

Evaluation Of Exhibition Space Design in Selected Museums in South-Western Nigeria

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Abstract- Museums play a vital role in preserving cultural heritage, interpreting collective memory, and creating spaces where knowledge is experienced rather than merely observed. In well-designed exhibition spaces, artifacts are not only protected but also given meaning through spatial organization, interpretive media, and the overall quality of the visitor environment. When these elements are poorly conceived, museums can become difficult to navigate, less engaging, and less effective in communicating cultural narratives. The experience of a museum therefore depends not just on what is displayed, but on how the exhibition space itself is designed to support learning, comfort, and cultural connection. Therefore, this study evaluates exhibition space design in selected museums in South-Western Nigeria with the aim of developing design and improving on visitor perception, interpretive media, visitor intention and recommendation intentions within museum exhibition environments. A mixed-method research approach involving case studies, observation, and questionnaire surveys was adopted. Data were collected from 350 respondents across selected museums namely National Museum, Lagos, National Museum of Unity, Ibadan, Yemisi Shyllon Museum of Art, John Randle Centre for Yoruba Culture and History, and National Museum, Akure, and the data collected were analyzed using descriptive and inferential statistics. Findings reveal that while museums generally perform well in narrative clarity and interpretive communication, significant deficiencies exist in circulation planning, accessibility, seating provision, interactive technologies, and multilingual interpretation. Visitor satisfaction was also found to be significantly influential in recommendation and revisit intentions. The study concludes that museum exhibition environments in Nigeria require more visitor-centered, culturally responsive, and technologically adaptive design strategies.

Keywords: *Exhibition Spaces, Museum Architecture, Visitor Experience, Interpretive Media, Cultural Heritage.*

I. INTRODUCTION

Museums serve as important institutions for cultural preservation, education, tourism, and community identity. Exhibition spaces form the physical and conceptual core of museums, and help mediate the relationship between collections and their audiences. The spatial organization, environmental quality, and interpretive systems of exhibition spaces determine how artifacts are preserved, understood, and experienced (Hooper-Greenhill, 2000).

In Nigeria, many museums still operate within exhibition models inherited from colonial-era institutions, characterized by static displays, rigid circulation patterns, and limited visitor interaction (Sogbesan, 2022). Recent discourse in museum studies emphasizes the need for more participatory, culturally responsive, and technologically engaging exhibition environments (Simon, 2010; Black, 2012). These shifts are especially important in Southwestern Nigeria, where Yoruba cultural heritage presents strong opportunities for community-centered museum development.

Despite the growing importance of museums in cultural tourism and heritage preservation, many museum exhibition spaces in Nigeria suffer from poor circulation planning, weak interpretive systems, inadequate accessibility, and environmental discomfort (Kunle, 2024). These deficiencies negatively affect visitor engagement and satisfaction.

II. LITERATURE REVIEW

2.1 The Role of Exhibition Spaces in Museums

Exhibition spaces function as platforms for cultural preservation, education, community engagement, and

tourism development. Through environmental controls such as HVAC systems, humidity regulation, and UV-filtered lighting, museums preserve fragile artifacts and heritage materials (Hooper-Greenhill, 2000; Aderonmu et al., 2019).

Beyond preservation, exhibition spaces also support learning through interpretive media such as labels, audio guides, tactile displays, and multimedia installations (Falk & Dierking, 2000). Hein (1998) describes museums as environments for active learning where visitors construct meaning through interaction with objects and spaces.

Recent museum theory also emphasizes participatory curation and community engagement. Simon (2010) argues that museums should evolve into collaborative cultural spaces where local communities contribute to exhibition narratives. In South-Western Nigeria, institutions such as the John Randle Centre for Yoruba Culture and History demonstrate how museums can integrate local language, oral traditions, and performance into exhibition environments (Dehghan, 2024).

Exhibition spaces also contribute significantly to tourism and local economies. McKercher and du Cros (2002) explain that heritage tourism stimulates spending in hospitality, transport, and local crafts, while culturally engaging museum environments encourage repeat visitation and tourism development.

