

Experience Museology and Ephesus Experience Museum

Deneyim Müzeciliği ve Efes Deneyim Müzesi

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Abstract

In the rapidly changing world of the 21st century, museums are not only places where exhibits are stored, but also turn into experience centers that offer more opportunities to their visitors. As a concept created by this transformation, the experience museum offers visitors the opportunity to interact not only by watching the works, but also by experiencing the artifacts and historical processes. In addition, in this process, concepts such as experience museology and immersive reality have emerged with the use of technological tools such as AR (Augmented Reality), VR (Virtual Reality), MR (Mixed Reality), AI (Artificial intelligence), hologram, simulation and 360-degree video mapping. With the technologies used in the Ephesus Experience Museum, an immersive environment has been created that appeals to the visual or auditory senses of the audience. While visiting the museum in this immersive environment, visitors also experience the historical process by listening to it through audio guides. In this article, by focusing on the museums developed in line with technological possibilities, the Ephesus Experience Museum was visited and examined in the context of experience museology, and the data obtained from the literature review were analyzed by comparing them with the experience museums in the west. A different exhibition atmosphere has been created with the technological facilities used in the Ephesus Experience Museum. Visitors' experience of the museum has also augmented the available data. At the same time, the deficiencies of the Ephesus Experience Museum have been identified. Celsus (Selçuk) Library, one of the important structures of the ancient city of Ephesus, and other historical buildings were not included in the storytelling, and this created a lack of stories. It is thought that this deficiency can be remedied with QR code or augmented reality applications.

Keywords: Experience museum, Ephesus, Ephesus Experience Museum, immersive technologies, storytelling.

Academical Disciplines/Fields: Museology, Digital Technologies, Cultural Heritage, Art and Design.

Özet

21. yüzyılın hızla değişen dünyasında, müzeler sadece sergilenen eserlerin saklandığı yerler olmaktan çıkarak, ziyaretçilerine daha fazla imkân sunan deneyim merkezlerine dönüşmektedir. Bu dönüşümün ortaya çıkardığı bir kavram olarak deneyim müzesi, bu süreçte ziyaretçilere eserleri sadece izleyerek değil, eserlerle ve tarihsel süreçleri deneyimleyerek, etkileşim imkânı da sunmaktadır. Yanı sıra bu süreçte ayrıca AR (Artırılmış Gerçeklik), VR (Sanal Gerçeklik), MR (Karma Gerçeklik), AI (Yapay zekâ), hologram, simülasyon ve 360 derece video mapping gibi teknolojik araçların kullanımıyla deneyim müzeciliği ve immersive reality gibi kavramlar ortaya çıkmıştır. Efes Deneyim Müzesi'nde kullanılan teknolojilerle izleyicilerin görsel ya da işitsel duyularına hitap eden sürükleyici bir ortam oluşturulmuştur. Ziyaretçiler bu sürükleyici ortamda müzeyi gezerken aynı zamanda sesli rehberler aracılığıyla tarihsel süreci dinleyerek deneyimlemektedirler. Bu makalede teknolojik imkanlar doğrultusunda gelişen müzelere odaklanılarak deneyim müzeciliği bağlamında Efes Deneyim Müzesi ziyaret edilerek incelenmiş ve literatür taramasından elde edilen verilerle batıdaki deneyim müzeleriyle karşılaştırma yapılarak analiz edilmeye çalışılmıştır. Efes Deneyim Müzesi'nde kullanılan teknolojik imkanlar ile farklı bir sergi atmosferi oluşturulmuştur. Ziyaretçilerin müzeyi deneyimlemesi bilgi olanaklarını da artırmıştır. Aynı zamanda Efes Deneyim Müzesi'nin eksik yönleri tespit edilmiştir. Efes Antik Kenti'nin önemli yapılarından biri olan Celsus (Selçuk) Kütüphanesi ve diğer tarihi yapıları hikâye anlatımında yer almamış ve bu durum hikâye eksikliği yaratmıştır. Bu eksiklik QR kod veya artırılmış gerçeklik uygulamaları ile sağlanabileceği düşünülmektedir.

Anahtar Kelimeler: Deneyim müzesi, Efes, Efes Deneyim Müzesi, immersive teknolojiler, hikâye anlatımı.

Akademik Disiplin(ler)/Alan(lar): Müzecilik, Dijital Teknoloji, Kültürel Miras, Sanat ve Tasarım.

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- **Published Online:** 23.09.2024
- **doi:** 10.17484/yedi.1504176

Date of Arrival: 24.06.2024 / **Date of Admission:** 26.07.2024

1. Introduction

Museums keep the cultural memory of societies alive and transfer the richness of the past to future generations by carrying them to the present. The origins of museums, which contain collections on many subjects from art to archeology, from history to science, date back to the Ancient Age (Çal, 2009, p. 315-316). The foundations of modern museums were laid in the 17th and 18th centuries (Altunbaş & Özdemir, 2012, p. 4). The Industrial Revolution and increasing scientific discoveries have increased the variety and number of museums. In the 21st century, museums began to transform into areas that offer experiences to visitors in line with the opportunities offered by digital technologies. This transformation has also led to the emergence of new concepts in museology. In this study, the Ephesus Experience Museum will be analyzed by focusing on the concepts of experience museology and immersive technologies that incorporate new media elements.

