



When Space Becomes Memory: A Sensory Reading of VIRASAT-E-KHALSA

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Abstract

Virasat-e-Khalsa, a museum located in Anandpur Sahib, Punjab, and designed by architect Moshe Safdie, is interpreted in this study as more than just a repository of Sikh history and artifacts. Viewed through a phenomenological lens, the research explores how the museum engages the full spectrum of human senses to shape cultural memory, transforming its interiors into a deeply embodied journey that goes beyond intellectual understanding. The study examines sensory encounters—sight, sound, touch, light, texture, and spatial movement—as integral components of the visitor's experiential narrative. Observational analysis highlights how natural and artificial light, monumental scale, and carefully chosen materiality construct layered visual stories. At the same time, silence, the reflective presence of water, and immersive audio-visual installations generate powerful acoustic atmospheres that heighten emotional resonance. Spatial sequencing is revealed not merely as circulation, but as a deliberate narrative tool, guiding visitors through stages of remembrance that merge architectural intent with cultural symbolism and historical significance. Findings suggest that Virasat-e-Khalsa transcends its role as a static container of heritage, instead functioning as a performative and living space where sensory experience and cultural remembrance are inseparable. The interiors here become memory itself—felt, seen, heard, and embodied by each visitor. Ultimately, the research underscores the broader potential of sensory design strategies in heritage and museum interiors. By weaving together light, sound, materiality, water, scale, and bodily movement into a carefully choreographed spatial performance, designers can create immersive environments that not only preserve history but also deepen cultural understanding, strengthen emotional connection, and sustain collective identity across generations.

Keywords: Culture, Experiential, Heritage, Interiors, Sensory.

1. Introduction

Do we first see a space, or do we feel it? Architecture is not geometry alone but a choreography of the senses. When we step into an interior, it is not only dimensions we perceive but silence, echoes, textures, and rhythms [1-3]. Spaces speak to us through light, material, and movement—they tell stories beyond form. Virasat-e-Khalsa exemplifies this narrative power. It is not simply a container of Sikh history but a spatial journey where interiors themselves become storytellers. This study examines how sensory design principles transform the museum into an embodied cultural encounter, where heritage is not only

displayed but lived. Sensory design emphasizes the orchestration of sight, sound, touch, smell, and movement to create emotionally resonant environments. [4] In contrast to single-sense design, multisensory engagement produces layered perceptions and lasting connections. Through materials, light, sound, water, and scale, architecture can guide emotions as much as bodies. While museums have been widely studied as repositories of heritage, fewer studies emphasize their sensory strategies [5]. This research addresses that gap by analyzing Virasat-e-Khalsa as a case of interior



architecture where history becomes a lived, multisensory experience [6].

1.1. Aim

To investigate how sensory design principles are integrated into the interiors of Virasat-e-Khalsa and how they transform the museum into an immersive cultural encounter.

1.2. Objectives

- To explore principles of sensory design within interior architecture.
- To analyze how Virasat-e-Khalsa engages multiple senses through light, material, spatial sequencing, and acoustics.
- To derive insights for designing future cultural and museum interiors that foster deeper visitor engagement [7].

1.3. Need of the study

Museums today are shifting from static repositories of objects to dynamic, experiential environments. In the context of the experience economy and post-digital museum trends, sensory design has become essential for creating participatory and memorable encounters [8-11]. Academically, this study extends discourse in interior design beyond aesthetics and functionality toward embodied perception. Professionally, it highlights strategies for enhancing visitor engagement and emotional resonance. Socially and culturally, it underscores how spaces like Virasat-e-Khalsa strengthen collective memory and identity by choreographing sensory encounters rather than merely displaying artifacts [12].

2. Research Methodology

This study adopts a qualitative methodology grounded in phenomenological inquiry to interpret the sensory experience of Virasat-e-Khalsa [13]. Rather than quantifiable data, it emphasizes lived experience and perception. Methods include:

Spatial Observation: Documenting circulation patterns, transitions, and sequencing.

- **Sensory mapping:** recording the role of light, sound, texture, smell, and materiality in shaping the atmosphere.
- **Narrative Description:** Reflecting on how spaces evoke bodily awareness and memory.
- **Secondary Sources:** Reviewing architectural critiques, scholarly writings, and

documentation of the museum [14].

This approach acknowledges subjectivity while highlighting how interiors function as active participants in cultural storytelling, transforming history into multisensory experience.

3. Theoretical Framework

3.1. Literature Review

Sensory design engages multiple senses to create immersive and emotionally impactful experiences [15]. By extending beyond visual aesthetics, it enhances interaction, supports inclusivity, and shapes perception through integrated sensory elements (Falk & Dierking, 2000; Hein, 1998). In museum contexts, this mitigates “museum fatigue” by sustaining attention through varied stimuli (Karn, 2023). Carefully orchestrated lighting, soundscapes, textures, and participatory elements foster engagement and resonance. Historically, museums emphasized object collection and preservation (ICOM, 2007; Museums Association, 1998). Their role has since expanded to participatory and recreational spaces where design mediates cultural meaning (Ambrose & Paine, 1993; Wood & Rentschler, 2003). Contemporary museum design highlights materiality, engagement, and representation (Welsh, 2004), with spatial form, lighting, and sound functioning as narrative devices. The concept of experiential museums reflects this evolution, shifting from static displays to immersive storytelling. Learning is reframed as leisure and reflection (Falk & Dierking, 2000; Uzzell, 1998), giving rise to “edutainment” that balances education with stimulation through spatial atmospheres, interactive displays, and multisensory cues (Thyne, 2001). Critics caution against oversimplification or “Disneyfication” (Chhabra, 2008; Hollinshead, 1998; Hein, 2002), yet when applied thoughtfully, multisensory strategies foster authenticity and deeper cultural connections. Virasat-e-Khalsa exemplifies this approach, prioritizing immersive narrative over conventional artifacts. Symbolic architecture, vibrant colors, reflective water, dynamic lighting, and soundscapes transform it into an experiential museum that evokes pride, memory, and belonging (Safdie Architects, n.d.; World Architecture Community, 2019; PagePlace, 2016).

