital technologies and contemporary art, allows spaces to take on new meanings. Digital installations enable the reinterpretation of space through art, transforming the relationship of cultural heritage with the past and the future into a dynamic experience. Combining traditional conservation methods and digital innovations offers a sustainable model that carries the past into the future by re-interpreting cultural heritage through artistic production and spatial experience.

4. METHOD

This study analyzes the relationship between the restoration of historical spaces and the spatial integration of digital installation art. Within the scope of spatial organization analysis, how the space is integrated with art is examined by comparing the arrangements before and after restoration. The positioning of installation art in different building types was evaluated, and how the spatial organization directs the art experience was investigated. In addition, the effects of elements such as light, color and material use on artistic composition are discussed, and how projection mapping and interactive art applications transform spatial perception are examined. The relationship between restoration and interior architecture decisions and artistic integration is evaluated, and the

compatibility of material choices with the original texture and art is discussed.

On the other hand, the contribution of digital technologies to the narrative power of space is explored, and the impact of innovative methods such as augmented reality (AR) and projection mapping on the identity of historical places is analyzed. The analysis reveals how artistic integration in the restoration process is shaped in terms of spatial identity and aesthetics.

This research only covers spaces restored by IMM and does not include buildings restored by the private sector or other institutions. Furthermore, the study focuses only on interior architectural arrangements and installation art, not including factors such as visitor experience or user satisfaction. The research aims to reveal how cultural heritage is re-functionalized through contemporary art by focusing on how spatial transformation is shaped regarding artistic integration, not on the technical practices of restoration processes.

In order to preserve the historical texture and spirit of the space, interior architectural arrangements after restoration should be integrated with digital art installations. The research hypotheses variables determined in this direction are given in Table 1.

Table 1. Hypotheses and variables of the study

Hypothesis	Independent Variable	Dependent Variable
H1: Post-restoration interior architectural arrangements increase the aesthetic and functional value of the space when integrated with digital art installations while preserving its historical texture.	Interior architectural arrangements after restoration	Aesthetic and functional value of the space
H1a: Space organization and interior architecture arrangements affect the integration of installation art into the space.	Space organization	Integration of installation art into space
H1b: Light directly influences the perception of artistic composition in spaces integrating installation art.	Use of light	Perception of artistic composition
H1c: Color affects the spatial harmony of interior architecture and installation art, changing how it is perceived.	Color	Spatial harmony and perception
H1d: The use of materials contributes to the presentation style of installation art by preserving the historical identity of the space.	Material	Presentation style of installation art
H1e: Different restoration methods affect the spatial composition of installation art through interior arrangements.	Restoration methods	Spatial composition of installation art

Hypothesis	Independent Variable	Dependent Variable
H0: Spatial and aesthetic harmony between interior architectural arrangements and installation art after restoration cannot be achieved..	Interior design details	Spatial and aesthetic harmony

5. RESULTS

The ‘Spatial Analysis’ table (Table 2) compares historical textures, interior architectural details, organization, lighting, and color usage to examine the cultural and artistic relationship between space and digital installations.

Table 2. Spatial analysis

Space Name	Historical Texture	Material	Organization	Lighting	Color
Şerefiye Cistern	Byzantine-era cistern	Stone, marble	Preservation of the historic vaulted structure while converting it into an exhibition and event space	Emphasis lighting supported by water reflections	Natural tones of stone and water, shadowed atmosphere
Çubuklu Silos	Industrial heritage (Former grain silos)	Concrete, steel, glass, industrial metal structures	Division of large silos into interior spaces, open exhibition areas, and circulation corridors	Natural light entering through large windows, industrial lighting systems	Industrial gray tones, metallic reflections, warm brick textures
Museum Gashouse	Industrial heritage (Former gasworks)	Brick, steel, glass, metal details	Large open spaces, integration of indoor and outdoor areas, multi-purpose exhibition spaces	Large windows allowing natural light, modern LED systems	Industrial dark tones, warm brick textures, metal and gray tones
ArtIstanbul Feshane	Ottoman-era textile production site	Stone, wood, metal construction	Modular exhibition spaces, large voids, open layout guiding visitors	Variable lighting arrangements, modular exhibition lighting systems	Neutral stone colors, dark wood textures, light-colored walls

