

Original Research Article

Investigating the Relationship Between Embodiment and Narrative Mechanisms in the Architecture of the Tehran Museum of Contemporary Art and the Sacred Defense Museum with Emphasis on the Visitor's Perceptual-Motor Experience

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Abstract

Problem statement: In contemporary Iranian museum architecture, spatial narrative is not generated solely through architectural form and physical signifiers; rather, it emerges through the interaction between space and the visitor's perceptual-motor experience. Despite the significance of this issue, the relationship between embodiment and narrativity has received limited analytical and comparative attention within Iranian architectural scholarship. The primary concern of this study is to explain how embodied experience contributes to the formation and transmission of architectural narratives in two prominent examples of contemporary Iranian cultural architecture: the Tehran Museum of Contemporary Art and the Sacred Defense Museum.

Research objective: This study aims to develop an analytical framework for explicating the relationship between embodiment, spatial perception, and architectural narrative, while comparatively examining the narrative mechanisms employed in the two selected museums.

Research method: The research adopts a qualitative-interpretive approach and employs a comparative analytical method. Data were collected through architectural documentation, theoretical literature, and direct observation. The collected materials were analyzed within an integrated framework combining the phenomenology of perception, architectural narratology, and spatial semiotic analysis. The analytical process was conducted in four stages: extraction of theoretical constructs, coding of spatial data, organization of indicators within the NBI (Narrative Building Index) analytical model, and interpretation of embodied narratives.

Conclusion: The findings reveal that the Tehran Museum of Contemporary Art, through its circular spatial organization, filtered daylight, gradual thresholds, and fluid patterns of movement, generates a perceptual and phenomenological narrative in which the body actively participates in the process of meaning-making. In contrast, the Sacred Defense Museum, through linear circulation paths, ritualized spatial sequences, dramatic lighting, and explicit symbolic representations, constructs a guided and symbolic narrative that organizes embodied experience within a predetermined interpretive framework. The results demonstrate that the principal distinction between the two museums lies not in the intensity of narrativity itself, but in the degree of freedom afforded to the body for generating, interpreting, and reconfiguring meaning.

Keywords: *Embodiment in Architecture, Spatial Narrativity, Perceptual-Motor Experience, Tehran Museum of Contemporary Art, Sacred Defense Museum.*

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Introduction

Museum architecture is not merely a setting for the display of artworks or historical artifacts; it can also function as a medium for organizing experience, perception, and narrative. Within such spaces, visitors are not passive visual observers but active participants in the processes of narrative interpretation and experience through movement, pause, threshold crossings, shifts in visual orientation, and encounters with light, sound, and spatial scale (Pallasmaa, 2023; Tzortzi, 2017). From this perspective, meaning emerges not only from the physical form of a building but also from the dynamic relationship between the body, movement, and perception.

In contemporary Iranian architecture, museums constitute some of the most significant cultural spaces in which architecture becomes an integral component of the narrative and semantic system of exhibition (Mozaffari, 2007; Gil Amirrod et al., 2023). Among these, the Tehran Museum of Contemporary Art and the Sacred Defense Museum represent two prominent examples of distinct approaches to spatial narrative in contemporary Iranian architecture. Designed by Kamran Diba, the Tehran Museum of Contemporary Art creates an experience characterized by gradual movement, filtered light, silence, and spatial pauses, resulting in a contemplative and phenomenological spatial quality (Gharibpour, 2019; Shadravan & Balci, 2025). In contrast, the Sacred Defense Museum employs guided circulation routes, dramatic lighting, sound effects, and explicit symbolic references to construct a ritualized and identity-oriented narrative that situates visitors within a carefully orchestrated experiential framework (Motamedi & Person, 2023; Rivetti, 2020).

The central concern of this study is to investigate how architectural narrative is formed through the embodied experience of visitors. Although numerous studies have addressed narrative in architecture and the perceptual experience of space, most have either focused on the

semiotic interpretation of spatial environments (Ahmadi, 2020; Sajoudi, 2008; Heynen et al., 2020) or examined spatial experience through the lens of architectural phenomenology (Norberg-Schulz, 1980; Sayyad et al., 2019; Gharibpour, 2019). Nevertheless, the relationship between embodiment and the mechanisms of narrativity in museum architecture—particularly within Iranian architectural scholarship—has rarely been explored through a comparative and analytical framework. Drawing upon a phenomenological perspective, the present study regards architectural narrative as a product of the interaction between space, movement, and the lived experience of visitors. Accordingly, meaning is understood not as something embedded solely within physical elements or spatial signs, but as something that emerges through processes of perception, movement, and bodily engagement with space. On this basis, the study seeks to examine and compare the role of visitors' perceptual-motor experiences in shaping the spatial narratives of the two selected museums.

Accordingly, this research asks how embodiment contributes to the formation of architectural narrative in museum environments and how spatial elements such as circulation paths, light, thresholds, movement sequences, and symbolic devices guide visitors' perceptual experiences along particular narrative trajectories. The distinction between the two museums under investigation lies not merely in their historical content or cultural function but in the nature of bodily participation within the narrative experience. In the Tehran Museum of Contemporary Art, visitors engage in meaning-making through relatively free movement, pauses, changes in viewpoint, and the gradual experience of light and space (Sayyad et al., 2019; Gharibpour, 2019). By contrast, in the Sacred Defense Museum, the body moves through predetermined routes and guided sequences, while narrative is communicated more directly through symbols, lighting strategies, and spatial organization (Motamedi & Person, 2023; Rivetti, 2020).

Consequently, the principal research question is formulated as follows: How does embodiment function as a mechanism for the formation of narrative in museum architecture? To address this question, three subsidiary questions are posed. First, how do spatial elements such as light, circulation paths, thresholds, and movement sequences shape narrative experience in each museum? Second, what role does the visitor's body play in the production or reception of meaning within each case? Third, what distinctions exist between the phenomenological and perceptual narrative of the Tehran Museum of Contemporary Art and the ritualized, guided narrative of the Sacred Defense Museum?

The objective of this research is to explore the relationship between embodiment and narrativity in museum architecture and to clarify the differences between the two modes of narrative construction represented by the selected case studies. The originality of the study lies in its departure from approaches that focus primarily on form, symbolism, or narrative content. Instead, it examines the embodied mechanisms of narrative through such components as movement, pause, light, thresholds, and spatial sequencing, seeking to demonstrate how architectural narratives are constructed, guided, and received through visitors' perceptual-motor experiences.

Theoretical Framework

• Narrative in Architecture and Spatial Experience

Narrative in architecture is not merely a literary metaphor or a descriptive representation of space; rather, it constitutes a spatial-perceptual mechanism that emerges through sequence, movement, temporality, and the experience of the user. In classical narratology, narrative is founded upon the relationship between event, time, and agency (Todorov, 1971; Abbott, 2002; Genette, 1983). Chatman (1978), Rimmon-Kenan (2002), and Ryan (2007) also consider narrative as an organized system for shaping meaning through the sequence

of events and relationships between actors. Bruner (1991) also introduces narrative as one of the most fundamental human mechanisms for constructing and interpreting reality. In architecture, however, these elements manifest themselves through spatial sequences, thresholds, level changes, and circulation paths. From this perspective, architectural narrative is generated when space is capable of organizing the visitor's experience of movement and perception (Du, 2022; Aeini et al., 2022).

