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Affective design and layout for maximizing engagement in Oman Heritage Gallery

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Abstract:

The exposition of cultural and historical heritage through a museum is of significant social value and importance for the improvement of any city image. The case study in this research is a heritage gallery in the Sultanate of Oman. This research aims to establish the importance of how a design and layout of a gallery can affect the engagement and experience of visitors. Oman has a wealthy cultural heritage and these kinds of historical galleries are essential for public education, cultural appreciation, and the preservation of cultural identity. By having this gallery, it will create a unified narrative about Oman's legacy. This research will talk about how the arrangement of exhibits can thematically tell a consistent story of Oman's culture. Data will be collected through literature studies, field surveys and interviews with gallery owners and users. The expected result of this study is redesigning a heritage gallery to enhance visitors' experience, and to improve the overall layout and organization of the heritage gallery to create a more engaging and immersive experience for visitors. The results of this study to know how to apply the interior elements for a gallery in a proper way.

Keywords: Museum, Cultural heritage, Art, Gallery.

Introduction:

Oman, with its rich history and diverse cultural heritage, stands as an attractive destination for tourists seeking immersive experiences. Designing a heritage gallery emerges as a strategic goal to capitalize on Oman's historical wealth and encourage tourism growth. Museums and heritage places are important elements in our culture because they document who we were, who we are now, and tell the world about what we may become. The word "heritage" means "that which is inherited." The concept of Heritage is that it is passed down from generation to another. A heritage gallery can serve as a powerful medium for engaging with the past, offering visitors a tangible connection to history through visual representations and narratives. Galleries serve as a platform for all kinds of artists to not only showcase their work but to promote cultural awareness, provide valuable art

preservation, and afford valuable resources to artists, collectors, and visitors alike. We need heritage galleries with different activities to remind us that we are part of a cultural continuum and that we have a responsibility to our descendants to preserve past and present knowledge and understanding.

Galleries and museums are frequently well-liked tourism destinations by both residents and visitors. There are different sections in a gallery like: historical events, customs, traditional crafts, and natural settings might be included, and natural landscapes. Each section should flow logically into the next, creating a narrative that visitors can follow.

Problem:

1. The gallery suffers from a disorganized layout, leading to confusion among visitors and reducing their engagement with the exhibits.
2. Difficulty in viewing exhibits due to poor lighting, it impacts the overall visitor experience and showcasing the artworks and heritage pieces.
3. Overcrowding and limited space allocation for exhibits and circulation paths.
4. There is a lack of engagement opportunities within the gallery, such as interactive displays activities, which limits visitor interest and involvement.
5. Visitors can't spend more time in the gallery due to the absence of facilities like a small café.

Research questions:

1. How does the organization and layout of the heritage gallery impact visitor engagement and experience with the place?
2. What spaces are going to be added after designing?
3. What are the benefits of incorporating interactive engagement opportunities within the heritage gallery?

Goals and Objectives:

1. The main objective of redesigning a heritage gallery is to Enhance visitors' experience, and to improve the overall layout and organization of the heritage gallery to create a more engaging and immersive experience for visitors.
2. To encourage tourism growth in Oman
3. To provide the gallery with the necessary facilities.
4. To offer visitors a tangible connection to Oman's history through visual representations and narratives
5. Ensuring that the heritage gallery is accessible to all visitors, including those with disabilities, by implementing features such as wheelchair ramps and audio description.
6. The existing cafes that are near to the place are perceived as outdated so by adding a rooftop café it will offer stunning views of the sunrise and sunset over the cornice and would likely enhance the experience for both tourists and locals, providing them with an inviting spot to

savor their coffee.

Literature Review:

Throughout history, the focal point of museums has been a collection of some kind. In recent times, museums that prioritize cultural concepts or scientific phenomena over tangible artifacts have appeared.(Queensland)

Museums, particularly larger museums in major cities, are important as tourism destinations. They help to create a sense of place, contribute to the overall self-image of a destination, and are contributors to the tourism economy (Carey, Davidson, & Sahli, 2013; Kirshenblatt-Gimblett, 1998; Stylianou-Lambert, 2011). Furthermore, many tourists visit museums in order to orient themselves to a destination's cultural identity (Stylianou-Lambert, 2011).

