

DESIGN OF A PROTOTYPE PERFORMANCE TO PROMOTE CULTURAL TOURISM THROUGH NEW MEDIA TECHNOLOGY: A CASE STUDY OF THE “PENGLAI, THE LAND OF PARADISE” SERIES

WENTAO HUANG ^{*1} BUNCHOO BUNLIKHITSIRI ²
AND RASA SUNTRAYUTH ³

E-mail: 64810049@go.buu.ac.th, bunchoo@buu.ac.th, kasa@go.buu.ac.th

** Corresponding author*

¹ Student, Doctor of Philosophy Program in Visual Arts, Art of Design and Cultural Management, Faculty of Fine and Applied Arts, Burapha University

^{2,3} Assist. Prof., Ph.D., Department of Visual Arts, Art of Design and Cultural Management, Faculty of Fine and Applied Arts, Burapha University

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ABSTRACT

This study aims to (1) analyze the Taoist immortal culture and the current state of cultural tourism in Penglai; (2) examine successful case studies of new media performances in China, specifically “Unique Henan: Land of Dramas” and “Night at Yellow Crane Tower” ; and (3) design a prototype performance series titled “Penglai, the Land of Paradise” using new media technology. A qualitative methodology was employed, integrating documentary research, case study analysis, and fieldwork at key sites including Penglai Pavilion, Sanxianshan, and Eight Immortals Ferry. Findings reveal that while Penglai has a deep cultural foundation in Taoist mythology, its current tourism model relies on static sightseeing and lacks the interactive, immersive night-time experiences sought by modern visitors. The case studies illustrate that technologies such as 3D mapping and drone shows can significantly enhance emotional engagement and cultural storytelling. Consequently, this research proposes three prototypes: the “Danlu Theater,” the “Eight Immortals Crossing the Sea” drone show, and the “Penglai, the Land of Paradise” light show. These designs serve as a 'digital bridge' to reinterpret heritage, filling the gap in night tourism and elevating Penglai’s identity as a contemporary cultural destination.

Keywords: Cultural tourism, New media technology, Taoist immortal culture, Cultural performance, Penglai

INTRODUCTION

In Chinese cultural history, mythology has long functioned not only as a vehicle for storytelling and belief but also as a rich source of national imagination

and collective memory. Among the many mythological traditions, the Penglai myth—centered on the legendary island of immortals in the Eastern Sea—occupies a unique position in Taoist cosmology and Eastern spiritual culture. The idea of Penglai as a utopian realm inhabited by carefree immortals, free from the constraints of time and mortality, has been passed down through generations in literature, art, and folklore. Its imagery, inspired by the vast sea, shifting mirages, and the pursuit of eternal life, remains deeply embedded in Chinese cultural consciousness.

Located in the Shandong Peninsula, the city of Penglai is widely recognized as the geographical and symbolic origin of Eastern immortal mythology. (Gao & He, 2020) It houses significant cultural sites such as the Penglai Pavilion, the Three Immortal Mountains (Sanxianshan) Scenic Area, and the Eight Immortals Ferry—each tied to foundational legends like the Eight Immortals Crossing the Sea and Emperor Qin's eastward search for the elixir of life. These stories not only highlight the historical significance of Penglai as a site of myth-making but also offer a rich narrative foundation for contemporary cultural interpretation.

Despite the abundance of cultural and natural resources, current tourism models in Penglai rely heavily on static sightseeing and guided narration, with limited integration of immersive or interactive experiences. In the context of China's tourism industry's evolution into the “4.0 era,” characterized by cross-sector innovation and experiential consumption, there is a growing need to reimagine traditional cultural content through engaging, multi-sensory formats.

New media technology offers powerful tools for this transformation. Technologies such as projection mapping, AR/VR, interactive soundscapes, digital imaging, and drone performances allow for the creation of immersive spatial environments that can visualize mythic narratives in dynamic ways. (Dai, 2025) Compared with conventional stage performances or scenic tours, new media-

based cultural tourism performances are more cost-effective, adaptable, and participatory, enabling deeper emotional and cultural resonance for visitors.

This study aims to explore the creation of a prototype cultural tourism performance series titled “Penglai, the Land of Paradise,” which integrates Penglai’s Taoist mythology and scenic heritage with new media technologies. Drawing inspiration from recent benchmark projects such as “Unique Henan: Land of Dramas” and “Night at Yellow Crane Tower”, this research investigates how immersive stage design, narrative structuring, and interactive digital media can be used to re-present mythological themes in contemporary cultural tourism.

