

The Museum Journey: Phenomenological Exploration of User Experience in the Bahrain National Museum

¹ M.A. Avni Durga Hemanth, ² Prof. Dr. Najla Bent M. Alnaser Allani

^{1 & 2} Department of Architecture and Interior Design, College Of Engineering, University Of Bahrain, Bahrain

E-mail ¹: 202300647@stu.uob.edu.bh, E-mail ²: nallani@uob.edu.bh

Abstract

The design of museums has significantly evolved over the years, from simple exhibitions of artifacts to immersive and interactive experiences. This paper explores the pivotal role of architectural phenomenology in shaping visitor's experience in museum design. We aim to achieve this goal by adopting a qualitative research approach of the Bahrain National Museum. The museum is an excellent example of how architectural phenomenology can cater to creating a space that has meaning beyond its physical dimensions. By analyzing the museum's design elements, we identify key contributors to the emotional and intellectual engagement of visitors with the museum environment. The findings reveal that incorporating phenomenology principles has significantly elevated the overall design quality of the museum and provides visitors with a unique and immersive experience that highlights Bahrain's rich history and cultural heritage. Ultimately, this knowledge can inform future museum designers and professionals, leading to more effective and rewarding experiences for museum visitors.

Keywords: Architectural Phenomenology; User Experience; Human Perception; Museum Design; Cultural Heritage.

1. Introduction

The design of museums is a complex and multidimensional process that requires careful consideration of several factors. One of the most significant factors architects and designers must consider while designing museums is the visitor's experience. It has been found that the built environment of museums plays a crucial role in shaping visitor's experiences (Annechini et al., 2020; Forgan, 2005; Jones & MacLeod, 2017). The visitors create cognitive maps of their experiences, including physical, emotional, and imaginative, as they navigate the spaces. However, despite the importance of museums as cultural institutions that shape visitor's perceptions and understandings of art, culture, and history, there is a lack of research on how the architectural design of these institutions impacts visitor's experiences. Few studies have delved into the relationship between the physical design of museums and visitor's perceptions, emotions, and behaviors as they move through the space. As such, there is a significant knowledge gap in this area of research that needs to be addressed to improve our understanding of the role of architecture in shaping visitor's experiences in museums. Thus, this study investigates the significance of integrating phenomenological theories and methods into museum design to improve visitor's experiences. Phenomenology, emphasizes the importance of subjective experience and perception in understanding and interpreting the world around us (T. F. Poon, 2018). By applying this methodology to the design of museums, architects and interior designers can place a greater emphasis on creating meaningful and engaging spaces that resonate with visitors. With this in mind, the study will explore the relationship between design elements of museums and visitor's emotional and intellectual engagement with the space. By using phenomenological methods of observation and analysis, the study aims to gain insight into how visitors perceive and experience the Bahrain National Museum. This will involve identifying the key design elements that contribute to visitor's emotional and intellectual engagement, such as lighting, color, spatial organization, materiality, scale, and sensory engagement. The study outcomes will provide practical insights into how architects and interior designers can use phenomenological theories and methods to create museum spaces that promote visitor's engagement and enhance their experience. The results will be relevant for museum professionals, architects, and designers involved in planning and designing museum exhibitions and spaces. Ultimately, the study aims to contribute to the development of museum design practices that are more sensitive to visitor's experiential needs and preferences.

2. Role of Phenomenology in Museum Design

Phenomenology, as it applies to the field of architecture, offers a unique perspective on understanding the built environment and its impact on human experience. Architectural historians and theorists such as Christian Norberg-Schulz, Juhani Pallasmaa, Martin Heidegger, Maurice Merleau Ponty, and many others have contributed to developing and popularizing the phenomenological approach in architecture. One of the most significant conceptions of architectural phenomenology is that place is not just an objective, geometric entity but a complex and subjective experience shaped by a range of sensory inputs (Saeid Soltani & Nazan Kirci, 2019). Lessing (as cited in Seamon, 2017) explains that architectural and place atmospheres cannot be easily defined or fully understood because they are not solely based on what can be seen. They involve various lived experiences such as sound, touch, emotions, and the presence of people and objects. These approaches emphasize the importance of sensory perception and embodied experiences in shaping our understanding and appreciation of the built environment. Therefore, the way that we

move, perceive, and feel architecture is not solely determined by visual or empirical evidence, but also by a set of effects, emotions, memories, and imaginaries that are grounded in our individual and collective experiences. Museums are spaces of lived experiences (Forgan, 2005). In the context of museum design, the concept of phenomenology is crucial in creating meaningful and engaging experiences for visitors. Visitor's experiences in museums are subjective and endlessly variable and are closely linked to their imaginations. Though vision plays a crucial role in the stimulation of these perceptions it is essential to provide a comprehensive sensory experience for the visitors to fully engage themselves with the space and avoid an ocular-centric design approach. Museums play an important role in shaping a community's perceptions and understanding of their art, culture, and history.