Studies of museums and galleries examine all the facets of our comprehension of these establishments. These include everything from their regular activities to the symbolic responsibilities they perform for and within cultures.

It is an interdisciplinary field that draws on a number of important factors. on concepts from other fields of study. This is due to the fact that, in comparison to several other academic disciplines, it is a relatively recent topic.

It's also because, as a field of study, it's growing quickly on a global scale. This is partially due to the fact that an increasing number of academics from many fields are showing an interest in museums and galleries, as well as the things they represent and accomplish. It is also a result of the notable global proliferation of prestigious museums and art galleries in recent years, especially since the 1980s. As we've already mentioned, the diversity of institutions that provide museum and gallery studies is another factor contributing to the rise in these courses and publications. From so-called "universal" museums like the Louvre and British Museum to quirky, private collections, museums and galleries can be found anywhere.(Rhiannon Mason, 2018)

Affective design is the purposeful induction of emotional reactions in consumers via design features. Lighting, spatial layout, storytelling strategies, multisensory experiences, and interactive exhibits are all examples of aspects that come into play in heritage galleries. Using these aspects, designers hope to elicit curiosity, empathy, and a sense of connection with the shown items and storytelling.(Hekkert, 2007)

Architects and designers need certain knowledge and abilities in order to play a role in the conservation, adaptive reuse, and renovation of structures that are a part of our cultural heritage. The designer's inspired imagination and inventiveness are the first and most crucial requirements. The foundation of any well-executed architectural intervention is these. When working with an established setting, such as a building, innovation should come from it. The key to successful projects is utilizing a building's inherent attributes in an appropriate and responsible manner. An architect

must to possess exceptional professional abilities and possess a comprehensive awareness of architectural history, encompassing the conceptual evolution of design ideas and the associated construction technologies of the past. (Marieke Kuipers, 2017)

A great way to reach to the audience is using digital media and modern technologies. The examples and concepts that have been provided so far suggest that audience engagement is where the real promise of the digital era lies. Engaged audiences not only contribute to the outreach of a cultural or historical organization, but they also have a more meaningful and long-lasting relationship with it. (Visser, 2014)

Methodology:

To investigate the role of affective design and layout in maximizing engagement in heritage galleries, this study employs a mixed-methods approach. The research method is qualitative and exploratory design. Qualitative method is an approach to explore and understand a central phenomenon. Data were obtained through field studies and literature, interviews with owners and users. Field studies were conducted to collect data on design requirements for galleries and museums, owners and consumers. Interviews with owners and visitors were conducted to determine the style and eco-friendly interior design. After that, the results of the data analysis became the basis for exploring the interior design of galleries.

Finding and Analysis:

Based on interviews with heritage gallery owners, the design style of the object of study is modern traditional. The traditional style that people in Oman used to work with, like stone mudbrick, wood and adding certain details on walls. It is also a style that offers a combination of comfortable furniture and space, so it feels like being at home.

Conducting interviews with visitors and museum professionals can provide valuable insight into specific issues and preferences related to the gallery experience and preference. Many gallery users agreed that affective design plays an important role in visitors engagement within the heritage gallery. Elements like lighting, exhibit placement, interactive displays significantly influence the emotional responses and behavioral of visitors. In addition, with a café provided, visitors can relax and stay longer while chatting with friends and exploring the gallery. Many respondents chose the modern traditional mix style for heritage galleries.

To improve ergonomics in galleries it involves to design spaces and layouts to optimize comfort and functionality for visitors while ensuring the safety and preservation of artworks.

Fixtures & Furniture:

By offering visitors a place to rest and a chance to examine artwork up close, furnishings like seats, pedestals, and display cases can improve the gallery experience. To enhance the overall aesthetic without drawing attention away from the artwork, these fixtures should be carefully

incorporated into the design of the room.



