



An Initial Study on Integrating Cultural Heritage into Children's Education: The Case of Stone Carvings from the Southern Dynasties in China

Zhu Zhenya¹, Mo Yunjie², Fauzi Naeim³, Liu Dongyu⁴

Abstract

The stone carvings of the Southern Dynasties are outstanding representatives of ancient Chinese sculpture art. This study uses the Southern Dynasties stone carvings as an example to explore the feasibility of integrating cultural heritage into children's education. The research focuses on the cognitive development characteristics of children and designs a teaching practice activity that integrates field visits to cultural heritage, interactive experiences of digital products, handmade cultural and creative products, and storytelling of cultural heritage. A comparative experiment is conducted on students from a primary school in Nanjing. Through comparative analysis of data such as questionnaire surveys, interview observations, and test scores, it was found that integrating cultural heritage into children's education can significantly improve students' mastery of cultural heritage knowledge and effectively stimulate their enthusiasm for self-directed learning and active exploration. The experimental results have verified the positive role of integrating cultural heritage into children's education, providing a novel implementation path for the reform and innovation of children's education.

Keywords: *Cultural Heritage, Southern Dynasties, Stone Carvings, Children's Education.*

A. Introduction

Cultural heritage is the material and spiritual crystallization of human civilization development, carrying a nation's historical memory and value identity (Chen & Gao, 2022). The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has long advocated for integrating cultural heritage into the education system, emphasizing the need to enhance understanding and respect for cultural diversity through education. It believes that cultural heritage education can help cultivate global citizenship strengthen cultural identity, and cross-cultural understanding (United Nations, 2015). In recent years, many countries have combined cultural heritage with curriculum education. This trend highlights the unique value of cultural heritage as an educational resource and reflects the core position of cultural inheritance in children's growth.

Currently, educational activities on cultural heritage in China are mostly concentrated in higher education institutions and historical and cultural museums, with a severe lack of cultural heritage education for children. The main reason for such problems is that children have special cognitive abilities, language expression, and sensory experiences, and traditional forms of cultural heritage make it difficult to fully stimulate their learning interest and participation enthusiasm. In addition, some studies excessively rely on digital tools in their practical approach,

¹ PhD In Design, Faculty of Creative Industries, City University Malaysia, Malaysia. ZHUZHENYA77@gmail.com

² PhD In Design, Faculty of Creative Industries, City University Malaysia, Malaysia.

³ City University Malaysia&Universiti Kuala Lumpur, Malaysia.

⁴ PhD In Design, Faculty of Creative Industries, City University Malaysia, Malaysia.

overlooking the immersive educational experience that tangible, perceivable cultural heritage resources can provide. Therefore, how to scientifically transform cultural heritage content into educational resources that align with children's cognitive characteristics and strike a balance between digital media and physical teaching has become a core issue that urgently needs to be addressed.

The stone carvings of the Southern Dynasties are mainly located in the Nanjing and Zhenjiang areas of Jiangsu Province. As an excellent cultural heritage of China, they witnessed the political and historical changes during the Southern Dynasties period (420-589 AD) (Yang, 2006). These forms include stone beasts, stone pillars, and stone tablets, distributed on the Shintoism of the mausoleums of emperors and nobles. These stone carvings reflect the aesthetic orientation of the ruling class during the Southern Dynasties and the integration of various cultural elements such as politics, etiquette, and religion during that period. The stone carvings of the Southern Dynasties play a vital role in studying art history, archaeology, design, religious history, and other fields. They are known as the "archives of Southern culture". However, for more famous cultural heritage sites such as the Forbidden City and the Great Wall, the stone carvings of the Southern Dynasties lack the level of attention in the basic education system.



Figure 1. Stone Carvings of Emperor Chen Wen, Chen Qian, and Yongning Mausoleum
(Source: Photo by author, 2021)

This study uses the stone carvings of the Southern Dynasties in China to explore the positive role of cultural heritage in children's education. By leading students to conduct on-site inspections and experience digital technology, handicrafts, storytelling, and other practical methods, a teaching model that balances knowledge transmission, aesthetic cultivation, and cultural identity is established, and a novel educational method centered on cultural heritage and child user groups is developed. Injecting a continuous stream of youthful energy into the protection and dissemination of cultural heritage, providing solid theoretical support and feasible, practical references for the innovation of basic education curriculum.

B. Literature Review

1. The International Status of Integrating Cultural Heritage into Education

In recent years, the international community has increasingly emphasized the integration of cultural heritage into education to promote sustainable development and the cultivation of global citizenship. The United Nations Educational, Scientific and Cultural Organization (UNESCO) launched the "World Heritage Education Program" in 1994, aiming to educate more young people about cultural heritage worldwide. It emphasizes using field visits, project learning, and other methods to enhance young people's awareness and protection of cultural heritage. It encourages them to participate actively in activities that protect cultural heritage (Di Giovine, 2015). In 2003, UNESCO adopted the Convention for the Safeguarding of the Intangible Cultural Heritage, encouraging countries to educate and promote the protection and inheritance of intangible cultural heritage to the public, especially young people (UNESCO, 2003; Jagielska Burduk et al., 2021). In 2015, UNESCO explicitly stated in the 2030 Agenda for Sustainable Development that education should enhance learners' understanding of cultural diversity and the contribution of culture to sustainable development (Colglazier, 2015; Lee et al., 2016; Weiland et al., 2021).

The Kaiping Cangdong Heritage Education Center, located in Jiangmen City, Guangdong Province, China, was awarded the "Global Innovation on World Heritage Education: Highly Commended Cases" by the UNESCO Asia Pacific World Heritage Training and Research Center (WHITRAP) in 2021 for its innovative practices in heritage education. Since 2011, the base has organized summer camps, student courses, and other modes to allow students to personally participate in traditional agricultural practices such as rice drying, enhancing their understanding and awareness of local cultural heritage protection (Peng et al., 2021).

