

DESIGNING CULTURAL CENTERS FOR VISITOR EXPERIENCE: A PSYCHOLOGICAL AND SPATIAL PERSPECTIVE

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Abstract

Visitor experience in cultural centers is influenced not just by the exhibits on display, but by the way architectural spaces are crafted to orient, engage, and mentally refresh individuals. Orientation strategies—such as spatial hierarchies and sensory cues—play a crucial role in shaping how visitors interact with the built environment, interpret cultural stories, and find their way through unfamiliar settings. This paper explores how environmental psychology and spatial design contribute to improved visitor orientation and enriched experiential quality within cultural centers. Centering on the proposed Ile-Ife Cultural Center in Nigeria as a primary case study, the article draws on global research, comparative examples, and theories of environmental behavior to propose a framework for orientation design that is both culturally grounded and psychologically attuned. The findings highlight the importance of cognitive mapping, emotional anchors, symbolic elements, and spatial storytelling in creating cultural spaces that are memorable, inclusive, and easy to navigate.

Keywords: *Visitor orientation, wayfinding, environmental psychology, cultural centers, experiential design, spatial narrative, Ile-Ife, cognitive mapping*

INTRODUCTION

Cultural centres are no longer viewed solely as places for preserving heritage, they are now seen as dynamic environments that foster multisensory learning, emotional connection, and spatial storytelling (Falk & Dierking, 2016; Tzortzi, 2015). As these institutions evolve, their effectiveness is increasingly judged not just by the quality of their content, but by how well the spatial design supports intuitive navigation, emotional resonance, and meaningful visitor interaction (Bitgood, 2006; Kaplan & Kaplan, 1989). However, in many African contexts, cultural centres still prioritize symbolic and ceremonial architecture while often overlooking orientation systems that cater to diverse user needs (Adedeji & Adeyemi, 2019; Uduku, 2006). Traditional spatial forms such as courtyards, axial routes, and hierarchical zoning, carry rich cultural meaning but can cause confusion or disorientation for visitors unfamiliar with their symbolic logic (Lawal, 2001; Olufemi & Adebajo, 2020).

Orientation, both architecturally and psychologically, involves a person's ability to understand where they are and move confidently through a space (Peponis et al., 2004; Lynch, 1960). Thoughtful orientation design not only aids physical movement but also enhances cognitive clarity, emotional flow, and memory—key aspects of impactful cultural experiences (Csikszentmihalyi, 1990; Kaplan & Kaplan, 1989). This study examines how environmental psychology and spatial design intersect to improve orientation in cultural centres. It explores design strategies such as spatial rhythm, symbolic cues, cognitive mapping, and narrative zoning, with the proposed Ile-Ife Cultural Centre in Nigeria as a central case study. It also draws lessons from global

precedents including the National Museum of African American History and Culture (USA), the Da Chang Muslim Cultural Centre (China), and the Singkawang Cultural Centre (Indonesia).

2.0 LITERATURE REVIEW

2.1 Visitor Orientation and Environmental Psychology

Orientation is the visitor's ability to perceive, understand, and move through a space confidently without confusion or needing assistance (Tzortzi, 2015). Within cultural architecture, this also includes the emotional and cognitive connection visitors form with a space's narrative.

Environmental psychology provides key frameworks to understand and enhance orientation:

- Attention Restoration Theory (Kaplan & Kaplan, 1989) highlights the importance of environments that promote mental rejuvenation through gentle stimulation, clear transitions, and natural elements.
- Prospect-Refuge Theory (Appleton, 1975) proposes that people feel most at ease in spaces where they can observe their surroundings while feeling sheltered.
- Flow Theory (Csikszentmihalyi, 1990) explains that meaningful experiences arise when individuals feel absorbed in an environment that offers clarity, responsiveness, and a sense of control.