Casa Botter Art and Design Center	Ottoman Empire's first Art Nouveau building	Wood, glass, mosaic, stone details	Narrow and long galleries, natural light integration through stained-glass windows	Natural light filtered through stained-glass windows, accent lighting	Glossy glass tones, natural stone colors, pastel Art Nouveau hues
Cendere Art Museum	Industrial heritage	Steel, glass, brick, industrial flooring	Open-plan layout integrating industrial texture with exhibition areas	Industrial-style lighting, large ceiling fixtures	Industrial concrete gray tones, natural colors of metal textures
Metrohan	Historic metro building	Stone, metal, glass, concrete	Transformation of the former metro station into exhibition spaces, stone staircases, and corridors	Integration of historical metro lighting with modern LED systems. arched windows with metal frames and wide openings provide natural light	Historic stone textures, dark gray and brown tones
Yedikule Gashouse	Industrial heritage	Brick, steel, iron framework, large metal columns	Large industrial spaces, high-ceiling galleries	Use of natural light for open areas, accent lighting for exhibitions	Yellowish brick tones, metallic gray, and industrial blues

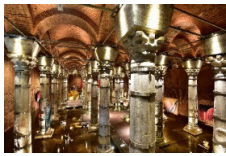
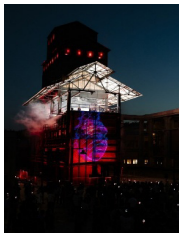
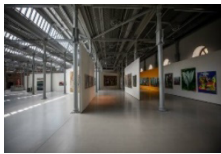
The analysis of installation practices and their effects on space are presented in the table ‘Spatial Atmosphere and Art Interaction’ (Table 3).

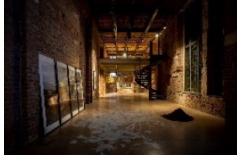
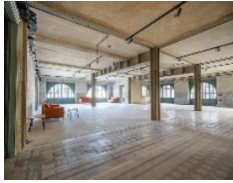
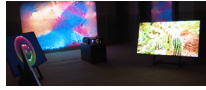
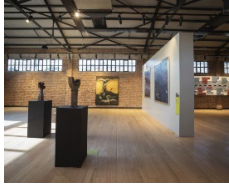
Table 3. Spatial atmosphere and art interaction

Building Name	Installation Type	Spatial Atmosphere	Space-Art Interaction
Şerefiye Cistern	Art installations featuring light, plays with water reflections	Interaction of light and water in the mystical atmosphere of the historical cistern	Byzantine cistern architecture combined with modern light installations
Çubuklu Silos	Large-scale sculptures, projection mapping, interactive digital art	Preserving and presenting industrial heritage to visitors, a sense of spatial discovery	Large spatial setup where industrial structure and contemporary art meet
Museum Gashouse	Digital art and interactive installations	Preserving the industrial atmosphere and integrating it with modern exhibitions	Combination of industrial texture and digital art
ArtIstanbul Feshane	Site-specific art installations and digital projections	Vast spatial flow, free circulation for the visitor	Transformation of spatial arrangements with art, large exhibition spaces
Casa Botter Art and Design Center	Art Nouveau art and design-oriented installations	Contemporary art combined with historical details, nostalgic atmosphere	The meeting of Art Nouveau architecture and design arts
Cendere Art Museum	Interactive and large-scale installations in industrial spaces	Interactive exhibition experience with industrial architecture	Combining industrial elements with artistic installations
Metrohan	Combining installation art with space in a historic subway building	Spatial arrangement where history and art are intertwined in the subway structure	Transformation of a subway station into an art space
Yedikule Gashouse	Installations combining industrial history and contemporary art	Free movement space, open exhibition spaces in the historic gashouse texture	Reinterpreting industrial heritage with contemporary art

Table 4 shows the architectural form of the restored spaces within the scope of IMM Cultural Heritage and the installation application method. The visual comparison before and after the restoration is also included here.

