

Liangzhu Cultural Heritage Speaks to the World. Hangzhou Narratives and Practices of Sustainable Urban Development

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Abstract. The International Council on Monuments and Sites (ICOMOS), strongly believes that heritage—natural and cultural, tangible and intangible—is fundamental to addressing the United Nations (UN) Sustainable Development Goals (SDGs). This paper explores Liangzhu cultural heritage located in Hangzhou, China. It argues that cultural heritage is also a special kind of living narrative. In accordance with the United Nations Sustainable Development Goals, cultural heritage narratives carry an important function in global sustainable development. Cross-media narrative development of Liangzhu site and ancient symbols are explored, from the appearance of elements like "The God with Mixed Human and Animal Facial Features" in design products, to the consideration of the pioneer integration of 5G technology taking place in the city of Hangzhou, an example of sustainable urban development.

Keywords: living cultural heritage narrative, open works, sustainable development, digital writing of cultural relics.

INTRODUCTION

Cultural heritage is a special kind of living narrative created by the ancestors and preserved to this day. This makes it into an open work in some sense. Cultural heritage is a witness to the prosperity of an era, and is a cultural field of human knowledge, art, customs, and concepts of a specific era. Protecting and passing on cultural heritage means reconstructing the value of cultural heritage in a new historical period of social development, giving it the flavor and spirit of a new era, and making it perform new social functions, thus promoting the sustainable vitality of cultural heritage narratives.

Heritage is more than just monuments. Heritage—cultural and natural, tangible and intangible—is an evolving resource that supports identity, memory and sense of place, and has a crucial role in achieving sustainable development. It enables social cohesion, fosters socio-economic

regeneration, strengthens social well-being, improves innovation and creativity in design, for instance, enhances tourism benefits, and can be used as an educational tool.

As early as 1986, American anthropologist Arjun Appadurai proposed the concept of thing's social life in his book *The Social Life of things, Commodities in Cultural Perspective*, in which he mentioned that things are regarded as a subject of social life, and their biography is somehow established. Thus, the study of the fate of a thing in different social contexts and its change of value and meaning across historical time and space offers some indications of the development of cultural heritage.

The living character of heritage narratives can be summarized on three levels: First, the cultural factors contained in the artefacts. Each artefact is born with a clear mission and meaning. Since the moment of its creation, the artefact has a life embodied in its material form, shaped by the creator's hands after his or her thoughts and values. There are also spiritual aspects associated to some relics, which might represent the religious and spiritual beliefs of communities and entire generations. There is also the commemorative and ritualistic value attached to artefacts. They contribute to the genetic code of national cultures, within specific spatiotemporal contexts. The value function can be re-activated in ritual use. Commemoration is the expression of an affirmation of a particular culture and its collective memory, as Maurice Halbwachs noted in his seminal book *La Mémoire collective (The Collective Memory 1950)*. Finally, the question of the the dynamic development of cultural artefacts in people's lives. The narratives associated to cultural artefacts present new connotations with the passing of time, and operate on the basic systems for the dissemination of values. They also incorporate new forms of narratives that might include new technologies, as this paper will show. All of these aspects contribute to the role of cultural artefacts as the presentation card of a city, a community, a region, or a country. Collective memories are “the traces of “webs of significance,” to use Max Weber's expression, of the cultural activities of human groups, which include systems of beliefs, symbols, rituals, intellectual and artistic activities.” (López-Varela 2013: 89)

The International Council on Monuments and Sites (ICOMOS), strongly believes that heritage—natural and cultural, tangible and intangible—is fundamental to addressing the United Nations (UN) Sustainable Development Goals (SDGs). Converging under the main

policy directive to harness the power of heritage to accelerate the achievement of the SDGs, this paper shows how to mobilize the knowledge and resources transmitted through heritage to achieve the well-being of and the prosperity of communities.

Cultural heritage appears most prominently in Goal 11 on Sustainable Cities and Communities as Target 11.4 “to protect the world’s cultural and natural heritage” and more implicitly in other goals such as SDG 4 on Education, SDG 8 on Work and Economic Growth, and SDG 12 on Consumption and Production.

THE CROSS-MEDIA NARRATIVE OF LIANGZHU’S SYMBOLS

Hangzhou is the capital and most populous city of Zhejiang, an eastern, coastal province of the People's Republic of China. The city has been described as a place of innovation and vitality, with unique flavor and splendor, of history and culture, as well as a city of quality of life in the East. The G20 Summit was held in Hangzhou in 2016. The city is also known for its ecological initiatives and the world’s first sustainable development standardization pilot. Hangzhou has always attached great importance to sustainable urban development and actively explored progress in social management, public services, culture and education.