Taking Penglai Pavilion, The Three Immortal Mountains (Sanxianshan) Scenic Area, and Eight Immortals Ferry as primary cultural anchors, the proposed prototype performance seeks to enhance the tourism experience by offering audiences a hybrid of cultural storytelling and technological innovation. By doing so, this work contributes to both the cultural revitalization of Penglai’s mythological heritage and the practical advancement of performance-based cultural tourism strategies in China.

OBJECTIVES

1. To study and analyze the Taoist immortal culture in the Penglai region and the current state of cultural tourism development in Penglai.
2. To analyze case studies of successful cultural tourism performances in China—namely “Unique Henan: Land of Dramas” and “Night at Yellow Crane Tower”—as references for developing a performance model.
3. To design a prototype cultural tourism performance utilizing new media technology, under the title “Penglai, the Land of Paradise.”

RESEARCH METHODOLOGY

This research utilized a qualitative methodology to bridge the gap between cultural heritage and technological design. The process was structured as follows:

1. Documentary Research and Content Analysis: Primary and secondary sources concerning Penglai’s Taoist 'Immortal Culture' were gathered and reviewed. Content Analysis was applied to extract significant visual symbols and cultural narratives—such as the alchemy furnace and the legend of the Eight Immortals—which established the thematic foundation for the subsequent design prototypes.

2. Fieldwork and Spatial Observation: On-site investigations were carried out at key landmarks, including Penglai Pavilion, Sanxianshan, and the Eight Immortals Ferry. This phase focused on assessing the physical landscape and spatial constraints to determine the technical feasibility of 3D mapping and drone performances, ensuring the digital designs integrate seamlessly with the historical sites.

3. Interviews and Data Analysis: Semi-structured interviews were conducted with 12 key informants, comprising scenic area officials, professional tour guides, and local residents. The collected data underwent Thematic Analysis to identify critical patterns regarding cultural interpretation, tourism experience gaps, and the potential for night-time cultural activity development.

4. Case Study Synthesis: Two benchmark projects—Unique Henan: Land of Dramas and Night at Yellow Crane Tower—were analyzed to identify best practices in immersive technology and audience interaction. These insights were synthesized to refine the 'Penglai, the Land of Paradise' performance series, ensuring a balance between technological innovation and cultural authenticity.

RESEARCH RESULTS

1. Historical Origins and Development of Penglai City

The name “Penglai” is rooted in ancient mythology and has undergone a long process of historical evolution. According to legend, the term “Penglai” originated during the First Emperor of Qin’s eastern expedition in 219 BCE. (Dong & Meng, 2006) While standing by the sea in search of a divine mountain and the elixir of immortality, the emperor spotted a red glimmer in the waves and inquired about it. A court sorcerer, improvising on the spot, named the place “Penglai” after the sea grass swaying in the tide. Historically, Penglai was part of Huang County during the Western Han Dynasty. In 133 BCE, Emperor Wu of Han also visited the area during his eastern tour and named the site “Penglai” after gazing toward the mythical mountain across the sea. During the Tang Dynasty, Penglai’s administrative status was elevated several times: it became a town in 634 CE and was designated a county in 707 CE. In modern times, Penglai County was transformed into Penglai City in 1991. In 2020, it was merged with Changdao County and integrated as a district under the jurisdiction of Yantai City, reflecting its continued importance in regional development. (Penglai Municipal Committee of the Communist Party of China, 2007)

2. The Taoist Immortal Culture of Penglai

The Taoist immortal culture of Penglai is a rich system of beliefs and imagination that blends mythology, religious devotion, and Taoist philosophy. At its core lies the human desire for immortality and transcendence through the attainment of “xian” (immortal being) status. Legendary tales of seeking elixirs, cultivating one’s spirit, and discovering sacred realms such as Penglai, Fangzhang, and Yingzhou embody the age-old longing to escape mortality and reach eternal life. (Guo, 2009). One of the most significant roots of this tradition is the tale of