2.2 Key Design Elements of Exhibition Spaces

Exhibition design is shaped by key architectural and graphic elements that influence how visitors experience museum spaces. The most important are layout and circulation, lighting and ambience, interpretive tools, and formal qualities such as color, texture, and shape.

Layout and circulation guide visitor movement and object viewing, with clear routes, focal points, and themed arrangements improving engagement and understanding. Lighting and ambience shape visibility and atmosphere, using natural and artificial light to highlight exhibits and ensure comfort.

Interpretive tools such as labels, graphics, audio guides, and multimedia displays help explain exhibits

and make the experience more engaging. Color, texture, and shape also strengthen meaning by reflecting the identity of the subject displayed.

These ideas are seen in museums across South-Western Nigeria. The National Museum, Lagos, uses interconnected halls, courtyards, daylight, and natural ventilation; the National Museum, Ibadan, reflects Yoruba traditions through octagonal halls and screened facades; and the John Randle Centre uses bold colors, multimedia, and symbolic forms to create a more immersive experience. Together, these examples show that effective exhibition spaces combine design, interpretation, and cultural identity.

2.3 Principles of Exhibition Design

Effective exhibition design depends on unity, coherence, flexibility, accessibility, and sensory engagement. Unity and coherence in exhibition design ensure that a gallery is experienced as a single, connected story rather than separate displays. When elements like object placement, lighting, graphics, and furniture are coordinated, they reinforce a clear message and make the exhibition easier to understand (Lord et al., 2014).

A key aspect is narrative flow, where displays are arranged logically, chronologically, geographically, or thematically, to guide visitor movement and understanding. Thematic consistency also supports coherence by maintaining uniform colors, typography, materials, and display styles, which strengthens identity and reduces distraction.

Flexibility and adaptability are important in modern exhibition design because museum spaces need to respond to changing collections, programs, and visitor expectations. Adaptable spaces help museums stay relevant and support continuous curatorial innovation (Cuno, 2011).

A key strategy is the use of modular display systems such as movable cases, plinths, and shelving, which can be rearranged for different exhibitions. Reconfigurable walls and sliding partitions also allow gallery layouts to change depending on exhibition size and type. (Bitgood, 2013).

Accessibility has become a major principle of museum design. Inclusive exhibition environments incorporate universal design strategies, multilingual interpretation, tactile engagement, and digital accessibility to support visitors of different ages, abilities, and cultural backgrounds (Black, 2012; Sandell, 2007).

2.4 Typologies of Exhibition Spaces

Museum exhibition environments are not monolithic; they take a variety of spatial and programmatic forms depending on institutional mission, collection type, and audience. Typologies help designers and curators select the most suitable form, technology, and operations for each function.

i. Art Galleries:

Art galleries are a key type of exhibition space in museums. Traditionally, many use a “white-cube” style with plain walls, controlled lighting, and minimal distractions so attention stays on the artwork. This creates a focused viewing environment, but it can sometimes remove artworks from their cultural or social context (ArtReview, 2021; Bizot Group, 2023).

More recent approaches use contextual gallery design, where the space itself helps tell the story of the artwork. This may include the use of colour, texture, sound, and digital media to express meaning and background, helping visitors better understand the cultural and historical context (Lord & Piacente, 2014).

In Nigeria, the Nike Art Gallery shows this approach through expressive interiors and live demonstrations, while parts of the National Museum Lagos combine neutral displays with interpretive elements. Together, these examples show how art galleries can balance focus and context, making them useful references for designing exhibition spaces in future museums.

ii. Historical & Ethnographic Exhibits

Historical and ethnographic exhibitions present material culture within its social and cultural context. In museum theory, this involves balancing “object as evidence” with “object as lived experience,” where displays help revive the cultural meanings and practices connected to artifacts (Cuzzola, 2022;

Massola, 2023). This has led to “living displays” such as performances, re-enactments, and community-led storytelling that keep cultural traditions active.