China has fifty-six sites inscribed on the UNESCO World Heritage List (<https://whc.unesco.org/en/statesparties/cn>) Hangzhou is home to three World Cultural Heritage places, the West Lake, the Grand Canal and Liangzhu Archaeological Site. This paper focuses on Liangzhu ancient city and on some of the artefacts found there. The paper will unveil the stories and values associated to these relics, the internationally recognized material evidence of the 5,000 years of Chinese civilization. In today's digital age, the protection of Liangzhu ancient artefacts is simultaneously the living testimony of China’s ancient civilization while serving to rewrite Liangzhu in the contemporary context of sustainability, a context that citizens can now experience and shape through new technologies. From the perspective of cultural heritage, digital technology can deeply intervene in the creation of culture and art; from the perspective of industry, digital media, digital cultural tourism, and digital education are also aspects to be explored.

Liangzhu is between 5,300 to 4,300 years old; roughly from the same era as the ancient Egyptian, Sumerian and Harappan civilizations. Its cultural heritage is the living narrative of Liangzhu civilization and continues to hold ties with the city of Hangzhou.

Among the various artefacts excavated from Liangzhu Archaeological Site, the jade Cong is a special kind of jade vessel on which archaeologists have discovered the unified social beliefs of Liangzhu culture embodied in the so called, "The God with Mixed Human and Animal Facial Features". The special significance of the jade Cong is related to the ornamentation of the "gods and beasts" symbols, a type of display where the upper part features a god and the lower part an animal.

The main components of the god image are: the crown of feathers, the human face and the hands surrounding the animal face, which is inverted trapezoidal in shape, with round eyes and wide nose and teeth. The main components of the animal image are: a large circle with huge eyes, wide nose, wide mouth with fangs and animal claws. The elements above are the result of the symbolization of various aspects. On the one hand, the representation presents an abstraction of various aspects that were sacred for the Liangzhu civilization. The form of a half-human, half-animal creature shows the link between an unknown divinity, represented as a strange creature, and humanity; in other words, the relationship between macro and microcosmos, heaven and earth, highlighting the close relationship between humans, nature, and the divinity.



The God with Mixed Human and Animal Facial Features found in Liangzhu

Online at https://news.cgtn.com/news/776b444d30677a6333566d54/share_p.html

The small details of the image can also add richer layers of interpretative meaning. For example, the crown of feathers worn by the god symbolizes a large bird, which has access to the sky; thus linking heaven and earth. This creature has human arms that stretch down to embrace the second set of eyes both watching and embracing humanity, also highlighting its power to protect Liangzhu community. Other features of this jade ware are the intricate water-like decoration, particularly in the lower section of the image. It holds parallels with other spiral shape symbols found all over the world in ancient petroglyphs.

In the wake of World War II, Halbwachs contended that memories are collectively articulated. Past events do not become facts until they are communally revised and confirmed. Halbwachs memory is not just about lived time; it is also about socially lived space and about its collective representation, as López-Varela notes, “part of the porosity and permeability of memory borderlands” (2013: 88). This permeability continues to be enriched with contemporary interpretations of memory. In the case of Liangzhu, the logo designed to brand and advertise Liangzhu cultural heritage bears the mark of “The God with Mixed Human and Animal Facial Features”, contributing to the revitalization of the symbol.



良渚文化
LIANGZHU CULTURE

In the first half of the 20th century, due to technology limitations, the narrative carrier of Liangzhu was mainly focused on archaeological excavation and its development, as reported in newspapers. With digital media, Liangzhu heritage, its symbols and its narratives have taken on new material formats. While the interface continues to be that of “The God

with Mixed Human and Animal Facial Features", digital devices allow a complete immersion in Liangzhu site.

For example, the Liangzhu Museum has designed and released a short video introducing the topic "If National Treasures Could Talk". The idea is to use cultural heritage in an innovative way, creating narratives that give voice to the different artefacts part of China's collective memory. The cross-media narrative of the "gods and beasts" symbols has also been extended to educational videogames as well as creative product design for the tourist industry. DIY game platforms such as "My World" and "Animal Friends" have recreated the entire Liangzhu ancient city site on the game platform, presenting the cross-media narrative of symbols in innovative ways. (FELALA) and the Liangzhu Museum jointly released the "Dream of Liangzhu" design jewelry, where images like "The God with Mixed Human and Animal Facial Features" are used from the fashion jewelry to postage stamps, appearing as the mascot of 2023' Asian Games in Hangzhou. These actions serve to promote the heritage of Liangzhu culture and make a unique contribution to the sustainable development of the city of Hangzhou.