Table 4. Digital installation applications of spaces (Kültür İstanbul, 2023), (İtez, 2018), (Araz, 2020), (Atatürk Kitaplığı, 2025), (Galeri Gazhane, 2023), (Pasta, 2021), (Artam, 2023), (Cansız, 2024), (Cangül & Aydın, 2025), (Oggusto, 2023), (Artfulliving, 2023), (Zambak, 2021), (Art Column-Sanat Sütunu, 2023), (IBB TV, 2023), (Cangül, 2024), (Istanbul Tourism Platform, 2024), (Kökbaş & Kurtel, 2023).

Building Name	Pre-Restoration Space	Post Restoration Space	Digital Installation	Installation Method	Spatial Form/ Shape
Şerefiye Cistern				Light and projection installations, digital displays projected on water	Symmetrical rectangular large plan, vaulted stone ceiling.
Çubuklu Silos				3D mapping and interactive art	Cylindrical industrial building with narrow cylindrical roof openings
Museum Gashouse				Digital art exhibitions, interactive screenings, projection artworks	Rectangular plan, large interior volume, high ceilings.
Art Istanbul Feshane				Projection artworks.	Rectangular plan, large interior volume with wide openings.

Casa Botter Art and Design Center				Digital design exhibitions	Rectangular spaces, narrow façade and interior corridors.
Cendere Art Museum				Digital art installations	From industrial production site to large rectangular openings and high ceilings.
Metrohan				Interactive media exhibitions	The historic stone large openings in common spaces with narrow corridors and high ceilings in exhibition spaces.
Yedikule Gashouse				Digital projections	Large, steel-structured, linear rectangular spaces with high rectangular horizontal windows.

6. DISCUSSION

This research examines the relationship between the interior architectural arrangements of historical places restored within the scope of IMM Heritage and installation art. The findings reveal the dynamics between the principles of preserving the historical texture of the spaces and the integration of digital art. The interior architecture analysis is evaluated through variables such as material use, spatial organization, use of light, form and color, and the interaction with installation art is compared through different spatial contexts.

6. 1. Interior Architecture Arrangements and Material Use

The spaces analyzed in the study are divided into two main categories: industrial heritage buildings and cultural heritage spaces with Ottoman period architecture. In industrial

heritage buildings (Museum Gashouse, Cendere Art Museum, Yedikule Gashouse and Çubuklu Silos), the preservation of the original material texture during the restoration process and its adaptation to contemporary exhibition spaces stand out. In these spaces, brick, steel, concrete and metal constructions were predominantly used and the industrial identity of the space was preserved. Wide openings, high ceilings and open spatial organization allow flexible use of the exhibition spaces.

On the other hand, in Ottoman period buildings (Artİstanbul Feshane, Casa Botter) and in Byzantine-period building (Şerefiye Cistern) traditional interior architectural details are preserved and integrated with modern exhibition spaces. Casa Botter, which has Art Nouveau features, is one of the examples where a historical interior space is re-functionalized as an art and design space by emphasizing wood and glass stained glass details.

These different approaches reveal a restoration practice that aims to preserve the architectural context of historical buildings and bring them together with contemporary art. While industrial spaces, with their wide openings and raw material textures, provide space for more experimental and interactive installations, traditional Ottoman architecture offers a more integrated and aesthetically-oriented experience with art.

6. 2. Spatial Organization and Structural Transformation of Exhibition Areas

The findings show how the spatial organization of the examined spaces was shaped for installation art. While large, multi-purpose open spaces are prominent in industrial heritage spaces, more directed and controlled exhibition arrangements are adopted in spaces belonging to historical Ottoman buildings.

For example, in buildings such as Museum Gashouse, Cendere Art Museum and Çubuklu Silos, modular exhibition systems and large exhibition spaces allow visitors to experience the space from different angles by following different routes. In contrast, in spaces such as Casa Botter, the spatial flow has a more defined circulation pattern that supports historical identity.

In terms of spatial organization, it was observed that spatial transformation was planned to serve installation art, especially in Çubuklu Silos and Cendere Art Museum. While open plan designs allow for digital art practices such as large-scale art installations and projection mapping, structures such as Metrohan and Yedikule Gashouse are designed for more specific artistic narratives.

