03980
9 791186 181171

HECITAG

OWHC-AP MAGAZINE
JULY | 2025

OWHC-AP is the Asia-Pacific branch office of the Organization of World Heritage Cities, a global organization of the historic cities across the world inscribed as World Heritage Cities by UNESCO.

Organization of World Heritage Cities
Asia-Pacific Regional Secretariat

2F, Salon Heritage, 614 Gyeonggam-ro,
Gyeongju-si, Gyeongsangbuk-do

+82-54-779-6113

www.owhc-ap.co.kr

#23 HECITAG
OWHC-AP MAGAZINE

#23 Voices of the City

OWHC-AP MAGAZINE JULY | 2025

HECITAG

Voices of the City

Contents

Publication Date August 2025
Published by OWHC-AP
Planned by OWHC-AP & HKAD
News Coverage HKAD
Edited by HKAD

OWHC-AP

prologue

How Does a City Hold Sound?

The breath of those who have long lived here,
The echoes of words from fleeting passersby,
Layer upon layer they remain—
The city still weave its memories in sound.

As time leaves its traces,
Sound stirs and colors the space.
Stone walls speak even in silence,
Temple pagodas hold echoes even in stillness.

The sounds shaped by life
Turn to rituals, to music, to prayer,
Conveying the life of a place without words.

To walk a city
Is to listen to its voice.

A city woven in sound—
And there we are.

Buddhist Ritual Soundscape in a Forest Temple

Beopjusa Temple, Republic of Korea
(2018)

Nestled deep in the forests of Songnisan Mountain, Beopjusa Temple is an ancient sanctuary founded during the Unified Silla period, carrying forward over a millennium of mountain monastic tradition. The sounds of the temple bell, Dharma drum, wooden fish, and cloud-shaped gong resonating through this nature-embraced space create a distinctive acoustic landscape that structures the temple's time and order.

At Beopjusa Temple, these four ritual instruments still sound daily with morning and evening prayer chants. The Dharma drum awakens all sentient beings, the wooden fish encourages mindful living, and the cloud-shaped gong resonates as if marking spatial boundaries. The temple bell announces dawn and dusk, its sound echoing through the valleys of Songnisan Mountain. More than ceremonial instruments, these four are a sonic heritage, carrying the rhythms of practice and everyday life.

More than ceremonial instruments, these four are a sonic heritage, carrying the rhythms of practice and everyday life.

The sounds within the temple grounds ripple through the trees and flow with the valley streams, becoming one with nature. At Beopjusa Temple, where nature and Buddhist rituals seamlessly intertwine, tradition is conveyed not only visually but through its soundscape.

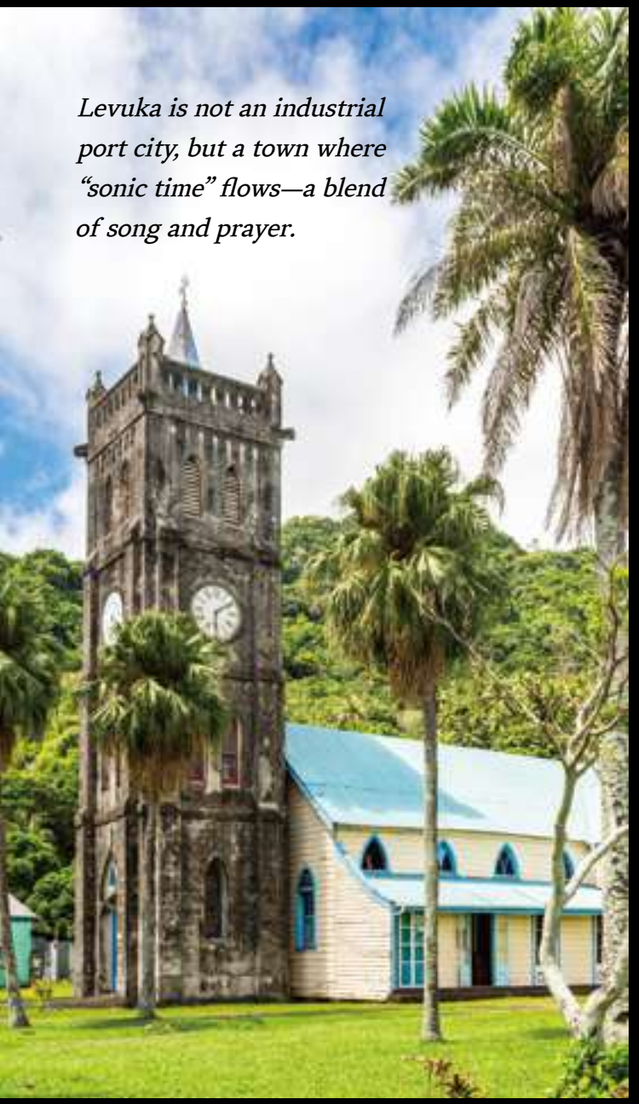
Inscribed as a UNESCO World Heritage Site in 2018 as part of "Sansa, Buddhist Mountain Monasteries in Korea," the temple was recognized not only for its distinctive temple architecture, religious functionality, and communal heritage, but also for its intangible acoustic traditions.

Through its Temple Stay program, Beopjusa Temple has created opportunities for visitors to directly experience the temple's temporal and sonic rhythms. The daily pre-dawn prayer bells and wooden fish sounds have become an open heritage, conveying the community's rhythm even to outsiders.

The sounds of the temple are the language of a space where nature and tradition, community and heritage, live and breathe together.

The Ocean's Rhythm Resonating from the Harbor

Levuka Historical Port Town, Fiji
(2013)



Levuka is not an industrial port city, but a town where "sonic time" flows—a blend of song and prayer.

Levuka, a small port town on the eastern coast of Ovalau Island in Fiji, served as Fiji's first colonial capital in the mid-19th century and became a hub for missionary work and trade throughout the British South Pacific territories.

Mornings in Levuka begin with the sound of harbor waves and church bells. The chimes of the Anglican church and Catholic cathedral ringing over quiet streets echo a past where Western urban planning and indigenous communities coexisted. Levuka is not an industrial port city, but a town where "sonic time" flows—a blend of song and prayer.

UNESCO recognized Levuka as a symbol of Fiji's modernization and a rare example of the fusion between colonial influence and indigenous culture. The wooden buildings, schools, churches, and mission stations built during that era continued to function as community centers through the mid-20th century, and most structures that remain today are still in use.

Above all, Levuka preserve its sonic traditions. In the town's daily life, traditional village songs resonate alongside church hymns, showing how coexistence and memory are formed in a colonial city. From weddings and funerals to weekend religious services and community meetings, songs have become a language that resonate through the city before words.

In 2013, Levuka was inscribed as a UNESCO World Heritage Site. This inscription encompasses not only the physical landscape, but also the layers of sound that shape life within the town.

Even today, the waves, church bells, and the songs of its people continue to carry forward the city's memory.

Water, Stone, and the Resonance of Chanting

Historic City of Ayutthaya, Thailand
(1991)

Over this serene flow, the chanting of sutras and monks' prayers from the stupas resonate, carrying the city's life through the ruins.

Ayutthaya, the ancient capital built in the heart of a plain where the Chao Phraya River and its tributaries flow, flourished from the 14th century through the mid-18th century. Once home to a million inhabitants, the city thrived as a hub of international trade, bustling with merchants and envoys from both East and West.

The river flows gently between red-brick temples, embracing the city. Ponds, canals, and waterways flowing past temples hint at Ayutthaya's heritage as a waterborne city. Over this serene flow, the chanting of sutras and monks' prayers from the stupas resonate, carrying the city's life through the ruins.

Wind chimes sway gently across the temple grounds. Their clear, brief metallic tones, ringing with each passing breeze, signal the temple's order to visitors and serve as a reminder for practitioners to center their minds. This is the language of heritage that reaches us before sight, telling how Buddhist culture and urban space are intertwined.

Ayutthaya was inscribed as a UNESCO World Heritage Site in 1991. The entire city—with its palaces, temples, monks' quarters, canals, and reservoirs—was recognized as an exemplary model of Buddhist urban planning and continues to function as a spiritual center for the Thai people and Buddhists.

Ayutthaya is a city of memory where the past comes alive through sound. In the flow of water, chanting, and wind chimes, it quietly tells its story even today.

Echoes of Faith and Trade

Mausoleum of Khoja Ahmed Yasawi, Kazakhstan
(2003)

In the heart of the southern Kazakh steppe, at a key crossroads of the ancient Silk Road, lies Turkestan—one of Central Asia's most sacred pilgrimage sites, where the spirit of Khoja Ahmed Yasawi, the 12th-century Islamic mystic poet and saint, still lingers.

Built between 1389 and 1405 by order of the Timurid Empire, the Yasawi Mausoleum is the essence of Timurid architecture, composed of massive brick domes, blue tile decorations, and intricate murals. Yet the dignity of this place reveals itself first not through visual grandeur, but through the profound resonance of sound within the dome. Inside the mausoleum, sacred hymns called Qanqa still resonates today. These hymns, carrying on the tradition of Sufism, echo clear and slow in the space beneath the dome, conveying both reverence and tranquility to visitors. The sound reflects in multiple directions along the arches and dome, as if the space itself is an instrument embracing the resonance.

In the square surrounding the mausoleum and along the caravan route of the Silk Road, the faint sound of hoofbeats drifts through the air. The paths once traveled by merchants and pilgrims for centuries continue to come alive today through the footsteps and chatter of visitors, mingling with the jingle of camel bells and tour announcements.

Inscribed as a UNESCO World Heritage Site in 2003, this monument is recognized as a masterpiece of Central Asian Islamic architecture and a place where traces of faith, space, and exchange resonate together.

The hymns inside the mausoleum, the echoes of the dome, and the reverberations of desert paths remain a living sonic heritage.

The sound reflects in multiple directions along the arches and dome, as if the space itself is an instrument embracing the resonance.

Stillness and Resonance Flowing Along the Stupas

Bagan, Myanmar
(2019)

Spread across the middle plains of the Ayeyarwady River, Bagan served as the capital of Myanmar's ancient Buddhist kingdom from the 9th to the 13th century. This city, with thousands of stupas and temples remaining across vast fields spanning approximately 40 square kilometers, is veiled in mist at dawn, like an ink painting.

Before sunrise, bell sounds ring out first from several temples. The low metallic tolling resonates through the dawn, slowly awakening the spaces around the stupas and temples. With nearly 3,500 stupas rising in varied sizes and forms, these structures reflect or absorb the sound of the bells, turning all of Bagan into a vast acoustic landscape.

As the sun rises, hot air balloons silently float up into the sky. Seen from the quiet heavens above, Bagan is a city of soundless silence. Yet below, within the rhythm of morning prayers, meditation, and temple routines, the monks' recitation of Pali scriptures continues in steady cadence. The recitation is closer to breathing than to prayer, closer to ritual than to speech. This act of transforming text into sound is a process of both inheriting knowledge and filling space with sacred rhythm.

In 2019, Bagan was inscribed as a UNESCO World Heritage Site. It was recognized for its value as a living heritage where Buddhist community life and practice continue despite enduring wars and natural disasters.

The ancient city of Bagan no longer speaks, yet between sound and silence, it still bears witness to its existence.

With nearly 3,500 stupas rising in varied sizes and forms, these structures reflect or absorb the sound of the bells, turning all of Bagan into a vast acoustic landscape.

#1 Cities and Heritage

For the Sustainable Coexistence of Heritage Cities, Tourism, and Communities

City and Heritage

The inscription of World Heritage sites, which is a process of gaining international recognition for their historical and cultural value, entails new challenges: surging tourism demand, urban spatial restructuring, and community transformation. While tourism can invigorate local economies, it can also cause heritage damage, community dissolution, and landscape destruction. Recognizing this duality, institutional approaches to safeguarding the sustainability of heritage cities are expanding globally.

In 2011, UNESCO launched the "World Heritage and Sustainable Tourism Programme," emphasizing a policy shift centered on long-term heritage preservation and community rights protection rather than short-term tourism development. In particular, it proposes structures where local residents participate not merely as beneficiaries but as "stakeholders and operating agents," encouraging the expansion of community-based tourism models.

These changes are manifesting as concrete practices in World Heritage cities across the Asia-Pacific region. For example, marking the 30th anniversary of its inscription, Bulguksa Temple in Gyeongju is developing visitor management plans that consider environmental impact and tourism dispersal. Vigan in the Philippines has established systems ensuring tourism benefits return to the community through resident-operated tour guiding and traditional craft experience programs. Cities like Pingyao in China, Mahabalipuram in India, and Marrakesh in Morocco continue coordinating and negotiating to prevent conflicts between heritage preservation and local life.

Sustainable tourism in heritage cities is not merely tourism that avoids harming preservation, but the creation of systems where preservation and life can coexist. This requires considering not only tourist infrastructure but also the living conditions of local residents who regard heritage as part of their daily lives. Key points of consideration include calculating visitor carrying capacity suited to each city's situation, operating community-participatory content, and designing equitable profit-sharing structures.

As of 2025, World Heritage cities are seeking new balances that maintain their unique traditions and memories while responding to changing tourism environments. This process is not merely a policy issue, but also a communal task in shaping a sustainable future for the city.

Seokguram Grotto and Bulguksa Temple,
Republic of Korea

Korea

Silla's Ideal Realm Becomes Today's Challenge

Located on the slopes of Tohamsan Mountain in Gyeongju, Gyeongsangbuk-do, Seokguram Grotto and Bulguksa Temple were inscribed as UNESCO World Heritage Sites in 1995. Completed in the 8th century during the Silla period with one spirit and one plan, these two heritage sites still embody the essence of ancient Buddhist art and architecture today. Seokguram Grotto is recognized for its artificial cave structure and the exquisite precision of its Buddha sculptures, while Bulguksa Temple is valued for its structural symbolism that manifests an ideal realm in reality. UNESCO inscribed these sites under criteria (i) and (iv), stating they are "masterpieces demonstrating the creative artistic sensibility and outstanding technical skills of the Silla people."

Prime Minister Kim Dae-seong initiated the construction of the grotto in the 10th year of King Gyeongdeok's reign (751), which was completed in the 10th year of King Hyegong's reign (774). This granite grotto houses 39 Buddhist statues within its sophisticated structure, with the Sakyamuni Buddha statue placed at the center of the main chamber. Standing 3.45 meters tall, the statue of Buddha's expression and posture constitute a masterpiece of ancient sculpture embodying the moment of enlightenment. Bulguksa Temple was constructed simultaneously under the leadership of the same Kim Dae-seong, and its layout comprising Birojeon (the Vairocana Buddha Hall), Geungnakjeon (the Hall of Supreme Bliss), and Daeungjeon (the Hall of Great Enlightenment) was an attempt to recreate the Three Thousand Realms of Silla Buddhist cosmology within physical space.

30 Years on Time: Preserving Heritage

Since Seokguram Grotto and Bulguksa Temple were inscribed as UNESCO World Heritage Sites in 1995, preservation policies have evolved from external restoration to sophisticated precision environmental monitoring, digital transmission, and strengthened disaster response systems.

• Precision Environmental Monitoring

According to the World Heritage Periodic Report published by the Korea Heritage Service (KHS) in 2012, Seokguram Grotto's interior is continuously monitored through environmental sensors that measure in real time the environmental changes caused by condensation, illumination variations, and visitor movements, while implementing visitor number restrictions, installing glass barriers, and performing lighting adjustments. Bulguksa Temple is also regularly monitored for signs of damage to its stone foundations and roof tiles using drone surveys, laser scanning, and surface crack observation, with emergency preservation and reinforcement measures in progress. Notably, the 2022 implementation plan for Gyeongsangbuk-do prioritizes reinforcement work aimed at preventing stone foundation collapses and ensuring the structural safety of buffer zones.

