



RESEARCH ARTICLE

Ding: Folklore and Social Processes under the Dissemination and Conservation of Cultural Heritage

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ARTICLE INFO	ABSTRACT
Received: Oct 27, 2024	The study investigates the enduring cultural and social roles of bronze Ding within Chinese heritage across historical and modern contexts. Originally used as ceremonial objects during the Shang and Zhou dynasties, these artifacts have transitioned into symbols of cultural identity and pride in modern society. This research reflects on their production techniques, social implications, and integration into modern design and economic spheres. By examining how bronze Ding have been adapted in modern practices while maintaining their traditional essence, the study highlights the complexities of preserving intangible cultural heritage in a globalized world. The study employs a qualitative research methodology, utilizing a combination of historical analysis and case study approaches. Data was gathered through a comprehensive review of existing literature on the historical significance of bronze Ding and their role in traditional Chinese society. Modern case studies, with a focus on the Luoke Ding's current uses and commercialization, were also examined. Findings indicate that bronze Ding continue to serve as a conduit for cultural continuity, linking past traditions with present national identity and pride. Modern adaptations have seen bronze Ding being incorporated into the tourism sector as well as in international cultural exchanges.
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INTRODUCTION

Bronze Ding, a traditional Chinese ceremonial vessel, represents a rich confluence of history, culture, and art. Originating during the Shang and Zhou dynasties, the Ding has been emblematic of power and religious ritual (Khayutina, 2021). As a significant cultural artifact, the Ding offers profound insights into the social and cultural fabric of ancient China. Since ancient times, there is a close correlation between cultural relics like the Ding and the lives of the Chinese people (Liang, 2023). The changes in social environment and the interaction of various cultures promote the gradual changes in the use and the social status of these artifacts (Moser, 2010). The Ding, listed as a national intangible cultural heritage, has unique artistic characteristics and cultural diversities, which possess cultural identity with the Chinese people and contribute to the dialogue with other cultural groups (Powers, 2020).

The lines and patterns of the Ding are not simply artistic expressions. They are symbols of culture and stories passed from generation to generation. The ornate designs themselves such reflect technological achievements, religious beliefs and ancient social organization. For example, on a Ding the motifs and inscriptions tell stories of political changes, religious beliefs, and societal norms at their time. Through such elements researchers can penetrate into not only the cultural but also philosophical background of China's ancient society (Wang et al., 2020). However, to truly bring these relics of China's imperial era into the modern age we need re-interpretation on some scale: that is essential if they are to shed their centuries-old skin and speak languages which are pertinent for

today. This process of re-interpretation looks for the values and philosophies embodied in these artifacts and then locates equivalents within modern society (Xu & Sang, 2022).

Luoyang Vocational College of Science and Technology, where the author works, is located in Luoyang, China's millennium-old capital, known for its rich cultural heritage. As a transitioning institution, the college integrates the local cultural characteristics, zeitgeist, and university spirit of Luoyang into its cultural core. Through applied arts theory and methods, the college aims to build the spiritual totem —Luoke Ding. This research will use Luoke Ding as a case study to explore the application of the ancient bronze Ding in the modern context. As a member of the college culture construction team, the author contributes references, ideas, and methods for realizing the social and cultural value of other cultural relics through applied arts. Educational institutions play a crucial role in the preservation and dissemination of cultural heritage. By incorporating local cultural elements into their curriculum and activities, these institutions foster a sense of cultural identity and pride among students. This, in turn, contributes to broader efforts to preserve and promote cultural relics like the Ding.

Research Question

- 1) What are the production processes, techniques, materials, and forms of artistic expression of the Ding, such as patterns, structures, and motifs?
- 2) What social relationships and social processes does the Ding reflect, and what connections exist between various social roles and the Ding?
- 3) How is the bronze Ding inherited, applied, and adapted in modern society, particularly in the case of the Luoke Ding?



Figure 1 Luoke Ding

Source: Luoyang Vocational College of Science and Technology

LITERATURE REVIEW

This study will review previous research in the following aspects: the historical development of the bronze Ding from the Shang and Zhou dynasties, techniques for Ding production, forms of artistic expression of the Ding, the present state of Ding bronzes as intangible cultural heritage, and the Luoke Ding as a case study to draw a conclusion.