These exhibitions typically combine enclosed vitrines for fragile objects with open areas for demonstrations, audio-visual stations for oral histories, and contextual dioramas. Because many ethnographic materials are sensitive, proper environmental control—such as temperature, humidity regulation, and pest management, is also essential, making building systems and storage design critical (ICCRUM, 2019).

iii. Interactive & Immersive Exhibition

Interactive and immersive exhibition typologies use digital tools such as touchscreens, augmented reality (AR), virtual reality (VR), and projection mapping to create participatory visitor experiences. These methods improve engagement, support different learning styles, and allow visitors to experience contexts that would otherwise be inaccessible while protecting fragile artifacts (Parry, 2007; Giaccardi, 2012).

However, successful integration requires balancing experience with practicality and conservation. Digital systems depend on reliable power supply, data infrastructure, cooling for equipment, and maintenance planning, which can be challenging in resource-limited environments. Lighting and projection must also be carefully controlled to avoid damaging sensitive objects.

In Nigeria, institutions such as the John Randle Centre demonstrate this approach through multisensory “soundscape” installations that emphasize oral traditions and cultural storytelling rather than text alone (Dehghan, 2024). These examples show how immersive technologies can be adapted to local contexts, using audio-visual storytelling and digital reconstructions to enhance understanding without compromising artifact preservation.

iv. Multipurpose & Community Spaces

Multipurpose typologies integrate exhibition functions with education, making and community

programming: maker labs, flexible auditoria, and classrooms embedded within or adjacent to galleries. Simon (2010) and Black (2012) argue that such hybrid spaces reposition museums as civic infrastructure supporting lifelong learning and creative economies. Designing multipurpose spaces requires attention to acoustics (to prevent noise bleed into galleries), modular furniture, robust AV systems, and service provision (storage, tool access, safety) for maker activities. Flexibility must also preserve secure circulation routes and artifact protection.

Several Lagos institutions and artist spaces such as Nike Art, Terra Kulture, Guest Artists Space, host workshops, residencies, and performances that double as public programming and informal exhibitions, effectively functioning as multipurpose cultural hubs (Nike Art Foundation; Architectural Digest, 2024). Introducing maker spaces and community labs in museum settings in future museums could nurture local craft economies, provide vocational training, and foster sustained community ownership, while also increasing visitation and revenue streams.

III. METHODOLOGY

The study adopted a mixed-method research approach involving qualitative and quantitative methods. Primary data were collected through direct observation, case studies, and questionnaire surveys, while secondary data were obtained from books, journals, institutional reports, and archival sources.

Five museums in South-Western Nigeria were purposively selected for case study analysis based on institutional diversity and exhibition typology. These include the National Museum of Lagos, the National Museum of Unity in Ibadan, the John Randle Centre for Yoruba Culture and History, the Yemisi Shyllon Museum of Art, and the National Museum of Akure.

A total of 350 questionnaires were administered to museum visitors using incidental sampling during visitation periods. Data were analyzed using descriptive statistics such as Mean Weighted Values (MWV), percentages, and inferential statistics, including Chi-square analysis.

IV. FINDINGS AND DISCUSSION

4.1 Perception of Exhibition Space Design

The findings indicate that respondents generally expressed low levels of satisfaction with the exhibition space design of the museums studied.

Among the evaluated variables, lighting and visual comfort recorded the highest Mean Weighted Value (MWV = 2.80), suggesting that it was the most satisfactory aspect of the exhibition environment; however, this score still falls below an optimal level of user satisfaction.

Visibility of exhibits also performed relatively well (MWV = 2.70), followed closely by display cases and mounts (MWV = 2.60) and gallery layout and circulation flow (MWV = 2.50). These results suggest that while some spatial and display-related elements are moderately effective, they remain far from ideal in supporting clear viewing and smooth movement within the museum space.