• The Beginning of Digital Transmission

In 2018, the KHS developed and released Seokguram virtual reality (VR) content through its “Digital Cultural Heritage Content Production Project.” Users wearing wireless head-mounted displays (HMDs) can explore the 1:1 scale grotto freely without controllers, with light and shadows reacting in real time as they lift their lanterns. The content achieves realism using high-resolution textures of over 50 megapixels and high-polygon models.

Additionally, in 2020, the KHS opened the “Digital Library for National Heritage” at the National Palace Museum of Korea, allowing VR and AR content experiences of Seokguram Grotto, dolmens, and Hwaseong Fortress in Suwon. This is recognized as a representative example of public transmission strategies through digital technology.

• Disaster and Fire Prevention Systems

Due to the wooden construction of Bulguksa Temple, it is prone to fire risks, leading to the completed installation of smoke detectors, automatic alarms, and emergency sprinkler systems, with nighttime patrols and fire drills conducted regularly. By contrast, Seokguram Grotto is more sensitive to condensation and changes in humidity than to fire. To stabilize the internal environment, visitor numbers and visiting hours are limited, and outside air is carefully controlled.

On December 2, 2013, former President Park Geun-hye personally visited the grotto to inspect the glass barriers and humidity control systems. The KHS made an official report on the need for budget expansion to strengthen technical infrastructure and improve the visitor environment.

Mid- to Long-term Plans for Communities and Future Generations

As the 30th anniversary of their World Heritage listing approaches, Seokguram Grotto and Bulguksa Temple face a need for new management strategies that go beyond mere preservation, enabling both the local community and future generations to share in their value. In response, Gyeongsangbuk-do and the KHS have established the “World Heritage Conservation, Management and Utilization Implementation Plan (2023–2027),” outlining practical initiatives to enhance the sustainable utilization and advanced management of the Gyeongju Historic Areas including Seokguram Grotto and Bulguksa Temple.

The first strategy focuses on enhancing World Heritage value. This entails recognizing Seokguram Grotto and Bulguksa Temple not merely as tourist destinations, but as sites of intrinsic global heritage significance, and improving interpretive content and guidance systems to communicate this meaning widely to local communities and visitors from home and abroad. This includes multilingual service, digital content, and production of heritage-linked educational materials.

The second strategy is establishing a sustainable heritage management foundation. At Seokguram Grotto, technical solutions continue to be explored to address internal environmental issues, while monitoring systems for harmful elements such as humidity, temperature, and particulate matter are being refined. For Bulguksa Temple, scientific analysis of weathering and deterioration in stone structures informs preservation treatment and periodic inspection plans. Simultaneously, the cultural landscape and surrounding environment within the entire heritage zone are continuously monitored.

The third strategy is strengthening management capacity and cultivating professional personnel. For the long-term preservation of heritage, programs have been established to deploy World Heritage specialists, train cultural property technicians, and educate heritage interpreters, along with training to enhance on-site management personnel’s response capabilities.

The fourth strategy is systematizing the heritage conservation management platform. This involves building a platform that can manage integrated data for heritage sites and their surrounding areas, going beyond monitoring of individual properties. Leveraging geographic information system (GIS) based on digital mapping, it visualizes cultural heritage conservation status, damage history, and risk factors, designed for sharing among relevant agencies to enable integrated responses.

The fifth strategy is diversifying cooperation and participation with local communities. Gyeongsangbuk-do runs a variety of programs enabling local residents, schools, cultural organizations, and youth groups to actively engage with and promote heritage values. Notably, a “World Heritage Citizen Participation Group” has been established to ensure that community voices are incorporated into heritage policies, while youth heritage interpretation training programs and the expansion of heritage content connected to local festivals are also underway.

These five strategies aim to create a sustainable World Heritage city model that integrates culture, tourism, education, and public governance, going beyond mere heritage protection. Through these strategies, Seokguram Grotto and Bulguksa Temple serve as pilot heritage sites ensuring their values are fully transmitted to future generations, while functioning as core pillars of Gyeongju’s overall cultural city strategy.

What Must be Preserved is Not the Form, but the Spirit

Now approaching the 30th anniversary of World Heritage inscription, Seokguram Grotto and Bulguksa Temple are drawing renewed attention not simply as well-preserved heritage, but as spaces embodying the philosophy of culture and the essence of art. Preservation is not mere restoration; it is safeguarding of both the original form and the spirit. Tourism should not be about consumption for the local economy, but an experience that fosters understanding of heritage values and context.

The horizon of the East Sea, as seen from the Sakyamuni Buddha statue of Seokguram Grotto, serves as a symbolic point connecting past and future. To preserve heritage, then, is to maintain that very perspective.

Medina of Marrakesh,
Morocco

Morocco

A Rhythm of Persistence Written Across Time

Since its inscription as a UNESCO World Heritage Site in 1985, the Medina of Marrakesh has drawn attention as a city preserving the spatial structure and architectural assets of a medieval Islamic city. Formed by the Almoravids, the city remains a living heritage prototype, with mosques, souks, squares, gardens, and riads organically interwoven. However, as the city's reputation grew, a surge in tourists followed, bringing various problems including traffic congestion, residential commercialization, increased waste, and dilution of cultural identity.

In this context, Marrakesh has established a new turning point by embracing sustainable tourism as the core of its urban management strategy. Various attempts to realize sustainability continue through community collaboration across multiple sectors including urban planning, transportation, accommodation, cultural content, and environmental conservation.

Bicycles and Electric Buses: Changing the Rhythm of the City

To create a pedestrian and bicycle-centered mobility environment, Marrakesh introduced the public bicycle system "Medina Bike" in conjunction with hosting the COP22 in 2016. It was introduced in cooperation with Smoove, a French bike-sharing company, providing over 300 bicycles and more than 10 rental stations inside and outside the Medina, thereby enhancing mobility convenience for both tourists and local residents. This has dispersed vehicle-centric traffic flow while contributing to carbon emissions reduction and urban environmental improvement.

That same year, Marrakesh also began pilot operations of electric buses utilizing solar power generation. This route, circulating major tourist sites, is regarded as a meaningful attempt in the shift toward eco-friendly public transportation transformation, achieving a reduction of over 14 tons of CO_2 emissions annually. Currently, electric buses operate on seven routes from the Medina's outskirts to its center, with discount benefits also provided to local students and seniors.

Travel Planned and Led by Local Communities

Marrakesh actively runs tourism programs in which local communities play a central role. Representative examples include fair trade-based handicraft workshops, cooking classes using local ingredients, and argan oil experiences led by women's cooperatives. For instance, the Tamanar Cooperative on the outskirts of Marrakesh is operated by 65 female members and offers tours that combine oil extraction demonstrations, product purchases, and traditional meal experiences. This program attracts over 8,000 participants annually, with approximately 82% of total revenue being reinvested within the cooperative. Part of this is reinvested in literacy education and health screening programs for local women.

In addition, small-scale, youth-led tour programs such as "Inside Medina" offer tourists with a deeper experience by providing insights into traditional culture, architecture, rituals, and cuisine. At the same time, these programs contribute to local youth employment and foster a sense of pride within the community. As of 2023, approximately 60 participants have been trained through this program, serving as local culture and tourism guides capable of providing explanations in European languages.

Transformation of Accommodation: The Green Riad Experiment

Riad, an accommodation converted from traditional houses, is a major asset of Marrakesh tourism, but sustainability issues have been raised due to its high energy and water consumption structure. Accordingly, some riads have introduced eco-friendly facilities and obtained the international eco-certificate "Green Key." A representative example, Riad Zahra, operates solar hot water heating, eco-friendly detergents, food waste composting, and wastewater recycling systems. These efforts are influencing visitors' environmental awareness and their choices when selecting accommodations.

As of 2022, 57 accommodations throughout Marrakesh were reported to have received Green Key certification, evaluated as the highest number in the North African region. Additionally, the average power consumption of these accommodations is 9.1 kWh per capita, recording significantly lower figures compared to 15.2 kWh for non-certified accommodations.

City-Wide Response to Post-Disaster Recovery

On September 8, 2023, a magnitude 6.8 earthquake struck central Morocco, causing significant damage to the Medina area. This UNESCO World Heritage Site suffered damage to numerous traditional buildings and cultural heritage sites, prompting Morocco's Ministry of Youth, Culture and Communication and ICOMOS to conduct emergency technical assessments and structural stability evaluations. During this process, detailed documentation was carried out using drones and 3D scanning technology, and restoration work began by combining traditional conservation techniques with modern technology.

For example, the Koutoubia Mosque underwent reinforcement following a crack assessment of its minaret, while Jemaa el-Fnaa Square implemented enhanced safety measures through access control using electronic mapping. In addition, earthquake damage status was shared in real time through digital platforms, contributing to rapid response from international support teams and facilitating the mobilization of donations.

Designing Connections Between Cities, Heritage, Residents, and Visitors

Tourism is no longer an experience consumed through outsiders' eyes; it is being redefined as a way of connecting with local life. The Medina of Marrakesh practices sustainable tourism as an urban strategy, incorporating community participation and environmental consideration into its design across all sectors including transportation, accommodation, experiences, and disaster response.

According to the 2024 report by the Marrakesh municipal government, the share of pedestrian and bicycle movement within the Medina increased from 22% in 2018 to 37% in 2023, while the local revenue return rate through fair-trade-based programs also rose from 35% to 48%. Reductions in energy and water consumption at accommodations, as well as waste reduction, are also being tracked through data as part of ongoing efforts to minimize tourism's environmental impact.

Future challenges include the commodification of traditional houses, resident displacement due to rising real estate prices, and excessive commercialization. The Marrakesh city government is reviewing policies such as rent regulation, the designation of protected zones, and the expansion of public accommodations.

In this way, the Medina of Marrakesh continues multilayered experiments for the sustainable coexistence of city and heritage, and its integrated approach combining urban planning, technology, community, and tourism is establishing itself as a practical model for the future of World Heritage cities.

Mahabalipuram,
India

India

Coastal Temples, Reinterpreted by the Community

Located on the eastern coast of Tamil Nadu state in India, Mahabalipuram has pursued sustainable tourism development centered on the religious architectural heritage of the Pallava dynasty since its inscription as a UNESCO World Heritage Site in 1984. This region's rock-cut cave temples, created around the 7th century, is evaluated as the prototype of South Indian Dravidian architecture and was inscribed under the name "Group of Monuments at Mahabalipuram."

However, the rapid influx of tourists following World Heritage inscription led to physical damage to the temples and local environmental issues. Accordingly, the Archaeological Survey of India (ASI), the Tamil Nadu Tourism Development Corporation, and UNESCO India Committee began building new systems to balance tourism and conservation through collaborative efforts.

Balancing Heritage Protection and Extended Stays

Mahabalipuram regulates tourism density through spatial reorganization for heritage protection and improvements to visitor circulation. Since 2010, following UNESCO's technical advisory, buffer zones were established between major heritage zones and non-heritage zones, and shuttle buses were introduced while prohibiting vehicle entry into the heritage areas. Visitors purchase tickets at the comprehensive tourism center located at the entrance to Mahabalipuram and travel to major sites via shuttle.

These measures have not only reduced damage to heritage sites but also encouraged tourists to spend time in peripheral areas, where traditional craft shops, restaurants, and accommodations operated by local residents are located. According to UNESCO (2020), the average duration of tourist stays in areas outside the heritage zone increased from 2.1 hours in 2015 to 3.7 hours in 2019.

Expanding Community-Driven Interpretation and Education Programs

The core of Mahabalipuram's sustainable tourism strategy is cultural guide programs through direct participation of local residents. Through the "Incredible India Heritage Guides" program, the Indian Ministry of Tourism trains local youth as heritage interpreters and deploys certified guides across the site.

Additionally, local NGO "Friends of Heritage" operates heritage education camps in cooperation with local schools, with over 500 students participating annually. Tourist programs include workshops demonstrating traditional Dravidian carving techniques, guided tours explaining the religious significance of temple structures, and experience-centered content rooted in the lives of local artisans.

As of 2022, over 60% of all guided tours were led by community members, with visitor satisfaction surveys reporting over 86% positive feedback.

Addressing Coastal Erosion and Preserving Cultural Landscapes

As a coastal city facing the Indian Ocean, Mahabalipuram is directly exposed to issues concerning sea level rise and coastal erosion due to climate change. Accordingly, India's Ministry of Earth Sciences and the Archaeological Survey of India (ASI) began digital modeling-based coastal erosion monitoring around the Shore Temple area from 2017.

Through heritage structure analysis using 3D scanning and LiDAR technology*, erosion rates and risk areas are identified in real time, forming the basis for ongoing breakwater installation and coastal sand restoration projects. In cooperation with UNESCO, the city has been selected as a pilot site for the "Coastal Heritage Management Model Responding to the Climate Crisis" since 2022, receiving technical and administrative support.

***LiDAR Technology:** Light Detection and Ranging (LiDAR) technology is a remote sensing technique that accurately measures distances to objects using laser beams.

Mahabalipuram's Changes in Numbers

Since the implementation of Mahabalipuram's sustainable tourism policies, the average duration of tourist stays in areas outside the heritage zone increased from 2.1 hours in 2015 to 3.7 hours in 2019. As of 2022, community-led guided tours accounted for 60% of all tours, with tourist satisfaction for these programs reaching 86%.