Furthermore, the concept of "spirit of place" or "genius loci" adds another dimension to museum design. In 1969 Lawrence Durrell (as cited in Seamon, 2017), a British novelist quoted genius loci as "the invisible constant in a place." It is the intangible energy, history, stories, and traditions embedded in a place that gives it a unique and enduring identity. This concept is essential in shaping the character of a museum space and connecting visitors to the history of the place. Malpas (2020) proposes that our perception and comprehension of a place are shaped by the temporal elements associated with it. Places are not solely perceived in their physical form but also imbued with memories, histories, and narratives that give them a unique character and significance. Concurrently, our experience of time is profoundly influenced by the places we inhabit or visit. Different places have different rhythms, time perceptions, and atmospheres, all of which shape our experience and interpretation of the place. Time and place are mutually constitutive, influencing and being influenced by one another. Malpas (2020) discusses the concept of spirit of time, which refers to the temporal qualities and characteristics that are embedded in a particular era or period. The Spirit of time and the spirit of place are deeply interconnected and influence our experience and understanding of a place (Malpas, 2020). Spirit of place seeks to establish a sense of connection between visitors and the physical environment, while the spirit of time refers to the experience of connecting visitors to the broader cultural and historical context of the exhibits. Therefore, a successful museum design involves striking a balance between these concepts to create an environment that simultaneously connects visitors to the past and present, providing a comprehensive sensory experience and fostering a sense of connection to the broader cultural and historical context of the exhibits.

3. Material and Methods

The study will adopt a qualitative research method, providing the opportunity to gather in-depth information about visitor's experiences and perceptions of the museum design. Phenomenology seeks to understand the world from the perspective of the user, and a qualitative approach enables the capture of the unique experiences and perceptions of visitors as they engage with the museum's design. The data collection will take two forms, a survey and a case study. The survey will be designed using open-ended questions that encourage respondents to share their experiences and perceptions of the museum design and layout. The survey will be distributed to a random sample of museum visitors to ensure that the data collected is comprehensive and representative. Open-ended questions invite respondents to narrate their encounters and impressions of the museum tour. The collected data will shed light on shared patterns and themes in visitor experiences. The case study will provide a more in-depth exploration of the Bahrain National Museum's architectural design and layout. The research will analyze the physical design and layout of the museum, including lighting, materiality, spatial organization, and sensory engagement. This will involve extensive observation of the museum, with detailed notes on visitor's behavior and interactions with the space. Data collected from both the survey and case study will be analyzed to identify how these respondents experience the museum and how the design of the museum influences these experiences. Phenomenological insights are distilled through rigorous thematic analysis, identifying common threads and patterns within the qualitative data. The evaluation of design elements is guided by predefined criteria (spatial arrangement, material choices, size, scale, color, texture, odor, noise, and temperature), ensuring objectivity and reproducibility. This qualitative data collection method allows focus on individual experiences to gain comprehensive insights into how visitors perceive and interact with the spaces of the museum. However, the study's limited number of participants poses a potential drawback in terms of the generalizability of the findings to a wider population of museum visitors. While the experiences and perceptions of the eight participants provide valuable insights, they may not fully capture the diversity of perspectives and experiences that exist among all visitors to the museum. The study tries to subdue this limitation by triangulation of data. Combining the findings from the survey and the case study helps gather a more comprehensive and well-rounded understanding of the bodily experience offered by the museum. The open-ended survey data captures a range of visitor's perspectives, allowing the identification of common themes and patterns in how individuals interact with the museum space. On the other hand, the case study provides a more in-depth examination of the physical design elements and layout of the museum, offering detailed insights into how these aspects influence visitor experiences. This convergence of data helps enhance the comprehensiveness and validity of the research, offering a more robust foundation for drawing meaningful conclusions about the museum design and its impact on visitor experiences. Despite the limitations, the study provides valuable insights into the subjective experiences of visitors to the museum and contributes to the growing body of knowledge on museum design and its impact on visitor engagement.