Tschumi (1996) conceptualizes architectural narrative as the product of "event" and "movement," arguing that meaning emerges through moments of encounter, rupture, and transition within spatial sequences. Similarly, (Heynen et al, 2020). regards space as an "open text" in which meaning is constructed through the interpretive act of the user. This view is in line with Barthes (1994; 2021) views on the multi-layered Ness of meaning and the openness of text, as well as Danesi (2002)'s approach to cultural semiotics. Aghaei Meybodi (2014) also shows that space can be analyzed as a system of cultural signs and connotations, where meaning is formed in the interaction between the body and the audience. This perspective resonates with Norberg-Schulz (1980)'s notion of the lifeworld, whereby place is understood not merely as a physical entity but as a product of lived experience and perceptual memory.

In contrast, formalist and functionalist approaches tend to conceive architecture primarily as a physical or functional system, assigning a secondary role to embodied experience in the production of meaning. (Aabedi et al., 2018; Aeini et al., 2022) Within these perspectives, narrative is conveyed mainly through form, symbolism, or functional organization rather than through the user's perceptual-motor experience. Departing from such approaches, the present study regards narrative not simply as a formal attribute but as an outcome of the interaction between space, movement, and bodily

perception. Accordingly, architectural narrative is conceptualized at three principal levels (Table 1).

• Embodiment and the phenomenology of perception in architecture

The theory of embodiment in architecture is founded upon the premise that spatial perception emerges through the body, movement, and lived experience rather than solely through mental observation or visual reception. Merleau-Ponty (1945) identifies the body as the “origin of perception,” a medium through which the world is understood by means of presence, touch, movement, and direct experience. From this standpoint, space acquires meaning only when it is disclosed through human lived experience. Similarly, Gabriel Marcel emphasizes the concept of presence, regarding human experience in space as an existential condition arising from a direct relationship between individuals and their environment (Cali, 2015).

This perspective has informed a significant strand of phenomenological approaches in contemporary architectural theory. Building upon these philosophical foundations, Pallasmaa (2023) conceives architecture as a multisensory medium that shapes lived experience through light, texture, sound, scale, and movement. Likewise, Norberg-Schulz (1980) characterizes the body as the bearer of place memory and a fundamental component of the experience of the lifeworld. Tschumi (1996) positions the body as an active agent within spatial narrative, arguing that architectural narratives are produced through movement and spatial events. Leder (1990) further demonstrates that the body becomes perceptually present during moments such as crossing

thresholds, experiencing changes in light, or encountering shifts in spatial scale; these moments consequently acquire a narrative quality. In this regard, Fakhrekondeh (2019), using a somesthetic approach, emphasizes the role of the body as the main medium of cultural and spatial experience and shows that meaning is formed in the interaction between the body, the environment and everyday actions. Mehdilou et al. (2025) have also shown in their phenomenological interpretation of ritual architecture that spatial experience leads to the formation of deeper layers of meaning through physical presence, sensory perception and gradual exposure to transitional spaces. In addition, some researchers have emphasized the role of memory and mental image in the embodied perception of space. Lynch (1960) shows that the perception of the environment is organized through movement and the formation of mental images in the memory of users and that spatial experience cannot be explained without the active participation of the body. Grigor (2003) Within Iranian architectural scholarship, studies concerning the Tehran Museum of Contemporary Art and other cultural spaces have likewise emphasized the role of bodily awareness and embodied experience in architectural perception (Sayyad et al., 2019; Gil Amirrod et al., 2023). Nevertheless, most of these studies have focused either on phenomenological interpretations of space or on analyses of signs and meaning, while the relationship between embodiment and the mechanisms of spatial narrativity has rarely been examined through an integrated analytical framework.

Accordingly, the principal dimensions of embodiment considered in this study are in Table 2.

• Visitor experience and the analytical model of the research

In museum architecture, visitor experience constitutes a temporal and embodied process in which circulation, light, thresholds, and spatial rhythm become narrative mechanisms. Tzortzi (2017) demonstrates that museum architecture generates a

Table 1. Narrative levels in architecture and their corresponding components. Source: Abbott, 2002; Tschumi, 1996; Eco, 1984; Norberg-Schulz, 1980.

Narrative level	Key components
Narrative structure	Spatial sequence, spatial episodes, events
Narrative action	Bodily movement, thresholds, and temporal experience
Narrative meaning	Framing, symbols, memory

Table 2. Components of embodiment in spatial experience and architectural narrative. Source: Merleau-Ponty, 1945; Pallasmaa, 2023; Tschumi, 1996; Leder, 1990.

Component	Analytical description
Sensory engagement	Multisensory perception of space
Movement	Experiencing space through spatial sequences
Presence	Existential awareness within space
Bodily memory	Recognition and sedimentation of experience in memory
Threshold experience	Perceptual transformation during moments of transition

form of spatial narrative through the organization of movement and visual framing, which visitors experience and interpret through their own bodily trajectories (Eimen, 2006; Amiri, 2017). Madanipour (2006) also emphasizes the role of spatial structures in organizing social experience and user perception and considers them part of the process of meaning production in cultural environments.

In the Tehran Museum of Contemporary Art, the circular circulation system, changes in level, and indirect lighting create a gradual and phenomenological experience in which narrative emerges through bodily movement (Gharibpour, 2019; Shadravan & Balci, 2025). These features have also been considered in studies related to contemporary Iranian architecture as part of an effort to integrate indigenous concepts, cultural identity, and spatial experience (Bani-Masoud, 2009). By contrast, in the Sacred Defense Museum, dramatic lighting, soundscapes, guided circulation routes, and explicit symbolic references position visitors within a ritualized and pre-structured narrative framework (Motamedi & Person, 2023; Rivetti, 2020).

Based on the foregoing theoretical foundations, the analytical model of this study is structured around the interaction of three principal dimensions:

- 1) Spatial narrative components (sequence, episode, symbol, and event);
- 2) Embodiment components (movement, perception, presence, and memory);
- 3) The visitor's perceptual–motor experience.

Within this framework, spatial elements such as circulation paths, lighting conditions, thresholds, and movement rhythms first shape the body's sensory and perceptual experience; this experience subsequently contributes to the production, guidance, or reception of narrative. The analytical model, therefore, assumes that architectural narrative is generated not solely through form or symbolism, but through the relationship between space and the embodied experience of visitors (Table 3).

Research Method

This study adopts a qualitative–interpretive approach and employs a comparative analytical method. Its primary objective is to explain how architectural narrative is formed through the embodied experience of visitors in two prominent examples of contemporary Iranian architecture: the Tehran Museum of Contemporary Art and the Sacred Defense Museum.

The research is grounded in an abductive reasoning strategy (Creswell, 2014), whereby the analytical process evolved through a continuous interaction between the theoretical framework and empirical evidence. In this iterative process, theoretical concepts and findings derived from the case studies were repeatedly brought into dialogue to develop and refine the interpretation of the results (Yin, 2018).

The case studies were selected purposively according to three criteria: (1) the presence of a narrative spatial structure, (2) the significant role of embodied experience in spatial perception, and (3) their prominent status within contemporary Iranian cultural architecture. The basis for comparison between the two museums is not their historical content or functional program, but rather their spatial narrative mechanisms and how the body participates in the production or reception of meaning.

Research data were collected through architectural documentation, scholarly literature, and direct observation. To enhance the validity of the findings, the data were verified through methodological triangulation. The analytical process was conducted in four successive stages:

Table 3. Embodied–narrative levels and their connecting mechanisms in architecture. Source: Pallasmaa, 2023; Tschumi, 1996; Tzortzi, 2017; Norberg-Schulz, 1980.