Challenges and Prospects: Designing the Coexistence of Tradition and Modernity

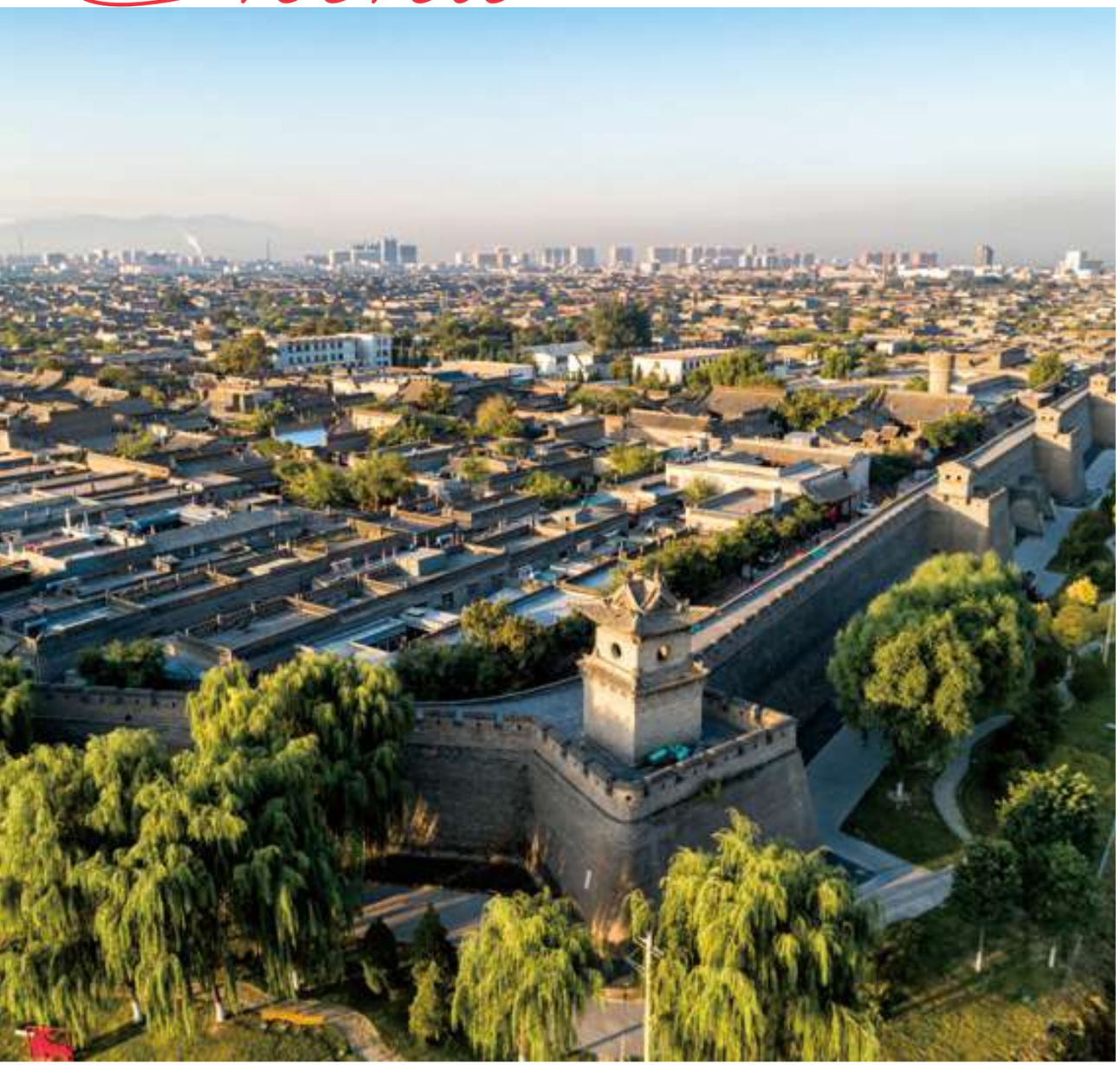
While Mahabalipuram has successfully implemented a community participatory model, several challenges still remain. In particular, issues such as hygiene and price competitiveness arising from unregulated accommodations, increased waste from tourist concentration, and the commercialization of residential areas continue to pose threats to sustainability.

To address these issues, the Tamil Nadu state government plans to expand public accommodations outside the heritage zone and operate a youth entrepreneurship incubation center by 2025. Additionally, sustainable tourism is being reinforced through the introduction of visitor codes of conduct, the expansion of digital reservation systems, and the strengthening of public sanitation personnel.

As a city of religious cultural heritage and a place at the boundary of marine environments, Mahabalipuram demonstrates a complex model where tradition and modernity, religion and technology, tourism and community coexist. Beyond mere consumption of heritage, the city designs a sustainable future for its cultural legacy through connection with local communities.

Ping Yao,
China

China



Ancient Walls, Living Daily Life

The Ancient City of Ping Yao, situated in the heart of Jinzhong City, Shanxi Province, China, has perfectly preserved its urban layout from the 14th-century Ming dynasty. Inscribed as a UNESCO World Heritage Site in 1997, it was recognized as a rare urban heritage preserving the social, economic, and religious structures of the Ming and Qing dynasties.

Covering approximately 2.25 km^2, the city features 6 km of walls, six gates, 72 watchtowers, and 12-meter-high defensive facilities, with hundreds of shops, temples, and residences from the Qing and Ming dynasties still standing. Notably, it houses China's first private bank, Rishengchang Draft Bank, giving it significant value in commercial and financial history.

Integrated Conservation, Residency, and Tourism Master Plan: Balancing the City

Since its inscription as a UNESCO World Heritage Site in 1997, the Ancient City of Ping Yao has faced simultaneous challenges arising from historical preservation, regional development, and tourism demand. Recognizing the need for an integrated strategy to maintain the city's identity while improving residents' quality of life and realizing sustainable tourism, the city established the "Ancient City Conservation and Revitalization Master Plan" in 2014 in cooperation with UNESCO, the Global Heritage Fund, and Tongji Urban Planning and Design Institute. This master plan is the first official plan to manage urban conservation, residential environment improvement, and tourism activation within a single integrated structure.

The first key pillar of the master plan is the preservation of historical spaces. The Ancient City of Ping Yao's physical heritage is characterized by maintaining the Ming and Qing dynasties' urban structure intact, and accordingly, core heritage elements such as city walls, gate towers, temples, escort agencies, and traditional commercial streets are being systematically restored under strict regulations. The basic principle of the conservation policy is to preserve the traditional spatial arrangement of the entire city, with restoration guidelines established for detailed architectural elements including building facade materials, window structures, and street widths. This approach is being pursued as a comprehensive method seeking to reproduce both traditional urban aesthetics and defensive urban structures, going beyond simple external restoration.

The second pillar is the livability of residents—restoring the city's function as a living space. Under the premise that historic city preservation should not threaten residents' lives, Ping Yao has pursued both modern conservation of traditional houses and improvement of living environments in parallel. The "Traditional Residence Restoration Incentive System" introduced in 2012 is a policy that encourages residents to live in homes while preserving the original form of traditional architecture, which include subsidies, tax benefits, and technical support. This system is a structural mechanism enabling residents to function as active participants rather than passive beneficiaries of heritage preservation, while also serving as a foundation for the self-sustaining maintenance of traditional houses and stable continuity of the community.

The third pillar is a tourism strategy linked to regional economic revitalization. Ping Yao views tourism not merely as an object of external consumption but implements various policies to develop it into creative industries based on local resident participation and culture. Cultural workshops within the ancient city, fair trade-based traditional craft experiences, and tourism programs linked to local festivals are all operated by resident initiative, with a structure where a certain percentage of tourism revenue circulates back into conservation funds. In this way, the city is shifting its strategy toward focusing on qualitative stay experiences rather than quantitative tourist increases, aiming to cultivate the region's economic self-sufficiency in the long term.

These three axes are not separate functions but are integrated and interconnected. The master plan was designed on the principle that heritage preservation is truly sustainable only when it is maintained not merely as the preservation of physical space, but as a living space sustained through residents' lives and the vitality of the local economy. The UNESCO World Heritage Centre evaluated this plan as an integrated urban strategy that ensures competent conservation, livability, and sustainability of regional economy and social development, presenting Pingyao's approach as a representative example for Asian heritage cities.

Consequently, Ping Yao's integrated master plan presents a new model of "a city where life and memory coexist" rather than a city for preservation," serving as a practical model that concretely demonstrates how the future of historic cities should balance between past and present, preservation and development in shaping their future.

Resident Participation and Restoration Practice

The implementation of the master plan has progressed under the principle of resident-centered "community co-creation." According to an ISPRS research, 78.5% of Ping Yao residents are long-term settlers who have lived there for over 20 years, and among them, 60% are actively participating in the restoration policies. This demonstrates residents' voluntary will and participation in preserving urban identity.

Building on this foundation, the "Better Pingyao" workshop was conducted in 2016. In this workshop, residents from five traditional residential areas participated to directly exchange opinions on urban preservation, living conditions, and tourism demands. Through this consultation process, the city's preservation planning shifted from a centralized and expert-centered approach to a resident consultation-centered approach.

Additionally, the "Traditional Residence Restoration Incentive Implementation Guidelines" announced in 2012 provided residents with opportunities to actively participate in the preservation of traditional houses. These guidelines included maintenance manuals, legal procedures, and subsidy structures, defining the partnership format between homeowners and local government. This enabled practical approaches to maintaining the appearance and structure of traditional streets while preserving the residential environments.

Thus, the core implementation element of the master plan is establishing mechanisms for resident-led restoration and immediate feedback systems. This is key to sustainability in that preservation strategies operate not as an externally imposed measure, but as an awareness of identity and culture manifested through active engagement within the local community.

The Paradox of World Heritage Cities: Between Preservation and Growth

Since its inscription as a UNESCO World Heritage Site in 1997, the Ancient City of Ping Yao has established itself as both a city with historical and cultural identity and a nationally designated AAAAA-level tourist destination. This designation, the highest level of national tourist site classification, simultaneously symbolizes the heritage city's international status and tourism appeal. Indeed, Ping Yao attracts millions of tourists annually centered on its cultural heritage resources, serving as a catalyst for regional economic growth. Particularly, it shows positive changes in the activation of related industries such as accommodation, food, transportation, and cultural products, as well as improved revenue structures for resident-operated guesthouses and traditional craft shops.

However, such development does not always bring only positive effects to the region. Commercialization as an AAAAA-level tourist site carries a dual nature, as it can disrupt the balance between the city's authenticity and living environment. The influx of large-scale external capital has triggered rising rents and real estate speculation, while the conversion of traditional houses into accommodations has led to a decrease in actual residents. Some alleys focus on tourism commodification, leading to the disappearance of local life rhythms, and cases of indiscriminate renovation of traditional buildings are on the rise. The title of World Heritage ironically faces the reality of threatening the region's unique cultural sensibility and daily life balance.

In response, the city aims for a "living heritage city" and attempts a complex approach beyond simple physical preservation. Resident-centered preservation policies like the "Living Heritage Initiative," democratization of heritage information using digital technology, and operation of reservation systems and peak season quotas to regulate tourist capacity are measures to prevent urban overcrowding and seek coexistence between life and tourism. Additionally, in line with the master plan, long-term community-based management systems are being established, including training of heritage interpreters, cultural transmission programs for residents, and education in traditional architectural techniques.

As of 2023, the Ancient City of Ping Yao recorded 63.94 points out of 100 in the UNESCO World Heritage Centre's Global Sustainable Tourism Criteria (GSTC). This means positive results were shown in 24 out of 30 core evaluation items, suggesting that heritage preservation, tourism, resident participation, and profit sharing are balanced to a certain degree. It also indicates, however, that there is still progress to be made in terms of improving residents' quality of life, the autonomous transmission of traditional culture, and the endogenous growth of the tourism industry.

The core remains "people." Heritage is not merely a place preserving the past but a space where the memories and practices of communities living in the present accumulate. Ping Yao's case represents an ongoing experiment in attempting to harmoniously connect regional economy and tourism while preserving urban identity, which is also a universal challenge faced by World Heritage cities. When tourism is designed not to consume the city but to coexist with its life, heritage cities can truly move toward a sustainable future.

Vigan,
Philippines

Philippines

The Time of Spanish Colonial City, Still Alive on Today's Streets

Located in Ilocos Sur in the northwestern part of Luzon Island in the Philippines, Vigan is a unique urban heritage where 16th-century Spanish colonial urban structure and indigenous culture have fused. Inscribed as a UNESCO World Heritage Site in 1999, the Historic City of Vigan is one of the best-preserved Spanish colonial cities in Southeast Asia, a space where European urban planning and traditional Philippine architectural styles coexist. Spanish-style cobblestone streets, wooden buildings with balconies, and eco-friendly horse-drawn carriages known as kalesa visually express the heritage's identity, while the city functions as a space that embraces traces of the past in daily life.

Vigan is a planned city designed by Spanish explorer Juan de Salcedo in 1572, with clear features of European urban planning including a grid street pattern, central plaza, and public space structure centered on the cathedral and city hall. This exemplifies typical Spanish colonial urban planning, and it is the only city in Southeast Asia where the original form has been largely preserved. These characteristics have influenced Vigan's policy direction of viewing not only physical preservation but the spatial structure itself as cultural heritage. However, since the 2000s, the city has faced various challenges, including a surge in tourism, alterations to architectural styles due to commercialization, and a reduction in residential spaces.

The Entire City as a Heritage District: Balancing Preservation and Daily Life

Vigan does not limit heritage preservation to specific sites; instead, it designates the entire city as a single heritage district. In the early 2000s, the National Commission for Culture and the Arts (NCCA) of the Philippines, in cooperation with local government and residents, established a conservation district management plan centered on Vigan's old town, particularly the Calle Crisologo area. Measures including traditional building facade preservation, commercial signage regulation, sidewalk maintenance, and nighttime landscape lighting were approaches that considered both the historicity of the urban landscape and residents' living convenience.

Along with this, policies were implemented to encourage tourist pedestrian movement through vehicle traffic control and disperse the time tourists spend and their movement routes within the area. As a result, the inconvenience to local residents caused by tourist congestion was alleviated, and the pace of commercialization in the city center could be better managed.

Building a Resident Participatory Tourism Model: Linking Interpretation, Experience, and Education

Vigan's sustainable tourism strategy is based on residents' voluntary participation. A representative example is the "Vigan Cultural Interpreter Program." This program provides heritage interpretation education to residents through cooperation between local universities, city hall, and the UNESCO Philippines Committee, supporting them to become official guides after certification.

Additionally, the "Vigan House of Fabs" where traditional craft experiences are available, and small restaurants operating local cooking classes, function as venues that encourage understanding and participation in local culture beyond mere consumption. The kalesa tour operated by residents has developed into interpretive content where visitors can experience the city's history, architecture, and folklore through the drivers' explanations.

Since 2015, the city has been allocating a portion of tourism revenue to a community development fund, through which it promotes projects such as operating youth cultural center, renovating public libraries, and improving housing for vulnerable groups.

Expanding Heritage Accessibility Through Education and Digital Technologya

Digital technology has created another turning point for heritage tourism in Vigan. In 2021, the Philippine Department of Tourism and the NCCA launched the "Digital Vigan" project, developing 3D virtual tours of heritage buildings, digital interpretation apps, and AR-based historical experience content.

For example, the Metropolitan Cathedral of Vigan and the city hall were designed to be viewable remotely through 360-degree VR tours, providing multilingual detailed explanations about architectural chronology, restoration information, and materials used for major heritage buildings. These services have increased tourism accessibility while minimizing heritage damage.

Additionally, local elementary and secondary schools are using digital heritage education content to help students deepen their understanding of local heritage and learn the importance of preservation. This is drawing attention as a long-term educational strategy that heightens the next generation's sensibility for sustainable heritage conservation.

Vigan's Changes in Numbers

Since its inscription as a UNESCO World Heritage Site in 1999, Vigan has undertaken various efforts to balance preservation and development. Particularly, the "Digital Vigan Project" initiated in 2023 is evaluated as a representative attempt to digitally preserve cultural heritage and improve citizen accessibility.

This project was promoted through cooperation with the NCCA and the Philippine Heritage Map Project. As part of the project, 25 major buildings in Vigan's historic district were digitized through high-resolution 3D scanning, and based on this, a web-based virtual experience platform, the Vigan Virtual Heritage Tour, was developed.

According to the UNESCO official report, this platform was established in April 2023 with support from the UNESCO Heritage Emergency Fund, and in collaboration with Vigan City Hall, it included multilingual content development for improved digital accessibility and screen narration technology for the visually impaired.

Moreover, the 2024 UNESCO Regional Office for East Asia report notes that digital platform is also being used as educational tools for sustainable tourism, with 120 local teachers having completed training on utilizing digital cultural heritage content.

Through this technology-based approach, Vigan aims not only to increase tourist numbers, but also to enhance public awareness of cultural heritage and promote its educational use. This can be noted as an example of strengthening social sustainability through heritage, going beyond physical heritage preservation.

HECITAG : Voices of the City

Digital Technology and Community: Walking Together with Tourism

Since being recognized by UNESCO in 1999 as an "outstanding preservation example as a World Heritage city," Vigan has structured its city around sustainable tourism and community participation. While utilizing heritage protection as a means of development (Canopy Project), it has established a governance strategy that encourages residents to directly participate in cultural heritage preservation planning and implementation.

