



ESTABLISHING A FRAMEWORK FOR DESIGNING NARRATIVE CULTURAL LANDSCAPE

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ABSTRACT

This study examines the role of narrative cultural landscapes in combining storytelling with spatial design to create engaging and immersive user experiences. By applying design indicators to three globally significant case studies—Hiroshima Peace Memorial Park (Japan), Vietnam Veterans Memorial (USA), and The Avenue of Sphinxes (Egypt)—this research identifies the principles that enhance narrative-driven landscapes. These indicators include spatial configuration, materiality, symbolic representation, and sensory interaction, all of which contribute to fostering emotional connections and user engagement. The study synthesizes findings from these examples into a comprehensive framework for designing narrative cultural landscapes. This framework emphasizes the critical roles of authenticity, inclusivity, and user participation in shaping meaningful and culturally resonant spaces. By bridging theoretical insights and practical applications, the framework provides actionable guidance for architects, landscape designers, and urban planners. The research demonstrates the transformative potential of narrative landscapes in preserving cultural heritage and enhancing experiential engagement across diverse historical and cultural contexts.

KEYWORDS: Narrative Cultural Landscapes, Memorial Design, User Experience in Architecture, Storytelling in Landscape Architecture, Collective Memory.

وضع إطار عمل لتنسيق المواقع الثقافية السردية

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الملخص

تتناول هذه الدراسة دور تنسيق المواقع الثقافية السردية في دمج السرد القصصي مع التصميم المكاني لخلق تجارب تفاعلية وجذابة للمستخدم. تحدد هذه الدراسة المبادئ التي تعزز عملية تنسيق المواقع الثقافية السردية من خلال تطبيق مؤشرات التصميم على ثلاث دراسات حالة ذات أهمية عالمية، حديقة هيروشيما التذكارية للسلام (اليابان)، والنصب التذكاري لقدامى المحاربين في فيتنام (الولايات المتحدة الأمريكية)، وممر الكباش (مصر). تشمل هذه المؤشرات التكوين المكاني، واختيار المواد، والتمثيل الرمزي، والتفاعل الحسي، والتي تسهم جميعها في تعزيز الروابط العاطفية ومشاركة المستخدمين. تجمع الدراسة النتائج المستخلصة من هذه الأمثلة في إطار شامل لتنسيق المواقع الثقافية السردية. يؤكد هذا الإطار على الأدوار الحاسمة للأصالة، والشمولية، ومشاركة المستخدم في تشكيل مساحات ذات مغزى وتوافق ثقافي. ومن خلال الربط بين الرؤى النظرية والتطبيقات العملية، يوفر إطار العمل إرشادات عملية للمهندسين المعماريين ومنسقي الموقع ومخططي المدن. توضح الدراسة الإمكانيات التحولية لعملية تنسيق المواقع الثقافية السردية في الحفاظ على التراث الثقافي وتعزيز المشاركة التجريبية عبر سياقات تاريخية وثقافية متنوعة.

الكلمات المفتاحية: تنسيق المواقع الثقافية السردية، تصميم النصب التذكارية، تجربة المستخدم في العمارة، السرد القصصي في تنسيق المواقع، الذاكرة الجماعية.

1. INTRODUCTION

Cultural landscapes are important because they reflect the ways in which people have interacted with and shaped the natural environment over time, as well as the social, economic, and cultural values and practices that underpin these interactions [1]. Cultural landscapes can include physical features such as buildings, monuments, and landforms, as well as intangible elements such as stories, rituals, and beliefs. In many cases, cultural landscapes are considered to be a fundamental aspect of a community's heritage, identity, and sense of place [2].

Narrative landscape design, on the other hand, is a relatively new approach to designing cultural landscapes that emphasizes the use of physical features and storytelling to create immersive, engaging experiences for visitors. This approach has been used in many parts of the world to preserve and enhance cultural landscapes, by creating designs that are more sensitive to the cultural context and heritage of the place, and that encourage visitors to engage more deeply with the site. Narrative landscape design can help to make cultural landscapes more legible and memorable to visitors, and can provide opportunities for storytelling, education, and interpretation [3].

Traditional cultural landscape—Monuments—are traditionally viewed as figurative objects that commemorate individuals or heroes from a distance. In contrast, narrative landscapes are collective memories tied to significant events, people, or circumstances, linking the past, present, and future [4]. These landscapes keep past events alive in public memory through physical representations [5].

Since the late 19th century, the design of narrative cultural landscapes has evolved, shifting from passive viewing to active visitor engagement, where users can touch, hear, and participate in acts of commemoration [6, 7]. There is a growing demand for interactive cultural spaces, moving away from static monuments to narrative designs [8]. Governments use narrative cultural landscapes to control national memory [9]. These spaces engage users, foster a sense of belonging, and boost touristic and economic value. They tend to attract more attention than traditional monuments, becoming significant parts of citizens' daily lives [10].