Historical Development of the Bronze Ding from the Shang and Zhou Dynasty

The bronze ding is a significant artifact from ancient China, particularly during the Shang (c. 1600–1046 BCE) and Zhou (c. 1046–256 BCE) dynasties. Its evolution reflects broader cultural, political, and technological changes in Chinese society.

1) Origins and Significance

The ding first appeared during the Erlitou culture, preceding the Shang dynasty, but it became prominent in the Shang period as a ritual vessel used primarily for cooking and sacrificial offerings. Initially, these vessels were associated with ancestor worship, as they were used to prepare food for offerings to deities and ancestors, reflecting the spiritual beliefs of the time (Liu, 2019). The craftsmanship involved in creating bronze ding was sophisticated, requiring advanced knowledge of metallurgy and casting techniques, which were critical in establishing social hierarchies among the elite.

2) Evolution During the Shang Dynasty

In the Shang dynasty, ding vessels were typically round with three legs and were primarily used in rituals. The designs often featured intricate decorations, including taotie masks—abstract representations of mythical creatures—highlighting their ceremonial importance (Bagley, 1999). The number of ding a person possessed indicated their social status; for instance, emperors could be buried with nine ding, while lower-ranking officials might have only one or three.

The Shang dynasty marked a significant phase in bronze technology, with extensive use of clay molds for casting. This allowed for mass production of these vessels, which were not only functional but also served as status symbols within the elite class. The inscriptions found on many ding from this period provide valuable insights into the political structures and rituals of Shang society (Liu, 2019).

3) Transition to the Zhou Dynasty

With the rise of the Zhou dynasty, a notable shift occurred in the use and symbolism of ding vessels. The Zhou rulers emphasized food vessels over wine vessels due to a cultural shift known as the "Ritual Revolution," which reflected changing social values following their conquest of the Shang (Shaughnessy, 1991). This period saw ding becoming more secular; they were still used in rituals but increasingly symbolized power and authority rather than solely serving religious purposes.

The Zhou established specific regulations regarding the number of ding used in sacrificial ceremonies based on rank: nine for kings, seven for dukes, five for senior officials, and three for junior officials. This standardization reinforced social hierarchies within the ruling class and solidified the political legitimacy associated with ownership of these vessels (Shaughnessy, 1991).

4) Influence on Later Generations

The Shang and Zhou dynasties left a lasting legacy on Chinese culture, particularly through their use of Ding vessels. These artifacts continued to symbolize authority and ritual significance in subsequent Chinese history (Khayutina, 2008). The Ding vessels from the Shang and Zhou periods are among the most significant cultural artifacts in Chinese history, providing insights into the religious, political, and social practices of early Chinese civilization (Pheng Low, 2001).



Figure 2 Late Shang to Early Western Zhou Dynasty Ding
Source: Brooklyn Museum



Figure 3 Different Symbolic Representation of Ding Vessel
Source: (Liang, 2023)

Techniques for Ding Production

Ding vessels, significant artifacts from ancient China, particularly during the Eastern Zhou dynasty, showcase advanced metallurgical craftsmanship. The production of these bronze vessels involved several key techniques:

1)Molding and Casting Techniques

Artisans utilized lost-wax casting, a process where a wax model is covered in clay and heated, allowing the wax to melt away and leave a mold for pouring molten metal. This technique enabled the creation of intricate designs and fine details on ding vessels (Liu, 2019). Additionally, sand casting was employed, where sand molds were formed around patterns, allowing for mass production of similar shapes while maintaining high precision in detail (Wang, 2020).

2)Alloy Composition

The metallurgical skills displayed in ding production included the use of various copper alloys, often mixed with tin and lead to enhance durability and workability. This careful selection of materials contributed to the longevity and aesthetic appeal of the vessels (Zhang, 2021).

3)Surface Finishing Techniques

After casting, ding vessels underwent various finishing processes such as polishing and engraving. Artisans would refine the surface to achieve a smooth texture and add decorative motifs, which were often symbolic or functional (Chen, 2018).

4)Functional Design Elements

Ding vessels were designed with specific functional attributes, including three short legs for stability and a lid for storage. The design not only served practical purposes but also reflected the artistic values of the time (Li & Xu, 2022).

These techniques not only illustrate the technological advancements of ancient Chinese metallurgy but also highlight the cultural significance of ding vessels in rituals and ceremonies. The combination of artistry and functionality in their production remains a testament to the skilled craftsmanship of that era.