The subject was determined as a result of the academic discussions held within the scope of the Photography and Augmented Reality II course, which was taken as an elective in the spring semester of the 2023-2024 academic year of Dokuz Eylül University Institute of Fine Arts. As a method, a literature review, which is a qualitative research method, was conducted and an on-site examination. The literature review focused on the concepts of experience museology and immersive reality. In the literature review, the word immersive comes to the fore especially in the studies conducted in the last five years. In studies where the words immersive and museum are included together, museums containing Virtual Reality (VR) and Augmented Reality (AR) applications are examined. As of June 2024, there have been no scientific publications on the Ephesus Experience Museum. This study creates a unique content in this respect. In May 2024, the Ephesus Experience Museum was visited and on-site observations and examinations were made. After the visit, the museum management was contacted via e-mail and an attempt was made to obtain further information.

2. Museology, Experience and Immersive Technologies

Museums are spaces where people learn about their own history and past. The purpose of museums is to exhibit protected artifacts and to provide visitors with information about the past. In classical museums, one or two senses are addressed. In this context, storytelling takes place to a significant extent with the exhibited works. Experience museums, on the other hand, create structures that enable people to interact with the technological tools in the museum and appeal to multiple sensory organs. Storytelling is provided through artifacts and technological devices. The Ephesus Experience Museum, located in the ancient city of Ephesus, also offers its visitors an experience through technological tools.

Museums are places that preserve and exhibit important cultural artifacts of human history. With the exhibition of people's heritage throughout history in museums, museums have also become a strategic structure that enables the transfer of cultures. For this reason, museums enable cultures to protect their identities. With its decision taken in 2022, the International Council of Museums (ICOM) defined the concept of museum as "researching, preserving, collecting, interpreting and exhibiting the tangible and intangible heritage of humanity; public, community-serviced and non-profit institution" (ICOM, 2024). Museums, which contain works of art and science along with cultural heritage, also have educational purposes by including factors such as informing the society, raising awareness and appealing to aesthetic feelings (Durukan and Altın, 2018, p. 572).

2.1. Some Technologies Used in Experience Museums

Collection activities, which first started with collecting (Yaraş 1994, p. 19), then turned into public areas and formed museums. Museums, which spread to the world in the 19th century, started to develop technologically towards the end of the 20th century (Yıldırım, 2021, p. 32). In the 21st century, applications such as AR, VR, MR (Mixed Reality), AI (Artificial Intelligence), hologram, simulation and 360-degree video mapping have started to be used in museums. While the archaeological, artistic, scientific, etc. artifacts in the museums are focused on the promotion of cultures and education, the museums in the 21st century contain factors such as entertainment and interaction of people other than cultural promotion and education (Karadeniz, 2017, p. 21). Recently (2024), museums provide technological opportunities for visitors to observe and actively participate. Visitors' senses are included in the interaction with the technological facilities used. Observation-based artifact examinations made only with vision have recently allowed the inclusion of senses such as smell, touch and hearing along with vision. This interaction takes place with technological possibilities such as AR, VR, MR, AI, hologram, simulation and 360-degree video mapping.

Global research on museology activities suggests that museums are open to the application of new technologies. In fact, it is estimated that AR and VR technologies will dominate museums in future projections made until 2095 (Mavrin et al. 2023, p. 288). Alternative reality practices created with these technologies offer different experiences to their visitors. In 2017, Mat Collishaw's exhibition *Thresholds* was designed using AR, VR and MR. Visitors walked through the digitally designed rooms, touching objects and surfaces, understanding the wood or marble textures of the surfaces, feeling the warmth from the fireplace, and hearing sounds from outside as they approached the window from 1839 (National Trust, p. 2017).

In addition to offering different experiences to the audience with alternative forms of reality, hologram is another technological application that has been put into operation in museums in recent years. Thanks to the hologram technology discovered by the Hungarian scientist Dennis Gabor (1900-1979) in 1947, a three-dimensional image has emerged through laser lights. Thus, an illusion of reality was created on those who watched it (Pietroni et al. 2019, p. 3). The spread of digital technologies such as VR, AR and hologram applications in museums has allowed historical and anthropological stories to be told in an interesting way and for viewers to experience these stories through media environments (Shein, 2022, p. 15).

As mentioned above, the technological opportunities offered by museums are designed for museum visitors to have different experiences. Experience has been an important factor that ensures the consolidation of the learning process and the permanence of what has been learned (Durukan and Altın, 2018, p. 574). Experience according to the Oxford dictionary; "has been defined as the knowledge, skill and the process by which a person acquires something by doing it for a certain period of time" (Oxford, 2024). John Dewey, a philosopher and educational theorist, examined the concept of experience and emphasized that in order for the actions to be considered as experience, the person in the action must be an active participant and the experience must be educational (Glass, 1997, p. 95). Naturally, experience is an acquisition that a person achieves by living. In this process, people enter into a dialogue socially and physically. In this sense, the museum experience is the actions taken by the visitors by taking an active role in the museum. The fact that museums offer experiences for senses such as sound, smell and touch, along with the images they present with technological practices, has made visitors active participants in museums. In this context, the inclusion of people in the process gives visitors experiences that they have not experienced before (Calvi and Vermeeren, 2023, p. 2). For this reason, recent museums offer different experience areas to their visitors. In this context, philosophy professor Hilde Hein stated that the concept of experience museum emerged at the beginning of the 21st century when museums started to offer the opportunity to experience (Ergin, 2022, p. 204).