However, the major challenge is excessive tourism demand pressuring the city. With increasing tourists, traditional houses in the city center are being commercialized, risking the deterioration of residents' living environments and social solidarity. UNESCO recognized these risks and designated the entire city as a "domestic heritage area" in its heritage city management plan, managing it to ensure that residents' daily lives and tourism activities do not conflict, thereby promoting the simultaneous maintenance of community life and tourism development.

Additionally, building community capacity serves as a central axis for sustaining long-term development. According to UNESCO standards, Vigan develops preservation frameworks through Homeowners Associations and local government leadership, providing citizen participation training to encourage residents to independently maintain and manage urban heritage. Through this, residents are recognized as "heritage stakeholders," strengthening community resilience along with urban identity recovery.

Technology utilization also serves as a safety net for tourism activation and preservation. Through the "Digital Vigan" project, over 25 buildings were 3D scanned and web-based virtual tours were offered, diversifying tourism experiences without physical damage. This is evaluated as a preemptive response strategy that maintains balanced preservation of places and tourist accessibility.

Vigan's future direction involves strengthening management systems, expanding local participation, and maintaining educational continuity. UNESCO further highlights three core elements of sustainable cultural tourism: collaborative systems between local residents and local government; role-based preservation education; and small-scale, resident-centered tourism activities. Policy-wise, structures are being legislated to reinvest portions of locally-based tourism revenue into residential environment improvement, disaster recovery, and heritage restoration.

Vigan has already demonstrated a model in which "preservation itself becomes a source of tourism competitiveness," creating a virtuous cycle where tourism contributes to the local community while simultaneously protecting heritage. In doing so, Vigan shows that tourism can be more than a mere economic activity; it can serve as a platform for sustainable community development and the strengthening of cultural identity.

DIGITAL

Subtitle: Digital Technology and New Pathways for

World Heritage is both a legacy of the past and asset for the future; the methods for its preservation and transmission have evolved with the times, and at the heart of today's transformation lies digital technology.

UNESCO clearly declared the importance of digital technology through the 2003 "Charter on the Preservation of Digital Heritage"; this charter not only addressed digital environment's impact on heritage protection but also heralded the arrival of an era where heritage itself exists in digital form. Subsequently, UNESCO presented specific criteria through the "Operational Guidelines for the Implementation of the World Heritage Convention" for how digital technology can contribute to heritage preservation in areas of documentation, management, education, and participation.

At the 2021 UNESCO Conference of Ministers of Culture, "Heritage Governance Through Digital Transformation" was adopted as a major agenda item. This meeting emphasized that digital technology goes beyond serving as a new exhibition tool, representing a contemporary preservation strategy by enhancing heritage visibility, democratizing participation, and enabling more precise conservation.

Digital preservation functions as a means of preventive restoration that prevents actual heritage damage. Simultaneously, it operates as a backup device that reproduces and transmits heritage value in crisis situations. High-resolution 3D scanning, geographic information systems (GIS), and AI-based monitoring systems represent technological advances leading this trend. Documentation through technology complements the limitations of analog restoration and, in the long term, becomes the foundation for protecting heritage authenticity and identity.

Various heritage cities in the Asia-Pacific region are adopting technology in different ways within this trend. In Korea, Baekje Historic Areas are attempting integrated documentation of intangible and tangible heritage through digital restoration of rituals and architectural techniques, while Japan's Himeji-jo presents a model expanding spatial understanding through virtual viewpoint experiences like "Egret's Eye View." Singapore employs smart tour apps and digital interpretation systems to facilitate citizen-participatory heritage experiences, while Vietnam's Huế demonstrates the direction of complex heritage management through digital content integrating the Complex of Monuments and court music. Indonesia's Yogyakarta, Cambodia's Angkor, and China's Lijiang are also pursuing both digital preservation and enhanced accessibility of heritage according to each country's policies and technological capabilities.

Digital technology is not a replacement for heritage but a means to expand ways of understanding and accessing heritage. More important than the technology itself is for whom and for what preservation purposes it is used. Digitally recording memory means systematizing promises for the future. Technology that records and shares heritage is both a new language of preservation that cities must take responsibility for and a contemporary heritage to be transmitted to the next generation.

Baekje Historic Areas, Korea

Exploring the Baekje Historic Areas from the Perspective of Digital Technology and Heritage Protection:

Connecting Tangible and Intangible, Linking Past and Future

Text by Do Mi-sol Administrative Officer, Baekje World Heritage Center

The Digital Transformation Era: New Horizons in Cultural Heritage Protection

The digital era has fully arrived in the cultural heritage field. The concept of digital heritage, which emerged since the 1990s, encompasses cultural, educational, and scientific materials that are digitally generated or converted to digital formats. Accordingly, UNESCO established the Charter on the Preservation of Digital Heritage in 2023, presenting international standards for preservation, research, and utilization.

Today's cultural heritage protection is transitioning beyond simple physical preservation to an integrated approach that incorporates investigation, documentation, preservation, management, and utilization through digital technology. Representative examples include survey techniques using LiDAR, ground-penetrating radar, and drone aerial photography; documentation based on 3D scanning and modeling; and digital restoration and visualization work. Such data is actively utilized through archiving to preserve heritage in its original form without physical damage. Digital technology is also used in exhibitions and education, providing immersive experiences through various technologies including virtual reality (VR), augmented reality (AR), holograms, and the metaverse, while digital exhibition platforms enable people worldwide to appreciate heritage without time or space constraints[1]. Thus, digital technology is gaining attention as a key means to protect heritage from natural disasters, climate crisis, and tourism while enabling sustainable utilization.

The COVID-19 pandemic particularly accelerated this trend, and non-contact, digital-based heritage access methods have become the new standard. Consequently, digital technology is establishing an innovative turning point in cultural heritage preservation and utilization, positioning itself as a tool for sustainable heritage transmission to future generations.

1) Yoo Dong-hwan, 2021, Current Status and Prospects of Digital Heritage, 2021 Baekje Historic Areas International Academic Forum Proceedings

Digital Technology: Recording and Reviving Heritage

The Baekje Historic Areas are actively introducing digital technology in various preservation and utilization projects. As cases of heritage deformation and damage due to disasters have increased, the need for documentation has emerged. High-resolution 3D precision data was constructed by capturing drone aerial and ground photographs of the World Heritage Baekje Historic Areas, and accurate location (X, Y, Z), form, and numerical information were secured using surveying technology. This documentation data is publicly available through the Baekje World Heritage Center website.[2)]

The Stone Pagoda at Mireuksa Temple Site in Iksan underwent a 20-year restoration process during which the pagoda's structure and stone materials were precisely scanned to create a database of each stone's location, form, and damage information. Restoration possibilities were scientifically analyzed through structural analysis and digital modeling. During the restoration process, digital modeling and structural analysis technology were applied to scientifically analyze the combination state of each stone material and maintenance possibilities, precisely recording the restoration process. These records were provided not only for academic research but also as digital exhibition content for the general public.

Additionally, Tomb No. 1 of Buyeo Royal Tombs was virtually restored through high-resolution 3D scanning and recreated as VR content in the Buyeo National Museum's exhibition hall, allowing visitors to vividly experience the tomb's interior. This serves not only as experiential content but also as a digital preservation asset for damage prevention and disaster response.

The Value of Baekje Historic Areas: Beyond Tangible to Intangible

The Baekje Historic Areas, representing the late Baekje period (475–660 CE), were inscribed on the UNESCO World Heritage List in 2015 and are celebrating their 10th anniversary this year. The Baekje Historic Areas are a serial property consisting of eight archaeological sites distributed across Gongju, Buyeo, and Iksan—the former royal capitals of Baekje—including Gongsanseong Fortress, the Tomb of King Muryeong and Royal Tombs in Gongju; the Archaeological Site in Gwanbuk-ri and Busosanseong Fortress, Jeongnimsa Temple Site, Buyeo Royal Tombs, and Outer City Wall in Buyeo; and the Archaeological Site in Wanggung-ri and Mireuksa Temple Site in Iksan.

Baekje played a central role in connecting China and Japan through active international exchange in ancient East Asia, greatly contributing to the development of urban planning, the spread of Buddhism, and artistic and architectural techniques in East Asia. These characteristics are well reflected in each site of the Baekje Historic Areas, for which they were recognized for their Outstanding Universal Value.

The true value of the Baekje Historic Areas is not limited to tangible heritage. Baekje accepted Buddhism as a state religion and formed its own unique culture by fusing foreign cultures, with Baekje's inclusive attitude and spirit of cultural fusion permeating throughout the heritage. The sophisticated architectural techniques of Baekje in handling wood and stone seen in palaces and outer walls, Buddhist thought and doctrine reflected in temples, funeral rites and afterlife worldview of Baekje royalty shown in royal tombs, artistic sensibility expressing the ideology contained in the Great Gilt-bronze Incense Burner of Baekje, and the intangible memories of people who have remembered and inherited this heritage all combine to form one comprehensive heritage. Therefore, an approach is required that encompasses not only the physical preservation of heritage but also the intangible attributes flowing beneath it.

2) http://3d.baekje-heritage.or.kr/

Connecting Intangible Values Through Digital Technology

Baekje's spiritual culture is being reexamined today through new approaches using digital technology. Particularly in Gongju, Buyeo, and Iksan, the intangible elements of Baekje are being revived through light and imagery via World Heritage media art programs.

At Mireuksa Temple Site in Iksan, the Media Art Festa brought the ideal world of Maitreya faith to life through drones, sound, and light, expressing through media art the world of Maitreya belief that served as both the background for Mireuksa Temple's founding and the Baekje people's utopia. The temple's cosmic symbolism has also been expanded with contemporary sensibilities.

The media art presented at the Archaeological Site in Gwanbuk-ri and Busosanseong Fortress focused on these sites as fundamental spaces of Sabi Baekje that embody the spirit of the Baekje people. It explored the dreams and ideals of the Baekje people left in this great heritage, as well as the values they seek to convey to us today, presenting them in an accessible and engaging way through experiential media art.

The Gongsanseong media art in Gongju was conceptualized around a banquet in 521 CE, when King Muryeong sent envoys to China's Liang Dynasty to proclaim that Baekje had defeated Goguryeo multiple times and had once again become a powerful nation. At Geumseru Pavilion, media façade, laser shows, and anamorphic holograms were used to vividly showcase flower petals and excavated artifacts in three-dimensional displays.

In this way, the Baekje Historic Areas are reinterpreting through digital means not only the tangible heritage but also the intangible values that have been remembered and inherited, delivering new inspiration to visitors and future generations. Heritage is now being reborn as a "living story" that connects past and present.

Toward Smart Heritage Cities: Connecting for the Future

Digital technology has now moved beyond being a simple auxiliary tool, serving as a foundation for reorganizing entire cities around heritage. Gongju, Buyeo, and Iksan are demonstrating the potential for transformation into smart heritage cities, becoming platforms that encompass tourism, education, research, and local cultural revitalization.

Digital kiosks, mobile interpretation apps, AR-based guides, and metaverse experience centers are drawing active participation from citizens and tourists, while AI-based route guidance, heritage management using digital twins, and citizen-participatory archive construction present future directions for heritage cities.

The value of heritage expands not only when it is preserved but when it is shared. Digital technology is the tool that makes these connections broader and deeper.

A Digital Journey of Heritage: Connecting Memories and Opening the Future

Digital technology functions beyond being a simple restoration tool, serving as a medium that transmits memories of the past to the future. Through technology, heritage can be shared with wider audiences and in diverse ways without compromising its authenticity.

The digital technology applied to the Baekje Historic Areas goes beyond simple visual reproduction, reviving Baekje's architectural techniques, philosophy, and spiritual world in the present. This serves as a precedent suggesting the direction heritage cities should take, potentially becoming a model applicable to historic cities throughout the Asia-Pacific region.

The integrated preservation of intangible and tangible elements is a core challenge for future heritage management. 3D scanning, AI-based analysis, and AR experiences are means that can effectively convey not only physical information but also traditional techniques and their performance contexts. However, adoption of technology alone is insufficient; it must be supported by governance that respects heritage's original form and context, along with regional cooperation.

The Baekje Historic Areas demonstrate the potential for transformation into "smart heritage cities" through these digital-based preservation strategies. Heritage preservation is not merely about recreating the past; it is about securing local identity and cultural sustainability.

Heritage is a repository of memory, and digital technology is the conduit that extends that memory into the future. We hope that through the combination of Baekje's heritage with digital technology, it will be reborn as an open cultural asset in which local communities and global citizens can participate and share together.

Himeji-jo, Japan

An Egret's Eye View of the Castle

Himeji-jo is a castle architecture located in Himeji City in the Hyogo Prefecture, a representative Japanese wooden castle completed in the early 17th century during the Edo period. Demonstrating the essence of ancient Japanese defensive architecture, this castle consists of a soaring six-story main keep and 83 ancillary buildings, all surrounded by triple walls and a moat system.

Himeji-jo is also known by the nickname "White Egret Castle" due to its white plaster exterior, and its elegant yet robust castle structure has received much acclaim both within and outside Japan. In recognition of its historical and architectural value, it was inscribed as a UNESCO World Heritage Site in 1993. UNESCO evaluated it as one of the finest examples of wooden castle architecture in terms of completeness and state of preservation.

The Heisei Restoration project, which began in October 2009, was a five-year major undertaking that focused intensively on repair and restoration work on the roof and exterior walls. During this process, Himeji-jo introduced an innovative approach different from traditional preservation methods: the "Egret's Eye View" program.

Opening up the Preservation Site: Experiences Through the Process of Creation

During its large-scale restoration work from 2010 to 2015, Himeji-jo did not cut off visitor access during the construction period but instead attempted a new approach: the "Egret's Eye View." This program transformed the restoration site from a simple workplace into cultural content and an educational space. Visitors could vividly observe craftsmen at work—washing roof tiles, repairing wooden structures, and applying multiple thick layers of plaster. As evidenced by records showing that over 80% of the approximately 80,000 roof tiles were cleaned and reused while the remaining 16,000 were newly produced, visitors experienced both the historical context and contemporary standards of the restoration process.

The Himeji City government, which designed this program, opened the restoration site to the public—true to its name likening it to “the egret’s eye”—to enhance transparency in cultural property restoration and public understanding. This was an educational attempt to allow visitors to experience the preservation process itself as heritage. Visitors could broaden their understanding of preservation techniques while observing the restoration process, and they also shared a sense of responsibility and pride in the preservation work.

Visitors could actually see the high-altitude work sites and receive guidance on building materials, construction methods, and restoration philosophy. The view from the highest point of the main keep while wearing safety helmets became an intense experience for visitors. The “Egret’s Eye View” became a strategy for maintaining visitor interest and curiosity instead of experiencing a secondary decline in visitors during the restoration period. By transparently disclosing the heritage restoration process, it achieved the combined effect of increasing trust in preservation while also securing tourism revenue.

AR Experience App Himeji Castle Discovery

The “Himeji Castle Discovery” AR app provided by Himeji City offers historically verified 3D animations, historical reconstruction videos, and character explanations through augmented reality at 16 key points inside Himeji-jo via smartphone GPS. This app enables visitors to see historical building reconstructions or lost palace structures superimposed on real spaces, functioning to enhance understanding of the castle’s interior and strengthen historical immersion.

The app is provided in multiple languages and is promoted on the official Himeji City website and visitor guides. Through this, tourists can actively acquire historical information about structures, defense systems, and living spaces through user-centric AR experiences based on their location, going beyond simple visual observation.