Additionally, narrative cultural landscapes play an important role in city nightlife, especially during celebrations and commemorations. These spaces allow for interactive activities, which help transfer history and culture across generations in an indirect, engaging way [11].

This study aims to develop a framework for designing narrative cultural landscapes by analyzing the interaction between spatial elements, storytelling practices, and user experiences. By examining three globally significant case studies—Hiroshima Peace Memorial Park, the Vietnam Veterans Memorial, and the Avenue of Sphinxes—the research applies a structured analysis to identify universal design principles. The insights derived from these examples are synthesized into a framework that provides actionable guidelines for creating cultural landscapes. This framework bridges theory and practice, helping designers craft spaces that evoke emotional and historical connections.

2. LITERATURE REVIEW

2.1. Understanding Narrative Cultural Landscape

Narratives are a human construct used to convey meaning throughout society by curating and organizing meaningful events. They are both content and expression, with narratives containing events, characters, and settings, and expressions through verbal, film, dance, or landscape channels [12, 13] as shown in **Fig. 1**. Narratives are more inclusive and do not rigidly follow conventions, relying on connections, coincidences, and chance encounters [12].

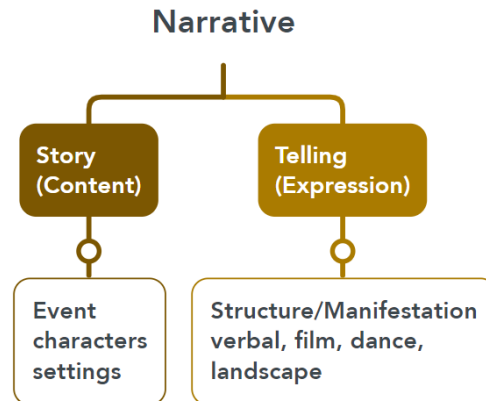


Fig. 1. The Distinctions and relationships between story and narrative, source: author based on [12,13].

They shape urban reality, act as catalysts for change, critique, and explanation of cultural norms, and influence policy decisions [14]. Narrative design is an important form of cultural creative design, with product narrative design being an important form. Narration can make products more vivid, emotional, and humane, incorporating various plots, characters, environment, and behavior. Cultural and creative products are not only a narration of past culture but also an overview of current popular culture [15].

Urban planning and design studies emphasize the importance of understanding the unique characteristics and context of each place when creating urban environments. Narratives play a crucial role in shaping social and physical landscapes, allowing urban designers to design spaces that reflect diverse perspectives and experiences. The concept of plurality leads to tangible urban spaces, where shared identities are turned into physical structures. Designers can align their designs with the values held by communities, reinforcing their socio-cultural identities. By engaging in constructed stories, designers can fortify these identities and establish meaningful connections. By examining past and present experiences, designers can create a bridge between past and future, advancing urban form [16].

The history of cultural landscape dates back to the early nineteenth century, when monuments were constructed to represent heroes and national events [17, 18]. These landscapes were often placed on pedestals, statues, obelisks, and columns, featuring monumentality [19]. In the late nineteenth century, cultural landscape design principles evolved, incorporating seating for user occupation [20, 21].

Narrative cultural landscapes are urban spaces with architectural features that commemorate individuals, events, such as wars or beliefs [22, 23, 24]. They provide symbolic meaning to the public and encourage active participation. The design of these landscapes integrates urban physical configurations, creating a interactive experience between users and the landscape. Location, context, and accessibility determine the narrative cultural landscape [18].

Landscape narrative describes the intricate relationship and interaction between landscape and storytelling [13]. Thus, landscape plays a crucial role in storytelling. It not only serves as the setting for narratives but also shapes the stories themselves. The dynamic and ever-changing nature of the landscape gives rise to various events and experiences that inspire and contribute to the storylines [12].

2.2. Story (Content) Types in Cultural Landscape

In studying landscape designs and artistic installations, four main types of stories emerge in historic and cultural landscape narratives: Personalities, Communities, Historical Events, and Place. It's beneficial to examine these story types individually to grasp the diversity of narratives that can be conveyed within a single design [25].

- Narratives of Personalities : Public spaces, such as memorials, parks, and plazas, are often adorned with sculptures that honor notable individuals, particularly those who have made significant historical contributions. These statues serve as a tribute to these figures, preserving their memory and commemorating their achievements. [25].
- Narratives of Communities : Celebration to communities shared ideals, histories, culture, people, language, and/or urban transformations; typically displayed in urban places, districts and plazas [25].
- Narratives of Historical Events : Retelling of a single historic event, series of events or a historical timeline and/or urban transformations; typically displayed in national parks, trails, and networks [25].
- Narratives of Place : Reference to existing or past natural features, geology and/or topography; typically displayed in nature trails, parks, arboretums, and unique geographic locations [25].