The word *immersive* has become one of the prominent concepts with the spread of digital technology. This term, which was first paired with digital games, started to be used in alternative experience practices in museums after the development of AR, VR and MR technologies. When examined as a word, the word *Immersion* comes from French and means *immersion* (Cambridge Dictionary, 2024). The concept of *Immersion* used in experience museums, on the other hand, expressed the merging of the real and the virtual and was used in the sense of immersion (Murray, 2017, cited in Agrawal et al, 2019, p.2) or enveloping and dragging (Kortak, 2023, p. 398). The concepts of immersion or wrapping in the context of *immersion* are used as metamorphosis. Immersion means taking the person into the virtual universe and cutting off their interaction with the real world. In order for the person to be a part of the virtual universe, virtual reality technologies and technologies that will appeal to people's senses are used.

To this end, in experience museums, which are also expressed as *immersive*, storytelling is carried out with products such as headphones, apart from the visual feast, and thanks to this narration, visitors are guided and immersed more in the story told. Thanks to the technology that interacts with the senses, the visitors, who are more adapted to the story in the museums, also reach the information told more permanently (Durukan and Altın, 2018, p. 572). Museums, which define their works and themselves as *Immersion*, not only take visitors on breathtaking journeys in time, space, and one's own imagination (Dem Museums, 2023), but also enable them to visit the museum again (Genç and Çiçek, 2023, p. 89).

Immersion museums have opened in many parts of the world and are visited by people who want to have a different experience. 360-degree video mapping and VR technologies are used to ensure immersion and interaction in experience museums. The basis of 360-degree video production was provided by the possibilities offered by photography in the 19th century. *Fotorama*, produced by the Lumière Brothers and viewed with 360-degree reflection on the screen, can be considered one of the foundations of the 360-degree panoramic video image (Ergand, 2017, p. 47). 360-degree video techniques, which allow museum visitors to have different experiences, are preferred by many museums because they are less costly than VR

technology (Mancuso et al, 2024, p. 2). By providing different technological components for the VR experience, people are made to feel in a realistic simulation environment, while visualization with 360-degree video makes the person feel physically in a different place (Mancuso et al, 2024, p. 2). In this context, it has been concluded that the simulations carried out with VR are more open to experience, and the exhibition made in 360-degree video format has less visitor interactions due to the lack of experience opportunities. In order for an experience to be considered immersive, it must be more than a three-dimensional image surrounding the user (Mavrin et al. 2023, p. 288).

2.2. Experience Museum Examples

There are many immersive museums that exhibit using AR, VR, MR and 360-degree video mapping technologies in many geographies. Prominent experience museums are Van Gogh The Immersive Experience in London (Figure 1) and Frameless Immersive Art Experience in Amsterdam, Fabrique des Lumières. Van Gogh The Immersive Experience in London divided the experience into four as 360, Virtual Reality, Art and Life, and Studio. The exhibition section, which is categorized as 360, offers a different experience to its visitors with projection, light and sound in an area of 1000 m² (Van Gogh Expo, n.d.).



Figure 1. Van Gogh The Immersive Experience, 2017

In the exhibition section called Virtual Reality, visitors are shown eight iconic works of Van Gogh (Figure 2) through VR glasses (Figure 3). Visitors can walk inside these works with VR glasses (Van Gogh Expo, n.d.).



Figure 2. Van Gogh The Immersive Experience, 2017



Figure 3. Van Gogh The Immersive Experience, 2017

Another experiential museum located in London is the Frameless Immersive Art Experience (Figure 4). The museum, which consists of an area of 30,000 m², consists of four galleries and exhibits 42¹ works. During the exhibition, headphones are distributed to visitors, with audio guides in nine different languages to inform them about the museum, works and artists, and to give a music concert (Frameless, n.d.).



Figure 4. Frameless Immersive Art Experience, 2024

Fabrique des Lumières in Amsterdam is a museum that exhibits classical works and modern works by world-famous artists. The museum, which offers experiences using sound, light and digital technology (Figure 5), was opened in 2022 (Fabrique des Lumières, n.d.).

1 Among the Works exhibited in the museum are The Tree of Life by Gustav Klimt, The Persistence of Memory by Salvador Dali, Waterlilies and Japanese Bridge by Claude Monet, The Starry Night by Van Gogh, The Garden of Earthly Delights by Hieronymus Bosch, Yellow, Red, Blue by Wassily Kandinsky.