VR Web Archive ‘Himeji Castle VR’

The “Himeji Castle VR” service, accessible from general web browsers since April 2021, has served as a digital archive offering 360-degree indoor and outdoor VR tours of Himeji-jo online. Users can virtually tour up to the top floor of the main keep based on high-resolution 3D models, and can digitally explore spaces that are difficult to access in actual sites. Himeji City supports virtual tours of all areas including the castle interior and the top floor of the main keep through its 360° VR web tour service.

This content was completed by a 10-member VR production team through approximately two weeks of filming using drones, high-resolution cameras, and laser scanners, a photogrammetry process utilizing tens of millions of images and high-precision laser scan data, and VR video production processes. As part of the Agency for Cultural Affairs’ “Multilingual Commentary Development Project for Cultural Properties,” the production team secured multilingual accessibility by including English and Chinese narration for foreign visitors.

Recording the Invisible Time: Shaping the Future of Heritage Digitally

Himeji-jo’s AR and VR-based digital preservation projects play a pivotal role in dramatically expanding the breadth and depth of heritage experiences. First, by comprehensively enhancing accessibility, it enabled a diverse range of visitors to experience the heritage at an equal level. The AR app “Himeji Castle Discovery” provides 3D animations, restoration process videos, and character explanations at 16 key points within the castle, delivering content precisely superimposed on real spaces based on users’ GPS locations. This is an effective tool that provides visitors with real-time, space-based immersive historical learning opportunities beyond simple visual information through on-site reproduction of high-resolution content.

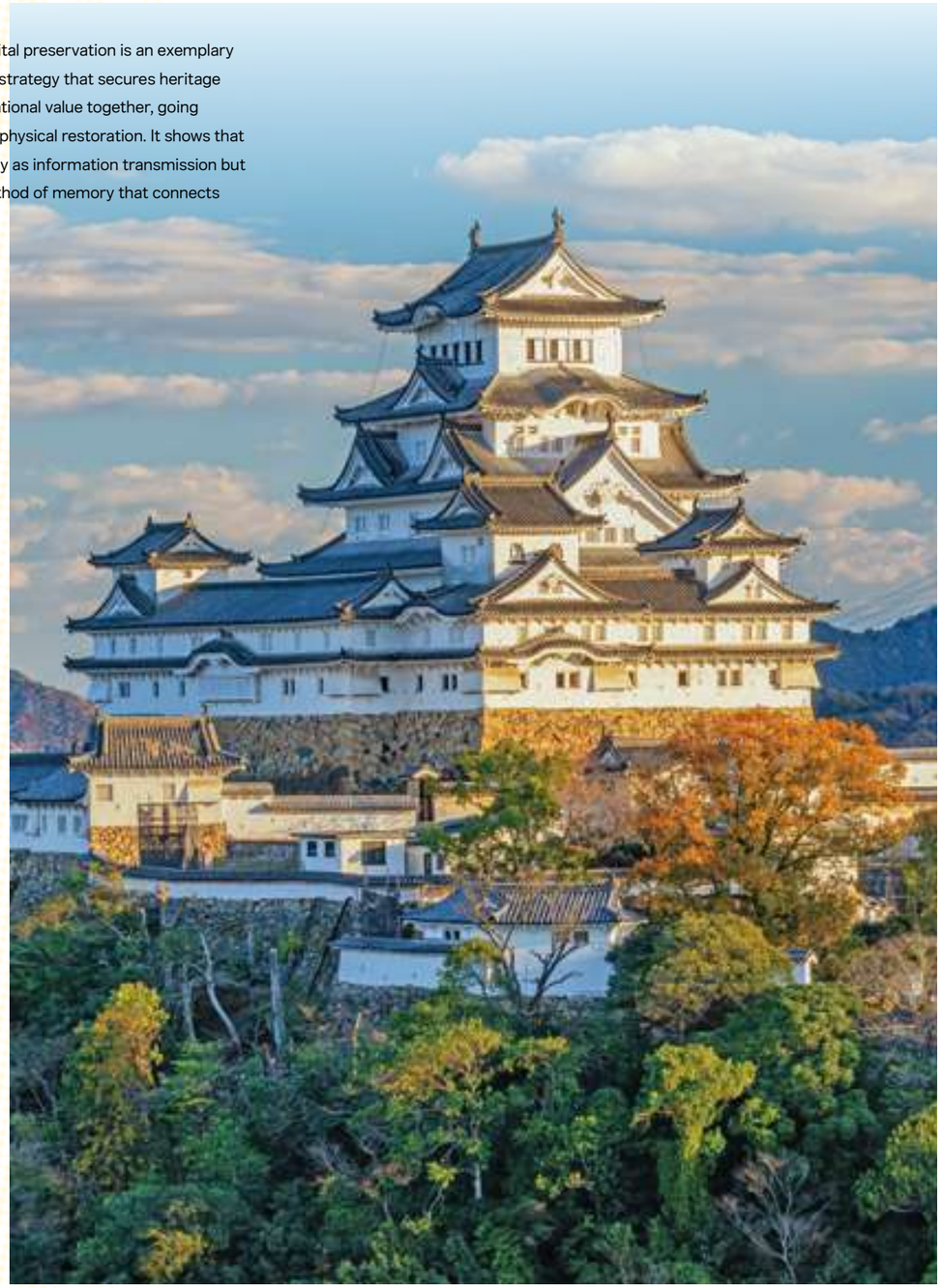
Second, it holds great significance in terms of precision in archival preservation and enhancement of long-term utilization. The VR “360° Web Tour” created in collaboration with Himeji City was produced through two weeks of precision filming using drone photography, high-resolution cameras, and laser scanners. This digitally implemented structures with restricted access to general visitors, such as the top floor of the main keep, and thousands to tens of thousands of images and precision point cloud data were stored as digital archives. These become key assets for multipurpose utilization including future disaster recovery, restoration design, and educational and experiential content.

Third, digital content plays a major role in terms of visitor participation and engagement. The AR app is structured to activate content based on location at 16 on-site points, enabling visitors to directly experience phenomena through smartphones and engage in self-directed exploration and learning. The VR tour is designed to allow free exploration of major spaces online, enabling visitors to experience Himeji-jo without temporal or spatial constraints. This digital immersive environment is evaluated as significantly enhancing visitors’ understanding and interest in heritage.

Fourth, it is also effective from the perspective of democratic access and strengthening educational value. Digital platforms are accessible anytime and anywhere, and because they support high-resolution content and multiple languages, they break down barriers of language, physical conditions, and physical distance. Particularly, the VR web tour can be considered an exemplary case of implementing universal access rights to heritage information by easily providing heritage experience opportunities to those who have difficulty with on-site tourism, such as remote residents, people with disabilities, and the elderly.

Fifth, it clearly conveys the message of “integration of documentation and participation” as an extension of digital technology’s heritage preservation. The AR and VR content implemented by Himeji-jo directly reflects the core values of “documentation, access, and participation” aimed for by the UNESCO Charter on Digital Heritage, providing a structural framework that connects restoration processes, on-site experiences, and archival data. This can be universally applied in the future and establish itself as a digital strategy model for smart heritage cities.

Thus, Himeji-jo’s AR and VR digital preservation is an exemplary case of digital age preservation strategy that secures heritage visibility, accessibility, and educational value together, going beyond the limitations of actual physical restoration. It shows that technology is evolving not merely as information transmission but as an experiential recording method of memory that connects people and spaces.



Designing Memory for the Future: New Pathways Opened by Digital Heritage

Digital technology has now moved beyond being an auxiliary means of heritage preservation to become a core language for maintaining heritage identity and sharing it with the next generation. The environment surrounding World Heritage sites is becoming increasingly complex, with pressures from climate crisis, natural disasters, overtourism, and urbanization threatening the survival conditions of heritage. In this context, digital preservation records the structure, meaning, and context of heritage in high resolution before physical damage occurs, serving as a backup that becomes the standard for restoration in emergency situations. Cases such as Himeji-jo’s “Egret’s Eye View” program and real-time disclosure of restoration processes are developing beyond simply using technology as a visualization tool, forming new connections between heritage, visitors, and local communities.

Above all, digital technology promotes the democratization of heritage preservation. While in the past, heritage information and preservation authority were concentrated among a small number of experts or institutions; now paths are opening for more people to access, understand, and participate in heritage through digital archives, online exhibitions, and AR-based interpretation systems.

Digital technology is leading a paradigm shift from ownership to “sharing” of heritage, from viewing to “participation.”

However, these possibilities are not completed through technology alone. Digital preservation always involves human choice, planning, and responsibility, and it leads to sustainable heritage management only when the direction of technology aligns with cultural and ethical sensibilities. Moreover, challenges remain to be solved, including long-term preservation of digital materials, imbalances in accessibility, and inclusion of data-marginalized regions.

Ultimately, digital preservation is not an act of replicating the past but a work of designing memory for the future. World Heritage sites are not merely beautiful landscapes or old buildings but trajectories of life that human communities have remembered and inherited. Recording and preserving this memory through technology is both a promise for an unbroken future and a new form of responsibility for humanity’s shared cultural assets. Digital heritage is both a tool for concretizing that promise and a new way of creating universal heritage for the next generation.

Singapore

Walking the Path of Smart Heritage

Singapore is recognized as Asia's most densely populated city-state and a city where cutting-edge technology and culture coexist. Despite its small land area, Singapore possesses complex urban heritage formed through the long-term coexistence of diverse races and cultures.

To preserve and promote this history and tradition, the Singapore government has pursued heritage preservation strategies based on Information and Communication Technology (ICT). Efforts continue to integrate digital technology into heritage preservation to effectively convey stories of the past to present and future generations, transforming the entire city into a "living museum."

Walking Through the Past via Apps: BalikSG and Singapore Heritage Trails

In 2018, the National Archives of Singapore (NAS) and National Heritage Board (NHB) launched a smartphone app called BalikSG that enables citizens to experience the city while connecting past and present.

Balik, meaning "to look back" in Malay, introduces historical sites throughout the city along with past photos, maps, and audio archives, providing features that recreate the landscapes and life of that era through AR. For example, when local users explore the old Kampong Glam streets or Bugis area, photos and interviews from the 1960s and 1970s are overlaid on the screen, allowing them to visually understand the changes and context of these locations. This holds great educational and cultural significance in that heritage moves beyond simple explanation to be constructed as place-based interactive narrative.

Another representative example is the Singapore Heritage Trails app developed by NHB. This app presents over 20 cultural heritage trail courses throughout Singapore, providing multilingual guidance on the history, architecture, and community stories of each area. Particularly since 2020, it has introduced interactive features in a Do-It-Yourself (DIY) format, strengthening the function for citizens to set their own heritage routes and create custom tours for families or school groups. In this way, heritage education has expanded from classroom-centered to city-wide, establishing itself as a mobile-based participatory learning environment.

Combining Digital Archives With Community Archiving

Beyond government-led archives, Singapore has empowered citizen-participatory digital documentation projects. A representative example is NAS' "Citizen Archivist Project," an online platform where ordinary citizens can digitize and share their photos, documents, and video records. Thousands of citizens have participated in this project, and the registered records serve to complement official archives, including local community living culture, oral histories from older generations, and family photos.

Additionally, in collaboration with local libraries, Singapore operates "Digital Memory Corners," a project that enables local residents to record their heritage experiences through voice or text via digital kiosks. Singapore is building a multi-layered heritage archive structure by combining national-level digital preservation with voluntary documentation activities by local communities.

The Evolution of Storytelling: Expressing Heritage Through Multimedia Content

Singapore's Hawker Culture, inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity on December 16, 2020, is an important cultural asset symbolizing Singapore's multicultural life. In Singapore, the "Our Hawker Culture" digital campaign has been developed since 2021 through collaboration between NHB, NEA, and the Federation of Merchants' Associations (FMAS). This campaign, as web-based interactive content, vividly captures the history, people, food, and cultural context of hawker centers through sight and sound, allowing users to explore virtual markets and experience each stall's stories, cooking scenes, and menu descriptions step by step. The campaign included participatory elements such as quizzes, interview videos, and digital badges, simultaneously strengthening both learning and experience of hawker culture in the digital sphere.

The "Our Hawker Culture" campaign is a representative example of transforming hawker culture into a digital content documentation, education, and participation system. The web-based immersive framework and the use of digital badges to encourage participation have clearly realized the goals of shared heritage ownership and digital restoration of intangible culture.

AI Guide to Sharing Memories: Virtual Gallery of Shared Memories

National Gallery Singapore launched the "Virtual Gallery of Shared Memories" platform in 2023. This system automatically generates personalized digital albums through AI-based analysis and organization when visitors directly upload photos and stories.

The generated albums are archived online and can be shared with the public, functioning as a medium connecting people and artworks. This platform connects individual memories collected through AI with architecture, cities, and art, providing a pathway for personal memories to expand into public heritage.

Additionally, the gallery's guide bot "G(ai)le" is an Azure OpenAI-based AI docent that supports multiple languages (including English, Malay, Chinese, Tamil, and Singlish) and provides artwork commentary linked to visitors' personal interests through real-time conversation. G(ai)le also features accessibility functions for the visually impaired and those with dyslexia, complying with World Wide Web Consortium (W3C) web accessibility standards.

The "Virtual Gallery of Shared Memories" connects personal memories with artworks and urban spaces, presenting a new direction for the publicization of memory and AI-based collaborative archiving. Particularly, the G(ai)le docent is evaluated as an example combining enhanced cultural accessibility with personalized education.

Designing a City of Memory:
The Structural Significance of Digital Preservation and a Sustainable Future

Singapore's digital heritage strategy goes beyond mere technological application; it is a structural practice that transforms the entire city into a living repository of memory and a mode of implementing public policy. This city designs digital technology not to remain merely as a means of digitization or documentation assistance, but to align with the purposes of democratizing participation, social integration, and educational expansion through cultural heritage as a medium.

Particularly, citizen-participatory apps such as BalikSG and Singapore Heritage Trails connect past and present beyond temporal and spatial constraints, showing the flow of individual experiences transforming into public memory. In this process, diverse citizen groups from youth to elderly participate as both producers and distributors of memory, leading to substantial strengthening of cultural sovereignty through technology. For instance, the National Archives of Singapore has emphasized that digital platforms are not merely repositories of records but devices that reconstruct community identity.

Furthermore, the Our Hawker Culture digital campaign and Virtual Gallery of Shared Memories cases dramatically expanded accessibility to culture by diversifying the forms, media, and delivery methods of heritage. Particularly in the latter case, it is noteworthy that AI-based content curation breaks down boundaries between personal memory and public heritage, technically implementing the "publicization" process of heritage preservation. Technology thus opens possibilities for adjusting imbalances in memory and integrating the lives of minority communities not institutionally embraced as part of urban heritage.

Singapore's experience empirically demonstrates that digital technology can become a means of multi-layered reconstruction of heritage experiences without compromising their authenticity and identity. This ultimately strengthens the two axes of "democratization of documentation" and "social reclamation of cultural heritage," signifying that digital preservation operates as a mechanism effectively filling areas that physical restoration or analog-centered documentation methods could not reach.

This structure presents a direction that goes beyond the mere intersection of technology and heritage, suggesting that digital technology must be integrated into the multi-layered structure of heritage governance spanning community, education, economy, and urban identity. In other words, the digitization of heritage should address not just preservation itself, but the questions of in what social contexts, by whom, and how preservation is carried out.