Emperor Qin Shi Huang’s eastern expedition in search of an elixir of life, which is closely associated with the mythical Penglai Island. Texts such as the *Shan Hai Jing* reference the existence of "immortality elixirs" believed to take the form of rare fruits, minerals, spring water, or even refined “qi.” These beliefs reflect the Taoist cosmology, where humans strive to become one with nature and transcend the cycle of life and death. (Liu, 2017). The natural seascape of Penglai—especially the mysterious mirage phenomena known as *haishi shenlou* —further reinforces its image as a mystical land beyond death. Penglai came to symbolize a sacred realm that transcends time, space, and worldly limitation. (Yao, 2012) Such visions were absorbed into Taoist teachings, particularly from the late Eastern Han period onward, when Taoism evolved into an organized system of doctrines, sects, and esoteric practices focused on immortality and spiritual cultivation. The Quanzhen School of Taoism, which rose to prominence during the Song and Yuan dynasties, recognized Penglai as a significant spiritual center. (Wang, 2017) Several important Taoist sites are found around Penglai Pavilion, including Lüzu Temple (dedicated to Lü Dongbin, one of the Eight Immortals), the Sanqing Hall (honoring the Three Pure Ones), and the Xianren Cave, a natural seaside grotto housing statues of deities such as the Eight Immortals and Guanyin. These sacred spaces are complemented by a wealth of Taoist inscriptions, poetic couplets, and stone carvings found throughout the area. (Shi, 1992). Together, these tangible and intangible heritage elements illustrate Penglai’s deep connection with the Taoist pursuit of transcendence. The concept of "feathered transformation"—symbolizing spiritual ascent and immortality—resonates throughout the Penglai landscape, combining myth, philosophy, art, and ritual into a living cultural system. (Zhang, 2007). Thus, the Taoist immortal culture of Penglai is not merely an imaginative myth. It is a living, evolving cultural legacy with profound historical, spiritual, and

artistic value—one that continues to shape the cultural identity of the region and inspire generations of seekers in the Chinese imagination.

3. Overview of Penglai's Cultural Tourism

3.1 Geographical and Cultural Context of Penglai

Penglai is located at the northernmost tip of the Jiaodong Peninsula, bordered by the Bohai and Yellow Seas. It is geographically connected to major cities such as Tianjin and Dalian, as well as the Korean Peninsula across the sea. Reputed as the “Mythical Capital of the East” and the “Starting Point of the Maritime Silk Road,” Penglai is widely celebrated as a “Paradise on Earth.” Covering a total area of 1,128.6 square kilometers with a population of approximately 450,000, the city boasts more than 100 historic and cultural heritage sites. (Xu, 2020). Rich in natural resources, Penglai is home to valuable minerals and is known for its high-quality apples and as one of China’s major peanut production bases. The modern Penglai Port, capable of accommodating 10,000-ton vessels, enhances maritime connectivity to northeastern China. The city has earned numerous accolades, including “Excellent Tourist City of China,” “Best City for Leisure Tourism,” “National Model for Environmental Protection,” and “National Sanitary City.” It is designated as a National Historical and Cultural City, with iconic attractions such as Penglai Pavilion, Penglai Water City, the Former Residence of General Qi Jiguang, The Three Immortal Mountains (Sanxianshan) Scenic Area, and a range of modern cultural and recreational sites. (Kou, 2013)

Despite its efforts to brand itself as a “Paradise on Earth and City of Peace,” Penglai’s distinctive cultural identity remains underdeveloped. Meanwhile, many culturally and historically significant artifacts are gradually disappearing. As the protection of intangible cultural heritage deepens, the growing involvement of the tourism market presents a timely opportunity to revitalize and sustainably promote Penglai’s cultural uniqueness.