Figure 1: The Metropolitan Museum of Art in New York

Photo: Angela Weiss, AFP, Getty

Picture strength

- Comfortable and easy space to movement around
- Display cases
- Colors used
- Hanging technique of the artwork

Picture weakness

- No seating area which Provides guests to unwind while considering the artworks they have viewed. Convenient seating improves the entire experience of visitors and encourages them to spend more time in the gallery and discuss about the artwork

Exhaust systems:

They are essential for the removal of indoor contaminants such volatile organic compounds (VOCs) released by specific materials or cleaning chemicals, in addition to provide fresh air. To preserve air quality, exhaust fans might be installed in certain spaces, such conservation labs or storage rooms.



Figure 2: The Metropolitan Museum of Art in New York

Picture strength

- Aesthetic
- Fresh and renewal air

Picture weakness

- Maintenance is hard for the skylights
- Sunlight may affect the visitors when viewing the artwork

Lighting:

The strategy of museum lighting is not the same as that of other commercial areas. It has unique lighting requirements to highlight the exhibits, keeping the general lighting dimmed. When lighting a museum, you should focus more on accent lighting than ambient lighting. Spotlights, track lights, wall washers, floodlights, etc. Additionally, recessed lighting such as troffers are often used for general lighting. Showcase lighting is also an important part of museum lighting.



Figure 3: Standardpro.com – lighting museums and art galleries

Picture strength

- Perfect choice of lights
- Aesthetically pleasing

Picture weakness

- There should be more than one type of lighting in case a damage is caused

The process of redesigning the Omani heritage gallery including concept, sketches, inspirational pictures, Bubble & Zoning diagrams and the final layout after redesigning

Concept:

Heritage revival: a conceptual fusion of modernity and tradition in the heritage gallery of Oman, our project aimed to harmonize Oman's rich cultural heritage with modern design principles, creating a space where history comes alive through creative spatial layout, choose materials and rich experience. Our design aims to create a captivating journey that showcases Oman's heritage while inspiring the next generations.