Ultimately, Singapore's digital heritage policy connects technological advancement with cultural responsibility, functioning as an experimental field that contemporarily redefines the meaning and use of heritage. This is both a practical governance model that weaves heritage preservation through the three axes of space, technology, and publicness, and an answer showing the sustainable direction that heritage cities in the digital age should pursue.

Huế, Vietnam

The Imperial City, a Heritage Space Where the Language of Time Flows

Huế served as the capital of the Nguyễn Dynasty from 1802 to 1945, developing as a center of politics, culture, and religion. In 1993, UNESCO inscribed the Complex of Huế Monuments, emphasizing its architectural and urban value, harmony with natural arrangement, and coherence of ritual spaces as preservation values, calling it “a typical example of the late East Asian feudal urban planning in the 19th century.”

The Complex of Huế Monuments consists of eight major composite heritage sites including the Citadel, Imperial City, Purple Forbidden City, and numerous imperial tombs, temples, and altars, covering approximately 160 hectares with a buffer zone of about 72 hectares. The tombs of eight Nguyễn Dynasty emperors are arranged around the Perfume River, clearly demonstrating the attributes of historical and ritual context.

These spatial structures and architectural elements were designed on a thorough ideological foundation including the Perfume River environment, geomantic principles, and the symbolic system of the Five Elements and five directional colors. Although severely damaged during the 1968 Tet Offensive, the site has substantially recovered its original form and functionality through subsequent restoration policies and periodic reconstruction processes.

Since 2018, the Complex of Huế Monuments has collaborated with American nonprofit CyArk and Seagate to perform 3D digital scanning combining LiDAR, drone photography, and terrestrial and aerial photogrammetry on major structures including Tu Duc Tomb and An Dinh Palace. Accurate digital replica models including interiors and exteriors were generated through high-resolution cameras (Nikon D810, Phase One) and Phantom 4 Pro drone-based photography. The results are published on the Open Heritage 3D platform and utilized as learning, restoration, and monitoring materials for researchers and the general public. This digital archive serves as a digital backup asset that can be used for disaster recovery, prevention of physical damage, and global exhibition and educational materials.

Digital Tours and Smart Systems: Expanding Accessibility

The Complex of Huế Monuments has actively introduced digital technology to enhance visitor experience quality and reduce geographical and physical barriers to heritage access. As of 2024, it received the top award in the Science, Technology, and Innovation category at the Vietnam Digital Awards 2024, organized by Vietnam's Ministry of Information and Communications (MIC). This recognition resulted from the digital tour systems implemented in Huế leading a qualitative transformation in cultural heritage experiences beyond simple convenience functions.

A major example of digital accessibility expansion is the introduction of mobile-based smart tour systems. Major sites including the Imperial City and Tu Duc Tomb have implemented mobile application-linked guidance systems, enabling visitors to check historical information, architectural styles, and key figure information about the monuments in real time through their smartphones. These systems are designed to automatically provide monument commentary when users select their preferred language (e.g., English, Vietnamese), along with GPS-based automatic location guidance.

Additionally, the comprehensive introduction of e-ticket and QR code entry systems has reduced congestion and forgery issues that occurred with traditional paper ticket methods. The digital entry system is linked with functions such as monument commentary content, route recommendations, and safety alerts from the ticket purchase stage, contributing to improving the overall visitor experience.

Particularly since 2022, VR experience content has been introduced at some monuments. Notably, at An Dinh Palace, the past royal living spaces and restored murals are recreated in VR with high-definition video, allowing visitors to virtually experience spaces that are physically inaccessible. This content was produced through collaboration between the Huế Monuments Conservation Centre (HMCC), CyArk, and the Seagate Foundation, serving as a pilot model with both preservation and educational purposes.

The digital tour system also includes customized information provision based on visitor data. For example, it includes alternative text, audio guidance, and route optimization functions for groups with information access limitations such as the elderly and people with disabilities, thereby strengthening inclusive accessibility. The Huế Monuments Conservation Centre plans to expand the introduction of multilingual AI commentary systems in the future and is pursuing continuous user-centric interface improvements based on tourist feedback.

Thus, Huế's digital tour system is evolving beyond a simple viewing aid into a comprehensive viewing platform that enables anyone to easily access and deeply understand heritage. Technology is operating not merely as a means of providing information but as a medium that strengthens the emotional connection between heritage and visitors.

Digitalization of Cultural Records and Intangible Heritage: New Ways of Accumulating Memory

Huế's digital heritage preservation strategy focuses not only on tangible heritage but also on digital documentation and transmission of intangible heritage. A representative example is Nha Nhạc, Vietnamese Court Music, inscribed as UNESCO Intangible Cultural Heritage of Humanity in 2003. This music, which has continued since the Huế Dynasty, is characterized by sophisticated instrumental performance and ceremony-centered formats, embodying the spiritual culture and artistic sensibility of the Vietnamese court.

The HMCC is systematically digitizing and building a database of Nha Nhạc's musical scores, costumes, performance videos, and oral records. This process involves the participation of performers, artisans, and cultural researchers working together to fully capture the context and detailed elements of the intangible heritage. Digital audio and video materials are available to the general public through HMCC's official website and mobile platforms, with multilingual subtitles and commentary included for easy access by foreign visitors and researchers.

Additionally, Royal Dance, a representative traditional art of the Huế region, and royal rituals are also being preserved through digital video documentation. This is evaluated as an attempt to help performing arts function as cultural assets that can be transmitted to future generations, going beyond simple archiving. The digitized intangible heritage records are also utilized as educational materials, contributing to curriculum development integrating traditional culture in local elementary and secondary educational institutions.

Thus, Huế is implementing a strategy to record and disseminate the vivid sensations of intangible heritage through digital technology, creating meaningful achievements in the transmission of memory and restoration of cultural pride beyond simple data preservation.

Structural Approach for Sustainable Digital Preservation

In Huế, heritage protection and tourism policies operate not separately but in an integrated manner. Technologies such as the digital entry system for the Imperial City, multilingual audio guides, and cultural map apps enhance tourist convenience while simultaneously being utilized as means to monitor heritage preservation status in real time and regulate visitor capacity. This is a representative example showing that digital technology is evolving as a means to adjust the “balance between preservation and utilization.”

From a policy perspective, the Vietnamese government has designated Huế as a core hub of the digital cultural heritage city model through its “Smart Cultural City Development Plan (2021–2030).” This plan is a long-term strategy encompassing heritage preservation, digital tourism, educational content, and creative industry activation, providing a foundation for expanding the Huế case and establishing national-level cultural digitalization strategies.

Huế’s digital preservation strategy is evaluated as an exemplar of a “structural approach” that integrates national policy, local implementation capacity, and community participation, rather than fragmented technology adoption. This comprehensive governance expands the scope of heritage preservation from documentation and management to participation, education, and sustainable tourism, demonstrating that digital technology can operate as core infrastructure for designing the future of cultural heritage. The Huế case is becoming a meaningful model for Asian heritage cities in protecting identity, economy, and community life together through technology.

Borobudur Temple Compounds, Indonesia

The World's Largest Buddhist Temple, The Time of the Stone-Engraved Mandala

Borobudur is a mega-scale Mahayana Buddhist temple built in the 9th century and inscribed as a UNESCO World Cultural Heritage Site in 1991. This historic temple consists of six square and three circular platforms in a stepped design, a central dome, 2,672 Buddha reliefs, 72 small stupas, and includes 1,460 narrative panels. This structure is a representative example of Buddhist architecture that visually embodies the Buddhist cosmology and path to nirvana.

Borobudur was buried during the 19th century Dutch colonial period and regained its current appearance through extensive restoration in the early 20th century. It has since been recognized as an important subject for restoration and management from both engineering and cultural preservation perspectives.

The Beginning of 3D Scan-Based Digital Preservation

In 2021, a point cloud-based 3D digital archive construction project was implemented through collaboration between Japan's Ritsumeikan University, the Indonesian Institute of Science (LIPI), and the Borobudur Conservation Office. In this process, the temple's overall form was scanned using drone-based aerial photogrammetry, with high-resolution sensor photography added for specific points to secure detailed digital data. Additionally, for approximately 160 panels of "hidden reliefs" that became invisible after being buried during the Dutch colonial period, a deep learning-based 3D reconstruction technique was applied using black-and-white monoscopic photographs from the 1890s. This technique restored auxiliary structures with an average accuracy level of approximately 90%, significantly enhancing the temple's visual completeness.

VR-Based Experience Platform: Reconstruction of Space

One of the core pillars of the Borobudur digital preservation project is the development of experiential content built around VR technology. This platform goes beyond simple visual reproduction, providing an immersive interface that enables visitors to actively explore the temple's interior transcending time and space.

Indonesia's Ministry of Education, Culture, Research, and Technology (Indonesian: Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi) and the Borobudur Conservation Office (Indonesian: Balai Konservasi Borobudur) have been building VR-based content since 2022, establishing an online exhibition environment where Borobudur Temple Compounds, the world's largest Buddhist heritage site and UNESCO World Heritage Site, can be explored from anywhere in the world. Users can freely move through and appreciate 3D spaces created based on precise digital scan data of Borobudur's exterior stupas, interior corridors, and relief murals through VR headsets or web-based interfaces.

This experience provides new accessibility for those who have difficulty physically visiting the heritage site. Particularly following the COVID-19 pandemic period when physical movement was heavily restricted, Borobudur VR experiences began gaining attention as an alternative exhibition method in museums and educational institutions. Heritage education programs utilizing this platform have been introduced in over 30 educational institutions in Indonesia, and it was reported that over 50,000 domestic and international visitors experienced the content in 2023.

The platform includes narrated commentary, text information, and interactive quizzes, with expert commentary on Buddhist symbols and sculptural interpretation particularly strengthening its educational function. Features allowing virtual viewing of Borobudur's upper stupas or high-resolution 3D enlargement of reliefs in hard-to-access corridors enable viewing experiences difficult to achieve even on-site. This signifies that the VR space operates not simply as a replicated space but as an expanded knowledge system.

Additionally, interactive features allowing visitors to design exploration routes according to their choices propose a new method of personalized heritage experience. For example, content is tailored according to visitor characteristics, offering an easy explanatory mode for elementary students, an in-depth mode specialized in Buddhist art, and a structural interpretation mode for architecture students. This represents an important turning point showing potential applications not only in educational institutions but also in the tourism industry.

Notably, this platform is remarkable for its continuous updates based on local community participation. Residents of villages near Borobudur have contributed to experience content development through interviews and audio archive provision, forming a structure where "local memory" is transformed into spatial narrative within the VR space. Digital technology is expanding beyond preserving the "physical original" of heritage to integrate even "layers of life."

Ultimately, Borobudur's VR-based experience platform reconstructs the temple's spatial and temporal dimensions in digital form. It expands cultural accessibility and educational opportunities beyond physical constraints while incorporating local community narratives into new forms of memory preservation. This symbolizes that digital preservation is developing into a comprehensive cultural heritage strategy based on practical experience, learning, and community memory, rather than mere technical demonstration.

Possibilities for Restoration and Learning Opened by Digital Documentation

Borobudur's 3D digital archive serves multi-layered roles not merely as visual material but as a resource for preservation, restoration, education, and research of physical heritage. Papers from ISPRS and MDPI (2021) noted that this digital archive has utility as concrete evidence for artifact condition tracking, damage analysis, restoration decision-making, and comparative academic research.

For example, 3D point cloud data can precisely record cracks, subsidence, and weathering patterns in each stone panel of the temple, serving as objective restoration criteria during on-site repair work. This allows for precise comparison between the original state at the time of preservation and the current condition, enabling scientific restoration decisions that prevent further damage.

Additionally, the digital archive enables virtual restoration scenarios. Even with damaged reliefs, visualizing before and after restoration in virtual space allows both experts and general visitors to explicitly understand the meaning and form of reconstructed structures. This system also serves as a tool to enhance local community participation and understanding during on-site preservation.

The value in education and research is even clearer. VR-based experience systems provide learners with on-site experience without field visits, offering immersive learning environments that include spatial sense and cultural context. Universities and cultural heritage educational institutions use this to allow students to experience and analyze the structure, pathways, and spatial utilization of ancient temples. This approach marks an evolution from traditional text-centered learning to spatial understanding and experience-based knowledge transfer.

Digital archives also play an important role in remote research collaboration. Researchers around the world can simultaneously access the digital model of Borobudur to conduct material studies, compare forms, and evaluate restoration proposals, enabling international scholarly collaboration that overcomes the time, cost, and cultural constraints of on-site visits.

Ultimately, Borobudur's digital documentation functions as a comprehensive cultural heritage management platform enabling improved restoration precision, scientific restoration decision-making, expanded education and research, and strengthened community historical awareness. It is an integrated system that not only safely preserves physical heritage, but also simultaneously encompasses learning, participation, and research across past, present, and future generations.

Documentation Beyond Heritage, Technology Opening up the Future

The Borobudur digital preservation project functions beyond simple visual material construction or museum content expansion, serving as a link between improved scientific precision in heritage preservation, innovative entry into education and research, and local and global communities. High-resolution 3D scanning, point clouds, and GIS-based information structures have become practical baselines in restoration and management fieldwork, enabling objective and long-term heritage management systems that transcend the subjectivity and one-off measures of preservation.

Furthermore, as a platform for learning and experience beyond physical sites, digital documentation has enabled educational institutions, researchers, and citizens both domestic and international to approach heritage meaning and structure through "participatory" methods. This represents a turning point transforming heritage from the exclusive domain of experts to public memory assets.

Borobudur's case ultimately demonstrates in practice that documentation is preservation itself, and that methods of documentation define the future of preservation. Digital technology is not a substitute for heritage but a third language that makes heritage sustainable. Through this language, heritage can establish itself not merely as relics of the past but as open spaces of memory that future generations can interpret and inherit together.

01 5th OWHC Asia-Pacific Regional Conference to be Held in Huế, Vietnam in October

The 5th Organization of World Heritage Cities (OWHC) Asia-Pacific Regional Conference will be held in Huế City, Vietnam for three days from October 14 to 16, 2025. This conference will bring together approximately 100 participants including mayors and delegations from Asia-Pacific World Heritage Cities and experts to share policies and cases under the theme “Habitability for the Sustainable Development of World Heritage Cities.”

Day 1 (14th) will feature participant registration, followed by cultural heritage tours of World Heritage sites including the Complex of Huế Monuments, and the youth exchange program “Shoulder-to-Shoulder Camp.” This will be followed by the Asia-Pacific Regional Secretariat activity report, presentations from cities hoping to host the next regional conference, and host city voting. The evening will include an opening performance, ceremonial events, and welcome banquet. **Day 2** morning (15th) will feature an introduction to OWHC Headquarters’ New Urban Project Strategy (NUPS) initiative and special sessions addressing World Heritage-related issues by city. The afternoon will continue with presentations and panel discussions on themes including: World Heritage and Cities in Transition; World Heritage Systems and Urban Conflicts and the Role of Managers; Heritage Management and the Potential of Information Technology; and the Role of Site Managers and Local Communities for Sustainable World Heritage Cities. **Day 3** morning (16th) will feature case presentations and policy sharing by member cities, followed by the announcement of the next host city and acceptance speech before concluding with the closing ceremony.

Host city Huế possesses the UNESCO World Heritage Complex of Huế Monuments and is recognized as an exemplary case of harmonizing traditional cultural preservation with modern urban development. This conference is expected to provide an opportunity to share Huế’s experience and establish practical cooperation measures among Asia-Pacific member cities, while enabling in-depth discussion of cities’ common challenges of World Heritage preservation and residential environment improvement, as well as expanding practical cooperation and international networks among member cities.