3.2 Structure of Major Tourist Attractions

3.2.1 Overview of Key Tourist Attractions in Penglai

Penglai City features a wide range of tourist attractions that have been systematically developed and integrated. These sites collectively represent various aspects of the region’s cultural, historical, natural, and artistic heritage. Among them, ten sites are commonly referred to as the “Ten Major Attractions of Penglai,” including: (1) Penglai Pavilion – A symbolic site associated with the legend of Taoist immortals and renowned for its coastal landscape. (2) Eight Immortals Ferry – A sacred location inspired by the folklore of “Eight Immortals Crossing the Sea.” (3) The Three Immortal Mountains (Sanxianshan) Scenic Area– A cultural park showcasing classical Chinese gardens and mythical paradise architecture. (4) Juntong Vineyard – A scenic wine tourism destination located along the coast. (5) Majia Valley Eco Tourism Site – A rural site integrating organic agriculture and community-based tourism. (6) Dengzhou Museum – A local museum narrating the city’s maritime and historical development. (7) Changshan Archipelago – A cluster of 32 islands featuring pristine coastal ecosystems and traditional island culture. (8) Tianheng Mountain Cultural Park – A natural and cultural landscape that connects to Penglai Pavilion. (9) Former Residence of General Qi Jiguang – A heritage site commemorating an important historical military figure. (10) Maritime Silk Road Museum – A museum displaying ancient ships and the history of maritime trade, including foreign vessels. These attractions are interconnected through shared themes, historical continuity, and a regional tourism framework. Their strategic layout reflects a comprehensive approach to cultural tourism development, aiming to provide meaningful, experience-based engagements for visitors. Within this broad system, the present study focuses specifically on three core sites—Penglai Pavilion, The Three Immortal Mountains (Sanxianshan) Scenic Area, and Eight Immortals Ferry—which are most closely

linked to Taoist mythology and the culture of immortality. These sites serve not only as architectural landmarks but also as cultural spaces where symbolic belief systems and spiritual experiences are performed and embodied. The analysis emphasizes their aesthetic features, sacred narratives, and role in the cultural tourism identity of Penglai. In contrast, the remaining attractions—such as Junting Vineyard, the Changshan Archipelago, and the museums—contribute significantly to the broader image of Penglai as a destination for recreational, ecological, and cultural tourism, supporting its development as an integrated, multi-dimensional tourism city.

3.2.2 Current Conditions of Penglai Pavilion, Eight Immortals Ferry, and The Three Immortal Mountains (Sanxianshan) Scenic Area

(1) Penglai Pavilion: Penglai Pavilion is a nationally protected cultural heritage site and a designated 5A-level tourist attraction. Officially listed as a national historical site in 1982, it is situated atop Mount Dan’ya and offers a panoramic view of the famous “mirage over the sea.” (Xian & Gao, 2022) The main building is a two-story wooden structure surrounded by open-air corridors for scenic viewing. The surrounding area features a number of Taoist religious structures, including the Sanqing Hall, Lü Dongbin Shrine, Dragon King Temple, and Mazu Temple, all built along the mountain slope in architectural harmony with the natural landscape. These attributes have made the pavilion a popular destination for both domestic and international tourists.

(2) Eight Immortals Ferry: Located along a coastal zone bordered on three sides by the sea, Eight Immortals Ferry Scenic Area is designed to visually manifest the Taoist legend of “The Eight Immortals Crossing the Sea.” The site includes numerous classical-style structures such as pavilions, temples, and over 100 statues of deities, alongside stylized maritime scenes. A ferry terminal offers boat tours across the Bohai and Yellow Seas. The site successfully integrates

artistic elements, historical context, and spiritual symbolism, making it a prominent Taoist cultural landmark.

(3) The Three Immortal Mountains (Sanxianshan) Scenic Area: This cultural park is designed based on traditional Chinese garden aesthetics, combining the grandeur of northern imperial gardens with the elegance of southern private gardens. Key attractions include the Heqi Hall, Yingzhou Immortal Pavilion, Jade Buddha Temple, Art Museum, and Penglai Cultural Exhibition Hall. The landscape is enhanced by ancient trees, ornamental rock formations, and intricate architectural details, all of which embody the Taoist principle of “harmony between humanity and nature” Additional visitor amenities include a five-star hotel, hot spring spa, and a comprehensive leisure center, all catering to cultural tourists seeking immersive and restorative experiences.

3.3 An Analysis of the Current Development and Challenges of Cultural Tourism in the Penglai Scenic Area

Based on interviews with key stakeholders including officials from the Penglai Scenic Area, tour guides from local travel companies, and residents of the area, the current state of cultural tourism in Penglai reveals a situation where strengths and challenges coexist. Strengths include an increasing level of integration across tourism resources, with the introduction of the “Penglai Bay” concept and bundled ticket packages that combine multiple attractions to enhance visitor experience. Tourism products have become increasingly diversified, encompassing new performances, winery tours, and other offerings that cater to a variety of visitor interests. Promotional efforts have also intensified, with the emerging brand image of “Immortal Life in Penglai Bay” gaining initial recognition. At the same time, infrastructure is steadily improving. However, several challenges remain prominent. The development of tourism-related