4. Results

Table 1 summarises feedback from eight participants regarding their visit to the Bahrain National Museum. The survey included several questions to help understand the experiences and perspectives of the participants related to the museum. The first question was meant to gather information about visitor’s personal experiences while visiting the museum. The responses suggested that the visitors had an overall positive experience. The use of words like “astonishing,” “beautiful,” “surreal” and “captivating” implies that the museum’s design choices effectively engaged and stimulated the participant’s senses and emotions. The museum’s design choices were successful in creating a memorable and impactful experience for its visitors. The second question aims to explore how the exterior built environment of the museum contributes to the overall experience and understanding of visitor’s preferences when it comes to museum design. The responses indicate that all the participants in the survey perceived the exterior design and landscaping (softscape and hardscape) of the museum to have a positive impact on their overall experience. They appreciated various features such as the waterbody, sculptures, architectural aesthetics, and the color tones used in the design. This shows the museum’s ability to integrate art, architecture, and nature into its design creating a positive impact on visitor’s experience and contributing significantly to their overall impression of the museum. The third question aims to understand visitor’s ease of navigation around the museum and their perception of the museum’s layout and spatial organization. The response indicates that all the participants in the survey found the museum’s layout to be easy to navigate. This suggests that the museum’s approach to spatial design was successful in creating a user-friendly, accessible, and intuitive layout that allowed visitors to move around the museum and navigate the exhibits with ease. Question 4 aims to understand specific design aspects or features that may have stood out to the participants during their visit to the museum. The response shows that the participants mentioned several aspects that they found impactful or significant, such as the detailing of artworks, archaeological details, natural light, and the layout depicting the country’s history.

Table 1. Survey Responses

QUESTIONS	P1	P2	P3	P4	P5	P6	P7	P8
Briefly describe your experience visiting the museum	Astonishing	Beautiful	Captivating journey	Captivating experience	Interesting	Great experience	Well-maintained curated	Surreal
Did the museum’s exterior design and landscaping contribute to the overall experience? Mention any particular feature that caught your eye.	Sculptures	Waterbody surrounding the museum caught my eye	Blend of modern and historical elements	The striking modern architecture seamlessly blended with traditional elements. The water features surrounding museum were particularly eye-catching, creating a serene atmosphere.	Incorporation of various features to create a calming gathering space	It provides a mixture of contemporary art and Arabic heritage which makes it endearing	Use of lighter color tones that amplified the richness and visual feel of the place.	Sculptures
Did you find the museum’s layout and spatial organization easy to navigate?	yes	yes	yes	yes	yes	yes	yes	yes
Was there any particular aspect of the museum’s design that stood out to you as particularly impactful or significant?	Detailing of artworks	Details of archeological department stood out	Sculptures of the past	Use of natural light and water bodies was impactful	Water body in the museum brings a calm atmosphere and a sense of tranquility	It is aesthetically pleasing. Combines traditional setting and arabic culture	The layout depicted the history of the country in ascending order so that things are much more understandable	Depiction of the regular life of the past
Were there any specific sensory experiences (sound, touch, smell) both inside and outside the museum that stood out to you?	Smell of nature around the museum	The sound of arabic music and the smell of attar gave a nostalgic touch	Nil	Inside: subtle background music that added to the immersive experience Outside: sound of water features contributed to a pleasant atmosphere	Not much	None that I can recall	Voiceovers for the recreation of past life	Nil
Did you feel that the museum did a good job of representing Bahraini culture and history?	yes	yes	yes	yes	yes	yes	yes	yes
Can you recall any specific memory or experience that you associate with your visits to the museum?	I loved the archeological representation the most	The museum lets you experience Bahrain culture the right way	Pearl experience	Standing before the Dilmun burial mound exhibit, captivated by the ancient history it represented	The old Delmon artifacts and display of figurines that portray the culture of Bahrain	The serene and calm atmosphere around the museum and display of the entire dilmun history related to pearls and sprawl street markets	Nil	Non I remember