2.2 Spatial Legibility and Wayfinding

Spatial legibility refers to how clearly a space communicates its layout and function. Kevin Lynch (1960) identified five key elements that aid navigation: paths, edges, districts, nodes, and landmarks. In cultural spaces, these often take the form of symbolic features—like domes, sculptures, courtyards, or light-filled corridors—that help orient visitors and reduce anxiety. Research in museum studies (Falk & Dierking, 2016; Serrell, 1997) shows that effective orientation enhances visitor engagement, learning, and satisfaction. When movement feels fragmented or confusing, visitors tend to shorten their stay and engage less deeply.

2.3 Orientation in African Cultural Centres

African architecture, particularly in Yoruba traditions, is rich in symbolism and often organized in layered sequences. Spaces transition from public to sacred using elements like courtyards, thresholds, and vertical shifts (Adedeji & Adeyemi, 2019). While this spatial logic reflects cultural depth, it can present navigation challenges for visitors unfamiliar with these traditions.

Contemporary cultural centres must reinterpret these traditional patterns into clear and adaptable orientation systems. This includes integrating visual and spatial cues that are inclusive, crossgenerational, and accessible to people of all physical abilities.

2.4 Definition of Terms

- Orientation: The cognitive and sensory process through which a visitor interprets spatial layout and determines movement decisions within a built environment.
- Environmental Psychology: An interdisciplinary field that examines how human behaviour and well-being are affected by the physical environment.

- Wayfinding: The tools, cues, and design features that help people navigate through space, including signage, architecture, materials, and lighting.
- Experiential Design: A design approach that emphasizes emotional, cognitive, and sensory engagement with space rather than just functional use.
- Flow: A psychological state of deep focus and immersion in an activity, enabled by spatial and cognitive clarity.
- Prospect-Refuge: A spatial condition where users can observe their surroundings (prospect) while feeling secure and sheltered (refuge).

3.0 STUDY LOCATION Ile-Ife, Osun State, Nigeria

The Ile-Ife, in Osun State, Nigeria (7°28'N 4°34'E), is historically significant as the ancestral home of the Yoruba people. The city, with a population of approximately 500,000 (National Population Commission, 2016), serves as a major cultural hub in southwestern Nigeria. Geographically, Ile-Ife lies on longitude 4° 69'E and latitude 7° 50' N. The climate is tropical. Like every other Southwest area, the rainy season starts April to October while the dry season lasts October to March. Located at an elevation of None meters (0 feet) above sea level, Ife has a Tropical wet and dry or savanna climate. The district's yearly temperature is 29.87°C (85.77°F) and it is 0.41% higher than Nigeria's averages. Ife typically receives about 134.61 millimetres (5.3 inches) of precipitation and has 250.38 rainy days (68.6% of the time) annually. The Ile-Ife Cultural Center is a proposed civic landmark situated in the ancient Yoruba city of Ile-Ife, known as the spiritual heartland of the Yoruba people. The center is designed to celebrate Yoruba cosmology, arts, performance, and scholarly dialogue. Ile-Ife's strong cultural legacy, historical architecture, and artisan economy make it an ideal site for a symbolic yet publicly accessible cultural institution. The architectural vision for the center aims to blend indigenous symbolism and modern usability, with zoned galleries, performance spaces, administrative offices, workshops, and courtyards. The site's topography, cultural expectations, and anticipated visitor diversity demand a high level of spatial legibility and orientation clarity, grounded in both local identity and global usability standards.