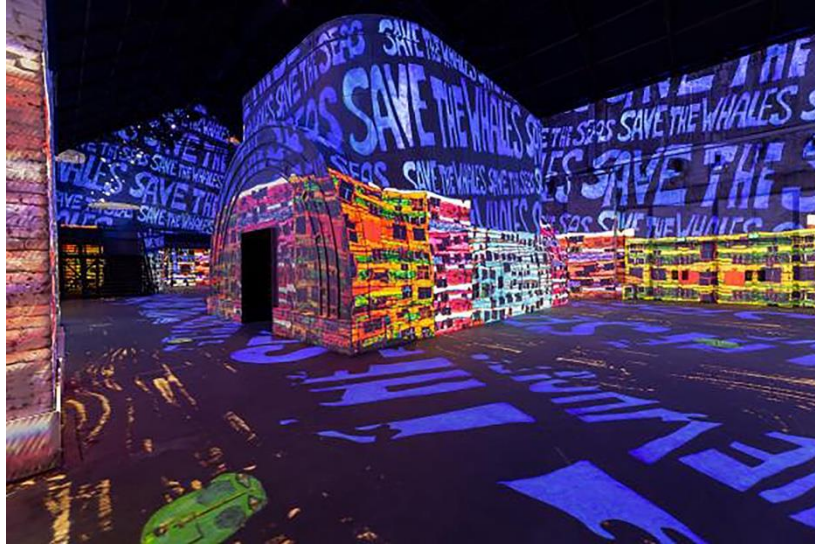


Figure 5. Fabrique des Lumières, 2022

In 2021, for the first time in Türkiye, in cooperation with İstanbul Metropolitan Municipality and TUCE Investment, 360-degree video mapping method was used in Şerifiye Cistern², one of the important historical sites of İstanbul (Şerifiye Sarnıcı, n.d.). In the Şerifiye Cistern (Figure 6), which has a history of 1600 years, two separate mapping exhibitions were made called Şerifiye Cistern and Water Civilization İstanbul from Past to Present. It continues to operate today.



Figure 6. Şerifiye Cistern, 2021

The New International Spy Museum in Washington, United States, is another example of a museum that tries to provide a new museum experience by using interactive technologies. In this museum (Figure 7), visitors have the opportunity to take a journey through the history of espionage and actively participate in the exhibition process. Visitors experience the process with touchscreen digital kiosks³, VR applications, QR code reader devices, and projected surface applications (Yıldırım & Ballice, 2024, p. 95).

² The Şerifiye Cistern or Theodosius Cistern is one of the cisterns located in the Fatih district of İstanbul. The work belonging to the Byzantine period is one of the water tanks built to meet the water needs of Byzantium.

³ They are touch-screened desks that can provide information and direct.



Figure 7. International New Spy Museum, Washington, 2023

The ancient city of Ephesus, located in Izmir Selçuk, is one of the other important historical sites in our country. With millions of domestic and foreign visitors every year (Yılmaz, 2022; Nayman, 2024) Since 2023, the Ephesus Experience Museum has been established in the ancient city in cooperation with the Dem Museum. This museum introduces itself with the concept of Immersive and offers its visitors different experience practices.

3. Ephesus Experience Museum as an Example of an Experience Museum

The ancient city of Ephesus is an important ancient city located in the Selçuk district of Izmir province in western Türkiye, dating back to the 10th century BC. Ephesus, which was the capital of the Anatolian province during the Roman Empire, was an important port and trade city in ancient times. Throughout history, it has been ruled by many civilizations such as Ionians, Lydians, Persians, Macedonians, Romans, Byzantines and Ottomans (Arıkan, 1990, p. 121-122). The ancient city of Ephesus also has an important place in Greek mythology. The ancient city of Ephesus is a city dedicated to the goddess Artemis in ancient times (Yazıcı & Üreten, 2020, p. 456). The Temple of Artemis⁴, built for Artemis, has been accepted as one of the seven wonders of the world (Albayrak, 2008, p. 96). The excavations, which were carried out for the first time by the British Archaeologist John Turtle Wood since the second half of the 19th century (Uluçay, 1997, p. 23), continued under the leadership of Austrian Otto Benndorf and German Carl Humann since 1895 (Uluçay, 1997, p. 58). Today, the excavations are carried out by the Ministry of Culture and Tourism of the Republic of Türkiye and the Austrian Archaeological Institute. The ancient city of Ephesus was included in the UNESCO World Heritage List in 2015 (Izmir Provincial Directorate of Culture and Tourism, n.d.).

As mentioned above, museums, which are one of the oldest exhibition methods in history, have started to transform into forms that include new media elements as of the 21st century. Experience museology as a new technological structure is supported by these new media elements (Rabbi & Barua, 2022). The Ephesus Experience Museum was opened in the Ancient City of Ephesus as of October 2023 as a new museology concept (Alakuş, 2023). The Ephesus Experience Museum and the Hagia Sophia History and Experience Museum, which were implemented in cooperation with the Ministry of Culture and Tourism of the Republic of Türkiye and DEM Museology⁵, were designed as Türkiye's first technology-oriented historical experience museums (Dem Museums, 2023). Setting out for this purpose, DEM Museology has created a new concept in Türkiye by combining storytelling, design and technology. Designed by Atelier Bruckner, the Ephesus Experience Museum is established on an area of 2400 square meters. The museum set out with the claim of

⁴ Artemis is the twin sister of Apollo and the goddess of the moon, known as the daughter of Zeus and Leto in Greek mythology.