Forms of Artistic Expression of the Ding

Ding vessels, prominent in ancient Chinese culture, are not only functional objects but also rich in artistic expression. Their designs incorporate various patterns, structures, and motifs that reflect the cultural and ritual significance of these artifacts.

1) Structural Characteristics

Ding vessels typically feature a tripod structure, with three legs for stability, although some variations have four legs (fang ding). This tripod design is derived from earlier ceramic forms and emphasizes the vessel's ceremonial purpose. The round or rectangular shapes of the ding reflect both practical use and aesthetic considerations, often symbolizing power and status in society (BADA, 2024).

2) Decorative Patterns

The surfaces of ding vessels are adorned with intricate decorative motifs. One of the most prevalent designs is the taotie mask, which features a stylized face with large eyes and horns, often interpreted as a mythical creature (University of Michigan Museum of Art, 2024). These masks are typically accompanied by leiwen, a thunder pattern made up of swirling lines that add depth and complexity to the design (BADA, 2024).



Figure 4 'Ding' Ritual Food Vessel with 'Taotie' Decor
Source: Harvard Art Museums

3) Symbolic Motifs

In addition to taotie masks, ding vessels often include zoomorphic designs, such as dragons (kui), which symbolize good fortune and imperial authority (Fiveable, 2024). The presence of these motifs not only enhances the visual appeal but also conveys messages about power and divine favor. For instance, the arrangement of kui dragons around the vessel's rim signifies a connection to royalty and ancestral worship (University of Michigan Museum of Art, 2024).

4) Inscriptions and Commemorative Elements

Many ding vessels feature inscriptions that commemorate important events or record gifts between rulers and subjects. These inscriptions serve both as artistic elements and historical records, providing insight into the political landscape of the time. The use of inscriptions further emphasizes the vessel's role in ritual practices and its connection to social hierarchy.

In summary, ding vessels exemplify a unique blend of functionality and artistry through their structural forms, decorative patterns, symbolic motifs, and commemorative inscriptions. These elements collectively reflect the cultural values and social dynamics of ancient China.

Present State of Ding Bronzes Intangible Cultural Heritage

Since it is well documented that Ding bronze vessels are culturally valuable and continue open protection, promotion, and use, Ding bronzes were placed under the representative projects which occurred at the state council level in the first batch. The Chinese State Council made Ding bronzes included as the first batch of representative projects of intangible cultural heritage in 2006 (Wei & Chen 2023). The listed projects have pushed the representation to the national level, which wholly reflects the central committee of the state council and its state department great concern and respect to these traditions also to the experts and staffs. It has created self-encouragement to fans and artisans. Qiu (2023) articulates that "Many people even said, if Ding is in the trade, the if in the east, else is in the north, the only Ding should be in the west, Ding is the only one, such a concept inspired

all fans and artisans about the state project approval decision greatly also the comprehensive staffs confidence (Zarrow 2020).



Figure 5 Ding Bronze Vessel displayed at the National Museum of China
Source: National Museum of China

In 2009, UNESCO listed the Ding bronzes as a selected item of human intangible cultural heritage in Abu Dhabi and free to portrait art around the world (UNESCO, 2009). The fact that these Ding bronzes have appeared in international exhibitions. Participated in and hosted by UNESCO and the China International Cultural Communication Center, it was an exhibition of Ding bronzes that won wide acclaim even further showcased Ding culture at the world level (Liu, 2015).

It also honored principal figures who had made great contributions in the protection, inheritance and promotion of Ding bronzes. For example, they won the "Outstanding Contribution Award for Human Intangible Heritage Protection and Inheritance" to recognize their dedications in preserving this valuable cultural heritage (Liu, 2015). The Ding bronzes were listed in the first batch of Chinese national intangible cultural heritage revival catalogue, also their artistic value and culture influence have been validated to some extent both at home and overseas.

China has thus turned the cultural display of its Ding bronzes into a new sort of cultural industry. The Ding bronze pieces have thus become a must-see destination for tourists visiting China, and visitors are quite keen on selecting artifacts at workshops (Qiu, 2023). Ding bronzes have not only historical and cultural value as traditional Chinese treasures, but also market economic values that has been increasingly recognized and improved. This can be seen by modern and modern art markets, in which the demand for culturally significant artifacts has increased alongside the rapid growth of China's economic development (Liu, 2016).