Sketches

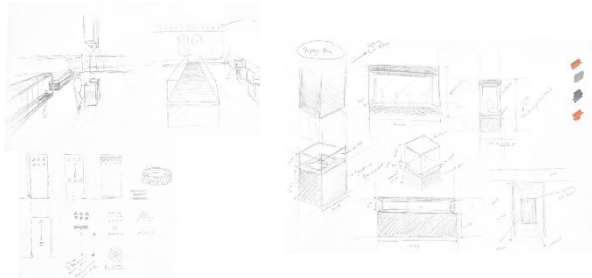


Figure 4: sketches of the display units and space

Inspirational pictures



Figure 5: Furniture and material



Figure 6: Interactive display



Figure 6.1: Furniture and material



Figure 6.2: Café furniture and material

Bubble and zoning diagrams

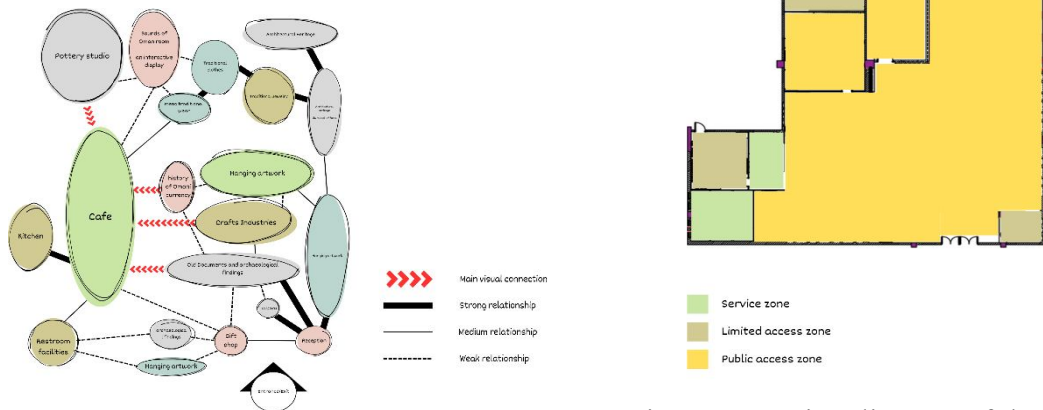


Figure 7: Bubble diagram of the heritage gallery

Figure 8: Zoning diagram of the heritage gallery

Final layout

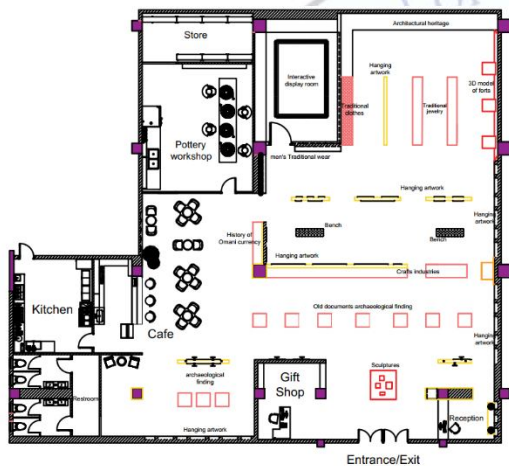


Figure 9: Final layout & furniture plan of the heritage gallery

Recommendations:

Designing a gallery space includes a mix of aesthetic, functional, and practical thought to create an environment that increases the viewing experience while adding to the artwork on display.

Here are some recommendations:

Aim for a layout that allows for easy movement from one artwork to another without overcrowding.



Figure 10: Layout of gallery of AD classics: Yale



Figure 11: Layout of a gallery

university art gallery



Figure 12: Layout of a gallery



Figure 12: Brazilian Koa solid Harwood flooring

Flooring should be durable because the gallery space is huge, and durable floor materials can handle a large number of visitors.



Figure 13: Concrete stained flooring

Lighting is a very important point in designing a gallery, the designer should utilize natural light and artificial light but take care of glare or shadow.



Figure 13: Tracking lights

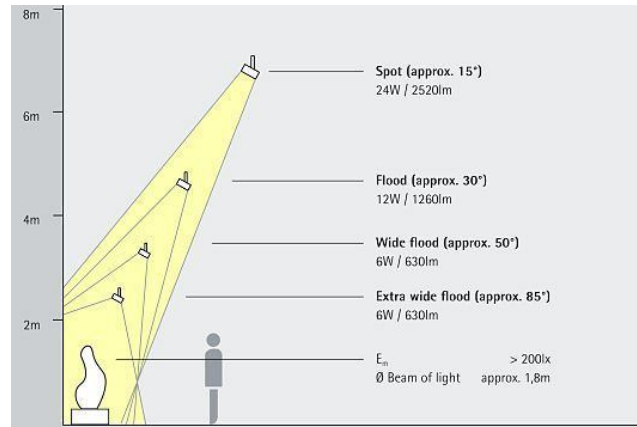


Figure 14: light power and distance



Figure 15: light types



Figure 16: Pottery workshop

Make sure that the gallery is accessible to all visitors, including those with disabilities. This might include slopes, elevators, clear signage, and accessible restrooms.

Redesign the gallery for events, workshops, and art talks.

Weather Control: continue a well-balanced climate to save the artwork. This includes controlling temperature, to save damage from change.

Apply suitable security amounts to protect the artwork, which may include view cameras, security personnel, or alarms.

Discussion and result:

The object of study is a heritage gallery located in Muscat city dedicated to the preservation of culture and heritage, aiming to enrich visitors' experiences by providing deeper insights into Oman.

The gallery encompasses a reception area, gift shop, restroom facilities, and an exhibition space showcasing paintings, sculptures, photography, crafts industrial, traditional clothing, cultural items, and architectural heritage. Additionally, it features an interactive display room which offers

visitors to explore different sounds and music of Oman and beyond, taking you from the resonances of the natural world to the pinnacle of human musical endeavor. Furthermore, the gallery has introduced a pottery workshop room, inviting visitors to experience the traditional Omani method of pottery making firsthand. And by completing the perfect experience in this heritage gallery, having a cozy café allows visitors to enjoy a perfect blend of culture and relaxation.