5G LIANGZHU HERITAGE NARRATIVE

As the ancient Liangzhu civilization and modern technology merge, the public is able to have more immersive experiences but also to participate in them more actively. The living heritage narratives created by these audiences are encouraged by the pioneering development of 5G taking place in China. The Liangzhu ancient city site in Hangzhou has been built as the first new ecological archaeological site with full 5G coverage in China. Telling the Liangzhu story with the world's leading technology is also one of the important measures to present Hangzhou as a city with a strong sustainable development capability.

From the perspective of site scientific research, digital technology is being used to restore and regenerate Liangzhu cultural heritage, including digital archives for safe-keeping tangible patrimony and the intangible values attached to it through its stories. 5G technologies dive into 5,000 years of civilization so that contemporary audiences, particularly the younger generation, can travel back in time to Liangzhu, civilization. Possibilities include a cloud exhibition for sharing Liangzhu heritage in the

digital space; online live activities, podcasts and short video broadcasts. Various forms of panoramic Virtual Reality VR and Augmented reality (AR) allow the integration of digital information with the user's environment in real time. Visitors entering the Liangzhu Museum only need to wear a pair of AR glasses of the same size as ordinary glasses to experience the special effects through the smart guide app. Spatial positioning technology can also generate AR Liangzhu cultural heritage map guide in the glasses.



5G new "vision" narrative world of Liangzhu

The important cultural relics in the collection, such as jade ware, the black pottery carved talisman jar, the ivory scepter, etc., can all be observed up close up in all directions through AR glasses. The stories behind them can also be read. For example, when watching the carved jade "bird standing on a high platform" one sees the bird come alive. Such experiences allow visitors a greater understanding of Liangzhu civilization. We can say that cultural artefacts come alive in in front of the eyes.

Through the "Kingdom of Gods and Kings" 3D promotional film, visitors can see a green world where the sunset breaks through the fog and the birds fly 5,000 years ago. They can also envision the way of life in ancient Liangzhu, its social structures, forms of kingship, religious beliefs and so on. They can experience the deer hunting and fishing as it was performed in the past, through the virtualization of the ancient hunting tools. Another example is that visitors draw a circle in the air with their

hands, and the sacred fire of civilization leads them instantly to a mythical ritual scene 5,000 years ago. In the lobby of the visitor guide center, there is also a 5G magic mirror that transforms the onlookers into the kings and queens of Liangzhu.

The river and workshop area of the exhibition hall are the more interactive areas. The sites restore the prosperous life and production scenes of people processing jade, lacquerware, stone tools and weaving, ramming earth or playing gyroscopes. Aligned with SDG 12 and its targets 8.9 and 12.b which refer to the need to devise and implement policies to promote sustainable tourism, including through local culture and products, the activities developed at Liangzhu Heritage Park serving as the anchor of additional cultural heritage work.

Linked to a 5G VR classroom, the Liangzhu Museum and Liangzhu Ancient City Ruins Park 5G digital museum can carry real-time multiparty online classes. High-quality regional teachers and remote students can be connected in synchronized teaching. This is possibly the most sustainable application of the technological development of Liangzhu heritage. Children in remote areas can feel the charm of Liangzhu culture without leaving their classrooms, as long as they wear VR glasses. This is both a deep integration of 5G technology and history and culture, as well as a specific practice and new empowerment to promote the balance of quality educational resources.

Under SDG 4, the United Nations framework aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”, Target 4.7 stresses the need for education to promote ‘a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.” The example of integration of 5G technology between Liangzhu heritage site and the education system in China offers a concrete example of good practice to achieve the United Nations Sustainable Development Goals.

In a public press conference, Liu Yuzhu, Director of the State Administration of Cultural Heritage of China claimed that making cultural heritage narratives alive helps retrieve old city memories, reflect the spirit of the city and enhance its charm. Thus, every city should dig deeper into the representative cultural artefacts, the black box of the city memory and the narrative of the city culture. Using the most advanced 5G technology

to present the magnificent and splendid 5,000-year Liangzhu civilization, Hangzhou has become a model for the living use of cultural heritage narratives.

CONCLUSION

Liangzhu World Heritage narrative represents Hangzhou's voice to the world, demonstrating the city's sustainable development practices and contributing to the efforts of the United Nations Sustainable Development Goals with regards to heritage preservation. Liangzhu 5G Heritage Project has sought to improve the management effectiveness of heritage places, integrating both technological and cultural dimensions, by preserving and transmitting knowledge and practice, both scientific and traditional, to future generations. Heritage is a repository of knowledge that can help humans to build a sustainable future for humanity. This paper has aimed at reiterating the importance of heritage preservation and transmission by means of new digital technologies, assuming a critical role in sustainable development strategies.

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