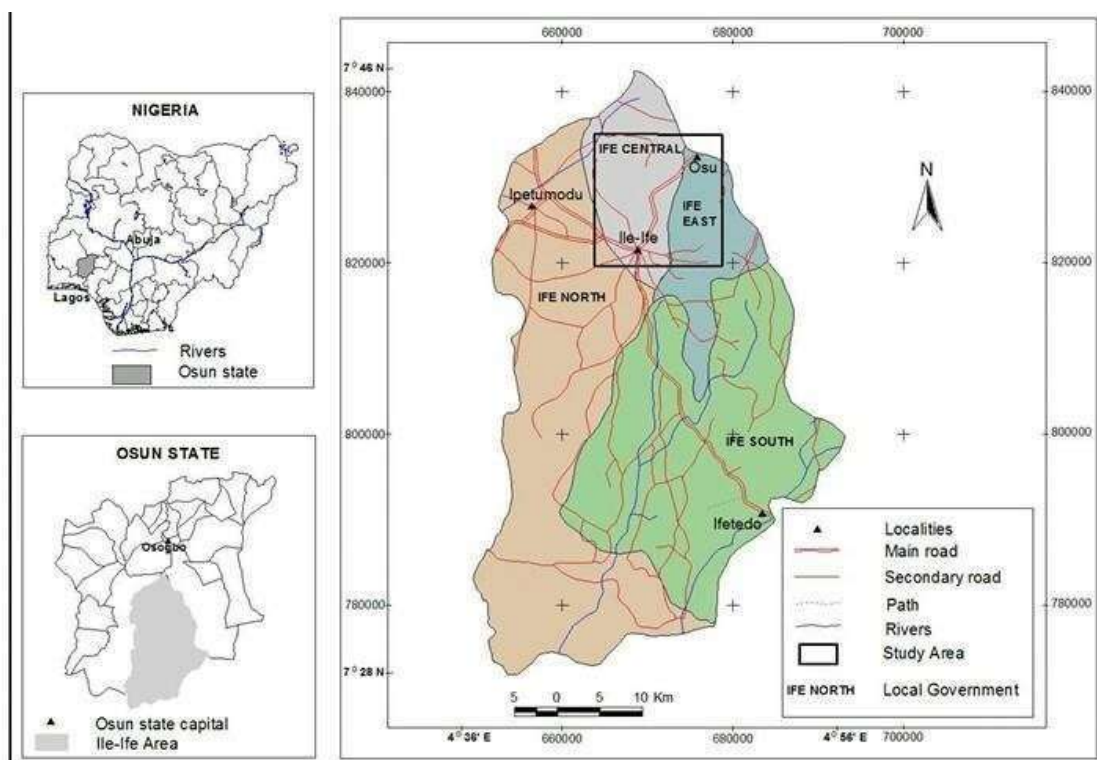


Figure1: Map of Nigeria indicating the Map of Osun state and showing the study area

4.0 METHODOLOGY

This study adopts a qualitative case-based research design combining architectural analysis, comparative benchmarking, and environmental behaviour theory. The approach integrates data from:

4.1 Design Documentation

Architectural drawings, zoning diagrams, and conceptual materials of the Ile-Ife Cultural Center were reviewed to analyze spatial organization, wayfinding logic, and circulation hierarchies.

Comparative Case Studies

Three international cultural centers were studied to identify orientation strategies, including: Da Chang Muslim Cultural Center (China) National Museum of African American History and Culture (USA) Singkawang Cultural Center (Indonesia)

Environmental Psychology Frameworks

Key theories (ART, Flow, Prospect-Refuge, Place Attachment) were applied to interpret user comfort, cognitive load, and emotional engagement in space.

Post-Occupancy Observations (secondary)

Synthesized findings from existing visitor behavior studies in museum literature to simulate expected responses in similar Nigerian environments.

The methodology is exploratory and interpretive, focused on establishing design strategies rather than quantifying outcomes.

5.0 FINDINGS AND DISCUSSION

5.1 Orientation Strategies from Comparative Case Studies

National Museum of African American History and Culture (USA)

This museum uses a spatial narrative that mirrors a psychological journey—from hardship to triumph. Visitors start in the lower-level history galleries and gradually ascend to upper levels showcasing modern achievements. This upward movement evokes a sense of progress and empowerment. Key orientation landmarks, such as the Contemplative Court and the striking Corona façade, serve as emotional and navigational anchors (Sims, 2020). The museum also prioritizes accessibility through multimodal wayfinding tools like tactile maps, audio guides, and clearly defined circulation paths, ensuring a universally inclusive experience.

