

Paths of Cultural Relics Protection and Museum Interpretation of Chinese Ceramics with Buddhist Themes

Jiahe Duan

Institute of Archaeology, University College London, London, UK

Abstract: An intersection of material culture and religious heritage in China has been identified, and ceramics with Buddhist designs are an important subject of research. These works of art are also records of the spread of religion and local worship along the old trade routes. This paper investigates the joint demand for the protection of cultural relics and modern museum interpretation of Chinese Buddhist ceramics. Given the physical weaknesses of these artifacts, the current conservation methods include preventative environmental control, active desalination, reversible consolidation and advanced non-destructive analytical tests. At the same time, it also studies the change in the model of museum display from pure formalism to all-encompassing socio-religious context. Digital humanities, such as augmented reality and virtual reconstructions, can be used to help museums connect the preservation of tangible cultural heritage with the intangible spiritual connotations of that heritage. In short, this study believes that in order to protect the physical condition and rich cultural content of these important historical and cultural resources, stringent scientific conservation and new interpretive ideas need to be used together.

Keywords: Cultural Relics Protection, Museum Interpretation, Chinese Ceramics, Buddhist Themes, Digital Heritage.

1. Introduction

Buddhism arrived in China via the ancient Silk Road and, at that time, a large number of foreign artists began to draw inspiration from it. As this foreign religious philosophy spread among the people, changes occurred in the material culture and art of that time. Among all the various media used to express religious devotion, ceramics are relatively outstanding and have a long history. Chinese artisans incorporated Buddhist symbols in their traditional pottery and porcelain at different times, such as lotuses, stupas and other gods and goddesses. These items included large-scale ritual vessels used in the palace and small religious objects in the home. Today, these artifacts are considered important parts of world culture and have provided rich material for studying the history of a global religion.

However, over the past thousands of years, these extraordinary works have been damaged by the environment and chemicals. Burial conditions, fluctuations in the moisture level of the ground below, and the natural porosity of some ceramic bodies have all damaged their structure. At this time, a large number of these cultural heritage objects will be unearthed. Therefore, the protection of cultural relics is to ensure the transmission of history. Physical preservation is not enough to promote the all-round inheritance of culture. The objects are now in the exhibition halls and need to be presented and explained for the public.

Museum exhibitions have historically frequently divorced religious objects from their original spiritual and functional environments and displayed them as isolated works of decorative art. The formalist school neglects the deep meaning of the ceramic objects and studies them as chemical and firing processes for a lack of narrative expression. To truly inherit the spirit of Chinese Buddhist ceramics, we need to change the way these works of art are presented to the public. The curators of today should connect new works of art with the cultural context in which they were created to make

them understandable.

Systematically study the optimal paths to achieve the above two goals in this paper. Section two introduces the material basis for Buddhist patterns in Chinese ceramics and its short history. Section three introduces the scientific methods and active measures needed to protect the delicate relics mentioned above. Section four explores progressive museum interpretation strategies and focuses on contextual curation and the integration of digital humanities. Finally, in Section five, I will summarize the contents of this paper and put forward the view that only by employing high-tech preservation technology and emotionally evocative interpretation systems can we ensure that these cultural relics will continue to have value for future generations.

Moreover, a wide-ranging network of the Silk Road had not only promoted the movement of high-value goods but also fostered the exchange of ideas. Merchants, monks and diplomats have been traveling the arduous road and, in turn, have introduced books, art ideas and religious customs to local production areas. Kilns in ancient China were already well-known for their high-temperature control technology and served as laboratories for this cultural integration. Artisans had to invent completely new shapes for the vessels and new decorations that met the particular needs of the newly established faith for worship. Therefore, the changes and innovations in Chinese material culture are also quite pronounced. At the same time, new scholars have begun to see these items not merely as old objects that cannot change, but as lively evidence of a world with rich connections in the past. In order to carry out any effective preservation or interpretation work, one needs to know the changes in society and culture over time that have led to the existence of these items and what they signify now.