industries is uneven, with a lack of distinctive and innovative tourism merchandise and limited entertainment experiences. Cultural resources are underutilized—some cultural attractions present content in a monotonous way with weak interactivity. The portrayal of Taoist mythology and coastal scenery remains traditional and lacks innovation. Currently, tourism offerings are still primarily focused on conventional sightseeing, resulting in a homogeneous format, low overnight stay rates, and underdeveloped night tourism and vacation products. Visitors express a desire for more interactive and immersive experiences, such as myth-themed activities and folk performances that reflect local traditions. Yet the development of such experiences in the Penglai Scenic Area remains insufficient, making it difficult to meet the diverse needs of tourists seeking deeper entertainment and cultural engagement. This, in turn, limits the overall appeal of the destination and reduces the length of visitor stays.

4. Case Study Analysis

4.1 Unique Henan: Land of Dramas

“Unique Henan: Land of Dramas” is the largest theatrical complex in China, comprising 21 theaters. It is designed around the cultural heritage of the Yellow River region and employs immersive theater techniques to convey narratives centered on land, food, and cultural inheritance. Immersive Scene Design and Spatial Experience: The project emphasizes creating participatory environments that allow audiences to engage directly with the narrative. By dissolving the boundary between performers and viewers, the production fosters emotional proximity and deep audience immersion. New Media and Visual Transformation: Traditional mediums such as earthen slopes, trees, water, and crowds are artistically transformed through projection, sound, lighting, and VR technology. These digital enhancements strengthen the narrative power and create dynamic

multimedia experiences. Mobile and Interactive Storytelling: Audiences are free to move through the performance space and interact with actors. For instance, in the recreated village of Li Jia Cun, visitors are invited to participate in the storyline—assuming character roles and emotionally connecting with the plot through multisensory engagement. Spectacle and Virtual Illusion: Projection mapping is used to display 328-meter-long visual narratives across rammed-earth walls, blending classical Chinese paintings like *Along the River During the Qingming Festival* into the architectural canvas. Some venues feature performances without live actors, relying solely on lights and music to envelop audiences within the immersive atmosphere.

In addition, “Unique Henan” incorporates technologies such as VR, 3D, and integrated online–offline platforms to expand its reach through exhibitions, live performances, commerce, and entertainment. This holistic and sustainable model exemplifies contemporary cultural tourism development through the synergy of art, technology, and experience-based engagement.

4.2 Night at Yellow Crane Tower

“Night at Yellow Crane Tower” is an immersive night tourism project that integrates sound, light, and digital visuals with live artistic performance. Set within the historic Yellow Crane Tower Park, the project presents a new model of urban landmark nighttime tourism by drawing on the site's unique cultural and historical heritage and transforming it through high-tech visual storytelling. The project centers on two key dimensions:

Technological Tools Enhancing Immersive Interaction: A range of advanced technologies—such as 3D projection mapping, mixed reality, motion sensing, and multi-channel projection—are used to construct digital visual experiences across various iconic locations in the park. These include Cui Hao’s Poetry Wall, the Stele

Gallery, Goose Pond, and the legendary settings of “Immortal and White Cloud” and the Xin Family Tavern on Snake Mountain. These visual effects blend seamlessly with the natural environment and historical architecture to stimulate powerful sensory responses in visitors. Atmospheric Design and Narrative Performance: Shows like *The Origin of the Crane* use dramatic lighting, music, fog, and projection effects alongside live performers to re-create the myth of Lü Dongbin drawing a crane that comes to life and dances before flying away. Meanwhile, *Crane Dance Through the Ages* transforms the main tower with animated projections, laser effects, and twelve mobile screens, portraying the cultural history of the tower as well as the changing of seasons through time. Overall, this case exemplifies the innovative fusion of digital technology and cultural tourism. By leveraging multimedia storytelling and immersive experiences, “Night at Yellow Crane Tower” enhances aesthetic engagement, deepens cultural interpretation, and offers a compelling model for contemporary cultural tourism development. The case studies of “Unique Henan: Land of Dramas” and “Night at Yellow Crane Tower” highlight how immersive design and digital technology can revitalize cultural heritage through interactive storytelling. Both projects successfully blend tradition with innovation, offering valuable models for enhancing visitor experience, emotional engagement, and cultural interpretation. These insights provide practical reference points for designing immersive cultural tourism performances in Penglai.