At the same time, projects such as Ding Bronze Intangible Heritage Project have promoted a good application and research of these artifacts so that they can effectively exert their economic value and social benefit in inheritance of national spiritual culture. This sums also include the incorporation of individual national deployments such as "intangible cultural heritage and poverty alleviation", with the goal to enhance non-ethnic inheritors' life through different ways like selling their works, giving them technical skills assistance so they can overcome their poverty problem (Labadi, 2020).

Applicable and extended this kind process unified preservation work with improvement of practitioners' lives, enhanced public awareness and participation on Ding bronzes as national intangible cultural heritage. This series of improved vitality and stamina has led to the continued resonance, even appreciation of our brushstrokes made by Ding bronze heritage.

LuoKe Ding as a Case Study

The LuoKe Ding is an embodiment of a cultural process that combines the cultural connotations of the Luoyang Ding and the Luoyang Vocational College of Science and Technology (abbreviation for "LuoKe"). Through the study of the LuoKe Ding, the continuous process of social culture is a result of the change of cultural process, which produces the LuoKe Ding as a product of cultural process.

1) The basic features of the LuoKe Ding

The basic features of the Luoke Ding are elaborated in the following three aspects: 1) Shape: the Luoke Ding is square and four-legged, and the overall shape is simple and solemn, reflecting the characteristics of bronze craftsmanship in the Western Zhou period. The overall feeling is to embody the connotation of the four-legged bronze Ding and the setting of the Central Plains. 2) In terms of decoration: the bronze Ding is decorated with the typical animal-face motif (taotie motif), which is very common in ancient Chinese bronzes, and is usually used to denote majesty and mysterious power. In addition, there are other complex geometric patterns and lines, demonstrating the high level of casting skills of the time. The core on the decoration is to highlight the representation of the monarch of the dynasty at that time for the symbol of centralised power with absolute supremacy. 3) On its inscription: some ancient bronzes would have an inscription to record the background of the production, the object of sacrifice and other information. The inscription of Luoke Ding is designed exclusively with the elements of Luoke, in order to achieve a unique cultural representation in line with the characteristics of Luoke Ding.

The Luoke Ding is about 3.99 metres high, 3.66 metres long and 2.77 metres wide, with the so-called bright 9 and dark 9, that is: "9" is the extreme number, the largest, implying infinite development $3+6=9$ and $2+7=9$, never-ending, continuous exploration, and a spirit of continuous development. The reason for adopting the superposition of numbers implies science and technology and humanities, and it is easy to remember, so that other people can feel the spiritual connotation and cultural inculcation brought about by Luoke Ding, thus further letting people understand the value of Luoke Ding's numerical design connotations.

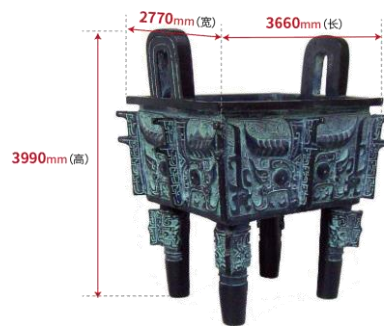


Figure 6 Luoke Ding

Source: Luoyang Vocational College of Science and Technology



Figure 7 Luoyang Ding (Western Zhou Dynasty square Ding with beast face patterns)

Source: Luoyang Vocational College of Science and Technology

The Luoyang Ding has in-depth cultural value and historical status: as an important cultural relic of the early Western Zhou Dynasty, the bronze Ding is not only an important physical material for the study of the history of the Western Zhou Dynasty, but also an important basis for the understanding of the social system, religious beliefs, aesthetic concepts and other aspects of that era. Artistic Achievement: It reflects the exquisite metal casting technology and highly developed artistic level of the Western Zhou period, and is an indispensable part of the study of ancient Chinese bronze craftsmanship. Cultural Symbol: The Luoyang Ding has become a cultural symbol of Luoyang City and even the whole Central Plains, representing the brilliant achievements of ancient Chinese civilisation.

2) Morphological Allegory of the Luohe Ding

One Heart / Sincere Heart. The heart of sincerity, sincerity and truth, Rocco with the heart of a parent to help students achieve their dreams; Rocco students with the spirit of righteousness, the heart of the family and the country, is the heart of a child. The school treats students with the same love and responsibility as parents treat their children. The school is committed to helping each student grow and to supporting them in realising their dreams. This dedication is not only reflected in the day-to-day management of teaching and learning, but also in the long-term planning and support for the future development of students. Growing up in such an environment, the students of Luohe not only have solid professional knowledge, but also have firm ideals and a strong sense of social responsibility; they are truly red-blooded, with hearts full of deep affection and love for their home country.