2. Historical and Material Significance of Buddhist Ceramic Artifacts

Buddhist ideas have been incorporated into Chinese

ceramic art and have changed over time. In the early stages of religious transmission during the Han and Jin dynasties, foreign icons were frequently merged with native burial customs. The first appearance of the 'hunping' (soul jar) is a typical case of cultural integration. These complicated funeral vessels often had applied sculptures that combined traditional Daoist immortals with simple figures of the Buddha [6]. The first use of Buddhist symbols is believed to have been for protection and good fortune in people's hearts during this time.

As the religion gradually became deeply rooted in Chinese society during the northern and southern dynasties, as well as the Sui and Tang periods, the decorative language also developed in tandem. Lotus flowers are typically shown as symbolizing purity and spiritual enlightenment after defilement of the world, and are therefore very common subjects in ceramic art [8]. Potters began to paint or carve lotus petals on the surface of bowls and ewers, and at the same time, they started to mould the vessels themselves into three-dimensional shapes of the sacred flower. These objects were often used in monasteries for religious offerings, and in doing so, the work of pottery fused with the spiritual life of the monks.

Buddhism in ceramics reached a new height during the Ming and Qing dynasties, mainly due to the support of the imperial court for Tibetan Buddhism [4]. Separate imperial kilns were set up in Jingdezhen to carry out large-scale production of high-quality porcelain items that were only for the imperial court. The 'monk's cap jug' has a multi-stepped rim that resembles the headwear of Tibetan lamas, and it has been used to carry the imperial religious objects of state. In addition, the continuous reproduction and aesthetic refinement of stupa-shaped reliquaries and intricately painted mandalas show that religious orthodoxy has been incorporated into state-sponsored manufacturing over a long period [5]. These works of art have had profound effects on religion and politics, and are also technologically advanced.

As a result, many kinds of highly specialised esoteric rituals have been developed and used continuously. The detailed mandalas painted on the outside of the large porcelain basins were not for show either; they were also precise cosmograms used for deep-in-the-mind meditations. The positioning of gods and other holy objects on the ceramic picture must strictly adhere to religious doctrines, so the potters were likely under the direction of a religious official during this time. In addition, the brilliant polychrome enamels developed in the later dynasties were also used to create many more colourful and beautiful images of the gods and goddesses in Buddhism. Bright red, dark blue and bright gold glazes were used to create a grand scene of the heavens in painting based on the contents of the Bible. Based on these specific details, historians have been able to study how the content of theologically-minded thought and political factionalism changed over time, and have proven that these ceramic objects are, in fact, very detailed historical records in clay.

3. Scientific Pathways for the Protection of Ceramic Relics

Archaeological pottery is relatively durable in appearance but is easily damaged by all sorts of decay factors. The first path of cultural relics protection is to understand the physical and chemical risks to the ceramic body and glaze. After being buried for a long time, groundwater containing dissolved salts

seeps into the pores of the earthenware or stoneware. Excavation exposes it to the outside air; thus, this moisture will evaporate, and subsequently, the salts will be left at the bottom of the soil. There is a high internal pressure due to the above extension, which causes the glaze to crack, spall off, and eventually leads to severe damage of the work [1].

As a result, the first step in active conservation is a high-quality process of desalination. Conservators are used in distilled or deionized water for extended periods to gradually remove damaging chlorides and sulfates from the pores of ceramic materials through static or dynamic leaching protocols [2]. Thus, it can be known whether the concentration of the soluble salt in the water has reached a safe, stable level by measuring its electrical conductivity. Desalination will be carried out first to allow structural modifications. Modern conservation ethics now require that adhesives used to bond fragmented objects be entirely reversible and chemically stable over an extended period. Acrylic copolymers, such as Paraloid B-72, are frequently used for consolidation and reconstruction to ensure that future conservators can safely remove the current repairs without damaging the original ancient materials [9].