Da Chang Muslim Cultural Center (China)

The center features a rhythmic architectural layout, where a series of colonnaded arches guides visitors toward a tranquil water courtyard. This sequential spatial arrangement supports Flow Theory by offering a sense of predictability and calm. Subtle material changes signal transitions between areas, while elongated visual corridors create openness and reduce navigational stress. The entire design integrates spiritual symbolism with functional clarity.

Singkawang Cultural Center (Indonesia)

In this culturally diverse center, orientation is structured through modular zoning—each cultural group is represented by its own defined yet interconnected space. Wayfinding is woven into multisensory experiences, including localized sound cues (like gong chimes or chants), colorcoded paths, and open-air courtyards. The design embodies the Prospect-Refuge Theory by combining large open plazas with smaller shaded areas, allowing visitors to choose between openness and intimacy based on comfort.

5.2 The Ile-Ife Cultural Center: Merging Symbolism with Orientation Design

Zoned Spatial Hierarchy

The proposed Ile-Ife Cultural Center reflects the Yoruba worldview through a spatial progression that moves from public to sacred. The journey flows from the entry plaza to a central courtyard, through exhibition spaces, and finally to an amphitheatre. This mirrors the layout of traditional Yoruba palaces, immersing visitors in a culturally resonant experience.

Orientation Anchors

At the heart of the center is a skylit central atrium that serves as the main orientation hub. Visitors can easily locate themselves through visual markers such as Ifá-inspired floor designs, sculptural columns, and symbolic directional art pieces—providing non-verbal guidance throughout the building.

Circulation Strategy

The layout incorporates multiple, looped circulation paths that support self-guided exploration and prevent crowding. Courtyards and pavilions act as buffer zones and rest points, aligning with Attention Restoration Theory by offering mental and physical relief along the visitor journey.

Sensory Cues

Material transitions—like timber, terracotta, and polished stone—are used to signal movement between spatial zones. In addition, auditory cues such as talking drums near the performance wing help visitors intuitively sense where they are and what to expect, deepening their engagement with the space.

Anticipated Emotional Response

Based on patterns observed in similar cultural environments, visitors are likely to:

- i. Spend more time in areas with visual coherence and accessible seating;
- ii. Gravitate toward symbolic elements, using them as mental landmarks;
- iii. Feel emotionally connected and grounded through culturally embedded design features, including sculptural ceilings, patterned floors, and custom-crafted fixtures.

6.0 CONCLUSION AND RECOMMENDATIONS

This study highlights that orientation in cultural centers should be approached as a multisensory, psychological, and narrative-driven experience. Cultural buildings should not only serve as containers for exhibits but also actively guide visitors, promote comfort, and convey meaning through spatial design.

The proposed Ile-Ife Cultural Center demonstrates a successful integration of traditional Yoruba spatial principles with modern concepts of user experience and cognitive ease. Through its thoughtful use of symbolism, transitional zones, visual anchors, and material variation, it offers a model for designing culturally meaningful and psychologically responsive spaces—both within Nigeria and in broader contexts.

6.1 Recommendations:

1. Design orientation as narrative, not just movement—use spatial sequencing to enhance emotional connection.
2. Embed symbolic cues in functional elements—floors, lights, textures, and volumes should all support wayfinding.
3. Use environmental psychology frameworks—particularly ART and Flow Theory—in early spatial planning.
4. Support diverse learning styles and abilities through tactile cues, looped paths, rest zones, and minimal decision points.
5. Test orientation through simulation and real-world feedback, adjusting circulation paths based on observed visitor behavior.

Well-oriented cultural spaces can do more than guide people—they can restore, inspire, and imprint cultural identity in memory.

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