Museums are often dedicated to providing visitors with a multi-sensory experience, immersing them in the exhibits and surrounding environment, hence question 5 aims to understand the impact of sensory experiences on visitors. The response shows that some of the sensory experiences that stood out to visitors included the smell of nature, Arab music, the sound of water features, and voiceovers for the recreation of past life. While some participants did not have notable sensory experiences, it is evident that the sensory experiences were diverse, immersive, and engaging for those visitors who did have them. Question 6 aims to understand participants’ perceptions of the museum’s representation of Bahraini culture and history. The museum’s ability to capture the essence of a particular culture and

history while providing visitors with knowledge and understanding is a crucial aspect of museum design. The response shows that all participants responded positively, saying that the museum did a good job of representing Bahraini culture and history. This suggests that the museum's approach to portraying important historical events and cultural aspects of Bahrain has resonated well with visitors. Question 7 aims to understand whether the participants had any specific memories or experiences associated with their visit to the museum. Question 7 is relevant to museum designers as it helps them understand how visitors emotionally engage with exhibits, displays, and the overall environment. Such an understanding can provide insights into creating exhibits and displays that are more impactful and emotionally engaging to visitors. The response shows that participants recalled several experiences, including an appreciation for archaeological representation, the Pearl experience, the Dilmun burial mounds exhibit, and the serene atmosphere around the museum. Overall, it seems that the museum provided an engaging cultural experience for the participants.

5. Discussions

Bahrain, a small island nation in the Arabian Gulf, boasts a diverse architectural landscape that reflects its rich history and cultural heritage. It is a melting pot of traditional Islamic architecture and modern influences, creating a unique and vibrant visual tapestry. One of the notable architectural projects in Bahrain is the Bahrain National Museum, situated in Manama and designed by Krohn and Hartvig Rasmussen. This iconic structure stands as a testament to the nation's rich cultural heritage and serves as a repository of its history and legacy. The museum's architecture features modern design elements combined with traditional Islamic motifs, following a minimalist approach to create a dialogue between the past and present. It is intended to be a space of reflection, education, and conservation of Bahraini cultural heritage. The museum showcases the implementation of architectural phenomenological concepts in its built environment, both externally and internally, providing visitors with a unique and immersive experience that highlights the rich history and cultural heritage of Bahrain.

5.1. Outdoor Environment

The outdoor environment is a crucial component of museum design and contributes significantly to visitor's overall experience of the space. It is the first impression that visitors get when they arrive, and it sets the tone for what they will expect to see inside. The museum's outdoor spaces are designed to be aesthetically pleasing and subtly designed to create an inviting atmosphere for visitors. It complements the museum's overall theme creating a harmonious and coherent experience. The museum's exterior features are faced with travertine that reflects the color and texture of the surrounding desert landscape (Figure1). As highlighted by one of the participants of the survey the muted color tone amplifies the richness and visual perception of the place.

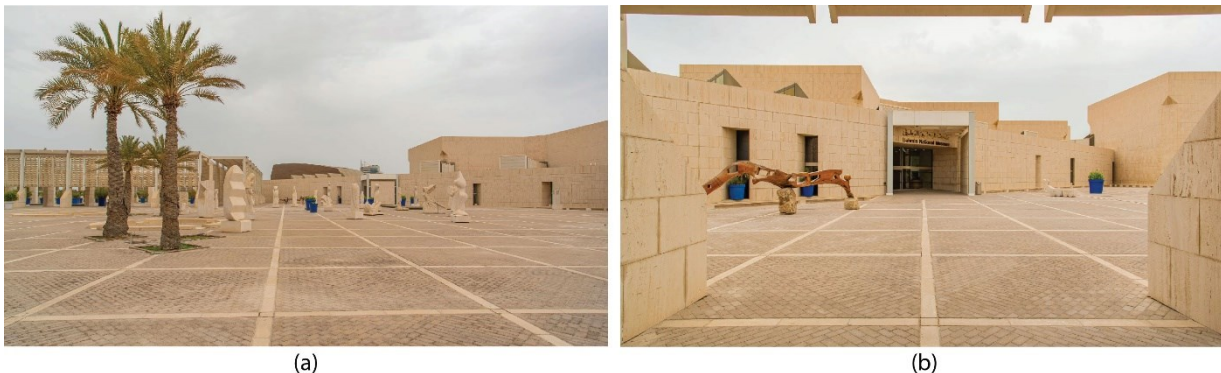


Figure 1. (a) Sculpture display in the entrance courtyard (b) Harmonious exterior environment (expedia.com)