02 2025 OWHC-AP Experts’ Workshop to be Held in Huế, Vietnam on October 15

The 2025 OWHC-AP Experts’ Workshop will be held in Huế City, Vietnam on October 15, 2025. This workshop is one of the core programs of the 5th OWHC-AP Regional Conference (October 14–16) held during the same period, proceeding under the theme “Strategies for Enhancing Sustainability and Habitability of World Heritage Cities.”

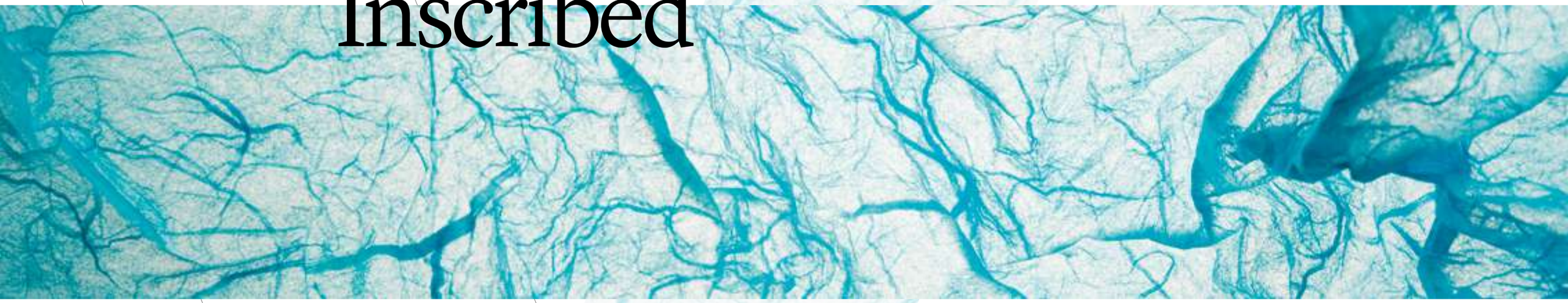
The workshop will bring together around 20–30 participants including mayors from Asia-Pacific member cities, World Heritage experts, and urban policy officers. They will analyze the balance between preservation and utilization challenges faced by each city and share policies and practical cases for improving habitability. Major presentation topics include: World Heritage Systems and Urban Conflicts and the Role of Heritage Managers; Possibilities for Heritage Management and Information Technology Utilization; Strategies for Sustainable Preservation and Habitability Enhancement through the Huế, Vietnam Case; and the Role of Site Managers and Local Communities for Sustainable World Heritage Cities.

Presenters will consist of experts from Vietnam’s Ministry of Culture, Sports and Tourism, National Cultural Heritage Committee, and National University of Singapore, with each presentation lasting approximately 25 minutes. Conclusions and recommendations derived through panel discussions will be compiled for reflection in member city policies. On the day of the event, in addition to presentations and discussions, proceedings will be distributed and participant networking programs will be operated.

The Experts’ Workshop is an important event for identifying immediate challenges faced by Asia-Pacific World Heritage Cities and establishing sustainable development measures. This workshop is expected to serve as a meaningful opportunity to exchange knowledge and experience among member cities and strengthen the cooperative foundation for sustainable development of Asia-Pacific World Heritage Cities.

OWHC-AP NEWS

History Inscribed on Paper



History is the Art of Memory.

And what has preserved that memory the longest is none other than “paper.” Though it appears light and fragile on the surface, paper is one of the most resilient materials that has endured time and crossed civilizations. The letters and drawings written upon it, the hands and hearts that touched it, have served as a medium connecting humanity’s spirit across ages.

Paper is not merely a tool for recording. Within it are imbued the grain of human life and the breath of culture. Depending on where and how it was made, and with what intention it was used, paper holds meaning beyond its materiality. Therefore, it is no surprise that papermaking techniques themselves are inscribed on the World Heritage list. They are cultural evidence of humanity’s attitude toward memory and approach to life.

The heritage of paper does not stop at merely restoring old techniques. Paper still lives in our daily lives today, existing with enduring sensibility even in the digital age. A single line written by hand, which no text on a screen can replicate, still offers healing, solace, and a sense of promise to someone today. If a sheet of paper can hold someone’s life, record dreams, and document history, then that paper is a living heritage being newly created even at this moment.

Making paper is not merely an act of handling material. It is an act of connecting human hearts that revive and transmit memory. The fact that it has remained as heritage after hundreds of years tells us that there was devotion, contemplation, and deep faith in humanity within it.

We have read history through paper, and we still write tomorrow through paper. The desire to inscribe memory, the sense of seeking something to hold that desire, has always been within us. And that very sense has made this small, thin heritage of paper so strong and enduring.

Year of Inscription: 2014

Memory Passed Down by Hand Washi, Craftsmanship of Traditional Japanese Hand-Made Paper

Washi, craftsmanship of traditional Japanese hand-made paper

Memory does not remain only in the heart. Sometimes, to hold onto it, people spend long hours creating “forms.” Japan’s traditional paper, washi, is such a materialized product of memory. The process of selecting fibers from tree bark, removing impurities in flowing water, and lifting a sheet of paper with both hands is not merely handicraft but a sense and technique of an era that connects memory.

In 2014, UNESCO inscribed three types of traditional Japanese handmade papermaking techniques—Hosokawashi, Honminoshi, and Sekishubanshi—as Intangible Cultural Heritage of Humanity. These techniques, all under the name of washi, are living arts that demonstrate how Japan’s nature, seasons, and human touch harmonize. While each washi varies slightly depending on the region’s water, climate, and plants, they share a common philosophy: an attitude of not going against nature but rather listening to nature’s flow and extracting the gentlest materials from within it.

Washi is generally made by peeling and boiling the bark of kozo (paper mulberry), beating it by hand to loosen the fibers, floating these on water, and then slowly drying them. Each step in this process depends on the sense of the hands, and completing a single sheet of paper requires consideration of season, water, temperature, and even wind. This technique has been passed down within local communities for at least several hundred years, functioning not merely as paper production but as education and part of life that transmits ways of memory to the next generation.

The strength, transparency, and texture of washi provide a completely different dimension of sensation from today’s machine-produced paper. It does not easily change over time and, though thin as breath, does not tear. Thanks to these characteristics, washi is used as material for various cultural and artistic items including Japanese ancient documents, Buddhist sutras, paintings, furniture, and lighting, and is still used in cultural property preservation work both within and outside Japan. In other words, washi is both a material that protects memory from the weathering of time and a foundation for emotions transmitted over ages.

Above all, the value of this technique lies in the human sense imbued in each sheet of paper. The existence of artisans who still make paper by hand in an era when automation and mass production have become routine shows that humanity’s ancient desire to leave memory in material form remains valid. They make washi not simply by insisting on old methods but as an act of attuning life’s pace and questioning the relationship between nature and humanity.

Japan’s traditional papermaking technique is therefore heritage. It is living knowledge that has reached today with time and nature, technique and spirit harmoniously connected. Washi is not something disappearing but a “foundation of memory” still being made daily, a “moment of heritage” coming alive again at the fingertips of those who use it.

Pending Inscription

Breath Continuing Along the Grain Traditional Knowledge and Skills Associated With the Production of Hanji and Related Cultural Practices in the Republic of Korea

Traditional knowledge and skills associated with the production of Hanji and related cultural practices in the Republic of Korea

Paper is the thinnest shell of time. Yet it firmly holds onto eras and is one of the oldest materials transmitted from human hand to human heart. In this sense, Korea's traditional paper, hanji, is not merely a foundation for recording but a living cultural heritage that has continued along the grain of memory.

Hanji is made through a process of selecting fibers from paper mulberry bark, boiling and beating them, then spreading them in water, lifting and drying. This traditional method has not changed significantly for hundreds of years and can only be completed through the craftsman's fingertips and nature's providence. Water temperature, seasonal flow, and even wind humidity influence a single sheet of paper. Thus, hanji making originates from an attitude of reading the environment and conforming to time before it is a technique.

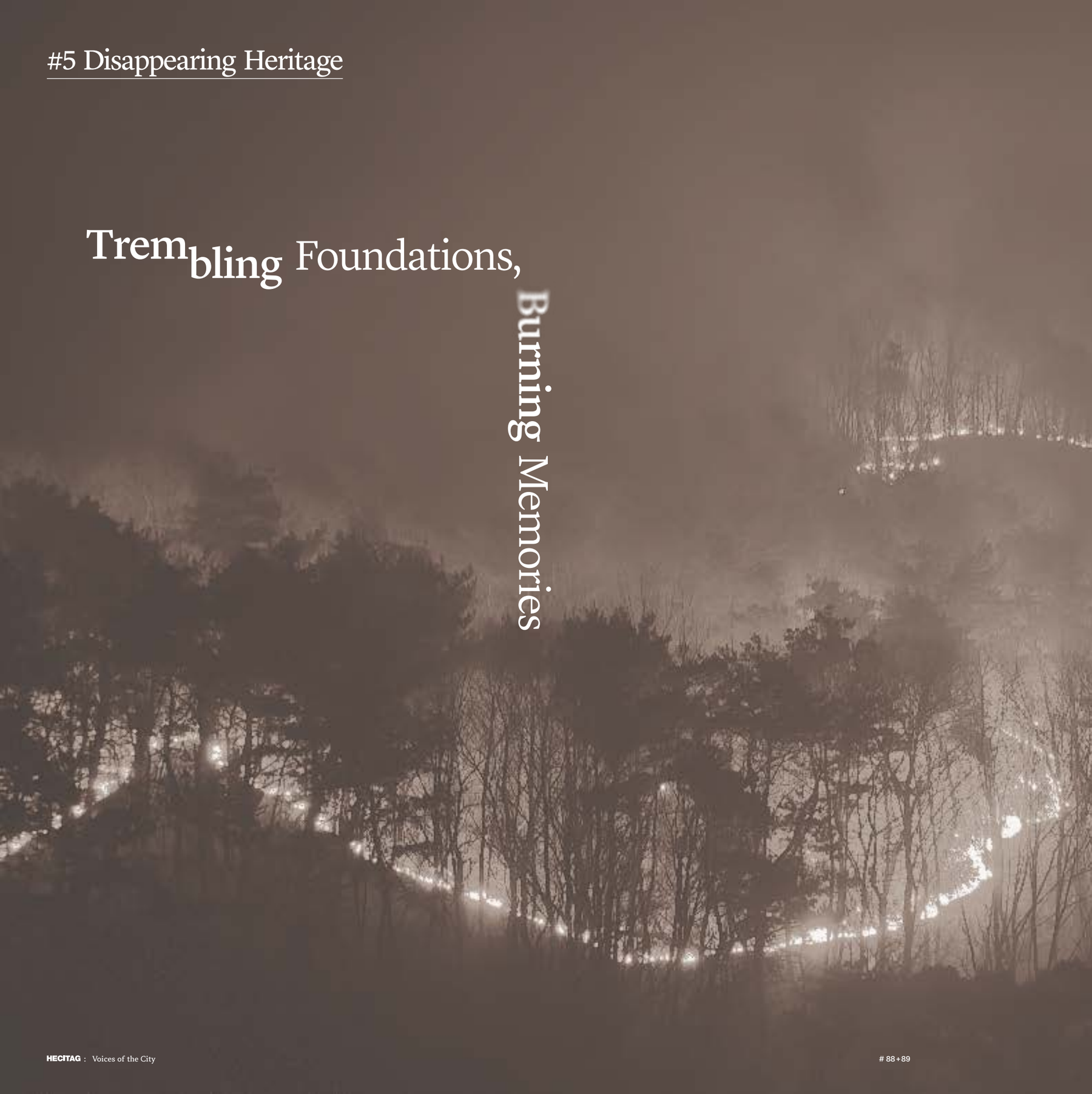
UNESCO inscribed Korea's hanji-making technique as Intangible Cultural Heritage of Humanity in 2020, noting the material properties and cultural value this paper possesses. Hanji is thin yet tough, soft yet enduring. With excellent breathability that resists mold and decay, it can maintain its original form even after hundreds of years, and has been widely used in various fields including ancient documents, Buddhist sutras, paintings, literati paintings, crafts, and clothing.

Hanji itself is a "cultural artifact." During the Joseon Dynasty, people wrote, painted, and bound books on hanji, and let light and wind into rooms through window paper. Paper became not merely a functional foundation but a space where light, sound, and contemplation resided. Particularly, hanji accompanied even the boundaries of life and death. From scholarly books to commoners' letters, funeral orations, family genealogies, and talismans, hanji has been a quiet companion recording and supporting Korean life.

Hanji is also a product of community technique and ecological sensibility. Growing and harvesting paper mulberry, making and drying paper have generally continued at family or village levels. This technique was a form showing how communities read nature and live together, beyond individual skill. Even now, traditional hanji making continues throughout Korea, with some artisans expanding the technique into contemporary areas like education, design, and restoration.

Hanji transcends paper. It is a foundation holding memory, a surface conveying hearts, and grain that endures time. The labor and breath imbued in a single sheet of paper quietly yet firmly support our lives today. And that grain continues even at this moment in someone's hands.

Trembling Foundations, Burning Memories



Cultural Heritage Threatened by Earthquakes and Wildfires

Cultural heritage is built upon the earth and nestled within nature. Old walls and pillars stand where wind permeates and sunlight reaches, inscribed with traces left by human hands and grain created by time. Thus, cultural heritage belongs to humanity while simultaneously being part of nature. And that very nature sometimes threatens the memories we seek to protect.

Earthquakes and wildfires strike suddenly, as if mocking human prediction, and in an instant destroy heritage that has stood the test of time for hundreds of years. The 2015 Nepal earthquake destroyed temples and palaces in the UNESCO World Heritage Kathmandu Valley, and the 2023 Morocco Marrakesh earthquake left fatal cracks in traditional urban structures preserved for centuries. Earthquakes not only collapse buildings but also shake the memories and identity of communities built upon them.

Wildfires threaten heritage in another way. In 2021, extreme heat waves and wildfires in Greece caused significant damage around the ancient site of Olympia, and Australia's 2019 wildfires consumed Indigenous communities' sacred places and rock art thousands of years old. In Korea's case, the 2022 Uljin wildfire threatened some cultural properties and traditional villages. Fire burns forms, shakes roots, and demolishes the place of heritage.

While earthquakes and wildfires are mostly classified as natural disasters, their frequency and intensity are intensifying due to the climate crisis and human activity. Unprotected cultural heritage can become victims of disaster at any time. Particularly, traditional buildings made of earth, wood, and tiles, or exposed outdoor heritage, are difficult to recover and often impossible to restore.

Accordingly, UNESCO has prepared disaster response and restoration guidelines for cultural heritage and is calling for international attention through the "List of World Heritage in Danger." However, restoration of structures alone is not sufficient. We must consider together how to reconnect the meaning and value of heritage and how to recover memory.

Cultural heritage is not merely visible structures but spaces imbued with ways of life and the contemplation of eras. Rebuilding walls toppled by earthquakes or planting stories again on land scorched by fire is not simple restoration—it is the act of reestablishing sustainable memory.