⁵ Dem Museology, which operates under the Astel Group of Companies, has established the Ephesus Experience Museum and the Hagia Sophia History and Experience Museum in Türkiye. We continue to work for Hierapolis and Cappadocia experience museums.

taking its visitors on an audiovisual journey through the 8000-year history of the city (Atelier Bruckner, 2023).

At the entrance of the museum, visitors are given an audio guide in 16 different languages. The audio guide, which works without the need for visitors to take any action, was voiced in Turkish by Selçuk Yöntem⁶ and Gülen Karaman⁷, and in English by David Schofield⁸ and Olivia Williams⁹ (Dem Museums, 2023). The design and production of the sounds that will greet the visitors in the museum were produced specifically for the museum using the pieces of four different British and Turkish composers (Vallejo, 2024).

The museum, which is shaped by visual and audio media, emerges as a derivative of new media. The museum, which tries to present the historical reality together with the mythological stories in the establishment of Ephesus in an audio-visual harmony, promises to take visitors on an immersive journey into the past (Dem Museums, 2023). With 360-degree projections, the latest technologies such as sound, light and fog are used (Atelier Brueckner, 2023).

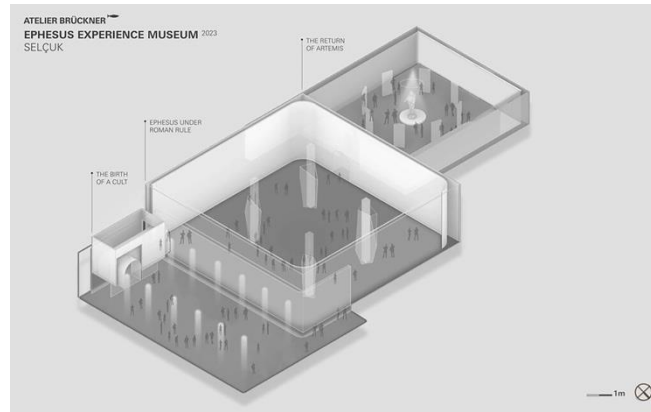


Figure 8. Ephesus Experience Museum Plan, 2023

The Ephesus Experience Museum offers an experience that takes about 15 minutes in 3 rooms (Figure 8). The narrative and visual feast, which begins with the prophecies of the Oracle of Delphi¹⁰ in the first room called The Birth of a Cult (Figure 9), provides information about the foundation of the city and the role of its protector Artemis in the foundation of the city. In this first room, mythological narratives about the foundation of the city are presented with a digital-visual background, while the statue of Artemis is projected on a tulle curtain in the center of the room. Visitors who leave the first room, which offers a 5-minute experience, pass through the doors of the Temple of Artemis to the second room (Cansız, 2024).



Figure 9. Ephesus Experience Museum, The Birth of a Cult, 2023

⁶ Selçuk Yöntem, born in 1953 in Istanbul, is a Turkish actor and TV presenter.

⁷ Gülen Karaman, born 1959 in Istanbul, is a Turkish actress and voice actor.

⁸ David Schofield, born 1951 in Manchester, is an English actor.

⁹ Olivia Williams, born in London in 1968, is a TV series, stage and film actress.

¹⁰ The Oracles of Delphi are the foreshadowers of the future in Ancient Greece.

The second room, which is the largest space of the museum (Figure 10), is called Ephesus under Roman Rule. Staying in the second room for about 7 minutes, visitors enter the city from the sea and the harbor street and experience the images of Ephesus 2500 years ago, from the Arcadian Road¹¹ to the marble streets, in a 360-degree audio-visual narrative. This chapter describes the rebirth of the city under Roman rule after earthquakes and fires. Visitors can travel the Arcadian Road from one end to the other with Cleopatra and Mark Antony. This promenade takes up a large part of the total time of 7 minutes and creates a kind of illusion on the visitors thanks to the representations of the prehistoric images of the street flowing towards the visitors. One of the most impressive parts of the museum is the journey on this street. During this journey, visitors see scenes from the marketplace, streets and circuses of that period.

Then, visitors to the terrace houses witness the natural walk of a cat inside the house. In this section, visitors, who are also guests of the Ephesus Amphitheater¹², witness gladiator fights. The narrative, which also emphasizes the religious transformation of the city during the transition from the paganist period to the Christian process, also shares the Basilica of St. Paul and St. John with visitors (Cansız, 2024).



Figure 10. Ephesus Experience Museum, Ephesus under Roman Rule, 2023

The third room, called the Return of Artemis (Figure 11), is the last room of the museum. In the last section, which lasts about 3 minutes, a life-size statue of Artemis, the patron goddess of the city, welcomes visitors in the mist. In this section, visitors who hear the voice of Artemis end the museum experience by listening to a poetic narrative that she never left the city and was always there (Cansız, 2024).



Figure 11. Ephesus Experience Museum, Return of Artemis, 2023

¹¹ Arcadian Road (Street) is one of the most important structures of the ancient city of Ephesus. Celsus (Selcuk) Library, Ancient Theater, Hadrian's Temple, Liman Street are other important structures.

¹² Ephesus Antique Theater is one of the largest theaters in Anatolia with a capacity of 25 thousand people.