2.3. The use of designed elements (Expression) in Cultural Landscape

The urban design of narrative cultural landscapes considers space enclosing elements that enhance visual characteristics and user experience. These elements include, location, form, and surface characteristics [26]. Materials and form vary to convey messages to users. Cultural landscapes include designed elements within the design such as, water features, planting, hardscaping, furniture, landform, and utilities [18, 27].

2.3.1. Space Defining Elements

Narrative cultural landscapes are defined by various factors, including the landscape location, surrounding elements' form, and materials used.

- **The location** : can be in a focal point, plaza, node, path, park, or significant squares in a prominent or central place in the city [28]. The location selection is a political decision. It could be sited in the same location as the commemorating event or at a different location. The degree of elevation,

distance to the user, and interaction angle are crucial when choosing the cultural landscape location [29].

- **The form** : of the cultural landscape, such as geometric shapes, size, pattern, and regularity, irregularity, is essential for distinguishing it from its surroundings [30]. The spatial enclosure shapes perception and cognition of space, with factors like height, width ratio, and surrounding elements influencing the experience [31].
- **Surface** : materials plays a crucial role in narrative cultural landscape, also play a significant role in creating visual and tactile experiences when users engage with them. Also, surface colors, brightness, opacity and lighting have great effect of user perception [31].
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2.3.2. Elements Within The Design

Cultural landscape spaces are designed using various elements to create a sense of interaction. There are two types of these elements 1) Softscape elements such as water features and greens, and 2) hardscape elements such as landforms and furniture.

- **Water** : is an effective landmark that defines space characteristics, providing psychological, visual, auditory, and tactile effects. It is also used for activity and recreation, with different water statuses providing different effects [32, 33].
- **Plants** : help create space, serving various functions such as screening or privacy, and unifying the landscape [34].
- **Landforms** : create sequences of revealing and concealing focal points, directing users to the main cultural landscape elements [18].
- **Furniture** : plays a crucial role in shaping cultural landscape uses and activities. Seating should be considered in cultural landscape, where other senses are considered, as visitors can use them for social interaction and relaxation [31, 35].

Overall, these elements help create a sense of place and connection in cultural landscape spaces.

2.4. Telling Stories in the Landscape

Designers have tried to tell stories of personalities, communities, historical events and place through landscape design. There are two major issues that one must consider when trying to tell stories in the landscape 1) the use of designed elements and 2) narrative practices in the landscape design. It's important to review landscape designs and artistic installations to see how designers have used design elements to tell stories of the past. It's also essential to know the idea of sequencing in narrative designs and highlight a few approaches designers have used to affect the way the user interprets the story and experiences the landscape [25].

2.4.1. Narrative landscape practices

Landscape narrative practices was created, which focuses on how culture, space, and time intersect to shape landscape narratives. These practices includes five key elements: Simultaneity: Linking objects based on similarities or replacements, showcasing new relationships while potentially obscuring existing ones [12].

Contiguity: Connecting objects based on their proximity, establishing relationships through their physical closeness. Interchange, Exchanging characteristics between objects, allowing ideas and elements to flow and influence each other. Transcription, Translating or adapting objects into

different forms or interpretations, preserving their essence while exploring new perspectives., Revealing hidden or unknown aspects of objects, bringing forth new insights and understanding through observation and discovery. These elements comprehensively consider the interplay of culture, space, and time, addressing limitations in previous frameworks by explicitly incorporating these factors into the analysis of landscape narratives [12].

Therefore, what arises is an expression of culture, space, and time expressed through narrative landscape practices as shown in **Fig. 2**. These practices allows to explore physical manifestation of narrative in projects currently built [12]. By doing so, the acknowledgement of the use of narratives in the urban environment accrues, while gaining strategies for the design explorations in cultural landscape.