Heritage Shrouded in Smoke

Hahoe Village and Byeongsanseowon in Andong, and Buseoksa Temple in Yeongju

Cultural heritage living and breathing within nature is itself the landscape of an era and a foundation where people's memories reside. However, sometimes that nature becomes heritage's greatest threat. The massive wildfires that occurred in Gangwon and Gyeongbuk regions in 2022 and 2024 posed direct threats to several of Korea's UNESCO World Heritage Sites. In particular, Hahoe Village and Byeongsanseowon Confucian Academy in Andong (inscribed 2010 and 2019, respectively), and Buseoksa Temple in Yeongju (inscribed 2018) are representative cases that made the tension of cultural property protection palpable.

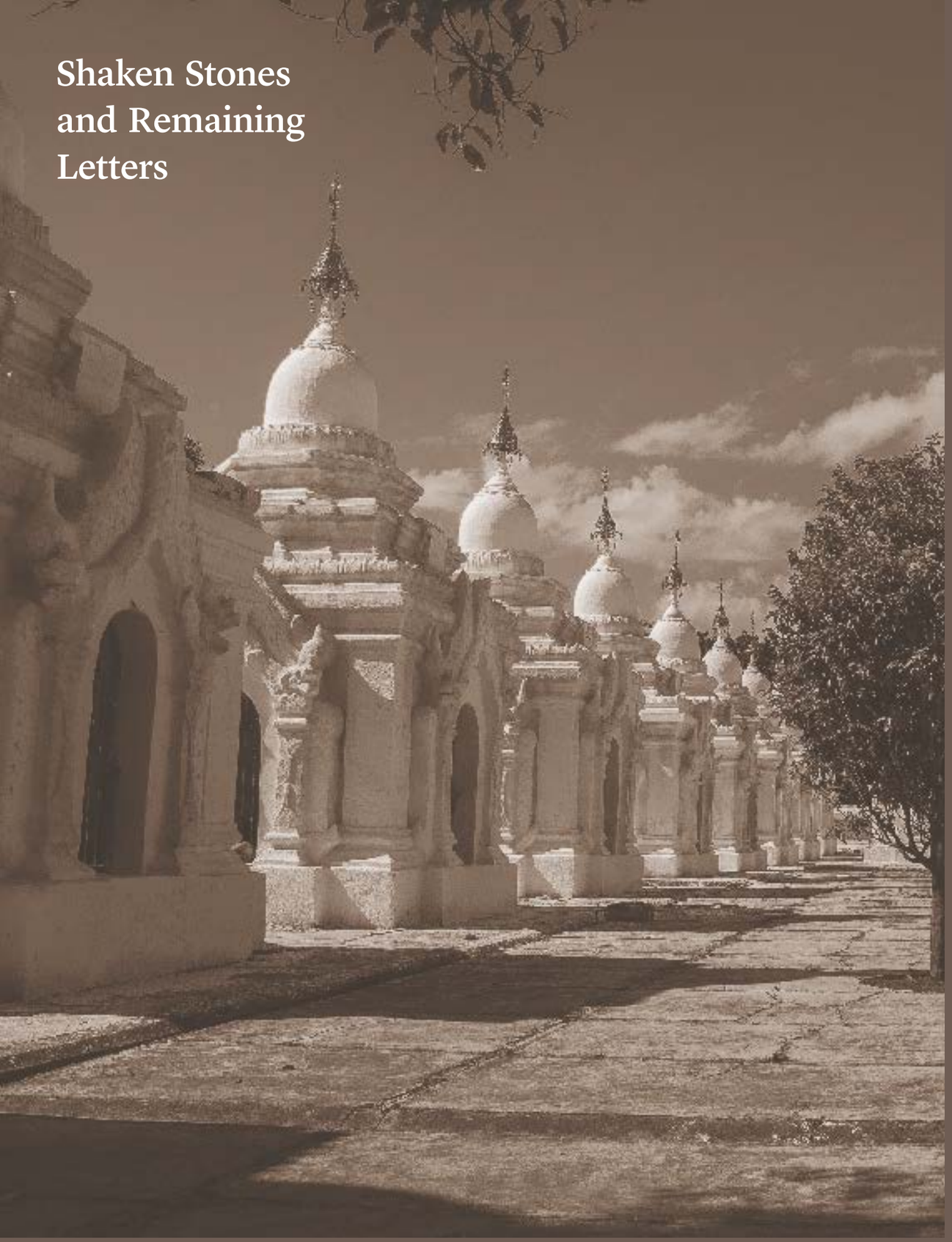
These heritage sites are not simply collections of buildings but places imbued with era and spirit. And these places are no longer safe spaces within nature. Massive wildfires caused by the climate crisis are burning the surroundings of heritage and breaking down their boundaries. Cultural heritage can endure for hundreds of years, yet is very fragile before a moment's flames.

What is needed now is not merely restoration techniques but sensibility for prevention and the will for solidarity. Protecting heritage is ultimately no different from reflecting on how we live.

Hahoe Village, Andong
Hahoe Village is a traditional village representing Joseon Dynasty yangban (aristocratic) culture, demonstrating the aesthetics of traditional Korean site selection where mountains, rivers, and village harmonize. Since its inscription as a UNESCO World Heritage Site in 2010, it has received global attention for its unique landscape, living culture, and state of architectural preservation. However, when the 2022 Uljin-Samcheok wildfire spread northward, flames reached nearby hillsides, and Hahoe Village also underwent emergency evacuation and defense operations due to fire damage concerns.At that time, residents cooperated with fire authorities to implement measures including establishing firebreaks for cultural property protection and operating spray systems. Although some nearby forests were lost in the crisis, major cultural properties fortunately avoided damage. However, this incident clearly demonstrated how much of a practical threat the climate crisis and wildfires pose to cultural heritage.

Byeongsanseowon Confucian Academy, Andong
Byeongsanseowon is a representative Confucian academy located in a scenic setting along the Nakdonggang River with Byeongsan Mountain at its back. As one of nine academies inscribed in the 2019 "Seowon, Korean Neo-Confucian Academies" World Heritage listing, it holds significance for its harmony between nature and architecture and as a center of Neo-Confucian education during the Joseon Dynasty.When wildfires spread throughout the Andong area in 2024, Byeongsanseowon faced extreme threat from flames that originated on the hillside directly opposite. Parts of the forest surrounding the academy were charred, and fire suppression entry was delayed when access roads were blocked. The threat of fire was not limited to damage to the buildings themselves; it endangered the entire historical layers embedded within the space. Currently, the Korea Heritage Service (formerly Cultural Heritage Administration) and Andong City are conducting recovery and prevention projects including creating firebreak forests near Byeongsanseowon and expanding automatic disaster prevention facilities.

Buseoksa Temple, Yeongju
Buseoksa Temple is a temple founded by the great monk Uisang during the Unified Silla period. It was inscribed as a UNESCO World Heritage Site in 2018 as part of "Sansa, Buddhist Mountain Monasteries in Korea." Wooden structures including Muryangsujeon Hall and Josadang Shrine, along with artifacts such as stone lanterns and flagpole supports, are considered the essence of Korean Buddhist architecture. During the 2022 northern Gyeongbuk wildfire, as flames that started in the hillside near Buseoksa Temple approached the temple grounds, the risk of losing traditional wooden architecture became extreme. At that time, temple officials and local fire authorities worked through the night on suppression efforts, and while the Buseoksa buildings themselves were unharmed, damage occurred as parts of the forest on the outer edges of the temple grounds were lost. Subsequently, the Cultural Heritage Administration installed additional disaster prevention detectors and thermal imaging CCTV at Buseoksa as part of the "Strengthening Disaster Response Systems for Mountain Monasteries" project.



Shaken Stones and Remaining Letters

Myanmar
Kuthodaw Pagoda and the Tripitaka Stone Inscriptions

Cultural heritage lies quietly within time. However, that time is not always peaceful. When the earth shakes, firmly rooted memories shake together. The earthquake that struck central Myanmar in 2016 toppled numerous temples, pagodas, and Buddha statues. Among them were Kuthodaw Pagoda and its Tripitaka stone inscriptions, known as the world's largest book. Human records that dreamed of eternity by carving letters in stone had to protect that eternity from a single tremor.

Kuthodaw Pagoda is a Buddhist temple located in Mandalay, Myanmar, established by the Konbaung Dynasty in 1857. At the center of this temple stand 729 marble stone tablets, each containing part of the Pali Tipitaka, the Buddhist canon. These tablets are enshrined within individual pagodas (stupas), and together they complete the entire Buddhist scriptures. Therefore, this place is called the "Stone Buddhist Canon" or "The World's Largest Book."

On August 24, 2016, a magnitude 6.8 earthquake that occurred near Bagan, Myanmar, significantly affected not only the Bagan archaeological site but also the Mandalay region. Some small pagodas within the Kuthodaw Pagoda complex cracked or partially collapsed, and damage occurred as parts of the roofs of structures housing the stone tablets fell. While most stone tablets maintained their original form, micro-cracks and distortions from vibration were identified as issues that could affect future preservation.

Fortunately, the Myanmar government, UNESCO, and local preservation organizations established emergency rescue and preservation plans, and along with restoration of pagoda structures, crack repairs on tablet surfaces, foundation reinforcement, and seismic strengthening work were gradually implemented. During this process, nearby Buddhist communities voluntarily participated, making this a meaningful case not merely of structural restoration but of restoring faith and memory.

Earthquakes do not merely topple buildings but threaten the forms of letters, beliefs, and memories placed upon them. The Tripitaka stone inscriptions of Kuthodaw Pagoda shook but did not fall, and their solidity was not merely the material property of stone but the result of will created by hearts gathered to protect.

Even now, Myanmar's Buddhists read scriptures before those stone tablets, quietly recapturing memories that nearly scattered like a mandala. Though the earth shakes, the hearts carved upon it ultimately do not fall.

Voices of the City, Joy of the City

Festivals are the Breathing Moments of a City

A city is not merely a space made of buildings and roads. Cities have people, and those people create sounds and rhythms. During the day, the busy noise of daily life fills the city, and at night, conversations and music under streetlights warm the city. And there are moments when all these sounds and movements reach their peak—when festivals are held.

Festivals are how cities reveal themselves. The city's emotions, usually buried within order and structure, burst forth all at once through festivals. Laughter spreads through the streets, music flows in squares, and people's footsteps dance in every village alley. We come to feel in festivals that urban space is alive, that cities too have breath and heart.

Festivals were originally humanity's oldest rituals and artistic expressions. People gathered to commemorate the flow of seasons, offer sacrifices to gods, and strengthen community bonds. Modern urban festivals also carry on these origins. Only the object has shifted from gods to people, from nature to culture. Within them, people listen to music, dance, share food, and confirm the joy of "being together."

What is interesting is that each city possesses its own distinct language of festivals. Some cities call forth old traditions onto present-day streets, while others experiment with newness through young art and technology. Some cities speak through food and fragrance, while others express themselves through processions and gestures. Festivals are the "voice of the city" through which a city speaks to itself and introduces itself to outsiders.

Above all, festivals pause the city momentarily and reconnect it. They allow us to encounter unfamiliar emotions on familiar streets and share laughter with strangers, and within them we come to face the city's true face. In the gaps of fragmented daily life, festivals become the thread that binds the city together.

Thus, a festival is not merely an "event," but a special moment when the inner life of the city is expressed. Festivals are an art of time and language of space through which cities express themselves and reconnect with people. Within them, we meet the city again, and each other again.

01

The City's Wishes Sent to the Sky

Taiwan Pingxi Sky Lantern Festival

Pingxi Sky Lantern Festival, inscribed 2013

In Pingxi, Taiwan, every year on the fifteenth day of the first lunar month, the entire city holds a festival sending wishes to the sky. People write their wishes on paper lanterns and release them into the night sky, praying for peace and happiness throughout the year. Pingxi, which was once an old railway town, gained worldwide attention through this festival and was introduced as one of the most beautiful festivals selected by Forbes and National Geographic in 2013.

This festival is more than a simple spectacle—it is a symbolic ritual where city and people, memory and wishes intersect. In the process where everyone makes lanterns and releases them together into the sky, the city becomes one community. The city's voice is carried on paper lanterns and spreads into the sky, and in that moment, Pingxi comes alive again with bright light.

02

Chariots of Faith Racing Through Mountain Paths

Nepal's Rato Machhindranath Chariot Festival

Rato Machhindranath Jatra, inscribed 2010

In the streets of Patan, Nepal, a gigantic chariot barrels forward amid a thunderous roar. The Rato Machhindranath festival is a ritual where a chariot carrying Machhindranath, the Himalayan god of water, makes a pilgrimage through the city praying for abundance and rain. Hundreds of people pull ropes and beat drums as the entire city mingles in religious fervor and communal euphoria.

This festival is not merely a reenactment of tradition. Each year, the route the chariot travels is a symbolic procession confirming community bonds, a rare time when the city's faith and daily rhythms coexist. In the thunder-like sound of wheels, people walk together, believe together, and newly inscribe the city's identity.

03

Dragon Processions Cutting Through Water

China's Dragon Boat Festival

Dragon Boat Festival, inscribed 2009

A spectacular scene beginning with loud drumming across rivers and lakes throughout China. The Dragon Boat Festival, originating from rituals honoring the poet Qu Yuan, is a representative Chinese folk event that has continued for thousands of years. Long boats adorned with ornate dragon heads slice through the water in competition, while fragrant zongzi and medicinal wine carry on tradition along the riverbanks.

This festival also demonstrates how cities live alongside water. Unity and competition, memory and ritual blend on the river, and people connect generation to generation in the rhythm of rowing. The dragon boats' wake awakens the past, and the city's joy comes alive upon those waves.

04

Tradition on the Fields, Pride of the Steppes

Mongolia's Naadam Festival

Naadam Festival, inscribed 2010

Every July, a festival charged with bowstring-like tension unfolds in Mongolia's capital Ulaanbaatar and throughout the steppes. Naadam is a national event centered on Mongolia's three traditional sports—horse racing, wrestling, and archery—a warriors' festival and cultural essence that has continued for hundreds of years.

Naadam is not merely a sports competition. It is an event condensing the history and pride of a steppe people who have lived in harmony with nature. The city's stadium temporarily becomes a field resembling the great steppes, and people confirm their community's heritage beyond competition. The cheers resounding at this festival are the oldest songs the city remembers.

Subscription

Subscribe to enjoy Heci Tag, a magazine issued by OWHC-AP.
You can subscribe to the mailing service (e-book) by scanning the QR code with your mobile phone and filling out the subscription application form.
The information entered when subscribing to the mailing service is used to send email.

Subscribe

Catalog

Please visit the website if you wish to become a member city of the Organization of World Heritage Cities and share the same values, concerns, and goals.

OWHC
www.ovpm.org

OWHC-AP
www.owhc-ap.co.kr
blog.naver.com/owhcap1
www.instagram.com/owhc_ap
owhc-ap

The Organization of World Heritage Cities (OWHC) is an international advisory council representing cities with UNESCO World Heritage. Founded in 1993, OWHC is headquartered in Quebec, Canada, with five regional secretariats globally.
As of 2025, there are around 120 member cities, and global and regional conferences are held every other year to discuss the sustainable development of world heritage cities. Finding and implementing better ways to conserve and manage World Heritage Sites by sharing vast knowledge and information are the shared hope and goal of the OWHC member cities.

The Organization of World Heritage Cities Asia-Pacific Regional Secretariat (OWHC-AP) was established in Gyeongju, Korea in 2013 as a branch office to oversee member cities in the Asia-Pacific region.
As of 2025, the Asia-Pacific region has 27 member cities dispersed across 8 countries, encouraging collaboration on the protection of world heritage cities, as well as the significance and importance of world heritage to the public, via a variety of activities such as academic, educational, artistic, and promotional projects.