These data show that historical buildings are reinterpreted in terms of functionality and adapted to exhibition practices and that installation art is directly related to the organization of space.

6. 3. Use of Light and Art Integration

The use of light in the interior design of the spaces analyzed in this study is one of the main elements that shape the spatial experience. The findings reveal that the use of natural light is emphasized in industrial heritage spaces, while traditional lighting elements and modern LED systems are used together in Ottoman buildings.

For example, while large windows and natural light sources guide the spatial experience in Museum Gashouse and Cendere Art Museum, accent lighting highlights the artworks in spaces such as Artİstanbul Feshane and Casa Botter. Considering the potential of installation art to transform spatial perception, it is seen that the use of light is directly associated with art. Projection-based art applications stand out as an element that transforms the way of display, especially in spaces such as Çubuklu Silos, Artİstanbul Feshane and Metrohan.

These data show that light is a critical factor in terms of space organization and artistic integrity and that interior architecture decisions directly affect artistic perception.

In the case of Şerefiye Cistern, the interplay of water reflections and architectural lighting enhances the perception of depth and texture, creating an immersive atmosphere for art installations. The use of projection mapping on the ancient stone surfaces transforms the historic space into a dynamic exhibition area, merging contemporary digital art with heritage architecture. Additionally, carefully placed LED systems highlight the vaults and columns, emphasizing the materiality of the cistern while preserving its historical ambiance.

6. 4. The Effect of Color and Material Use on Installation Art

The color palette and material use evaluated within the scope of interior architectural analysis are among the factors that determine the level of integration with the artistic identity of the spaces. The findings reveal that while gray, brick red and metallic tones are dominant in industrial heritage spaces, warmer and traditional color palettes are preferred in Ottoman period buildings.

For example, while the industrial character is prominent in spaces such as Museum Gashouse, Yedikule Gashouse and Çubuklu Silos, more decorative and traditional color tones are used in Casa Botter. This difference changes how artworks are perceived within the spatial context and shows how the relationship between interior architecture and installation art is established.

6. 4. The Effect of Color and Material Use on Installation Art

The color palette and material use evaluated within the scope of interior architectural analysis are among the factors that determine the level of integration with the artistic identity of the spaces. The findings reveal that while gray, brick red and metallic tones are dominant in industrial heritage spaces, warmer and traditional color palettes are preferred in Ottoman period buildings.

For example, while the industrial character is prominent in spaces such as Museum Gas-house, Yedikule Gashouse and Çubuklu Silos, more decorative and traditional color tones are used in Casa Botter. This difference changes how artworks are perceived within the spatial context, and also shows how the relationship between interior architecture and installation art is established.

CONCLUSION

Hypothesized analyses reveal the relationship between interior architectural arrangements and the spatial integration of installation art. The findings show that the spatial and artistic re-functioning of historical spaces with interior architectural interventions after restoration contributes to the aesthetics and functionality of the space.

- H1 is confirmed. Interior architectural arrangements after restoration increase the aesthetic and functional value of the space when integrated with modern artistic interventions while preserving the historical texture. It has been observed that wide openings are preserved especially in industrial heritage spaces and spaces suitable for installation art are created. At the same time, historical details are supported with artistic touches in the Ottoman period buildings.
- H1a is confirmed. Spatial organization directly affects the integration of installation art into space. While open-plan spatial arrangements allow artworks to be exhibited in different locations and on a large scale, buildings with more limited spatial organizations have caused art to be limited to specific areas.
- H1b is confirmed. Light directly influences the perception of artistic composition in spaces integrating installation art. The preservation of natural light sources in the spaces, the use of modern LED systems in the exhibition areas and the interaction of projection-based art with light have directly affected the way artworks are perceived.
- H1c is confirmed. The color palette changes how art is perceived by affecting the interior architecture's and the installation art's spatial harmony. While gray, metallic

and brick tones emphasize art in industrial heritage spaces, warm tones and traditional ornaments support the artistic narrative in Ottoman period spaces.