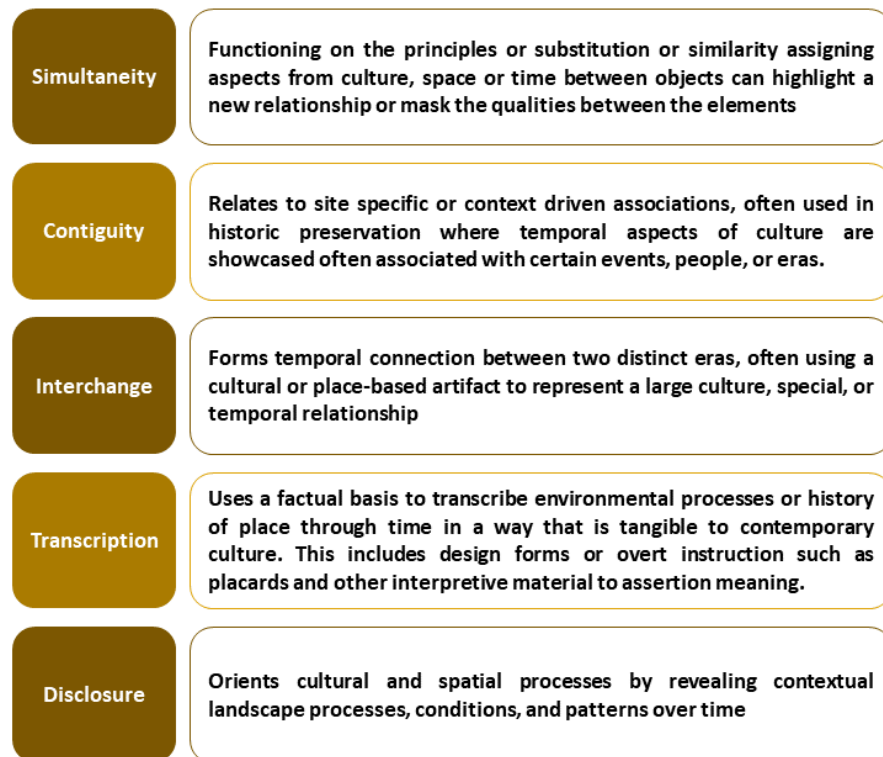


Fig. 2. The Landscape Narratives Practices, source: author based on [12,13,16]

Engaging users with narrative cultural landscapes in everyday life can enhance their memory and connection to these spaces . To achieve this, narrative cultural spaces must be designed to encourage interaction. This research documentaly reviews the evolution of cultural landscapes and identifies the narrative cultural landscape, focusing on its elements and the urban configuration of cultural landscapes. It analyzes the impact of these design elements on user experience through a quantitative approach, applying a group of indicators on Hiroshima Peace Memorial Park (Japan), Vietnam Veterans Memorial (USA), and The Avenue of Sphinxes (Egypt).

The chosen examples meet several criteria, including their narrative design styles, their controversial memorial uses, their prominent city locations, and their visual characteristics. The research will involve qualitative descriptive analysis based on secondary data from the memorial designer’s reports and official project websites, as well as user perceptions collected from reviews and reports after the memorial's completion.

The analysis will be split into two parts: first, examining the narrative landscape elements such as story, physical space (location, form, and surfaces), and designed elements’ features (water,

planting, landform, and furniture); second, exploring the narrative landscape practices and the user’s sensory experience. These indicators will help assess the spatial features and design considerations intended to shape user perception.

The results will verify the framework, providing design principles for successful narrative cultural landscapes, and linking architectural landscape design with user experience. The study aims to show how designers can control users experiences to achieve clear user responses, validating the proposed theoretical framework through real-world examples.

2.4.2 Indicators of successful narrative cultural landscape

Drawing on the previously collected literature on narrative cultural landscape design, this research study integrates various elements and practices of narrative cultural landscape design with user experience considerations to develop indicators of successful narrative cultural landscape design, as illustrated in **Fig. 3**. These indicators, along with its components and aspects, will be applied and analyzed using examples of a narrative cultural landscape.

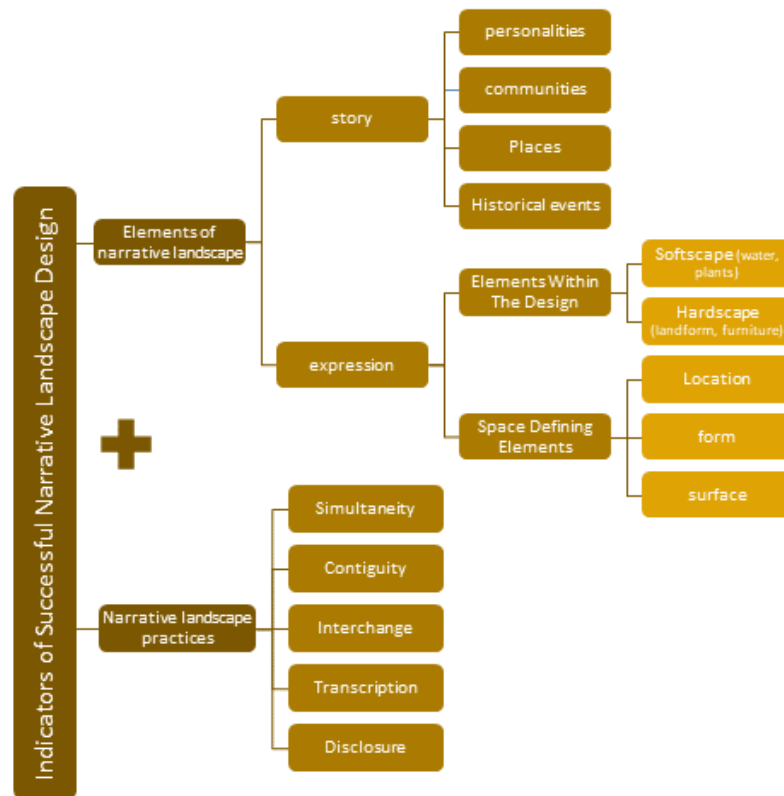


Fig. 3. Indicators of Successful Narrative Cultural Landscape, source: author

2.5. Case Studies

Narrative cultural landscapes offer unique insights into how design can evoke emotions, foster connections to history, and enhance user experiences. This study examines three globally significant examples: Hiroshima Peace Memorial Park (Japan), The Vietnam Veterans Memorial (USA), and The Avenue of Sphinxes (Egypt). Each case study represents a distinct narrative style and context, enabling a comprehensive analysis of how narrative design principles are applied in diverse cultural and geographical settings.