5. Prototype Design Plan for the Cultural Tourism Performance: Penglai, the Land of Paradise

Based on the study, the researcher selected three key sites—Penglai Pavilion, The Three Immortal Mountains (Sanxianshan) Scenic Area, and Eight Immortals Ferry—which are closely linked to Taoist legends and the culture of

immortality, as the primary areas of investigation. The aim is to design a cultural tourism performance rooted in these locations, with the following details:

5.1. Danlu Theater (Alchemy Furnace Theater)

The envisioned “Danlu Theater” (Alchemy Furnace Theater) is planned to be located at the northeast corner of the Three Immortal Mountains (Sanxianshan) Scenic Area in Penglai, with a seating capacity of approximately 500 to 1,000 people and a total area of about 3,000 square meters. As a sacred site in Penglai mythology associated with the pursuit of immortality and the search for divine elixirs, Sanxianshan holds profound cultural significance rooted in Taoist immortality traditions. Laozi, the founder of Daoist philosophy and a central figure among the Taoist immortals, serves as the creative inspiration for the theater. Its conceptual design draws from the legendary alchemy furnace of the Grand Supreme Elder Lord (the deified form of Laozi), a renowned magical artifact in the celestial realm. The theater adopts “Seeking Immortality and Cultivating the Tao” as its core performance theme, integrating Taoist culture with new media art to create an immersive, multisensory cultural tourism performance. The goal is to blend Taoist spiritual heritage with contemporary digital performance techniques, offering visitors a unique cultural experience that preserves and promotes the essence of Eastern immortal traditions. The Danlu Theater is a conceptual performance venue envisioned to be located in the northeastern area of The Three Immortal Mountains (Sanxianshan) Scenic Area in Penglai. Inspired by the legendary alchemical furnace of Taishang Laojun—one of the most iconic immortals in Taoist culture—the theater reflects the essence of “seeking immortality and enlightenment,” which is central to the Taoist heritage of the region. The exterior is shaped like a giant bronze alchemy furnace, incorporating traditional Chinese architectural motifs such as beast-shaped handles, flying eaves, and a domed pagoda roof. Set upon a base patterned with the Bagua symbol, the

structure evokes a sense of sacredness and mystery. Internally, the space is designed to enhance immersive engagement. The audience seating is arranged in a semi-circular Bagua layout with multi-level platforms. Mechanized seats can tilt or shift in response to dramatic scenes such as ocean storms or earthquakes. The stage itself is a three-layered circular platform, featuring a central Tai Chi symbol that rises or lowers to match narrative shifts. A large LED arc screen and multiple gauze projection screens provide dynamic backdrops, while the ceiling dome employs 360-degree projection mapping to simulate vast cosmological scenes—stars, mountains, fire, and more. To deepen immersion, the theater incorporates state-of-the-art new media technologies, including 3D fan-style holographic projectors suspended above the audience, creating floating visual effects throughout the space. Performances integrate dance, acrobatics, and physical theater with AR/VR elements, laser visuals, soundscapes, and smoke effects, blending real actors with virtual imagery. Visitors can also participate in interactive experiences symbolizing Taoist self-cultivation, using gesture-based interfaces or mobile integration. This theater represents an innovative fusion of Eastern mythology and digital media, aiming to revitalize Taoist culture through multi-sensory, narrative-rich experiences that bridge tradition and technology. The theater’s design functions as a physical manifestation of Taoist philosophy, using immersion to transform abstract spiritual concepts into a tangible cultural experience for tourists.