By contrast, several critical design elements recorded low performance levels. Labels and text clarity (MWV = 2.30), thermal comfort (MWV = 2.20), acoustic environment (MWV = 2.10), and signage and wayfinding (MWV = 2.00) all fell within the low satisfaction range, indicating weaknesses in environmental comfort and interpretive guidance.

More serious deficiencies were observed in audio-visual and interactive elements (MWV = 1.90) and accessibility features (MWV = 1.70), showing limited technological engagement and poor inclusivity. The lowest-rated variable was seating and rest areas (MWV = 1.50), which suggests that visitor comfort during extended stays is severely underprovided for.

Overall, the results as shown in Table 1 reveal that exhibition spaces in the study area still suffer from major shortcomings in spatial planning, accessibility, and user-centered design, with limited attention to comfort, movement, and interactive engagement.

Table 1: Users' Perception of Exhibition Space

S/N	Variable	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	MWV	Rank
1	Gallery layout and flow	138.0	132.0	44.0	26.0	10.0	2.50	4 th
2	Signage and wayfinding	112.0	126.0	58.0	38.0	16.0	2.00	7 th
3	Visibility of exhibits	144.0	130.0	42.0	24.0	10.0	2.70	2 nd
4	Seating/rest areas	82.0	104.0	76.0	58	30.0	1.50	11 th
5	Display cases and mounts	136	140	40	22	12	2.60	3 rd
6	Labels and texts clarity	120	142	50	28	10	2.30	5 th
7	Audio-visual & interactive elements	96	118	68	44	24	1.90	9 th
8	Lighting (visual comfort)	150	128	38	22	12	2.80	1 st
9	Thermal comfort	132	134	40	26	18	2.20	6 th
10	Acoustic environment	110	126	60	34	20	2.10	8 th
11	Accessibility features	104	122	62	38	24	1.70	10 th

4.2 Interpretive Media and Storytelling

The results show that interpretive media and storytelling strategies were generally effective in the museums studied, although the level of performance varied across specific variables. Narrative clarity and coherence recorded the highest mean score (MWV = 3.99, TWV = 19.95), indicating that many respondents perceived exhibition narratives as logically structured and easy to follow.

Similarly, labels and texts ranked highly (MWV = 4.02, TWV = 20.10), confirming their continued relevance in helping visitors understand object meanings and symbolism. Audio-visual presentations also performed relatively well (MWV = 3.94, TWV = 19.70), suggesting that they contribute positively to contextual interpretation and visitor understanding.

However, the results also reveal important weaknesses in more participatory and culturally

responsive forms of interpretation. Interactive displays recorded only moderate effectiveness (MWV = 3.64, TWV = 18.20), pointing to limitations in technological integration, usability, and engagement. More importantly, community voices and cultural representation scored lower (MWV = 3.30, TWV = 16.50), suggesting that exhibitions still do not adequately reflect indigenous perspectives or participatory storytelling approaches.

The weakest variable was local language interpretation, particularly Yoruba content, which recorded the lowest score (MWV = 1.90, TWV = 9.50). This indicates a clear gap in linguistic inclusivity and cultural authenticity. Overall, the findings show that while conventional interpretive tools remain effective, there is a strong need for more inclusive, participatory, and multilingual storytelling strategies in museum exhibition spaces.

Table 2: Interpretive Media & Storytelling

S/N	Variable	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	TWV	MWV	Rank
1	Labels and texts (understanding & symbolism)	128.0	142.0	48.0	22.0	10.0	20.10	4.02	2 nd
2	Audio/visual	110.0	150.0	52.0	28.0	10.0	19.70	3.94	3 rd

	presentations (context provision)								
3	Interactive displays (engagement & learning)	95.0	140.0	60.0	35.0	20.0	18.20	3.64	4th
4	Narrative clarity and coherence	120.0	145.0	50.0	25.0	10.0	19.95	3.99	1st
5	Community voices and cultural representation	90.0	130.0	70.0	40.0	20.0	16.50	3.30	5th
6	Local language interpretation (e.g., Yoruba)	80.0	120.0	75.0	45.0	30.0	9.50	1.90	6th

4.3 Visitor Satisfaction and Recommendation Intention

The findings show a strong relationship between visitor satisfaction and behavioural intentions, particularly recommendation behaviour. Among respondents who were very satisfied, 52.1% indicated that they would definitely recommend the museum, while 30.1% said probably, bringing the total positive recommendation tendency in this group to 82.2%. Similarly, among those who were satisfied, 31.3% responded definitely and 43.8% responded probably, showing that 75.1% of this group were positively disposed toward recommending the museum.