Level	Components	Embodied–narrative mechanisms
Perceptual	Light, sound, texture	Sensory stimulation and perceptual pause
Kinetic	Circulation path, level change, threshold	Narrative construction through sequence
Semiotic	Symbol and cultural signification	Production and guidance of meaning
Existential	Presence and memory	Consolidation of experience within memory

- 1) Extraction of theoretical constructs and analytical categories;
- 2) Coding of spatial and experiential data;
- 3) Organization of findings within the NBI (Narrative Building Index) analytical framework;
- 4) Interpretation of embodied narratives.

In this study, the NBI model functions as an analytical tool for the organization and comparison of qualitative findings rather than as an independent quantitative measurement instrument (Fig. 1).

In the final stage, the findings were interpreted according to the conceptual sequence of:

Sensory stimulation → Perception → Movement → Threshold → Meaning → Memory

This interpretive chain was employed to explain how architectural narrative emerges through the visitor’s perceptual–motor experience and embodied engagement with space.

Findings and Analysis

The findings of the study are organized according to the analytical framework presented in the methodology and are structured at two complementary levels. First, the NBI indicators are analyzed to assess the degree and nature of narrativity in each museum. Second, a qualitative–spatial analysis is conducted on embodied components, including movement, light, thresholds, spatial sequencing, symbolism, and memory. The purpose of this dual structure is not to separate quantitative and qualitative results, but rather to interpret them within a unified analytical framework.

• Analysis of the Tehran Museum of Contemporary Art based on the NBI model

The spatial experience of the Tehran Museum of Contemporary Art is grounded in a gradual, circular, and continuous movement pattern that places the

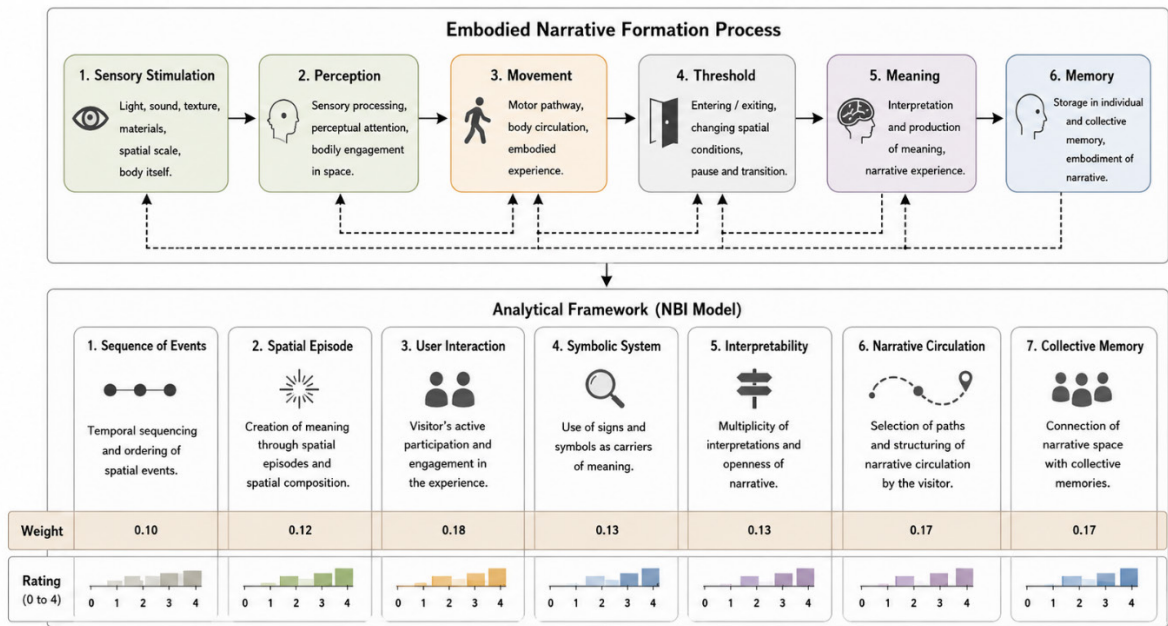


Fig. 1. Analytical framework of the research. Source: Author.

visitor's body within a sequence of entry, descent, pause, transition, and ascent. The circular plan, continuous ramp system, indirect skylighting, level changes, and pause spaces create conditions in which architectural narrative is not merely observed but experienced through the body. Entering from a semi-darkened space, passing through the central hall, descending to lower levels, and gradually returning to the upper level generates a narrative sequence through which architectural temporality is perceived by means of bodily movement (Fig. 2).

The results in Table 4 indicate that the Tehran Museum of Contemporary Art achieves a high overall level of narrativity. The greatest contributions to the final score derive from User Interaction, Spatial Event, and Event sequence. This suggests that the narrative in this museum is shaped less through explicit signs or direct messages and more through bodily movement, changes in level, spatial pauses, and the gradual experience of light.

The relatively lower score for Narrative circulation does not indicate a weakness in narrativity; rather, it reflects the freer and less linear character of the circulation system. Visitor movement is not entirely

prescribed or unidirectional, allowing circulation itself to generate an open and interpretive narrative. From this perspective, the visitor's body functions as a narrative interpreter, whereby movement, pause, shifts in gaze, and the selection of stop moments become integral components of meaning-making.

• Analysis of the Sacred Defense Museum based on the NBI model

In the Sacred Defense Museum, visitors' embodied experience is organized through a guided, linear, and ritualized trajectory. Movement begins at entrance thresholds, progresses through semi-darkened spaces and sequential galleries, and ultimately culminates in brighter and more open environments. This spatial progression constructs a narrative structure symbolizing the transition from darkness, suffering, resistance, and martyrdom toward illumination and transcendence.

Within this setting, the visitor's body remains actively engaged; however, its activity unfolds largely within a predetermined route and narrative scenario (Fig. 3).

The final NBI score of the Sacred Defense Museum (Table 5) is nearly identical to that of the Tehran

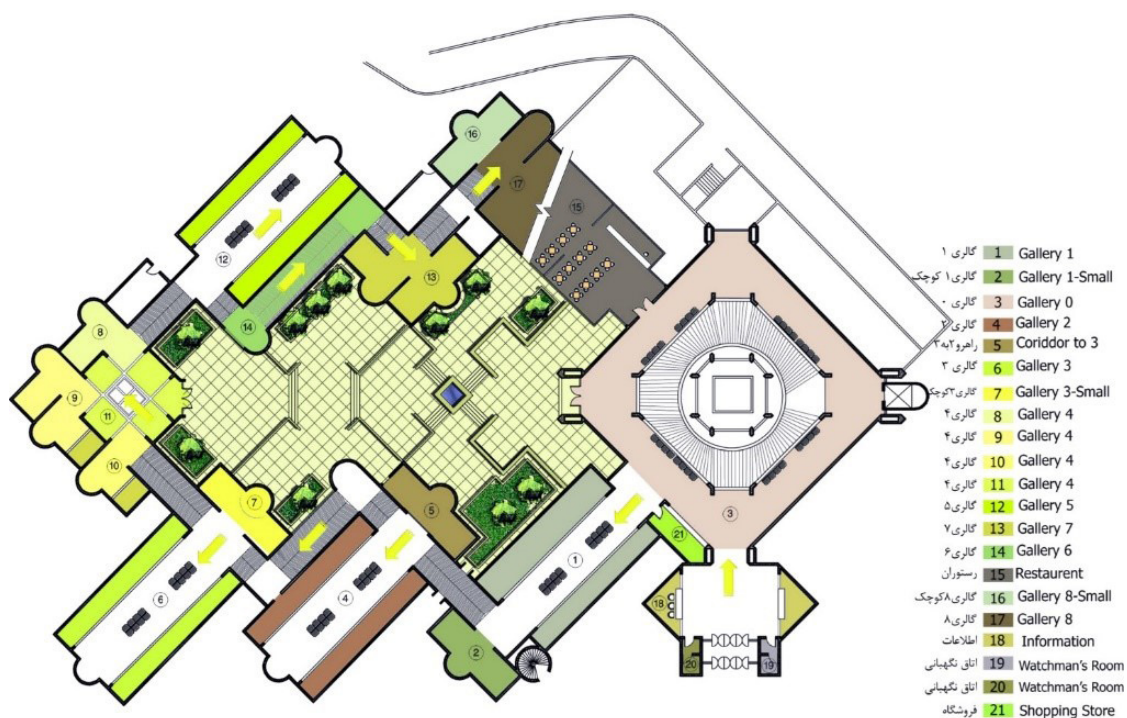


Fig. 2. Plan of the Tehran Museum of Contemporary Art. Source: Author.