Binaural / Technology + Humanities. The spirit of science and technology and humanism are the two wings and wings of the long-term development of Luohe, nourishing science and technology with humanism and blessing humanism with science and technology, only when both develop together can we bring about the development of talents, the development of the times, and the development of the society can really be brought about. The school deeply understands that only by giving equal importance to science and technology and humanities can we cultivate talents with all-round development. On the one hand, science and technology is the key force driving the progress of modern society, which brings unprecedented convenience and development opportunities for human beings; on the other hand, humanism is the soul of scientific and technological development, which gives science and technology a warmth and ensures that the application of technology always serves the all-round development of human beings and the well-being of the society. Rockwell advocates nourishing science and technology with humanism and blessing humanism with science and technology, and through the organic integration of the two, it promotes the all-round development of students, which in turn promotes the progress of the times and the development of the society.

Four Feet / Virtue, erudition, sensitive behaviour and good speech. Thick virtue and erudition for knowledge, sensitive behaviour and good words for action, knowledge and action in unity, in order to become a high-quality technical and skilled personnel. The unity of knowledge and moral character is emphasised in Hou De Bo Xue, students should not only master extensive knowledge, but also have noble moral character. Minxingxingxinhua refers to quick action and appropriate speech, emphasising the importance of practical ability and communication skills. The unity of knowledge and action is an important part of traditional Chinese educational thinking. Through these four aspects, Rocco is committed to cultivating technical and skilled talents with all-rounded qualities, so that they can demonstrate excellent abilities and good character in their future work and life.

Eight Prongs / Dreaming of Eight Directions. The number of eight trigrams is endless, which implies that thousands of students from Luohe will go to the four corners of the motherland and everyone will shine, contributing to the youthful strength and achieving the dream of life in every industry of the society and in every place of the country. After graduation, the students of Luohe will go to the four corners of the motherland and shine in all walks of life. Whether in the field of scientific research, industrial production, culture and art, or public service, they will play an important role in their respective positions and contribute to society with their youth and wisdom. This concept of

"Dreaming in Eight Directions" encourages students to bravely pursue their own dreams, and at the same time shoulder their social responsibilities and return to society with their own efforts and achievements, so as to realise the double enhancement of personal value and social value.

3) Principles of Luohe Ding Tattoo Design

"Uniqueness" in design principles refers to the concept of pursuing uniqueness and irreplaceability in the design process. This principle emphasizes the creation of unique value and unrepeatable design results, so that they can occupy a unique position in the market or in the minds of users. The Luohe Ding is based on the combination of the cultural connotation and spiritual core of Luohe School and explores certain similarities from Luoyang Ding, but its cultural connotation has certain cultural characteristics, which represents the only unique Luohe Ding.

The Ding is highly symbolic in Chinese culture, representing authority, sacrifice and ritual. Combining "uniqueness" with the Luohe Ding means giving it new life through innovative design while preserving the traditional elements. By making creative improvements in the form, material and decoration of the Luohe Ding, it retains the traditional flavour while meeting modern aesthetic and functional needs. Innovative design of Luohe Ding: Through modern design concepts and technical means, a unique style of Luohe Ding is created. This kind of design is not only a change in appearance, but also an innovation in inner function and use experience.

In terms of functional diversity, the principle of uniqueness requires a breakthrough in functionality. For a bronze Ding object, in addition to being the embodiment of the school's cultural characteristics, it also represents a deeper cultural symbolism. This design not only increases the practicality of the bronze Ding, but also broadens its application scenarios.

The formal aesthetics of Luohe Ding also needs to reflect uniqueness. Through unique lines, proportions, colour matching and other techniques, it creates a personalized appearance design. This form of aesthetics is not only reflected in the static visual effect, but also through dynamic light and shadow effects, tactile feedback and other ways to enhance the user's sensory experience.

Traditional bronze Dings are mostly cast in bronze, but in modern design, the use of new materials, such as lightweight alloys, high-tech ceramics, and environmentally friendly plastics, can be explored. These new materials not only reduce weight and improve durability, but also give the bronze Ding a different texture and visual effect. Unique design can also be reflected in personalisation. According to the needs of Luohe Ding actual situation, the bronze Ding can be customised in different styles, sizes and colours, and even carved with specific patterns or inscriptions according to the user's preference, making it a unique artwork and cultural product.