In contrast, neutral and dissatisfied respondents were far less likely to express strong recommendation intentions. Among the neutral group, only 11.1% selected definitely and 13.9% selected probably, while the largest share, 41.7%, remained uncertain.

Negative responses became more pronounced among dissatisfied visitors, as 44.4% of the dissatisfied group selected probably not and 27.8% selected definitely not. The pattern was even stronger among the very dissatisfied, where 36.2% chose probably not and 40.6% chose definitely not, indicating clear reluctance to recommend the museum.

Overall, the results demonstrate that positive visitor experiences strongly encourage advocacy, while dissatisfaction significantly weakens willingness to promote the museum. The Chi-square analysis further confirms that this relationship is statistically significant, meaning that visitor satisfaction is closely linked to recommendation intention. This suggests that exhibition design influences not only immediate visitor experience but also long-term audience retention and institutional reputation.

Table 3: Cross-Tabulation of Overall Satisfaction and Recommendation Intention

Satisfaction Level	Definitely	Probably	Maybe	Probably Not	Definitely Not	Total
Very Satisfied	38 (52.1%)	22 (30.1%)	8 (11.0%)	3 (4.1%)	2 (2.7%)	73 (100%)
Satisfied	20 (31.3%)	28 (43.8%)	10 (15.6%)	4 (6.3%)	2 (3.1%)	64 (100%)
Neutral	8 (11.1%)	10 (13.9%)	30 (41.7%)	16 (22.2%)	8 (11.1%)	72 (100%)
Dissatisfied	2 (2.8%)	3 (4.2%)	15 (20.8%)	32 (44.4%)	20 (27.8%)	72 (100%)
Very Dissatisfied	2 (2.9%)	2 (2.9%)	12 (17.4%)	25 (36.2%)	28 (40.6%)	69 (100%)
Total	70 (20.0%)	65 (18.6%)	75 (21.4%)	80 (22.9%)	60 (17.1%)	350 (100%)

V. CONCLUSION

This study evaluated exhibition space design and visitor experience in selected museums in South-

Western Nigeria. The findings demonstrate that while museums continue to serve important educational and cultural roles, significant deficiencies remain in

circulation planning, accessibility, environmental comfort, and interpretive inclusivity.

Although visitors generally appreciated exhibition narratives and informational content, shortcomings in spatial organization, seating provision, interactive engagement, and multilingual interpretation negatively affected overall visitor satisfaction.

The study also confirmed that visitor satisfaction strongly influences recommendation and revisit intentions, emphasizing the importance of visitor-centered museum design.

Ultimately, improving exhibition environments through inclusive, flexible, and culturally responsive design strategies will strengthen visitor engagement, enhance cultural representation, and improve the long-term sustainability of museums in Nigeria.

VI. RECOMMENDATIONS

Based on the findings, the study recommends the following:

1. Museum galleries should adopt clearer and more intuitive circulation systems to improve navigation.
2. Adequate seating and rest areas should be integrated into exhibition spaces.
3. Museums should strengthen interpretive media through interactive technologies and multimedia installations.
4. Signage and wayfinding systems should be improved using multilingual and visually accessible strategies.
5. Indigenous languages such as Yoruba should be integrated into exhibition interpretation.
6. Museums should adopt participatory curatorial approaches that incorporate community voices and oral histories.
7. Flexible and modular exhibition systems should be incorporated to support future adaptability.

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