Table 4. Narrativity indicators and scores for the Tehran museum of contemporary art. Source: Author.

Code	Indicator	Score	Weight	Weighted score (W × S)
S1	Event sequence	4.0	0.15	0.60
S2	Spatial event	4.0	0.17	0.68
S3	User interaction	4.0	0.18	0.72
S4	Symbolic representation	4.0	0.13	0.52
S5	Interpretability	4.0	0.13	0.52
S6	Narrative circulation	3.0	0.12	0.36
S7	Collective memory	4.0	0.12	0.48
S8	NBI (0–4)	-	-	3.88

Museum of Contemporary Art; however, the distribution of scores reveals substantial differences in the nature of the two narrative systems. In the Sacred Defense Museum, the strongest contributions come from User interaction, symbolic representation, and collective memory.

These findings indicate that narrativity in this museum is generated not through ambiguity or open interpretation, but through the body's engagement with explicit symbols, theatrical lighting, sound, visual media, and collective memory. Conversely, the lower score for interpretability suggests that the narrative is comparatively more closed and directive.

The visitor's body is not passive in this environment. It traverses the prescribed route, responds emotionally and sensorially, and participates in the unfolding spatial sequence. However, such participation occurs within a controlled interpretive framework. Consequently, the body in the Sacred Defense Museum functions as a guided agent rather than a free producer of meaning.

A comparison of [Tables 4 & 5](#) reveals that the final

Table 5 Narrativity Indicators and Scores for the Sacred Defense Museum. Source: Author.

Code	Indicator	Score	Weight	Weighted score (W × S)
S1	Event sequence	3.8	0.15	0.57
S2	Spatial event	3.5	0.07	0.25
S3	User interaction	4.0	0.22	0.88
S4	Symbolic representation	4.0	0.20	0.80
S5	Interpretability	3.2	0.05	0.16
S6	Narrative circulation	3.9	0.13	0.51
S7	Collective memory	4.0	0.18	0.72
S8	NBI (0–4)	-	-	3.89

NBI scores of the two museums are remarkably close: 3.88 for the Tehran Museum of Contemporary Art and 3.89 for the Sacred Defense Museum. Therefore, the principal distinction between the two case studies lies not in the overall intensity of narrativity, but rather in the nature and underlying logic of their narrative structures. This constitutes one of the key findings of the study.

In the Tehran Museum of Contemporary Art, narrativity is primarily generated through spatial events, greater user agency, and high interpretability. In contrast, narrativity in the Sacred Defense Museum is predominantly constructed through symbolic representation, collective memory, and guided narrative circulation. In other words, in the first case, the body participates in the gradual discovery and construction of meaning, whereas in the second, the body is positioned within a framework designed to transmit a preconfigured meaning ([Table 6](#)).

• Qualitative analysis of embodied–narrative components

To connect the NBI findings with a phenomenological interpretation of space,

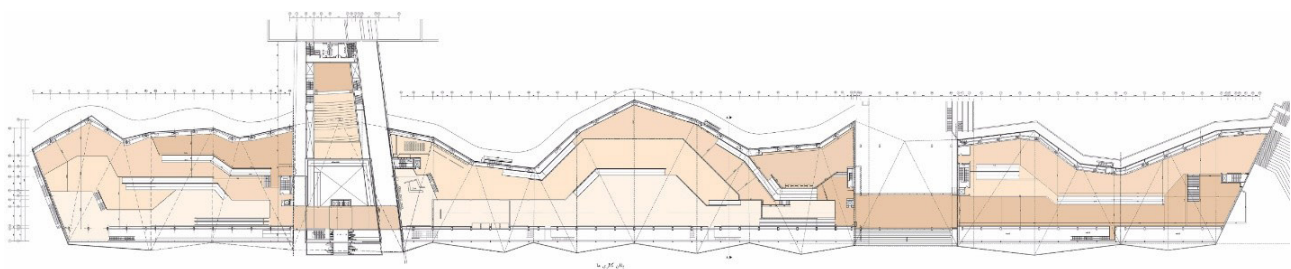


Fig. 3. Plan of the Sacred Defense Museum complex. Source: Author.

Table 6. Interpretive comparison of NBI indicators in the Tehran Museum of Contemporary Art and the Sacred Defense Museum. Source: Author.

Indicator	Tehran Museum of Contemporary Art	Sacred Defense Museum	Comparative interpretation
Event sequence	Gradual, fluid, exploratory	Linear, sequential, ritualized	Both rely on sequencing, but one remains open while the other is directive.
Spatial event	Based on light, pause, and level changes	Based on scenographic settings and theatrical themes	Spatial events are perceptual in the former and dramatic in the latter.
User interaction	Based on pause and interpretation	Based on movement along a predetermined route	Interaction is more autonomous in the former and more controlled in the latter.
Symbolic representation	Layered and abstract	Explicit and coded	Meaning is generated in the former and transmitted in the latter.
Interpretability	High and multi-layered	More limited and directed	The principal difference lies in the degree of interpretive freedom.
Narrative circulation	Circular and fluid	Linear and ritualized	Circulation is exploration-oriented in the former and guidance-oriented in the latter.
Collective memory	Cultural and artistic	Historical, war-related, and ideological	Both engage memory, but the nature of memory differs significantly.

qualitative data were analyzed through four principal dimensions: movement, light, threshold, and symbolic representation. These dimensions correspond directly to the concepts introduced in the theoretical framework and analytical model and are employed here to interpret the two museum environments.

- Bodily movement: free exploration versus guided movement

In the Tehran Museum of Contemporary Art, bodily movement follows a circular, continuous, and gradual pattern. Through ramps, level changes, shifts in direction, and spatial pauses, visitors experience the narrative progressively and sequentially. Movement in this museum is not merely a means of transitioning from one gallery to another; rather, it functions as a mechanism for the production of meaning itself. Visitors are able to regulate their pace, pause in response to light or artworks, and construct personal narratives through changes in viewpoint and orientation.

In contrast, bodily movement within the Sacred Defense Museum is predominantly linear, sequential, and ritualized. Visitors traverse a route specifically designed to communicate a historical and epic narrative. This movement is active yet guided. It is active because the body remains engaged in passage, emotional response, listening, observation, and

sensory reaction. It is guided because opportunities for route modification, interpretive pauses, and independent reinterpretation are more limited than in the Tehran Museum of Contemporary Art.

Accordingly, the difference between the two museums does not lie in whether the body is active or passive, but rather in the degree of freedom granted to the body in the production of meaning. The body approaches the condition of a passive observer when opportunities for choosing routes, pausing, altering viewpoints, and engaging in personal interpretation are minimized. In the Sacred Defense Museum, however, the body remains active, yet its activity is defined within a guided and symbolically structured framework (Fig. 4).