In addition to physical support, most of the protection work for cultural heritage now involves high-end analytical chemistry. Most conservators now use non-destructive testing for delicate Buddhist ceramics. X-ray fluorescence and Raman spectroscopy are used to map the exact mineral composition of glazes and pigments non-destructively through other methods [10]. Using the above data, we know which region has frozen food and where to get the required materials for preserving them. Highly sensitive gas chromatography-mass spectrometry can also be employed to find minute amounts of organic matter that may have been left in the pores of the ancient ritual vessel. Based on the analysis of these microscopic lipids and resins, scholars have been able to identify specific types of incense, oils or offerings that were once inside the artifact and thus provide essential data for both physical conservation and historical research [11].

In addition to the above, the other is that a very stable-temperature and stable-humidity environment is maintained for extended periods of museum storage. Porcelain with a micro-crack or repaired by other means is extremely sensitive to relative changes in temperature and humidity. A sudden decrease in humidity in the exhibition hall or storage area will lead to salt crystallization, and a relatively high-humidity environment may also encourage the growth of harmful microorganisms such as mould on the surface of organic adhesives or ancient residues. Therefore, the institution will install a new climate-control system to keep the base-level environment stable and favourable all year round. Strengthen the entire-round risk management system to prevent both slow-onset damage caused by chemical changes and sudden damage to fragile exhibits and storage containers due to vibration or impact.

4. Transformative Strategies in Museum Interpretation

Scientific conservation protects the material features of the relic; museum interpretation adds cultural connotations. When a Buddhist ceramic object is taken from a place of worship and displayed passively in a museum, it is no longer used for its original purpose as a performative object or a spiritual space. Historically, traditional curatorial practices

have also contributed to this distance by presenting ceramics solely in chronological typologies focused on aesthetic development and glaze refinement. Therefore, current museum philosophy advocates for a far-reaching shift towards socio-cultural contextualisation. The exhibition should aim to interpret the visual culture of the object and uncover the complex network of beliefs, rituals and trade systems in ancient society that led to its production [3].

Good interpretation of Buddhist ceramics needs to recreate the intangible atmosphere of devotion. This can be realised by space design and immersive storytelling. Instead of putting a monk's cap jug in a well-lit display case, one could create a temple altar experience by using different coloured lights, sound environments of monks chanting, and nearby architectural models. Create a virtual religious environment for the object and, in doing so, inspire visitors to see it not merely as an aesthetically pleasing old item but also as an object of spiritual thought.

The start of the digital humanities has given museums powerful tools to reconstruct the original environment and reduce the risk of damage to fragile old works through environmental changes. Augmented reality applications can be used to display a fragmented ceramic piece through a mobile phone, and a perfect three-dimensional holographic reconstruction of the original shape can be viewed [7]. Virtual Reality (VR) installations can take users back to the past and place them inside a fully realised medieval cave temple to observe how certain ceramic vessels were used in elaborate religious ceremonies. The above digital interventions have achieved the dual goals of increasing the public's participation and learning in education, and at the same time, they have met the strictest requirements for preventive conservation by reducing physical contact with the actual relics.

Teaching prospects for these interactive interpretation models are also very good. When the younger generation of museum visitors is motivated to explore the historical context of an object actively, rather than just reading the static label, their cognitive retention and emotional engagement rise exponentially. Educational workshops can use these digital tools to simulate archaeological excavations, virtually unearth a Buddhist ceramic vessel, and then engage in a mock conservation and curation process. The above hands-on, multi-disciplinary approach can help the public better understand the mysterious world of heritage professionals and cultivate a deeper interest in cultural inheritance. Provide rich multilingual digital interfaces to ensure that these localised historical narratives are accessible to a wide range of people around the world, thereby achieving the museum's goal of becoming an all-weather institution for learning and cultural diplomacy.