The concept of immersive, which is one of the concepts that experience museums focus on, is one of the main concepts of the Ephesus Experience Museum. In this sense, with a visual and auditory storytelling, the audience is offered a visit to a museum that they have not experienced before, and that they are in person instead of watching the works from the front. Storytelling, which is one of the most important deficiencies of today's museums (Pietroni et al, 2019), is one of the main focuses of the museum here. The museum, which blends mythological stories and factual information that has existed since the establishment of the city of Ephesus and offers an audio narration, has created a design environment that visitors have not experienced before. In this storytelling, while there is an extensive use of pixelation in the visuals used in mythological narratives, the visuals used in more realistic information based on historical facts are presented with clearer and more concrete animations. The museum narrative is available in 16 different languages, providing an opportunity for most visitors to experience historical and mythological processes in their native language. The focal point of the Ephesus Experience Museum, which consists of three experience rooms and can be viewed in about 15 minutes, is the goddess Artemis and the Temple of Artemis, which is dedicated to her. Apart from these, Arcadian Road, Liman Street, Ancient Theater and Terrace Houses, which are important symbols of the ancient city of Ephesus, are other places highlighted in the Ephesus Experience Museum. The Celsus (Selçuk) Library¹³, one of the important structures of the ancient city of Ephesus, is not included in the story. The fact that this building, which is important for Ephesus and which many tourists want to see, is not in the experience museum is an issue that needs to be discussed.

Hagia Sophia History and Experience Museum, another experience museum of Dem Museology in Türkiye, was opened recently with the Ephesus Experience Museum and was designed with similar video techniques and narratives. Hagia Sophia History and Experience Museum offers a 30-minute experience in 13 rooms in a 3-storey historical building, while Ephesus Experience Museum offers an experience that takes approximately 15 minutes in 3 rooms. Compared to the Hagia Sophia History and Experience Museum, which offers more experience in terms of both duration and quality, the Ephesus Experience Museum is less prominent. In both museums, 360-degree videos come to the fore. This system, which is less costly, is preferred by recent museums. However, in today's world where technology and opportunities are advanced, only 360-degree videos are used; Not using facilities such as AR, VR, hologram, artificial intelligence or simulation restricts the museum experience. The Van Gogh The Immersive Experience Museum in London increases the level of experience with 360-degree mapping and VR glasses. At the International New Spy Museum in Washington, D.C., visitors can use touch screens interactively and play the role of an agent. However, in the Ephesus Experience Museum, visitors are not actively involved in an experience. In the Ephesus Experience Museum, visitors do not have any sensory experiences other than their senses of sight and hearing. This reduces the level and effectiveness of the experience.

4. Conclusion

In this study, it is seen that museums have shifted away from the classical museology in recent years and benefited from the opportunities brought by technology. Museums that integrate technologies such as AR, VR, MR, AI, hologram, simulation, 360-degree video mapping with technological developments offer a technological museum visit to the audience. The new generation exhibition areas, called experience museums, have removed visitors from being a passive spectator and have become a spectator who experiences the process with different senses such as sight, sound, smell and touch. By allowing visitors to take part in the stories told as if they were living in them, more information is transferred compared to the traditional museum understanding.

Experience museums separate history from time and space, transforming different historical structures, as well as creating a cumulative fiction of history. It provides the illusion of living in a certain time (Tumay, 2024). Experience museums, which are a new form of representation, can also lead to the manipulation of history. Interactivity is also important in experience museums. In the museum, where people get away from their daily lives and spend time, the presence of interactivity facilitates storytelling and turns museums into entertaining cultural spaces.

The Ephesus Experience Museum, which opened to visitors in October 2023, is one of the examples of the new museology approach in Türkiye, which promises to make an audiovisual journey to the thousands of years of history of the ancient city of Ephesus. As a result of a 15-minute experience in this museum, visitors

¹³ Celsus (Selçuk) Library, the library, which is the information center of the ancient period, was built in memory of the Roman Senator Tiberius Julius Celsus Polemaenus. It is the symbolic structure of the ancient city of Ephesus.

take a relatively short journey into the history of the ancient city of Ephesus. The focus of this historical journey is especially on the myths and historical facts about Artemis and the Temple of Artemis. The highlight of this experience is the storytelling, which takes place accompanied by an audio-visual feast. In this storytelling, visitors learn about the daily life, architecture, religious rituals and trade of Ephesus. The most important feature that distinguishes this museum from other experience museums is that it is located in an ancient city. Ephesus Experience Museum is an important building that tries to reflect the new understanding of museology by using 360-degree video technologies. However, compared to other examples in the world, the Ephesus Experience Museum does not contain technologies such as AR, VR, MR. This reduces the effectiveness of the experience in the museum. There is also a significant deficiency in storytelling, which is the highlight of the museum. One of the most important deficiencies of this museum is that the Celsus (Selçuk) Library, one of the most important structures of the ancient city of Ephesus, is not included. It is thought that the process of museum experience will be efficiently expanded by multiplying experience spaces and enriching narratives.