- Light: A medium of perception versus an instrument of dramaturgy

In the Tehran Museum of Contemporary Art, filtered natural light plays a central role in regulating the rhythm of perception. Through roof-mounted skylights and its indirect illumination, light creates moments of pause, silence, and concentration. Here, light functions as a medium of perception, inviting visitors to reflect, slow their movement, and attend to the qualities of space. In the Sacred Defense Museum, by contrast, light assumes a predominantly dramaturgical role. Spotlights, strong contrasts between darkness and illumination, the sudden revelation of symbolic

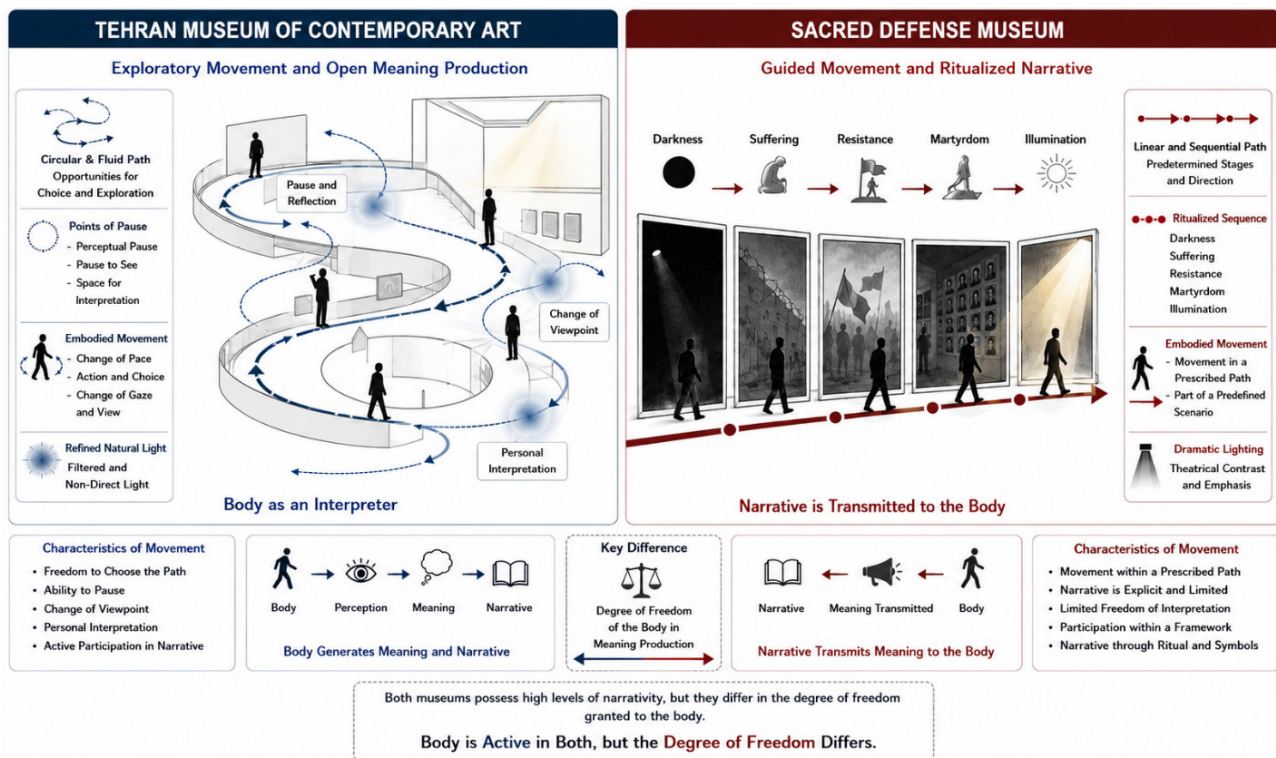


Fig. 4. Comparison of bodily movement patterns and degrees of freedom in meaning-making in the Tehran Museum of Contemporary Art and the Sacred Defense Museum. Source: Author.

elements, and the integration of light with sound and visual media immerse the body in an emotional and ritualized experience. In this context, light not only structures perception but also directs emotions and reinforces the narrative message. Consequently, light in the Tehran Museum of Contemporary Art possesses a phenomenological and exploratory quality, whereas in the Sacred Defense Museum it acquires a theatrical, emotional, and directive character (Fig. 5).

- Thresholds and spatial sequences: perceptual pause versus ritual transition

In the Tehran Museum of Contemporary Art, thresholds are primarily manifested through subtle changes in light, level, visual fields, and spatial scale. The transition from one space to another is accompanied by gradual shifts in perceptual quality. These thresholds provide visitors with opportunities to recalibrate their experience and establish new relationships with space at each stage of the journey.

In the Sacred Defense Museum, thresholds perform a more ritualized function. The progression from dark spaces through compressed environments, encounters

with sound and large-scale imagery, and eventual arrival in brighter spaces creates a symbolic journey. These transitions emphasize the staged transmission of meaning rather than moments of interpretive pause. From this perspective, the spatial sequence of the Tehran Museum of Contemporary Art remains open-ended and perceptual, whereas that of the Sacred Defense Museum becomes sequential, directional, and ritual-narrative in character (Fig. 6).

- Symbolic representation and meaning: layered interpretation versus explicit transmission of meaning

In the Tehran Museum of Contemporary Art, symbols are predominantly spatial, abstract, and multilayered. The windcatcher-skylights, central courtyard, material palette, geometric rotations, and the interplay between light and silence generate meaning indirectly. Visitors are required to interpret these symbolic elements through their own spatial and perceptual experiences.

In contrast, the symbolic system of the Sacred Defense Museum is more explicit and codified. Elements such as the symbolic significance of the