5. Conclusion

The protection and Interpretation of Chinese ceramics with Buddhist themes are very complex, multi-disciplinary tasks. These outstanding works of art are the result of high-end material engineering, deep religious faith and rich history. As this paper has proposed, protection of these cultural treasures requires strong, science-based measures for physical protection. Careful measures are taken to stabilise the environment, chemically desalt, reversibly consolidate and non-destructively analyse materials to prevent further deterioration and ensure the structural safety of the relic.

Equally important is how the preserved objects will be presented to the world's people philosophically. The earlier

isolation of museum exhibits in terms of aesthetics is no longer appropriate for conveying the rich history and spirituality of these works. Institutions need to adopt new ways of interpretation and actively restore the social and religious context of the object. Empathy-driven curatorial narratives and the application of new-generation digital technology can be used to present the intangible cultural heritage in tangible clay at museums more effectively.

In the end, the future direction of cultural relic protection will be this combination of scientific accuracy and humanistic narration. By constantly innovating in terms of conservation methods and interpretation systems, we will help preserve the material culture and spirit of Chinese Buddhist ceramics for future generations. In this way, we pay tribute to the heritage of the old artisans and the long-standing spiritual culture that they have worked to pass down over generations, and ensure that this culture will continue to be an essential and living part of our world's cultural and creative industries.

At present, the moral responsibilities of the new generation of conservators and curators are becoming increasingly prominent. All physical modifications and explanatory labels added to delicate cultural relics and display cases will determine how younger generations are perceived and valued in the future. Therefore, the continuing professional dialogue and international cooperation of the present time are required to update and spread good practices worldwide. With the development of technology and the deepening of our theoretical knowledge of material culture, the methods introduced above need to be continuously revised. Only when we aim to achieve a high level in both scientific defence and humanistic education will these wonderful cultural treasures be passed down to future generations.

References

- [1] Buys, S., & Oakley, V. (1993). *The conservation and restoration of ceramics*. Butterworth-Heinemann.
- [2] Tennent, N. H. (Ed.). (1999). *The conservation of glass and ceramics: Research, practice and training*. James & James.
- [3] Hooper-Greenhill, E. (2000). *Museums and the interpretation of visual culture*. Routledge.
- [4] Harrison-Hall, J. (2001). *Catalogue of late Yuan and Ming ceramics in the British Museum*. British Museum Press.
- [5] Kerr, R., & Thomas, I. (1986). *Chinese ceramics: Porcelain of the Qing Dynasty, 1644–1911*. Victoria and Albert Museum.
- [6] Wang, E. Y. (2005). *Shaping the Lotus Sutra: Buddhist visual culture in medieval China*. University of Washington Press.
- [7] Cameron, F., & Kenderdine, S. (Eds.). (2007). *Theorizing digital cultural heritage: A critical discourse*. MIT Press.
- [8] Pierson, S. (2009). *Chinese ceramics: A design history*. V&A Publishing.
- [9] Koob, S. P. (2009). Paraloid B-72: 25 years of use as a consolidant and adhesive for ceramics and glass. In J. Ambers, C. Higgitt, L. Harrison, & D. Saunders (Eds.), *Holding it all together: Ancient and modern approaches to joining, repair and consolidation* (pp. 113–119). Archetype Publications.
- [10] Hein, A., & Kilikoglou, V. (2017). Compositional variability of archaeological ceramics in the eastern Mediterranean and implications for the design of provenance studies. *Journal of Archaeological Science: Reports*, 16, 564–572. <https://doi.org/10.1016/j.jasrep.2017.03.020>
- [11] Roffet-Salque, M., Dunne, J., Altoft, D. T., Casanova, E., Cramp, L. J. E., Smyth, J., Whelton, H. L., & Evershed, R. P.

(2017). From the inside out: Upscaling organic residue analyses of archaeological ceramics. *Journal of Archaeological*

Science: Reports, 16,
<https://doi.org/10.1016/j.jasrep.2016.04.005>

627–640.