These examples were selected based on their historical significance, prominence in their respective cultural landscapes, and innovative use of narrative design elements. Through the analysis of spatial configurations, designed elements, and narrative practices, this section explores how these sites engage users and convey stories of memory, resilience, and cultural heritage. The findings from these case studies inform the theoretical framework for designing effective narrative cultural landscapes, offering actionable guidelines for future applications.

2.5.1 Hiroshima Peace Memorial Park, Japan

The Hiroshima Peace Memorial Park, designed by Kenzo Tange in collaboration with other architects, commemorates the victims of the atomic bombing during World War II [35]. Spanning 120,000 square meters, the park integrates several features, including the Atomic Bomb Dome, Peace Memorial Museum, and Cenotaph for the A-bomb Victims [36]. The design merges natural and constructed elements, symbolizing hope and remembrance while providing spaces for reflection and education [37], as illustrated in Fig. 4. & Fig. 5.



Fig. 4. The layout of Hiroshima Peace Memorial Park, showing the Cenotaph, Peace Flame, and Atomic Bomb Dome [38].



Fig. 5. The Cenotaph for A-bomb Victims, framing the Atomic Bomb Dome in the background [39].

The park's spatial organization directs visitors through a linear path of remembrance, beginning with the Atomic Bomb Dome and culminating at the Peace Memorial Museum [40]. The placement of water features, open green spaces, and monuments emphasizes themes of peace and resilience [41]. The architectural language balances solemnity and inspiration, with the cenotaph's curved shape framing the Atomic Bomb Dome, creating a dialogue between the past and aspirations for a peaceful future [42]. Visitors interact with the park through various sensory elements, including inscriptions, artifacts, and symbolic structures, fostering a profound connection to the historical narrative [43].

Table 1. provides a summary of the urban physical configuration and user experience within Hiroshima Peace Memorial Park, highlighting the elements of the memorial space and the practices utilized by the designer. The table also details the messages these elements convey to visitors and their experiences.

Table 1. Indicators of narrative cultural landscape application on Hiroshima Peace Memorial Park, Japan

Narrative Landscape Elements	Narrative Landscape Element Application	Designer Intention	Final User Experience
Story	Historical events	To commemorate the victims of the atomic bombing while promoting peace and resilience.	Encourages emotional reflection and fosters hope for global peace.
Expression (the use of designed elements)			
Space Defining Elements			
Location	On the site of the atomic bomb explosion; significant proximity to	To emphasize the historical significance of the location and its role	Creates a solemn and meaningful connection between visitors and the historical narrative.

	the Atomic Bomb Dome and Peace Museum [35].	in promoting awareness of nuclear disarmament.	
Form	Linear arrangement of pathways and monuments; Cenotaph arches framing the Dome [36].	To create a spatial journey that gradually evokes reflection and remembrance.	Visitors are guided through a contemplative experience, reinforcing feelings of loss and resilience.
Surface	Stone and water features; green open spaces [41].	To use natural and tactile materials to symbolize renewal and peace.	Visitors interact with serene spaces, enhancing feelings of calm and introspection.
Designed Elements Within The Design			
Softscape	Trees and water elements symbolizing life and purification [36].	To enhance the contemplative environment through natural elements that signify rebirth.	Visitors feel a connection to nature and the enduring themes of peace and hope.
Hardscape	- Cenotaph: Curved concrete structure symbolizing shelter [35]. - Flame of Peace: Eternal flame aspiring for global disarmament [42]. - Museum exhibits: Artifacts from the bombing [40].	To blend architectural and symbolic elements that engage users with the history of the bombing.	Provides a reflective and educational experience, linking past trauma to aspirations for the future.
Narrative Landscape Practices	Narrative Landscape Practice Application		
Simultaneity	The alignment of monuments and landscape features evokes multiple interpretations—remembrance, resilience, and peace [37].		
Interchange	Visitors interact with symbolic structures, contributing personal reflections on peace and war [42].		
Disclosure	Gradually reveals the history and impact of the atomic bomb through curated pathways and exhibits [43].		

The analysis of Hiroshima Peace Memorial Park demonstrates how spatial organization, symbolic design elements, and sensory features can effectively evoke themes of resilience and remembrance. The park's integration of historical landmarks with natural elements provides a

strong narrative framework, aligning with the research objective of identifying principles that enhance user engagement and emotional connection in narrative cultural landscapes.