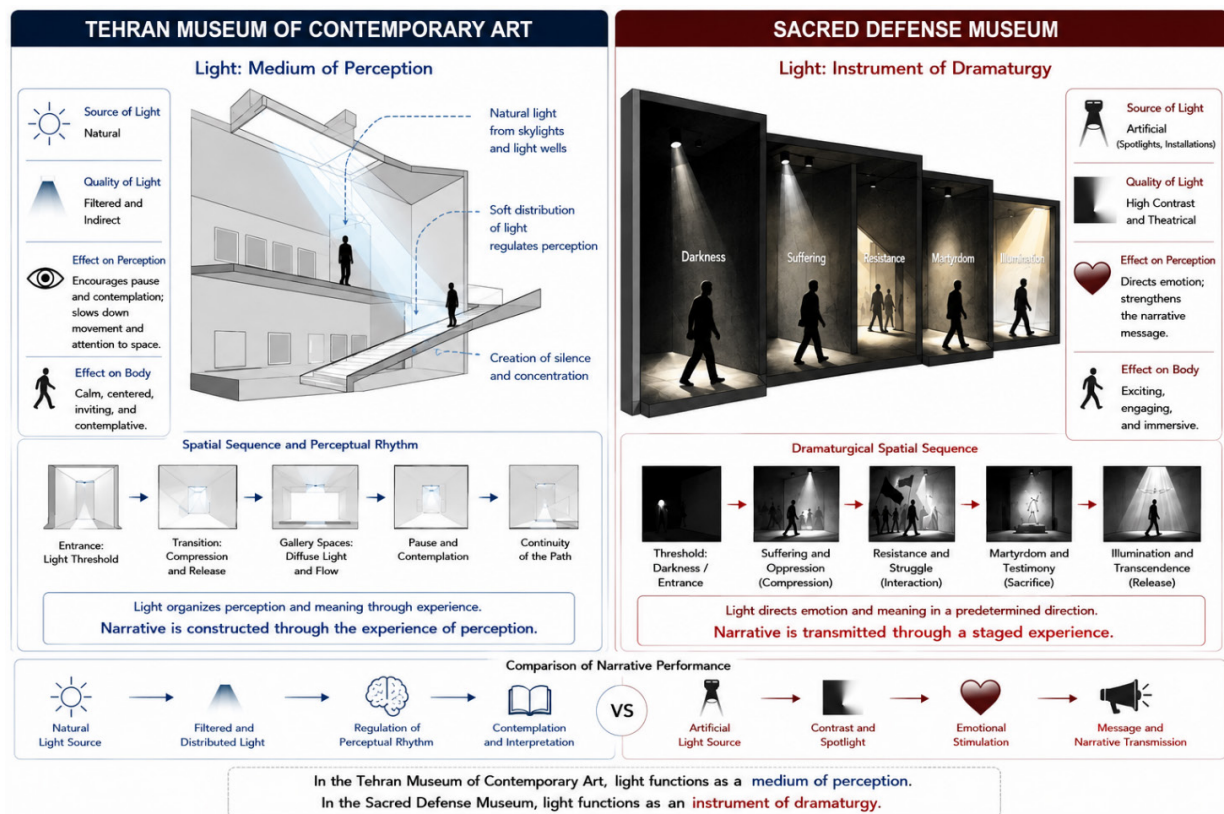


Fig. 5. Comparison of the narrative functions of light in the Tehran Museum of Contemporary Art and the Sacred Defense Museum. Source: Author.

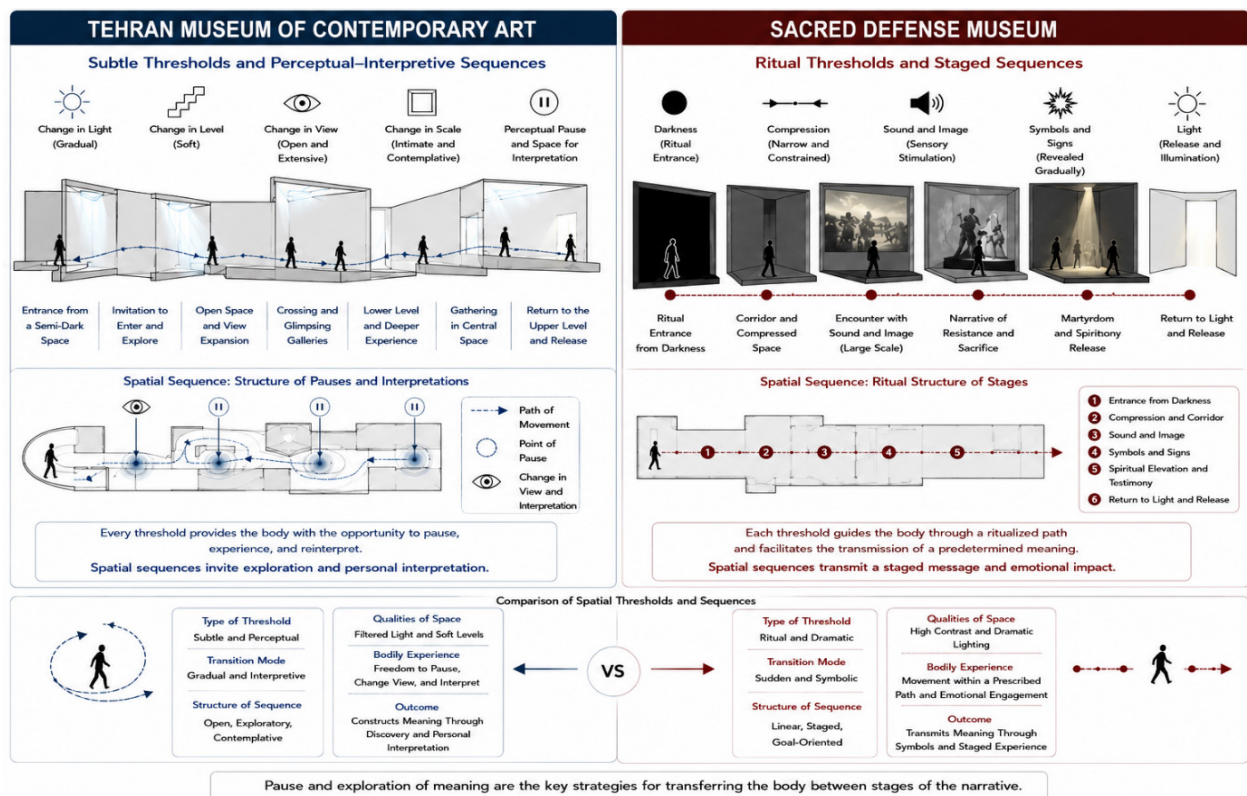


Fig. 6. Comparison of Thresholds and Spatial Sequences: Perceptual Pause versus Ritual Transition. Source: Author.

number seven, references to water and earth, vertical shafts of light, light towers, the Hall of Expectation, and historical–epic references communicate meaning in a more direct manner. Although these symbols remain open to interpretation, their interpretive range is more limited because they serve a historical, collective, and ideological narrative framework.

Accordingly, meaning in the Tehran Museum of Contemporary Art is primarily generated, whereas in the Sacred Defense Museum, it is primarily guided and transmitted (Fig. 7).

The findings indicate that both museums possess a strong capacity for narrativity; however, the mechanisms through which narrative is constructed differ substantially. The close similarity between their final NBI scores demonstrates that both buildings successfully generate narrative experiences. Nevertheless, the differing distribution of indicators reveals that the nature of narrativity is fundamentally distinct in each case.

In the Tehran Museum of Contemporary Art, narrative emerges through the body's relatively free movement, filtered light, spatial pauses, and personal interpretation. Here, visitors actively participate in the production of meaning, and architectural narrative acquires an open, perceptual, and phenomenological character.

In the Sacred Defense Museum, narrative is constructed through linear circulation, explicit symbolic representation, dramatic lighting, and collective memory. Although the body remains active, its activity unfolds within a guided and ritualized framework. Consequently, architectural narrative assumes a more closed, symbolic, and identity-oriented character.

The findings, therefore, suggest that the principal distinction between the two museums lies not in the degree of narrativity itself, but in the manner through which narrative becomes embodied. The Tehran Museum of Contemporary Art constructs