3.2. Case Studies

Primary Case Study: Virasat-e-Khalsa

Architectural Intent and Symbolism: Designed by Moshe Safdie, the project began in 1997 and was inaugurated in 2011. Its monumental form recalls Punjab's fortified architecture while symbolizing resilience, unity, and pride. Sculptural blocks carry symbolic meaning: the boat-like form represents hands in prayer, lotus-inspired petals symbolize Sikh virtues, and crescent volumes extend the spiritual narrative of the Gurus.

Design Brief: The vision emphasized evoking pride, narrating history without artifacts, and relying on immersive storytelling. Program elements include galleries, auditorium, library, amphitheatre, cafeteria, and visitor centre.

Inspirations and Context: Safdie drew from Anandpur Sahib's setting and the Golden Temple. The reflecting pool recalls the Amrit Sarovar, while stainless steel domes echo gilded shrines. The museum rises from the terrain, blending with hills and projecting monumental presence.

Planning and Zoning: The complex is divided into Western, Central, and Eastern blocks, linked by a 540-foot bridge.

- **Western Block:** entrance, ticketing, galleries, library, archives, and auditorium.
- **Central Block:** café, amphitheatre, and a seven-acre water body.
- **Eastern Block:** main exhibition zone—Boat Block with panoramic murals and audiovisuals; Flower Block with lotus-like galleries narrating Sikh virtues; Crescent Block dedicated to later Gurus.

Key Design Strategies for Sensory Experience

- **Light:** Dynamic daylight and LED systems create transitions and highlight narratives.
- **Color:** Vibrant hues evoke cultural vitality, breaking from neutral museum palettes.
- **Sound:** Immersive soundscapes foster emotional engagement and prevent fatigue.
- **Materiality:** Local stone, sandstone, concrete, and water surfaces offer tactile variation.
- **Circulation:** Ramps, bridges, and sudden spatial expansions choreograph bodily

movement.

- **Symbolism:** Architectural forms double as cultural metaphors, reinforcing collective identity.

Comparative Case Study: Smritivan Earthquake Memorial & Museum, Bhuj Smritivan, inaugurated in 2022 and designed by Vastu-Shilpa Consultants, commemorates the 2001 Gujarat earthquake. Spread over 470 acres on Bhujjiyo Hill, it integrates memory, resilience, and ecological renewal. The museum comprises seven thematic blocks—Rebirth, Rediscover, Restore, Rebuild, Rethink, Relive, and Renew. These stages use immersive design strategies including audiovisual installations, a 5D earthquake simulator, and interactive displays. Beyond the museum, a vast memorial forest of nearly half a million trees and water reservoirs inscribed with victims' names embed sensory and ecological experiences into commemoration. Sustainability is central, with solar power and local materials reinforcing cultural and environmental integration. Recognized with the UNESCO Prix Versailles (2024), Smritivan demonstrates how sensory storytelling, ecological design, and cultural embedding create spaces of both memory and resilience. This comparative study reinforces that like Virasat-e-Khalsa, Smritivan employs sensory and experiential strategies—sound, light, vibration, forest smells, and water atmospheres—to transform commemoration into lived experience.

4. Results and Discussion

4.1. Results

The interior of Virasat-e-Khalsa creates a powerful sensory journey. Natural light filters through clerestories and skylights, shifting through the day to guide mood and movement. Textured sandstone, smooth concrete, and reflective water engage tactile and thermal senses. Carefully controlled acoustics—moments of silence, echoes, and subtle water sounds—foster contemplation. Processional ramps, narrow passages, and expansive galleries choreograph bodily movement, linking memory with physical experience.

4.2. Discussion

Sensory design engages multiple senses to create immersive and emotionally impactful experiences.



By extending beyond visual aesthetics, it enhances These design strategies reveal how the museum transforms Sikh history into a lived, multisensory narrative rather than a passive display. By merging symbolism, atmosphere, and bodily engagement, Virasat-e-Khalsa illustrates how architecture can evoke pride, belonging, and cultural remembrance.

Conclusion

The Virasat-e-Khalsa demonstrates how architecture can transcend visual display to become a fully embodied cultural experience. Through orchestrated light, material textures, controlled acoustics, and choreographed circulation, the museum engages all senses to guide visitors through Sikh history. Its power lies not only in monumental form but in subtle interior atmospheres that evoke memory and emotion. This study highlights the potential of sensory design strategies in future museum and heritage projects, showing how spaces can become living cultural narratives that sustain identity and foster emotional connection across generations.

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