The design that combines uniqueness with Luohe Ding should also bear certain social responsibility, such as conveying the concept of environmental protection and public welfare messages through the design. The design of uniqueness should not only be a superficial change, but also pass on and carry forward the traditional culture at a deep level. Designers need to study in depth the historical background, cultural significance of the Luohe Ding and its evolution in different historical periods, and skillfully integrate these elements into modern design, so that the work has both historical heritage and reflects the spirit of the times.

To sum up, combining the "uniqueness" of the design principle with the "Luohe Ding" not only requires innovation in appearance, function and material, but also focuses on the excavation and inheritance of the cultural connotation of Luohe. Such a design will not only create a unique Luohe Ding, but will also play a greater role in modern society, serving as a bridge between the past and the future. In this way, the Luohe Ding will become a collection and cultural product representing Luohe culture, and moreover, a symbol of Luohe culture that is full of vitality and modernity.

4) Luohe Ding IP Image (Lohe)

Making the Luohe Ding into an IP image not only enhances its cultural connotation, but also better promotes and spreads the brand image of the College. By anthropomorphising the Luohe Ding into

an IP image, it can better disseminate traditional cultural elements such as Hetu Luoshu and the Silk Road, so that more people can understand and get to know these cultural treasures. The design of the IP image integrates traditional and modern elements, which reflects the innovative spirit of the college's education concept and also demonstrates the college's respect for and inheritance of traditional culture. The IP image participates in a wide range of activities and scenarios, which show the students' growth and progress in practice, reflecting the college's education mode of combining engineering and learning. The following is the display of the IP image of Luo Ke Ding.



Figure 8 Loke IP

Source: Luoyang Vocational College of Science and Technology

CONCLUSION

In modern society, the Ding continues to hold significant cultural importance, reflecting the collective efforts of individuals and groups in its preservation and development (Zheng & Huang, 2020). Cities like Luoyang have embraced the Ding as a cultural symbol, earning titles such as "Ding Capital" or "Hometown of the Ding," which enhances the city's cultural identity and promotes cultural tourism (Liu, 2019). This cultural attribution strengthens people's recognition and pride in their heritage, fostering a positive feedback loop where increased cultural identity leads to enhanced protection and application of Ding culture, thereby elevating the city's social and cultural value (Wang & Chen, 2021). The Ding serves as a cultural hub, around which social relationships are built and strengthened. It brings together various stakeholders, including artisans, historians, government bodies, and the public, all collaborating to preserve and promote Ding culture (Xu et al., 2018). This collective participation reflects the Ding's role in creating a society that is interdependent and mutually supportive, with the Ding itself symbolizing unity and shared cultural heritage.

In modern Chinese society, the Ding has undergone a transformation from a religious and political symbol to a cultural artifact that is deeply embedded in modern design thinking. Today, Ding bronzes are designed not only to reflect traditional Chinese craftsmanship but also to appeal to modern aesthetic sensibilities. This shift in design is guided by a desire to preserve the cultural significance of the Ding while making it relevant to modern audiences (Xu & Gao, 2021). The Ding has become a tool and symbol that contributes to modern urban development and cultural expression. In the context of modernity, the Ding's cultural, artistic, and functional aspects are being reinterpreted to align with modern needs and preferences (Wang & Chen, 2021). The continuous reinvention of the Ding demonstrates its vitality and enduring significance in Chinese culture.

Despite the changes in form and application, the core values embodied by the Ding—such as unity, harmony, and respect for tradition—remain constant (Zhang, 2019). This unchanging essence allows the Ding to bridge the past and present, serving as a conduit for cultural transmission and identity formation. Reintroducing the Ding into modern life aligns with national initiatives aimed at cultural revival and promoting traditional culture. Policies emphasizing cultural confidence and heritage protection, as advocated by President Xi Jinping, support the innovative development and creative transformation of traditional cultural elements like the Ding (State Council, 2017). These efforts

encourage integration of traditional culture into modern society, enhancing its relevance and appeal. An exemplary manifestation of this modern reinterpretation is the Luo Ding created by the Luoyang Vocational college of science and technology. The Luo Ding is a modern Ding that combines traditional design elements with modern innovation, serving as both an educational tool and a cultural symbol for the institution. The Luo Ding exemplifies how modern Ding bronzes are created using a combination of traditional and modern techniques.

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