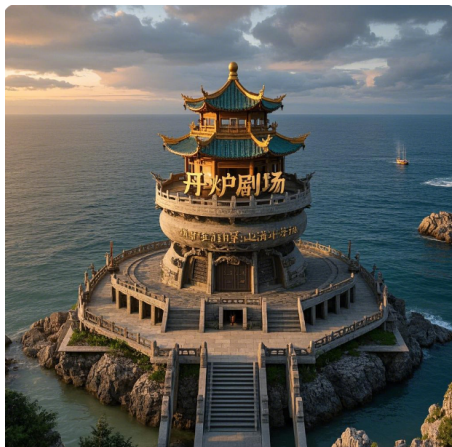


Figure 1 Conceptual Exterior Design of the Danlu Theater



Figure 2 Frontal View of the Interior Model of Danlu Theater



Figure 3 3D Fan Projection Combined Performance Diagram

5.2 “Eight Immortals Crossing the Sea” Marine Drone Show

In the Penglai Scenic Area, visitors must take a boat to travel across the sea from Eight Immortals Ferry to Penglai Pavilion. Research indicates that nighttime tourism activities in the area are relatively limited. To address this gap, a “Marine Drone Show” could be designed at the Eight Immortals Ferry Scenic Area, using the natural landscape of mountains and sea as the backdrop. While crossing the sea by boat, tourists could enjoy a spectacular drone show from onboard. This type of drone performance, which combines technology and art, uses programmed coordination to control hundreds of drones flying, hovering, and landing in unison, forming dynamic shapes, texts, and images in the sky. A marine-themed drone show reenacting the legendary tale of “The Eight Immortals Crossing the Sea” would offer an impressive visual experience. As night falls, hundreds of drones would rise into the sky, transforming into lifelike figures of the Eight Immortals and their magical items through precise programming—vividly recreating this classic Taoist scene and filling the gap in nighttime tourism offerings. The performance would be accompanied by atmospheric music—alternating between classical and dramatic melodies—to create a mystical and dreamlike ambiance, allowing visitors to feel immersed in the legendary world of the Eight Immortals. This concept fuses traditional Eight Immortals culture with modern tourism innovations. Whether enjoying a scenic daytime cruise on a themed vessel or watching the stunning nighttime drone show at sea, visitors would gain a deeper appreciation of the Eight Immortals’ cultural charm. It adds a new highlight to the Eight Immortals Ferry Scenic Area and is expected to attract more tourists to experience its unique offerings. This drone performance serves as a digital bridge, translating intangible folklore into a high-tech visual language that addresses the current lack of night-time engagement in Penglai.



Figure 4 Panoramic View of the “Eight Immortals Crossing the Sea” Drone Show at Night

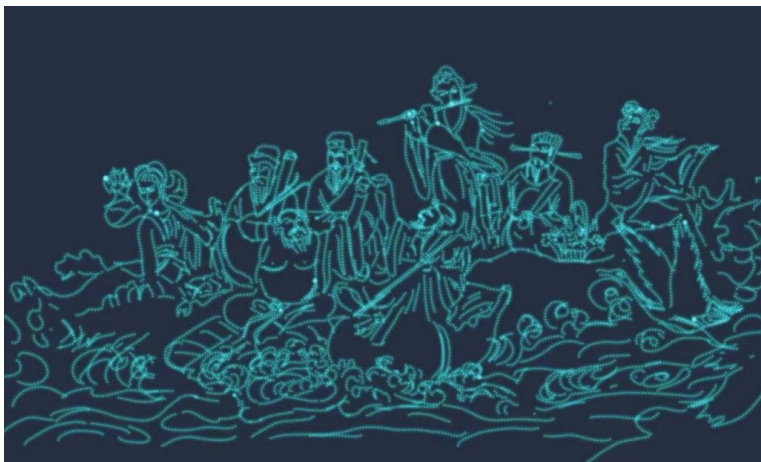


Figure 5 "Illustrative Diagram of the 'Eight Immortals Crossing the Sea' Drone Show"

5.3 Lighting Show for the Penglai Pavilion Scenic Area

Penglai Pavilion is one of China’s most iconic historical and cultural landmarks. It serves as the spiritual center of Taoist legends concerning the pursuit of immortality and is deeply rooted in the heritage of the Eight Immortals culture. Historically, Penglai was also a key departure point along the ancient Maritime Silk Road and a major center for the dissemination of northern Mazu culture. With such rich cultural foundations, Penglai Pavilion offers an ideal setting for contemporary artistic performances that integrate history with new media technologies. This project aims to enhance nighttime tourism experiences through a spectacular light show, using the architectural façade of Penglai Pavilion and the surrounding mountainous landscape as the backdrop. The performance will visualize mythical tales, the pursuit of immortality, and the spiritual essence of Penglai, immersing audiences in a magical and imaginative atmosphere. Key technologies used in the project include 3D mapping, which precisely models the contours of the building and mountains to ensure seamless visual projection with realistic depth and dimension. In addition, laser projection technology creates vivid, colorful light effects synchronized with music and storytelling elements, forming dynamic shapes and patterns in the air that evoke a dreamlike environment. This immersive light show not only fills the gap in Penglai’s nighttime tourism offerings but also breathes new life into its mythological heritage. It presents a new model of cultural tourism that integrates art, technology, and traditional storytelling, offering visitors an emotionally engaging and visually stunning cultural experience. By utilizing 3D mapping, the project re-contextualizes historical architecture, providing an emotionally resonant narrative that elevates the site’s cultural identity beyond traditional sightseeing.