2.5.2 The Vietnam Veterans Memorial, USA

The Vietnam Veterans Memorial, designed by Maya Lin and completed in 1982, honors the American service members who fought and died in the Vietnam War. Located in Washington, D.C., the memorial spans a 2-acre site and is renowned for its minimalist design, which features a V-shaped wall of black granite inscribed with the names of over 58,000 fallen soldiers [44]. The wall's reflective surface allows visitors to see their own images alongside the inscribed names, creating a personal connection between the viewer and the memorialized [45].

The design is intentionally subdued, set below ground level to create a contemplative atmosphere. The descending pathway invites visitors to engage with the memorial intimately, fostering reflection and remembrance [46] as shown in Fig. 6.. The lack of overt symbolism emphasizes individual experience and collective memory, distinguishing it from more traditional monuments [47]. Surrounding landscaping, including trees and open spaces, frames the site, enhancing the sense of tranquility and solemnity [48].



Fig. 6. Visitors interacting with the memorial wall, tracing names and leaving mementos [49].

Table 2. provides a summary of the urban physical configuration and user experience within The Vietnam Veterans Memorial, highlighting the design elements and narrative practices employed by Maya Lin. The table also details how these features convey meaning and evoke emotional responses.

Table 2. Indicators of narrative cultural landscape application on The Vietnam Veterans Memorial, USA

Narrative Landscape Elements	Narrative Landscape Element Application	Designer Intention	Final User Experience
Story	Historical events	To honor the memory of fallen soldiers and provide a space for	Encourages personal connections and a sense of shared national grief..

		individual and collective reflection.	
Expression (the use of designed elements)			
Space Defining Elements			
Location	Positioned on the National Mall in Washington, D.C.; proximity to the Lincoln Memorial [44].	To connect the memorial with other significant national symbols, emphasizing unity and remembrance.	Visitors feel part of a larger historical and cultural narrative.
Form	V-shaped wall descending below ground level, inscribed with the names of fallen soldiers [46].	To create an immersive and intimate space that invites contemplation and mourning.	Creates an intimate, contemplative space that draws visitors into the memorial experience [47]
Surface	Polished black granite inscribed with names [45].	To use reflective surfaces that merge the past (names) with the present (visitor reflections).	Creates an emotional bond as visitors see themselves reflected alongside the memorialized.
Designed Elements Within The Design			
Softscape	Trees and open green spaces surrounding the memorial [44].	To provide a tranquil environment that contrasts with the starkness of the wall.	-Enhances the sense of peace and solemnity, contrasting with the starkness of the wall [45]. -Visitors experience moments of peace amidst the weight of remembrance.
Hardscape	- Reflective granite wall: Names inscribed sequentially. - Descending pathway: Symbolizes the emotional weight of the war. - Informational plaques: Provide historical context.	To integrate architectural features that evoke both personal reflection and historical awareness.	Visitors gradually uncover the memorial's narrative, deepening their understanding of the war's impact.

Narrative Landscape Practices	Narrative Landscape Practice Application
Simultaneity	The linear arrangement of the wall, combined with its reflective surface, merges personal and collective memory [45].
Interchange	The reflective surface allows visitors to see themselves in the memorial, creating a personal and emotional connection [48].
Disclosure	Gradually reveals the scope of sacrifice through the vast number of names and reflective design [47].

The Vietnam Veterans Memorial exemplifies the power of minimalist design in fostering personal reflection and collective memory. Through its immersive spatial configuration and symbolic use of materials, the memorial achieves an intimate connection with visitors, validating the framework’s emphasis on user interaction, sensory engagement, and narrative clarity.

2.5.3 The Avenue of Sphinxes, Luxor

The Avenue of Sphinxes is a 2.7-kilometer ancient ceremonial path that connects Karnak Temple to Luxor Temple in Egypt. Originally constructed during the reign of Pharaoh Amenhotep III and later expanded by Nectanebo I, the avenue was used for religious processions celebrating the Opet Festival, a ritual that symbolized the renewal of kingship and divine blessings [50]. The recent restoration, completed in 2021, has revitalized the historic pathway, re-establishing its significance as a cultural and touristic landmark [51] shown in **Fig. 7**.

The avenue is flanked by over 1,200 sphinx statues, some with human heads and others with ram heads, symbolizing the protection of the gods. The restoration process involved archaeological excavation, statue conservation, and urban reconfiguration to integrate the avenue with modern Luxor [51]. Lighting, landscaping, and accessibility improvements have enhanced the visitor experience, allowing both locals and tourists to engage with the site’s rich narrative [52]. This monumental project not only preserves Egypt’s cultural heritage but also fosters an emotional and educational connection to its ancient history.



Fig. 7. A view of The Avenue of Sphinxes at night, showcasing restored statues and modern lighting [53].

Table 3. provides a summary of the urban physical configuration and user experience within The Avenue of Sphinxes, highlighting the design elements and narrative practices that convey its historical and cultural significance. The table also details the sensory and emotional responses elicited from visitors.