- H1d is confirmed. The use of materials contributes to the presentation of installation art by preserving the historical identity of the space. While the preservation of original materials such as wood, stone and metal ensures the continuity of the spatial identity, new additions have allowed the art to be exhibited in harmony with the interior architecture.
- H1e is confirmed. Different restoration methods affect the spatial composition of installation art through interior arrangements. In industrial heritage spaces, existing openings provide advantages for art installations, while in traditional buildings, restoration shapes the way art is placed in the space.
- H0 is rejected. Spatial and aesthetic harmony between interior architectural arrangements and installation art can be achieved. The analyses show that the interior arrangements after restoration are integrated with art and that there is a direct interaction between spatial design and art.

Artistic integration is a determining factor in the identity and functionality of the space, and the conscious design of spatial organization, light and material use are among the essential elements that should be considered in restoration projects.

The findings show that industrial heritage spaces offer more space for artistic installations with wide openings and raw material textures. In contrast, Ottoman buildings offer exhibition layouts that align with traditional aesthetics. Spatial organization directly affects the positioning of art and how visitors experience the space, revealing that elements such as light and color reinforce the artistic narrative.

When analyzed within the framework of Henri Lefebvre's theory of spatial production and Christian Norberg-Schulz's concept of *genius loci*, the findings of this study reveal that restoration processes should not be understood merely as physical interventions but as holistic processes aimed at preserving spatial identity and social memory. Lefebvre's argument that space is not simply a physical entity but is produced through social practices and experiences highlights how post-restoration spatial organization and artistic interventions enhance the aesthetic and functional qualities of space and transform its perception and experiential dimension. In this context, the idea that space is subject to physical and cultural production processes is crucial for understanding how restoration projects shape the spatial meaning of historical sites.

Similarly, Norberg-Schulz's concept of *genius loci* underscores the necessity of viewing historical buildings not merely as physical structures but as spaces of identity and memory. This perspective suggests that restoration should not be a mere act of conservation but rather a process that sustains the site's historical and cultural continuity. The study's findings align with this theoretical framework, demonstrating that industrial heritage sites provide flexible spatial configurations for artistic installations with their wide openings and raw material textures. In contrast, Ottoman-era structures support artistic narratives through exhibition layouts aligned with traditional aesthetic principles.

Accordingly, restoration projects should not be considered solely as preservation efforts but as dynamic processes that sustain space's historical and cultural continuity. Ultimately, methodological approaches that integrate the physical, social, and cultural dimensions of space will contribute to a deeper theoretical and practical understanding of restoration processes enriched through artistic interventions.

It is advised that artistic integration be initially incorporated into restoration operations, materials chosen based on the original texture, and lighting systems enhanced through projection and interactive approaches. Integrating digital art and augmented reality (AR) applications into spatial design can increase the narrative power of historical spaces. In this context, methodological approaches that examine the relationship between art and interior architecture will contribute to identifying best practices for integrating cultural heritage with contemporary art.

REFERENCES

- Araz, L. (2020). Begin to See Through the Darkness Accessed on February 18, 2025, from <https://www.larissaaraz.com/begin-to-see-through-the-darkness>
- Artam. (2023, October 31). *Artİstanbul Feshane, Mediations Bienali'ni ağırlıyor. Artam.* <https://artam.com/makaleler/sergiler/artistanbul-feshane-mediations-bienalini-agirliyor>
- Art Column-Sanat Sütunu (2023). *Cendere Sanat Tıpkı Bir Vaha Gibi [Video]. Youtube.* <https://www.youtube.com/watch?v=e7SQ3uTLiLs&t=435s>
- Artfulliving, (2023, April 4). *Metrohan Konser ve Söyleşi Programına Ev Sahipliği Yapacak. Artfulliving.* <https://www.artfulliving.com.tr/gundem/metrohan-konser-ve-soylesi-programina-ev-sahipligi-yapacak-i-27523>
- Artfulliving, (2023, June 21). *Cendere Sanat Müzesi'de "Ağaçlar Konuşunca" Sergisi. Artfulliving.* <https://www.artfulliving.com.tr/gundem/cendere-sanat-muzesinde-agaclar-konusunca-sergisi-i-29482>
- Atatürk Kitaplığı. (2025). *Çubuklu Silolar. Atatürk Kitaplığı. Accessed on February 19, 2025, from* <https://ataturkkitapligitest.ibb.gov.tr/tr/Kitaplik/Muzelerimiz/Cubuklu-Silolar/29>
- Atatürk Kitaplığı. (2025). *Çubuklu Silolar Dijital Sanatlar Müzesi. Atatürk Kitaplığı. Accessed on February 19, 2025, from* <https://ataturkkitapligi.ibb.gov.tr/tr/Kitaplik/Muzelerimiz/Cubuklu-Silolar-l-Dijital-Sanatlar-Muzesi/31>
- Bekele, M. K., Pierdicca, R., Frontoni, E., Malinverni, E. S., & Gain, J. (2018). A survey of augmented, virtual, and mixed reality for cultural heritage. *Journal on Computing and Cultural Heritage (JOCCH)*, 11(2), 1–36. <https://doi.org/10.1145/3145534>
- Buckland, M. (2015). *Cultural heritage (Patrimony): An introduction.*
- Cangül, C. (2024, November 18). *Metro Han. Kültür Envanteri.* <https://kulturenvanteri.com/yer/metro-han/#17.1/41.028402/28.974006>
- Cangül C. & Aydın, S. (13 March 2025) *Feshane. Kültür Envanteri.* <https://kulturenvanteri.com/pl/yer/feshane/#17.1/41.044069/28.937564>