Some suggestions to increase the experience at the Ephesus Experience Museum can be as follows. The story of the Ancient City of Ephesus can be given in more detail with an application that visitors can download to their phones via QR code. With Virtual Reality and Augmented Reality applications, the experience can be personalized. A visitor who is a guest of the Terrace Houses can wear the clothes of that period and taste a drink of that period. Thus, the effectiveness of the experience can be increased by making use of MR technology. In this context, with the use of the above-mentioned technological tools, it should be ensured that the rich historical structure of many archaeological sites and museums in our country, such as the Ancient City of Ephesus, meets with large masses and visitors can experience the richness of our cultural heritage. In addition, academics, artists, historians, museologists, computer engineers, new media artists, musicians, etc. will be able to work together and reproduce the museum designs created with these technologies, and transfer our historical and cultural heritage to future generations on a more creative axis.

References

- Agrawal, S., Simon, A., Bech, S., Baerentsen, K. and Forchhammer, S. (2019). Defining immersion: Literature review and implications for research on immersive audiovisual experiences. *Hal Open Science*, 1-14. <https://doi.org/10.17743/jaes.2020.0039>
- Alakuş, M. S. (2023, Ekim 10). Efes Dijital Deneyim Müzesi [Ephesus Digital Experience Museum]. *Anadolu Ajansı*. <https://www.aa.com.tr/tr/pg/foto-galeri/-efes-dijital-deneyim-muzesi/0>
- Altunbaş, A., & Özdemir, Ç. (2012). Çağdaş müzecilik anlayışı ve ülkemizde müzeler [Contemporary museum approach and museums in Türkiye]. *Kültür ve Turizm Bakanlığı*. <https://teftis.ktb.gov.tr/Eklenti/4655,makale.pdf>
- Atelier Brueckner. (2023). *Ephesus Experience Museum*. Atelier Brueckner. <https://www.atelier-brueckner.com/en/ephesus-experience-museum>
- Cambridge Dictionary. (2024). <https://dictionary.cambridge.org/translate/>
- Çal, H. (2009). Osmanlı'dan günümüze Türkiye'de müzeler [Museums in Türkiye from the Ottoman Empire to the present]. *Türkiye Araştırmaları Literatür Dergisi*, 7(14), 315-333. <https://dergipark.org.tr/tr/download/article-file/653620>
- Dem Museums (2023). <https://www.demmuseums.com/>
- Durukan, A. & Altın, B. (2018). Deneyimsel pazarlama ışığında müze tasarımı: Legion of Honor ve Mısır Müzesi örnek incelemeleri [Museum design in light of experiential marketing: Case studies of the Legion of Honor and the Egyptian Museum], *SETSCI Conference Indexing System*, 571-581. http://www.set-science.com/manage/uploads/ISAS2018-Winter_0039/SETSCI_ISAS2018-Winter_0039_00110.pdf
- Ergin, G. (2022). Müze deneyiminin dijital teknolojilerle oyunlaştırılması [Gamification of the museum experience with digital Technologies]. *IDA: International Design and Art Journal*, 4(2), 200-213. <https://www.idajournal.com/index.php/ida/article/download/178/67/1418>
- Ergand, Ç. (2017). Panoramik fotoğraf ve panoramik fotoğraf tabanlı sanal tur teknolojisi ve çekim teknikleri ders notları [Panoramic photography and panoramic photo-based virtual tour