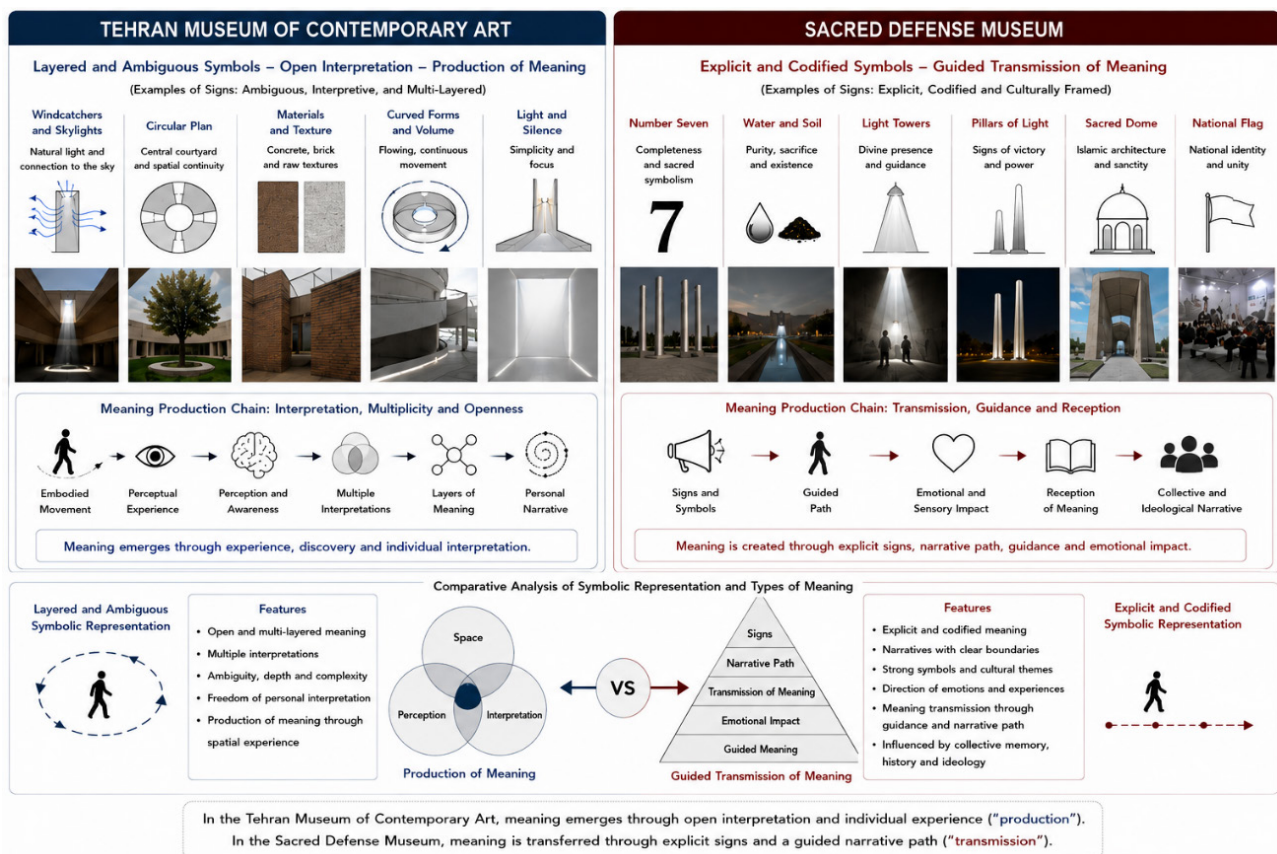


Fig. 7. Symbolic representation and meaning: layered interpretation versus explicit transmission of meaning. Source: Author.

narrative through the visitor's body, whereas the Sacred Defense Museum guides and consolidates narrative through the visitor's body (Table 7).

Discussion

The findings of this study demonstrate that architectural narrative in both museums is generated through the interaction between spatial organization and the visitor's embodied experience; however, the mechanisms through which this process occurs differ significantly. In the Tehran Museum of Contemporary Art, indirect lighting, circular circulation patterns, gradual level changes, and opportunities for pause and choice create conditions in which narrative emerges through perception and lived experience. In contrast, in the Sacred Defense Museum, guided circulation routes, explicit symbolic representation, dramatic lighting, and thematic sequences communicate narrative within a pre-structured framework. Consequently, the principal distinction between the two cases lies not in the presence or absence of narrative itself, but in the manner through which the body participates in the production or reception of meaning.

The results are consistent with previous studies concerning the role of embodied experience in architectural perception. In the case of the Tehran Museum of Contemporary Art, the findings corroborate the works of Gharibpour (2019), Sayyad et al. (2019), and Shadravan & Balci (2025), all of whom emphasize the significance of light,

gradual movement, and perceptual experience in the construction of meaning. Likewise, the findings concerning the Sacred Defense Museum are in agreement with those of Motamedi & Person (2023) and Rivetti (2020), who characterize the museum as a setting for the representation of collective memory and the guided transmission of meaning. Furthermore, the results align with Tzortzi (2017)'s argument regarding the role of spatial organization and circulation in shaping narrative experience, as well as Pallasmaa (2023)'s emphasis on multisensory perception and lived experience as fundamental dimensions of architectural meaning.

Despite these points of convergence, the present study differs from previous research in two important respects. First, most earlier investigations examined each museum independently and primarily from physical, semiotic, or historical perspectives. By contrast, this study explores the relationship between embodiment and narrativity through a unified analytical framework. Second, the findings suggest that the principal distinction between the two museums lies not in the degree of narrativity but in the position of the body within the process of meaning formation. In the Tehran Museum of Contemporary Art, the body operates as an interpreter and co-producer of meaning, whereas in the Sacred Defense Museum, embodied experience is organized within a guided and preconfigured narrative structure.

From a theoretical perspective, the findings

Table 7. Qualitative coding of embodied–narrative components in the Tehran Museum of Contemporary Art and the Sacred Defense Museum. Source: Author.

Analytical dimension	Tehran Museum of Contemporary Art	Sacred Defense Museum	Resulting narrative type
Movement	Circular, gradual, pause-oriented	Linear, sequential, guided	Exploratory / Ritualized
Light	Natural, filtered, indirect	Spotlight-based, theatrical, high-contrast	Perceptual / Dramatic
Threshold	Soft, gradual, perceptual	Intense, symbolic, ritualized	Reflective / Transitional
Symbolic representation	Abstract, layered, spatial	Explicit, historical, ideological	Interpretive / Guided
Role of the body	Interpreter and producer of meaning	Guided agent and receiver of meaning	Open narrative / More closed narrative
Memory	Artistic, cultural, individual	Historical, collective, epic	Perceptual memory / Ideological memory

underscore the importance of the relationship between embodiment and narrativity in understanding architectural experience. The results demonstrate that spatial elements such as light, circulation, thresholds, and movement rhythms are not merely physical components but active agents in shaping different modes of spatial narrative. The originality of the study lies in its development of an analytical framework capable of explaining the relationship between embodiment and narrativity while comparing two distinct models of narrative construction in museum architecture. The proposed framework suggests that the visitor's perceptual-motor experience functions as a mediating layer between spatial organization and narrative formation.

Finally, the findings of this study are limited to two museum case studies and should therefore be interpreted within this specific context. Nevertheless, the analytical framework presented here possesses considerable potential for application in future studies of cultural and museum spaces and may serve as a foundation for investigating spatial narrative mechanisms across a broader range of architectural typologies.

Conclusion

This study set out to investigate the relationship between embodiment and narrativity in museum architecture through a comparative examination of the Tehran Museum of Contemporary Art and the Sacred Defense Museum. The findings reveal that architectural narrative is not merely a product of form, spatial organization, or symbolic representation; rather, it emerges through the interaction between spatial elements and the visitor's perceptual-motor experience.

The most significant finding of the research is that the difference between the two museums does not lie in the degree of narrativity but in the manner through which narrative becomes embodied. In the Tehran Museum of Contemporary Art, narrative is generated through movement, perception, pause, and personal

interpretation, allowing the body to participate actively in the production of meaning. In contrast, in the Sacred Defense Museum, narrative is organized through guided routes, explicit symbols, and predetermined spatial sequences, positioning the body primarily within the processes of receiving and reinterpreting meanings intended by the designer.

The findings further demonstrate that spatial elements such as light, circulation, thresholds, and movement rhythms play a decisive role in the formation of narrative. However, the manner in which these elements are employed gives rise to different modes of narrative experience. Accordingly, two distinct narrative models were identified in the case studies: a perceptual-phenomenological narrative based on active visitor participation, and a guided-symbolic narrative based on the directional transmission of meaning.

The principal contribution of this research lies in the development of an analytical framework for the simultaneous investigation of embodiment and narrativity and its application to the comparative analysis of museum architecture. Unlike many previous studies that have examined embodiment, narrative, or symbolic elements in isolation, this research demonstrates that embodied experience can function as the mediating link between spatial organization and the formation of architectural narrative. Moreover, the proposed analytical model provides a means of comparing different mechanisms of spatial narrativity across architectural settings.