The visitors are welcomed by a large open-air courtyard that extends from the main entrance of the building (Figure 2). The courtyard (or the arcade) is a reflection of traditional Bahraini architecture, and it creates a dynamic relationship between the user and the surrounding environment. The courtyard functions as a place of transition and contemplation before entering the interior spaces of the museum. Additionally, shaded access provided by the aluminum screens in the museum's arcade is a crucial design element that enhances the museum's usability as a public space (Figure 2). The screens recall the style of old local palace architecture on Muharraq Island (Holscher, 1990), adding a touch of tradition to the contemporary design of the museum. These design approaches reflect Simon Unwin's definition of place creation. According to Unwin (1997), a place is required to respond to the context of the site, including physical, cultural, and historical aspects, to create a meaningful and authentic environment. The design approach using materials and forms that reflect the surrounding landscape and traditional Bahraini architecture, demonstrates a response to the physical and cultural context of the site. The aluminum screens also create a dappled light effect when the sun shines through them, further enhancing the visual experience of the arcade. This interplay of light and shadow creates a dynamic visual element that adds to the overall richness of the museum's design. The

shaded access that the screens provide is also particularly beneficial in Bahrain's hot and sunny climate, which can be quite oppressive to those not accustomed to it. The screens serve to provide a cool and shaded area that visitors can traverse in comfort.

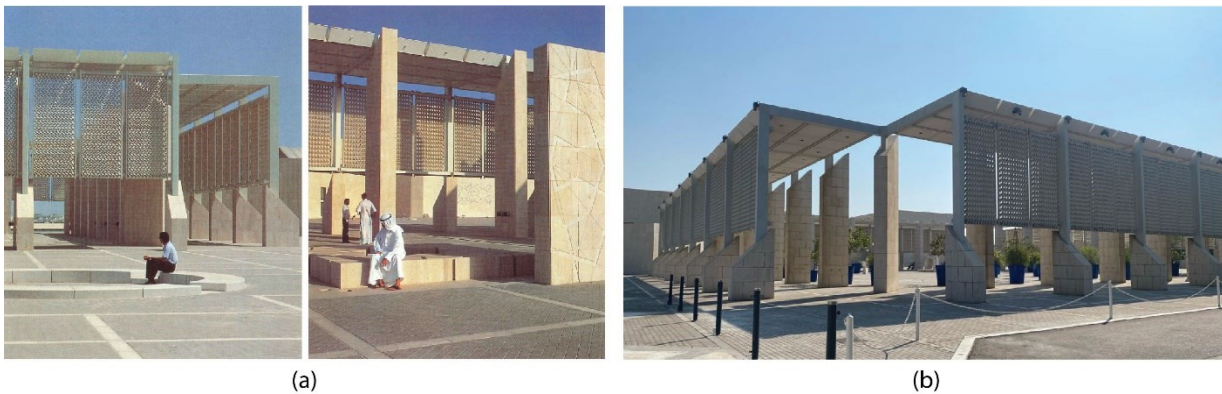


Figure 2. (a) Arcade (Holscher, 1990) (b) Aluminium Screen shading the arcade (authors).

The creation of the artificial lagoon (Figure 3a) ensures a constant water level independent of tidal variations is another example of how the design of the museum responds to local environmental conditions. The artificial lagoon and the surrounding water elements also create a microclimate that has a cooling effect on the museum's surrounding areas. The water features serve as a natural coolant that lowers the temperature in a way that artificial air conditioning systems cannot. This natural cooling effect makes the museum a comfortable place for visitors, even in the hot and humid climate of Bahrain. This consideration of the local climate plays a significant role in providing visitors with a comfortable and enjoyable experience which will lead to them having a more favorable perception of the space. The small fountains on the museum square also add a multi-sensory experience to the spaces. Additionally, the reflection of the building and its surroundings on the still water of the lagoon adds a dynamic visual element that complements the geometric framework of the building. Along the museum's south wing lies a mirror pool (Holscher, 1990), which adds a cool and peaceful element to the complex (Figure 3b). This pool is fed by water from several fountains on the museum square, creating a relaxing atmosphere for visitors.