- technology and shooting techniques lecture notes], *Mimar Sinan Güzel Sanatlar Üniversitesi* 2017/25 numaralı Bap Projesi Raporu, 1-110.
https://www.academia.edu/39950853/_Panoramik_Fotoğraf_ve_Panoramik_Fotoğraf_Tabanlı_Sanal_Tur_Teknolojisi_ve_Çekim_Teknikleri_Ders_Notları_Mimar_Sinan_Güzel_Sanatlar_Üniversitesi_2017_25_numaralı_Bap_Projesi_Raporu_
- Fabrique des Lumières. (n.d.). *Fabrique des Lumières*. <https://www.fabrique-lumieres.com/>
- Frameless. (n.d.). *Frameless*. <https://frameless.com/>
- Glass, N. R. (1997). Theory and practice in the experience of art: John Dewey and the Barnes Foundation. *The Journal of Aesthetic Education*, 31(3), 91-105. <https://www.jstor.org/stable/3333490>
- Genç, V. ve Çiçek M. (2023). Müze deneyiminde interaktif uygulamaların rolü: Göbeklitepe Ören Yeri ve Şanlıurfa Arkeoloji Müzesi örneği [The role of interactive applications in museum experience: The example of Göbeklitepe Archaeological Site and Şanlıurfa Archaeological Museum], *Türk Arkeoloji ve Etnografya Dergisi*, 86, 99-115. <https://dergipark.org.tr/en/download/article-file/2598092>
- İzmir İl Kültür ve Turizm Müdürlüğü. (n.d.). *Efes (Selçuk)*. Ephesus. <https://izmir.ktb.gov.tr/TR-77418/efes-selcuk.html>
- Karadeniz, C. (2017). Müze ve toplum: Müzeyle topluma ulaşmak [Museum and society: reaching society through the museum], *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 6(8), 19-27. <https://dergipark.org.tr/tr/download/article-file/396204>
- London Perfect, (2023). <https://www.londonperfect.com/blog/2021/05/van-gogh-immersive-london/>
- Mancuso, V., Borghesi, F., Bruni, F., Pedroli and E. Ciproso, P. (2024). Mapping the landscape of research on 360-degree videos and images: a network and cluster analysis, *Springer Virtual Reality*, 1-18. <https://link.springer.com/article/10.1007/s10055-024-01002-2>
- Mavrin, I., Mesić, H. & Banović, A. P. (2023). Gamification and immersive experiences in museums as audience development strategy – the case of croatian museums. *Collegium Antropologicum*, 47(4), 287-296. <https://doi.org/10.5671/ca.47.4.5>
- Nayman, H. (2024, Ocak 15). Efes Antik Kenti 2023 yılında 2 milyonu aşkın ziyaretçiyi ağırladı [The Ancient City of Ephesus hosted over 2 million visitors in 2023]. *Hürriyet*. <https://www.hurriyet.com.tr/yerel-haberler/izmir/efes-antik-kenti-2023-yilinda-2-milyonu-askin-z-42391060>
- National Trust (t.y.), *Step into a virtual world with Mat Collishaw's Thresholds*. <https://www.nationaltrust.org.uk/lacock-abbey-fox-talbot-museum-and-village/features/mat-collishaw-thresholds>
- Rabbi, A. H., & Barua, K. K. (2022). New technologies for museums: perspective enhancing visitors' experience. *International Journal of Innovative Science and Research Technology*, 7(11). DOI:10.3991/ijim.v16i16.31811
- Secret London, (2023). <https://secretldn.com/van-gogh-exhibition-london/>
- Şerefiye Sarnıcı. (n.d.). *Şerefiye Sarnıcı*. <https://www.serefiyesarnici.istanbul/>
- Tumay, S. (2024). *Fotoğraf ve artırılmış gerçeklik II ders notları* [Photography and augmented reality II lecture notes].
- Uluçay, A. (1997). *Efes ve Bergama'daki arkeolojik kazılar* [Archaeological excavations in Ephesus and Pergamon] (Tez No:64674) [Yüksek lisans tezi, İstanbul Üniversitesi]. Ulusal Tez Merkezi. <http://nek.istanbul.edu.tr:4444/ekos/TEZ/30374.pdf>
- Vallejo, C. (2024). Deneyim müzeciliği hikayeleri- bölüm 5: dijital içerik üretimi [Experience museum stories- part 5: Digital content production]. [Video]. *Youtube*. <https://www.youtube.com/watch?v=ooh0jgg94PU>
- Van Gogh Expo. (n.d.). *Van Gogh Expo*. <https://vangoghexpo.com/>
- Yaraş, A. (1994). Anadolu'daki ilk koleksiyonculuk ve müzecilik faaliyetleri [The first collecting and museum activities in Anatolia], Askeri Müze ve Kültür Sitesi Komutanlığı, 2. *Müzecilik Semineri*, 19-21.

https://www.academia.edu/2777857/YARAŞ_A_Anadolu_daki_İlk_Koleksiyonculuk_ve_Müzecilik_Faaliyetleri_II_Müzecilik_Semineri_Bildirileri_19_23_Eylül_1994_İstanbul_Askerî_Müze_ve_Kültür_Sitesi_Komutanlığı_1995_19_21

- Yazıcı, G. A., & Üreten, H. (2020). Ephesos kenti tanrı(ça) ve kültleri [Ephesus city goddess and cults]. *Akademik Tarih ve Düşünce Dergisi*, 7(1), 452-495. <https://dergipark.org.tr/en/download/article-file/1046687>
- Yeniceler Korktak, İ. (2023). Euronews ve the new york times örnekleri üzerinden sarmal (immersive) gazeteciliğin analizi [Analysis of immersive journalism through examples of Euronews and the New York Times], *TRT Akademi*, 396-415. <https://dergipark.org.tr/tr/download/article-file/2782300>
- Yıldırım, İ. (2020). Müze algısı ile ilgili son 20 yılda Türkiye’de yapılan çalışmaların literatür değerlendirmesi yöntemiyle analizi [Analysis of studies on museum perception conducted in Türkiye in the last 20 years using literature review method]. *Modular Journal*, (4)1, 30-45. <http://modular.gedik.edu.tr/tr/download/article-file/1293898>
- Yıldırım, M., & Ballice, G. (2024). Sergileme tasarımında interaktif teknolojilerin kullanılmasının ziyaretçi deneyimi üzerindeki etkileri: ‘New International Spy Museum’ iç mekânları [The effects of using interactive technologies in exhibition design on visitor experience: Interiors of the ‘New International Spy Museum’]. *Yakın Mimarlık Dergisi*, 8(1), 67-106. <https://doi.org/10.32955/neujna202481741>
- Yılmaz, E. E. (2022, Kasım 18). Efes antik kenti 10 ayda yaklaşık 1 milyon 650 bin ziyaretçi ağırladı [The ancient city of Ephesus hosted approximately 1 million 650 thousand visitors in 10 months]. *Anadolu Ajansı*. <https://www.aa.com.tr/tr/yasam/efes-antik-kenti-10-ayda-yaklasik-1-milyon-650-bin-ziyaretci-agirladi-/2741862>