Given the case-study nature of the research, the findings are necessarily limited to the two museums examined and cannot be generalized to other architectural typologies without further investigation. Nevertheless, the conceptual framework developed in this study offers a foundation for analyzing other cultural and museum environments and contributes to the advancement of future research on architectural narrative and embodied experience.

Conflict of Interest

The author declares no conflict of interest regarding this study.

References List

- Aabedi, M., Etesam, I., Maktabzadeh Amri, S. M., & Shahcheraghi, A. (2018). How to translate dramatic narrative into dramatic space using mise en scene elements relying on the sense of place theory. *Journal of Art and Architecture Studies*, 22(4), 98–120. <https://www.magiran.com/p2021984>
- Abbott, H. P. (2002). *The Cambridge Introduction to Narrative*. Cambridge University Press.
- Aghaei Meybodi, S. (2014). درآمدی بر نشانه‌شناسی فضا [An Introduction to Spatial Semiotics]. Honar Research Institute. [in Persian]
- Ahmadi, B. (2020). از نشانه‌های تصویری تا متن [From Pictorial Signs to Text]. Nashr-e Markaz. [in Persian]
- Aeini, S., Afzalian, K., Etesam, I., & Shariatrad, F. (2022). Narrative Design as a Historical Technique (Case Study: Grand Mosque of Fahraj). *Bagh-e Nazar*, 18(104), 93-110. <https://doi.org/10.22034/bagh.2021.274960.4816>
- Amiri, N. (2017). Investigation of the factors affecting the identity crisis in contemporary designs and architectural styles of Iran. *Journal of History Culture and Art Research*, 6(3), 1104-1117.
- Bani-Masoud, A. (2009). معماری معاصر ایران [Contemporary Architecture of Iran]. Honar Memari Gharb Publications. [in Persian]
- Barthes, R. (1994). *Essais critiques*. Éditions du Seuil.
- Barthes, R. (2021). *Critique et vérité* (M. Faraji, trans.). Nashr-e Ney. (Original work published 1966)
- Bruner, J. (1991). The narrative construction of reality. *Critical Inquiry*, 18(1), 1–21. <http://www.jstor.org/stable/1343711?origin=JSTOR-pdf>
- Cali, D. (2015). The ecology of presence and intersubjectivity in the philosophy of Gabriel Marcel. *China Media Research*, 11(2), 109-116.
- Chatman, S. (1978). *Story and Discourse: Narrative Structure in Fiction and Film*. Cornell University Press.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE.
- Danesi, M. (2002). *Understanding Media Semiotics*. Arnold Publishers.
- Du, Y. (2022). *Architecture and Spatial Narrative* [Master's thesis, Cornell University]. <https://doi.org/10.7298/6dm3-w037>
- Eimen, A. (2006). *Museum and Mosque: The Shifting Identities of Modern Tehran* [Doctoral dissertation, University of Minnesota].
- Fakhrkonandeh, A. (2019). Towards a somaesthetic conception of culture in Iran: Somaesthetic performance as cultural praxis in Tehran. In S. B. Shusterman (Ed.), *Bodies in the Streets: The Somaesthetics of City Life* (pp. 220–245). Brill. https://doi.org/10.1163/9789004411135_012
- Genette, G. (1983). *Narrative Discourse: An Essay in Method*. Cornell University Press.
- Gharibpour, A. (2019). Spaciousness and body awareness: rereading the concept of space in architectural experience Case study: Tehran Museum of Contemporary Art. *Bagh-e Nazar*, 16(75), 77–90. <https://doi.org/10.22034/bagh.2019.190727.4172>
- Grigor, T. (2003). Of metamorphosis: Meaning on Iranian terms. *Third Text*, 17(3), 207–225. <https://doi.org/10.1080/0952882032000136858>
- Gil Amirrod, N., Asadi Malekjahan, F., & Salavatian, S. M. (2023). A Comparative Study of Narrative and Architecture: The Role of Narrative in Increasing Audience Interactions in the Museums of Tehran. *Islamic Art Studies*, 20(49), 670–685. <https://www.sid.ir/paper/1362665/en>
- Heynen, H., Heynickx, R., & Loosen, S. (2020). 1. Meaning and Effect: Revisiting Semiotics in Architecture. In *The Figure of Knowledge: Conditioning Architectural Theory, 1960s-1990s* (pp. 31-62). Leuven University Press.
- Leder, D. (1990). *The Absent Body*. University of Chicago Press.
- Lynch, K. (1960). *The Image of the City*. MIT Press.
- Madanipour, A. (2006). *Urban Planning and Development in Tehran*. Routledge.
- Mehdilou, S., Dolatabadi, F., & Yaghoobi, M. (2025). The field of appresentation in ritual architecture: A phenomenological interpretation. *Bagh-e Nazar*, 22(149), 53–72. <https://doi.org/10.22034/bagh.2025.521555.5816>
- Merleau-Ponty, M. (1945). *Phénoménologie de la perception*. Librairie Gallimard.
- Motamedi, S., & Person, A. M. (2023). Evaluating emotional and social interactions in museum liminal spaces: A case study of the National Museum of the Islamic Revolution and Holy Defense of Tehran, Iran. *Social Science Quarterly*, 104(5), 1116–1137. <https://www.magiran.com/p2238252>
- Mozaffari, A. (2007). Modernity and identity in Iranian architecture: The National Museum of Iran. In S. J. Knell, S. Macleod & Sh. Waston (Eds.), *Museum Revolutions* (pp. 113–130). Routledge.
- Norberg-Schulz, C. (1980). *Genius Loci: Towards a Phenomenology of Architecture*. Rizzoli.
- Pallasmaa, J. (2023). *The Eyes of the Skin: Architecture and the Senses* (3rd ed.). Wiley.
- Rimmon-Kenan, S. (2002). *Narrative Fiction:*

Contemporary Poetics (2nd ed.). Routledge.

- Rivetti, P. (2020). The Museum of the Islamic Revolution and Holy Defence in Tehran: Politics, memory, and urban space. *International Journal of Middle East Studies*, 52(2), 349–355. <https://doi.org/10.1017/S0020743820000331>
- Ryan, M. L. (2007). Toward a definition of narrative. In D. Herman (Ed.), *The Cambridge Companion to Narrative* (pp. 22–35). Cambridge University Press.
- Sajoudi, F. (2008). نشانه و معنا [Sign and Meaning]. Nashr-e Elm. [in Persian]
- Sayyad, A., Gharibpour, A., & Delshad Siyahkali, M. (2019). Spaciousness and body awareness: rereading the concept of space in architectural experience Case study: Tehran Museum of Contemporary Art. *Bagh-e Nazar*, 16(75), 71-82. <https://doi.org/10.22034/bagh.2019.190727.4172>
- Shadravan, N., & Balci, B. B. K. (2025). A Quest for Identity: Remembering Tehran Museum of Contemporary Art (TMoCA). *Gazi University Journal of Science Part B: Art Humanities Design and Planning*, 13(1), 1-22. <https://dergipark.org.tr/en/download/article-file/4394344>
- Todorov, T. (1971). The two principles of narrative. *Diacritics*, 1(1), 37–44. <https://www.davidbardschwarz.com/pdf/todorov.pdf>
- Tschumi, B. (1996). *Architecture and Disjunction*. MIT Press.
- Tzortzi, K. (2017). Museum architectures for embodied experience: Spatiality, movement, and narrative. *Museum Management and Curatorship*, 32(5), 491–508. <https://doi.org/10.1080/09647775.2017.1367258>
- Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). SAGE Publications.

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