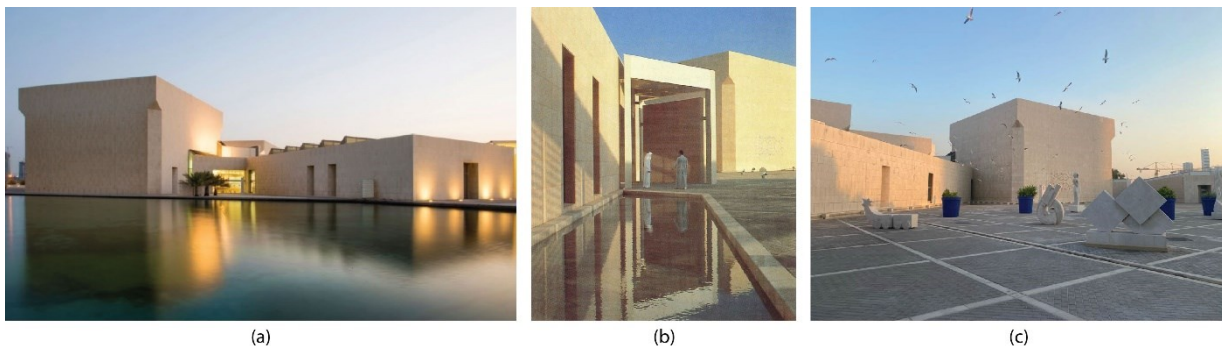


Figure 3. (a) Artificial Lagoon (expedia.com) (b) Mirror Pool (Holscher, 1990) (c) Museum Square (authors).

The pool also attracts sea birds (Figure 3c), which add to the tranquil ambiance of the museum's outdoor areas. This natural attraction adds a unique dimension to the museum's experience. All these design choices together provide a unique contrast to the desert climate of Bahrain, creating a sense of harmony between the museum's built environment and the surrounding landscape. Overall, the combination of traditional and modern elements, combined with the incorporation of local vegetation, water features, and other natural elements creates a unique sense of place that is both familiar and new. It provides visitors with a harmonious and serene experience that is a complete contrast to the bustling city outside. The incorporation of these elements ensures that the museum remains a unique and memorable cultural destination that is both beautiful and functional.

5.2. Indoor Environment

The museum's interior environment is characterized by a series of spaces that are thoughtfully designed to evoke a range of emotions and experiences. The visual sense is undoubtedly the most dominant sensory experience in the museum. Visitors rely on visual cues to interpret and make sense of the exhibits they encounter. The use of varying scales throughout the spatial organization to evoke different experiences is praiseworthy. An example of this is seen in the foyer ceiling that connects different exhibition halls. The ceiling is made up of several levels of barrel vaults (Figure 4b) that hang free off the walls. The use of monumental scale as well as the incorporation of historical

design elements creates a sense of grandeur and awe. Meanwhile, the exhibition hall ceilings are designed to align with the human scale, creating an intimate and relatable space for visitors to engage in meaningful dialogue with the exhibits. Another element that is used strategically throughout the museum is light. As quoted by architect Steven Holl (2006, as cited in, T. F. Poon, 2018), the use of light plays a fundamental role in creating an experience of space. In the absence of light, space becomes obscure and loses meaning. Light and its characteristics, such as color, direction, and intensity, can create a certain mood or emotion, and it can also help reveal the spatial qualities of a building or structure. For example, the use of natural light (Figure 4a) in the foyer highlights the material and pattern used. This helps the visitors absorb the textures of the space even without touching them.



Figure 4. (a) Natural light falling on travertine (Holscher, 1990) (b) Barrel vault ceiling (authors)

Whereas artificial lighting within the exhibition halls is used to guide the visitors through the space and accentuate particular features. One example of this is the use of dimmer lights in the Hall of Graves (Figure 5) with strategically placed spotlights. The dimmer light creates an atmosphere of reverence and contemplation, fitting for the subject matter of the exhibit. The use of dimmer light in this particular exhibit also creates an emotional connection with visitors, helping them understand the significance and gravity of the subject matter. The spotlights draw focus on the main exhibit and create a sense of drama and importance. By doing this, the exhibit is given space to breathe and truly capture the attention of the visitors without being washed out by the other setups in the room. Another feature of the Hall of Graves that stands out is the use of varying levels in the arrangement of the exhibits (Figure 5). This varying level mimics the undulating landscape of the sites. This approach based on the body and bodily movement in space (Saeid Soltani & Nazan Kirci, 2019) helps create a memorable and lasting impression on visitors.