Design and result:

The “modern traditional” Arabic style applied to this design was taken from Omans’sarchitecture that used to be made from Omani mud and bricks with roofs lined by palm trees.Using earth colors to add a homey impression and neutral colors to balance the feel of the space.

In this design, some of the materials applied are:

- Omani textured mud for walls
- Epoxy flooring
- Wood
- Bituminous paint

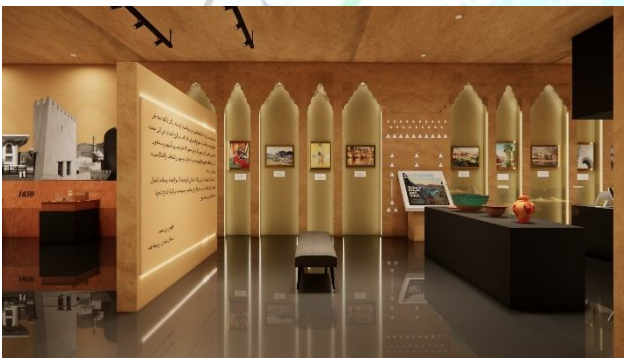


Figure 17: Final design of the heritage gallery, view

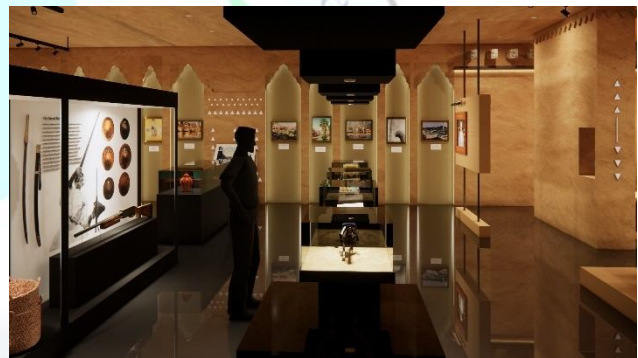


Figure 18: Final design of the heritage gallery, view 2

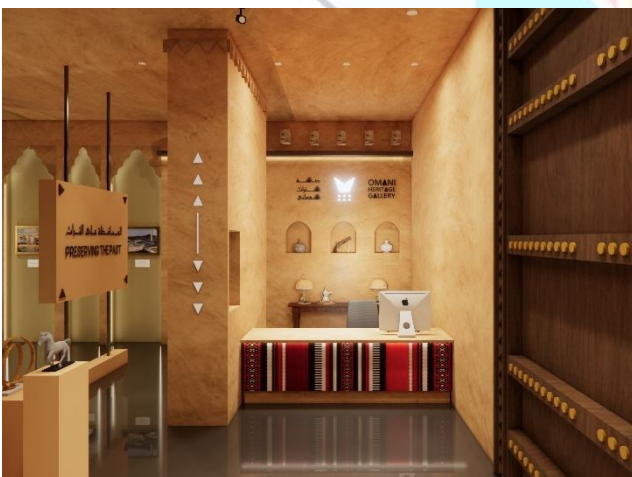


Figure 19: Final design of the heritage gallery, view 3

Conclusion:

To conclude, the overarching purpose of this study was to explore and analyze perceptions of the exhibition or gallery environment. The findings of this study highlight the profound social significance of cultural heritage galleries, particularly in cities such as those in the Sultanate of Oman. Through examining the finer points of design and organization in these galleries, the study reveals how the arrangement of exhibits influences visitors' engagement and overall experience. Given Oman's diverse cultural heritage, galleries are essential platforms for public education, cultural appreciation, and identity preservation. This study aims to provide practical insights for improving the visitor experience and optimizing the organization of heritage galleries by collecting and analyzing meticulous data. Finally, the expected outcome of this study is not only the redesign of a specific gallery, but to create a more unified community

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