Table 3. Indicators of narrative cultural landscape application on The Avenue of Sphinxes, Luxor

Narrative Landscape Elements	Narrative Landscape Element Application	Designer Intention	Final User Experience
Story	Historical events	To revive ancient Egyptian ceremonial practices and celebrate their cultural heritage.	Evokes a sense of pride and historical continuity for visitors.
Expression (the use of designed elements)			
Space Defining Elements			
Location	Runs between Karnak and Luxor Temples in the city of Luxor [50].	To re-establish the physical and symbolic connection between the two temples.	Visitors are immersed in the grandeur of ancient Egyptian rituals and traditions.
Form	Linear pathway flanked by sphinx statues, reconstructed sections of the original road [51].	To recreate the ceremonial grandeur of the Opet Festival processions.	Recreates the experience of ancient processions and rituals, immersing visitors in historical grandeur [52].
Surface	Sandstone statues and paving stones; illuminated pathway [51].	To highlight the durability and visual impact of ancient Egyptian architecture.	Encourages tactile and visual interaction, enhancing the connection to history.
Designed Elements Within The Design			
Softscape	Landscaping with native plants around the avenue [51].	To integrate the avenue harmoniously into the surrounding environment.	Enhances the sense of continuity with the natural surroundings while providing a serene experience [51].
Hardscape	<ul style="list-style-type: none"> - Statues: Restored sphinxes on either side of the avenue. - Lighting: Modern fixtures emphasize the grandeur of the pathway at night. - Signage: Informational panels narrate the history of the Opet Festival and the avenue's construction. 	To blend restoration with modern accessibility, allowing users to engage with the site meaningfully.	Visitors gain an educational and sensory experience, connecting ancient traditions with modern interpretations.

Narrative Landscape Practices	Narrative Landscape Practice Application
Simultaneity	The alignment of statues and the linear design evoke connections to ancient Egyptian religious rituals [51].
Interchange	Visitors connect with the ancient narrative through physical engagement with the pathway and statues [52].
Disclosure	Gradually reveals the history and significance of the site through archaeological features and interpretive signage [51].

The Avenue of Sphinxes highlights the role of restoration and cultural heritage in narrative cultural landscapes. By reviving ancient ceremonial pathways and incorporating modern enhancements, the site demonstrates how historical narratives can be preserved and made accessible to contemporary audiences. This aligns with the research objective of promoting inclusivity, authenticity, and innovation in narrative design.

3. RESULTS AND DISCUSSION

The analysis of the three case studies—Hiroshima Peace Memorial Park, The Vietnam Veterans Memorial, and The Avenue of Sphinxes—highlights the versatility and impact of narrative cultural landscapes. These examples demonstrate how storytelling can be seamlessly integrated with spatial design to evoke emotional connections, promote cultural continuity, and engage diverse audiences. Common design principles, such as the use of spatial configurations to guide movement, symbolic elements to convey meaning, and sensory features to enhance interaction, were evident across all cases.

Despite the three case studies' unique cultural and historical contexts, the case studies revealed recurring themes of authenticity, inclusivity, and innovation. Hiroshima Peace Memorial Park embodies resilience and remembrance, while The Vietnam Veterans Memorial fosters personal reflection and collective memory through its minimalist and immersive design. The Avenue of Sphinxes, on the other hand, celebrates cultural heritage and grandeur by reviving ancient rituals and creating an interactive historical experience.

These findings validate the proposed framework's adaptability to different contexts and underscore its potential as a practical tool for designing narrative cultural landscapes as shown in **Fig. 8.** However, the reliance on secondary data and the absence of direct user feedback are limitations that suggest the need for empirical validation in future research. Overall, the discussion emphasizes the transformative potential of narrative-driven design in shaping spaces that resonate deeply with users and contribute meaningfully to cultural preservation.

The proposed framework can be applied in future projects by integrating narrative-driven designs into memorials, urban parks, and heritage sites. For instance, a modern urban park commemorating a significant cultural event could use spatial elements like reflective water features and pathways to guide visitors through the story. Similarly, a heritage site could adopt symbolic structures and inscriptions to highlight historical events while employing sensory elements like lighting and tactile materials to enhance engagement. By adapting the framework's principles—authenticity, inclusivity, and innovation—landscape architects can create spaces that resonate deeply with diverse audiences while preserving the site's cultural and historical essence.