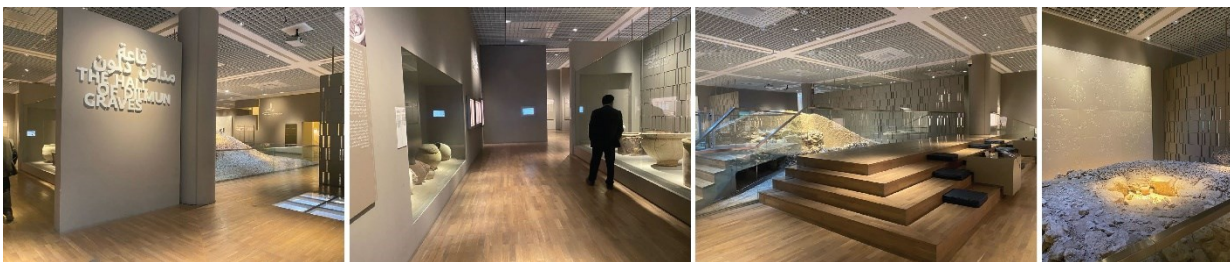


Figure 5. Hall of Graves (authors)

The museum uses various other techniques to immerse visitors in the culture and heritage of Bahrain. One of the most effective of these techniques is the use of life-sized setups (Figure 6) that depict the culture, traditions, and lifestyle of the Bahraini community in the past. These setups are carefully crafted to transport visitors back in time and create a realistic representation of what life was like for Bahraini people in the past. The museum achieves this effect by using detailed craftsmanship to create the setups, making them look and feel authentic. The use of mannequins and detailed clothing and accessories further enhances the setups, making them seem more realistic and engaging for visitors. In addition to the visual aspect of these setups, the museum also includes the sense of sound, such as the soundtracks of the historical period of the exhibit help to transport the visitors back in time. By creating an environment that transports visitors back in time, the museum design is able to create a sense of connection to the culture and heritage of Bahrain and capture the spirit or essence of what makes this place unique. The Museum successfully encapsulates the “spirit of time” (Malpas, 2020) by capturing the cultural, social, and historical context of the country. Another feature that helps in engaging visitors of different age groups is the use of interactive technologies. The museum uses digital screens with interactive games which can be engaging and fun for children, while also providing valuable

educational opportunities. By making learning fun and interactive, the museum is able to appeal to a wide range of visitors and make the museum experience more accessible and enjoyable.



Figure 6. Depiction of life during Dilmun era (authors)

6. Conclusions

In conclusion, the Bahrain National Museum is an excellent example of how architectural phenomenology can cater to creating a space that has meaning beyond its physical dimensions. The museum's design choices reflect the intentionality of the architects and the lifeworld of the people of Bahrain. The museum is thoughtfully designed to evoke a range of emotions and experiences. By carefully controlling the environment and guiding visitors through a sequence of interconnected spaces both open and closed, the museum is able to create a meaningful and sensory-rich experience for its visitors. It is important to note that the study was conducted with limited participants (eight) which may limit the generalizability of the survey findings. The study's results offer useful knowledge on utilizing phenomenological theories and approach to construct museum spaces that stimulate visitor's perceptions and enrich their encounters. These findings are important for museum experts, architects, and designers involved in the process of preparing and shaping museum displays and areas. By examining different phenomenological approaches to designing museums and connecting them to an existing museum, it becomes easier to comprehend the significance and implications of integrating these elements. This analysis offers a better understanding of how incorporating phenomenological concepts into museum design can enhance visitors' experiences and engagement. The ultimate goal of the research is to cultivate museum design practices that are more attentive to the experiential demands and inclinations of visitors.

Acknowledgments

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of Interests

The Author(s) declare(s) that there is no conflict of interest.

References

- Achour-Younsi, S., Chabchoub, A., Jouini, N. E. H., & Kharrat, F. (2022). A Proposal to Mitigate Energy Consumption through the Sustainable Design Process in Tunis. *Journal of Contemporary Urban Affairs*, 6(2), 193–205. <https://doi.org/10.25034/IJCUA.2022.V6N2-6>
- Afolabi, S. A., & Adedire, M. F. (2023). Adaptive Strategies Used in Urban Houses to Overheating: A Systematic Review. *Journal of Contemporary Urban Affairs*, 7(2), 106–126. <https://doi.org/10.25034/ijcua.2023.v7n2-7>
- Amen, M. A., & Kuzovic, D. (2018). The effect of the binary space and social interaction in creating an actual context of understanding the traditional urban space. *Journal of Contemporary Urban Affairs*, 2(2), 71–77. <https://doi.org/10.25034/ijcua.2018.3672>