- Cansız, A. U. (2024, April 19). *Artİstanbul Feshane*. Arkitera. <https://www.arkitera.com/proje/artistanbul-feshane/>
- Cansız, A. U. (2024, May 10). *Casa Botter Sanat ve Tasarım Merkezi*. Arkitera. <https://www.arkitera.com/proje/casa-botter-sanat-ve-tasarim-merkezi/>
- Crowe, N. (2015). Digital art. In C. Paul (Ed.), *Digital art (World of Art)*. Thames & Hudson Ltd.
- d'Alessandro, N., Calderon, R., & Müller, S. (2011). ROOM #81—Agent-based instrument for experiencing architectural and vocal cues. *Proceedings of the International Conference on New Interfaces for Musical Expression*, 132–135. <https://doi.org/10.5281/zenodo.1177933>
- Drijfhout, D., & de Boer, T. (2015). IFLA Journal special issue on Cultural Heritage. *IFLA Journal*, 41(3), 191-191. <https://doi.org/10.1177/0340035215604316>
- Elden, S. (2007). There is a politics of space because space is political. *Radical Philosophy Review*, 10(2), 101–116. <https://doi.org/10.5840/RADPHILREV20071022>
- Galeri Gazhane. (2023, December 6). *Müze Gazhane*. <https://muzegazhane.istanbul/meکانlar/galeri-gazhane/>
- Haddad, E. (2010). Christian Norberg-Schulz's phenomenological project in architecture. *Architectural Theory Review*, 15(1), 88–101. <https://doi.org/10.1080/13264821003629279>
- İBB TV. (2023, October 12). Tarihi Metro Han sanatseverlerle buluşuyor. *YouTube*. Accessed on February 19, 2025, from <https://www.youtube.com/watch?v=-jWrvaWXdo>
- İstanbul Metropolitan Municipality Department of Cultural Assets. (n.d.). *Istanbul Metropolitan Municipality Department of Cultural Assets (IMM Heritage)*. Istanbul Metropolitan Municipality. <https://ibbmiras.istanbul>
- İstanbul Tourism Platform (2024). *Yedikule Gazhane*, Accessed on March 02, 2025, from <https://turizmplatformu.istanbul/meکان/yedikule-gazhane> İtez, Ö. (2018, July 8). Şerefiye (Theodosius) Sarnıcı Giriş Yapısı. Arkitera. <https://www.arkitera.com/proje/serefiye-theodosius-sarnici-giris-yapisi/>