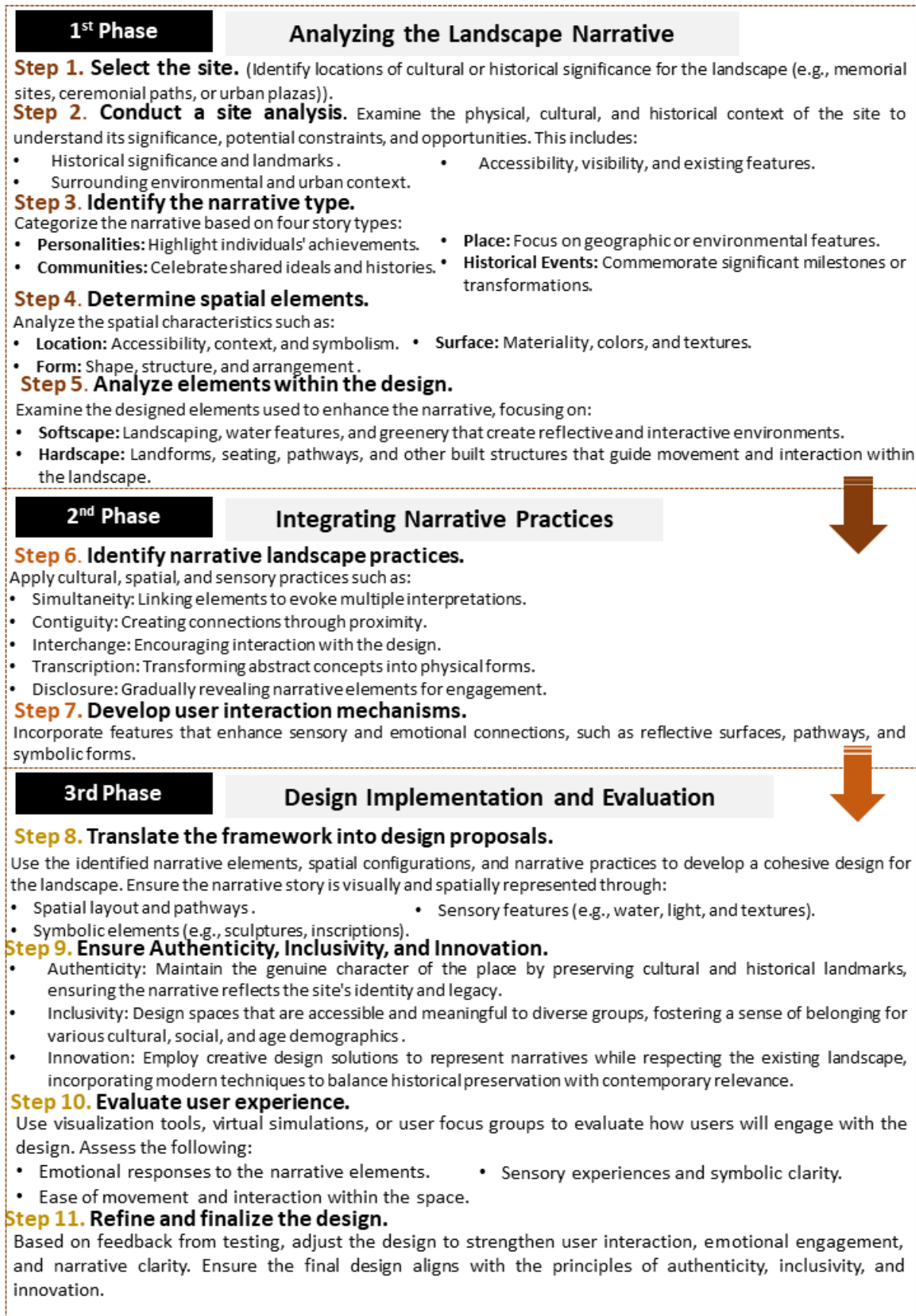


Fig. 8. Framework for designing narrative cultural landscape, source: author .

Conclusions

This paper examines the design principles of narrative cultural landscapes, focusing on how they engage users by integrating storytelling elements with spatial and sensory design. Narrative

landscape design provides an innovative approach to cultural landscapes, transforming traditional spaces into dynamic and immersive environments. The study develops a theoretical framework for designing narrative cultural landscapes through an analysis of three case studies: Hiroshima Peace Memorial Park (Japan), Vietnam Veterans Memorial (USA), and The Avenue of Sphinxes (Egypt). By analyzing these examples, the research identifies critical design principles, including spatial configuration, materiality, symbolic representation, and sensory interaction.

The study demonstrates that narrative cultural landscapes can evoke emotional responses, foster collective memory, and create deeper user engagement. For example, Hiroshima Peace Memorial Park emphasizes resilience and remembrance, the Vietnam Veterans Memorial evokes introspection and personal connection, and The Avenue of Sphinxes revives cultural heritage and pride. The findings culminate in a comprehensive framework that highlights the importance of authenticity, inclusivity, and user participation in shaping meaningful cultural spaces.

While the framework provides valuable guidance for integrating storytelling into landscape design, the reliance on secondary data suggests the need for further empirical research to validate these principles across different contexts. Despite this limitation, the study underscores the transformative potential of narrative-driven design in preserving cultural heritage, enhancing user experiences, and guiding future projects in the evolving field of landscape architecture.

Future studies could validate the framework through experimental design approaches, such as pilot projects and virtual simulations, or by collecting user feedback via surveys and interviews to assess engagement, emotional responses, and narrative clarity.

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