- Amen, M. A., & Nia, H. A. (2021). The Effect of Cognitive Semiotics on The Interpretation of Urban Space Configuration. <https://doi.org/doi:10.38027/iccaua2021227n9>
- Annechini, C., Menardo, E., Hall, R., & Pasini, M. (2020). Aesthetic Attributes of Museum Environmental Experience: A Pilot Study With Children as Visitors. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.508300>
- Babazadeh-Asbagh, N. (2021). Adaptive Reuse of the House of Mirza Mehdi Farrashbashi in Tabriz, Iran. International Conference on Contemporary Affairs in Architecture and Urbanism, 4(1), 506-520. Alanya, Antalya, Türkiye. <https://doi.org/10.38027/ICCAUA2021300N15>
- Biswas, Md. H. A., Dey, P. R., Islam, Md. S., & Mandal, S. (2021). Mathematical Model Applied to Green Building Concept for Sustainable Cities Under Climate Change. *Journal of Contemporary Urban Affairs*, 6(1), 36–50. <https://doi.org/10.25034/IJCUA.2022.V6N1-4>
- Dizdaroglu, D. (2021). Developing Design Criteria for Sustainable Urban Parks. *Journal of Contemporary Urban Affairs*, 6(1), 69–81. <https://doi.org/10.25034/IJCUA.2022.V6N1-7>
- Forgan, S. (2005). Building the Museum. *Isis*, 96(4), 572–585. <https://doi.org/10.1086/498594>
- Ho, A. (2024). DEVELOPING STRATEGIES FOR JUNIOR DESIGNERS TO MANAGE THEIR DESIGN AND EMOTIONS. *New Design Ideas*, 8(1), 5–32. <https://doi.org/10.62476/ndi.8105>
- Holscher, K. (1990). The National Museum of Bahrain. *Mimar 35: Architecture in Development*, 25–29.
- Jawabreh, O., & Al Fahmawee, E. A. D. (2024). Architecture, authenticity and the construction of memorable tourists experiences. *New Design Ideas*, 8(1), 33–49. <https://doi.org/10.62476/ndi.8133>
- Jones, P., & MacLeod, S. (2017). Museum Architecture Matters. *Museum and Society*, 14(1), 207–219. <https://doi.org/10.29311/mas.v14i1.635>
- Keskin, G., & Hasirci, D. (2024). INNOVATIVE PARTICIPATORY DESIGN METHOD USING SOCIAL MEDIA AND ONLINE PLATFORMS. *New Design Ideas*, 8(1), 50–80. <https://doi.org/10.62476/ndi.8150>
- Malpas, J. (2020). Spirit of Time/Spirit of Place. *Journal of Continental Philosophy*, 1(2), 277–283. <https://doi.org/10.5840/jcp202121214>
- Saeid Soltani, & Nazan Kirci. (2019). Phenomenology and Space in Architecture. *International Journal of Architectural Engineering Technology*, 6, 1–6. <https://doi.org/10.15377/2409-9821.2019.06.1>
- Seamon, D. (2017). Architecture, Place, and Phenomenology: Lifeworlds, Atmospheres, and Environmental Wholes. <https://www.researchgate.net/publication/282157109>
- Song, H., & Selim, G. (2022). Smart Heritage for Urban Sustainability: A Review of Current Definitions and Future Developments. *Journal of Contemporary Urban Affairs*, 6(2), 175–192. <https://doi.org/10.25034/IJCUA.2022.V6N2-5>
- T. F. Poon, S. (2018). Examining the Phenomenology of Human Experience in Design Process and Characteristics of Architectural Approaches. *IOP Conference Series: Earth and Environmental Science*, 146, 012079. <https://doi.org/10.1088/1755-1315/146/1/012079>
- Unwin, S. (1997). *Analyzing Architecture*. Routledge. <http://fast-file.blogspot.com>
- YIN, R., LEUNG, M.- yung, & LI, Y. (2023). A Preliminary Study of the Relationship Between Built Environment of Open Space and Cognitive Health of Older People. *Journal of Contemporary Urban Affairs*, 7(2), 144–155. <https://doi.org/10.25034/ijcua.2023.v7n2-9>