Figure 6 Real Scene Photo of Penglai Pavilion



Figure 7 Emperor Qin Shi Huang’s Immortal-Seeking Journey – 3D Mapping Architectural Projection Light Show Rendering

CONCLUSION

This study reveals that Penglai City possesses a profound historical and cultural background, particularly as a central hub of Taoist immortal culture that reflects humanity’s aspiration for transcendence and eternal life. These beliefs have been preserved and expressed through legends, storytelling, architecture,

and artistic forms, with symbolic landmarks such as Penglai Pavilion, The Three Immortal Mountains (Sanxianshan), and Eight Immortals Ferry serving as vital cultural and spiritual anchors. Despite Penglai’s strong potential for cultural tourism, the analysis of current conditions highlights several limitations—particularly the lack of variety in cultural content presentation, underdeveloped nighttime tourism infrastructure, and insufficient engagement in creative and immersive experiences.

To address these gaps, the study analyzed two exemplary cases: Unique Henan: Land of Dramas and Night at Yellow Crane Tower. These cases demonstrate how the integration of new media technologies and imaginative design can revitalize cultural heritage, creating immersive, participatory, and emotionally resonant tourism experiences. Drawing from these insights, the research proposes three prototype cultural performance designs for Penglai: (1) Danlu Theater, inspired by the mythical Taoist alchemy furnace, combining live performance with multimedia technologies such as light, sound, and AR/VR; (2) “Eight Immortals Crossing the Sea” Marine Drone Show, a high-tech outdoor performance blending folklore with synchronized drone displays over the ocean; and (3) “Penglai, the Land of Paradise” Lighting Show, a 3D mapping and laser projection event using the architectural and natural backdrop of Penglai Pavilion and surrounding mountains to narrate mythological tales. These prototype designs not only help fill the gap in nighttime tourism but also offer an innovative reinterpretation of cultural heritage, adding new value to Penglai as a contemporary cultural tourism destination. They serve as a forward-looking model for integrating art, technology, and local identity to promote sustainable and experience-rich cultural tourism.

DISCUSSION

The Penglai, the Land of Paradise series reveals that new media technology is not merely an aesthetic add-on, but a critical tool for reinterpreting heritage for modern audiences. Compared with existing studies that treat digital technology mainly as a tool for visual enhancement, this research conceptualizes new media performance as a cultural translation mechanism that restructures heritage narratives into immersive spatial experiences.

1. Merging Tech and Tradition: While prior scholarship often treats technology and heritage as distinct domains, this research frames immersive media as a “digital bridge,” as exemplified by the Danlu Theater. Aligning with the Unique Henan case, this implies a shift from passive observation to active participation. However, a key risk remains: the potential for high-tech elements to overshadow Taoism’s spiritual subtlety—a concern central to contemporary digital heritage discourse.

2. Cultivating Night-Time Engagement: The drone and lighting concepts directly address Penglai’s weak night-time tourism economy. By transforming landmarks into nocturnal storytelling venues, the design provides a solution to the short-stay limitation of traditional sites. This study contributes to night tourism literature by integrating specific local myths, such as the Eight Immortals, into the technological framework, rather than applying generic light-show formats.

3. Limitations and Future Work: It is crucial to note that such designs require substantial investment and long-term maintenance. Future studies should prioritize quantitative evaluation methods to measure not only visitor satisfaction but also the depth of cultural understanding retained after the experience.

RECOMMENDATION

1. Plan for Nighttime Cultural Tourism: Develop a strategic plan that integrates new media with cultural themes to enrich nighttime tourism experiences in Penglai.
2. Encourage Public-Private Collaboration: Promote partnerships with tech and creative industries to co-create engaging performances and expand cultural tourism potential.
3. Enhance Interactive Heritage Interpretation: Use AR/VR and immersive tools to design participatory experiences that deepen understanding of Penglai's cultural identity.

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