- Kökbaş, B. & Kurtel, M. (2023, September 10). *Yedikule Gazhanesi. Kültür Envanteri*. <https://kulturenvanteri.com/yer/yedikule-gazhanesi/#17.1/40.990723/28.923069>
- Kültür İstanbul. (2023, December 6). *Şerefiye Sarnıcı. Kültür İstanbul*. Accessed on February 17, 2025, from <https://kultur.istanbul/serefiye-sarnici/>
- Lefebvre, H. (1974). La producción del espacio. *Papers: Revista de Sociología*, 219–229. <https://doi.org/10.5565/REV/PAPERS/V3N0.880>
- Lefebvre, H., & Nicholson-Smith, D. (1991). *The production of space* (Vol. 142).
- Lefebvre, H. (2014). *Henri Lefebvre on space: Architecture, urban research, and the production of theory*.
- Mendoza, M. A. D., De La Hoz Franco, E., & Gómez, J. E. G. (2023). Technologies for the preservation of cultural heritage—A systematic review of the literature. *Sustainability*, 15(2), 1059. <https://doi.org/10.3390/su15021059>
- Murthy, R. K., Raj, V., & Shashank, S. N. (2024). A survey on importance of cultural heritage. *International Advanced Research Journal in Science, Engineering and Technology*, 11(1), 6. IARJSET. <https://doi.org/10.17148/iarjset.2024.11118>
- Norberg-Schulz, C., & Norberg-Schulz, A. M. (1979). *Genius loci: Paesaggio ambiente architettura*. <https://doi.org/10.12795/ppa.2020.i23.13>
- Oggusto. (2023, April 4). *Botter Apartmanı hakkında bilmeniz gerekenler*. Oggusto. <https://www.oggusto.com/sanat/eser-ve-muze-incelemeleri/botter-apartmani-hakkinda-bilmeniz-gerekenler>
- Qi, Y., & Zhang, S. (2024). Research on the characteristics of immersive installation art from the perspective of digital media. *Frontiers in Art Research*, 6(9). <https://doi.org/10.25236/far.2024.060902>
- Özdamar, E. G. (2022). Architectural installations as spatial experiments. *Revista De Arquitectura*, 27(43), 43–63. <https://doi.org/10.5354/0719-5427.2022.68224>
- Pasta, F. (2021, December 1). *Müze Gazhane: The Gasworks Museum powering Istanbul again. Domus*. Accessed on February 17, 2025, from <https://www.domusweb.it/en/architecture/gallery/2021/11/23/muze-gazhane-the-gasworks-museum-powe->

- [ring-istanbul-again.html](#)
- Rivero-Lamela, G. (2020). Christian Norberg-Schulz: genius loci: paesaggio, ambiente, architettura. *Proyecto, Progreso, Arquitectura*, (23), 198-199. <https://doi.org/10.12795/ppa.2020.i23.13>
- Schmid, C. (2008). Henri Lefebvre's theory of the production of space: Towards a three-dimensional dialectic. In *Space, difference, everyday life* (pp. 41-59). Routledge.
- Stanek, Ł. (2008). *Methodologies and situations of urban research. Re-reading Henri Lefebvre's The production of space. Zeithistorische Forschungen–Studies in Contemporary History*, 4(3), 461–465.
- Stanek, L. (2011). *Henri Lefebvre on space: Architecture, urban research, and the production of theory. University of Minnesota Press.* <https://doi.org/10.5749/minnesota/9780816666164.001.0001>
- Strecker, I. A. (2000). The genius loci of Hamar. *Northeast African Studies*, 7(3), 85–118. <https://dx.doi.org/10.1353/nas.2005.0009>
- Troika Restorasyon. (2023, November 3). *Metro Hani 1. Troika Restorasyon*. Accessed on February 19, 2025, from <http://troikarestorasyon.com/metro-hani-1/>
- Wilken, R. (2013). The critical reception of Christian Norberg-Schulz's writings on Heidegger and place. *Architectural Theory Review*, 18(3), 340–355. <https://doi.org/10.1080/13264826.2013.875614>
- Zambak. (2021, February 9). *Hamidiye Cendere Su Terfi İstasyonu. Kültür Envanteri*. <https://kulturenvanteri.com/pl/yer/cendere-hamidiye-su-pompa-istasyonu/hamidiye-cendere-su-terfi-istasyonu/?lang=en>
- Zi-kai, Z. (2007). Review of Henri Lefebvre's *The production of space*. *Journal of Jiangsu University*.