The LiangLiang's World: "Picture Book+" Borderless Heritage Education concept of Liangzhu Ancient City Site in Hangzhou, Zhejiang Province, China, has also been selected as an "Global Innovation on World Heritage Education: Highly Commended Cases". This picture book depicts the living scenes and cultural connotations of Liangzhu Ancient City over 5000 years ago through vivid and engaging storylines and carefully designed illustrations. The protagonist "Liangliang" in the picture book is an 8-year-old girl who guides children to actively explore the history and culture of Liangzhu Ancient City from the perspective of her peers.



Figure 2. "Liangliang's World" Picture Book (Source: Liangzhu Museum website, 2021)

In 2024, the UNESCO Asia Pacific World Heritage Training and Research Centre (WHITRAP) announced the "Global World Heritage Education Innovation Case Award" at the 46th World Heritage Conference, encouraging countries to share and promote successful practice cases of cultural heritage education and promoting experience exchange and cooperation worldwide (WHITRAP, 2024). The innovative project "Tiger Balm Garden Metaverse Platform for Collaborative Learning," led by Zhuhai College in Hong Kong, won the

"Stars of Outstanding" at this conference. The project is Hong Kong's first VR metaverse cultural relic education platform, which uses virtual reality technology to recreate the historical and cultural landmark Tiger Leopard Villa Garden in Hong Kong, providing an immersive and collaborative learning experience for cultural heritage education (China Daily, 2024).



Figure 3. Virtual Tour of Tiger Balm Garden (Source: Hong Kong Commissioner for Heritage's Office website, 2024)

2. Cognitive Development in Children

The theoretical foundation of children's cognitive development is important and significant for designing and implementing cultural heritage education (Jiao, 1998). Jean Piaget's "Concrete Operational Stage" theory and Lev Vygotsky's "Zone of Proximal Development" theory provide profound and comprehensive insights into understanding children's learning characteristics. Applying these theories to children's cultural heritage education can help design teaching strategies that align with children's cognitive development and enhance educational effectiveness.

According to the cognitive development stage theory proposed by the renowned Swiss psychologist Jean Piaget, children aged 7 to 11 are in the "Concrete Operational Stage" (Piaget, 1976). Children's thinking ability significantly improves, developing logical thinking and hands-on skills. They can understand conservation concepts, causal relationships, and reason about things (Bringuier & Piaget, 1980). However, their thinking at this stage has not been fully developed, and they need to rely on specific things and situations to support their understanding. The cognitive characteristics of children at this stage provide an opportunity for cultural heritage education. Specific cultural objects and situational teaching can effectively promote children's understanding and stimulate their interest. For example, when children are learning the art of Southern Dynasties stone carvings, touching the stone carvings with their hands and observing their shapes and patterns with their eyes can provide a more intuitive understanding of the historical and cultural values behind them. Research has shown that practical activities contribute to the development of children in specific computational stages, promoting their understanding of geometric shapes and spatial relationships (Ghazi & Ullah, 2015).

The social and cultural development theory of Lev Vygotsky, a former Soviet psychologist, emphasizes the central role of social interaction and cultural background in children's cognitive development (Shabani et al., 2010). He proposed the "Zone of Proximal Development" concept and suggested that appropriate interaction and guidance for children can promote cognitive improvement. Children between the ages of 7 and 11 are highly skilled in social interaction, able

to absorb social experiences through interactive activities, and promote their cognitive development (Allal & Ducrey, 2000). Lev Vygotsky's theory provides favorable support for children's cultural heritage education. Teachers can effectively promote the improvement of children's cognitive and social abilities through designing interactive activities and situational guidance teaching models. For example, when students participate in practical activities, teachers can give a simple demonstration and then guide children to complete it independently. This teaching model enhances children's practical skills and stimulates their strong interest in learning about cultural heritage.

3. Research Achievements on Southern Dynasties Stone Carvings in China

As an excellent example of sculpture art in ancient China, the Southern Dynasties stone carvings have vibrant historical, artistic, and cultural values. In recent years, many scholars have researched the modeling style, decorative patterns, cultural background, digital protection, and other aspects of Southern Dynasties stone carvings from multiple fields such as art, archaeology, religion, and design.

For example, Dr. Shen Cong from Nanjing University of the Arts, Dr. Lu Xiaohui from Nanjing University, and Master Yang Qian from China Academy of Art systematically elaborated on the stylistic features of Southern Dynasties stone carvings from different perspectives in their theses. Dr. Shen Xiu's research focuses on the artistic forms and expressive techniques of Southern Dynasties stone carvings, systematically analyzing the stylistic features and cultural value of Southern Dynasties stone carvings (Gong, 2005). Dr. Lu Xiaohui analyzed the style evolution of Southern Dynasties stone carvings and its historical background from the perspective of history and culture (Lu, 2014). Yang Qian's master's thesis focuses on the carving techniques and aesthetic orientation of Southern Dynasties stone carvings, revealing the unique position of Southern Dynasties stone carvings in ancient Chinese sculpture art (Yang, 2004).

Professor Yang Xiangmin from Nanjing Academy of Arts has long been dedicated to protecting and disseminating stone carvings from the Southern Dynasties. He proposed using high-precision scanning and 3D modeling methods to record the shapes and detailed patterns of Southern Dynasties stone carvings, combined with augmented reality technology to provide users with an immersive viewing experience, allowing viewers to more intuitively feel the unique charm of Southern Dynasties stone carvings (Yang&Zhang, 2020; Yang&Diao, 2019). Professor Yang also pointed out that the stone carvings of the Southern Dynasties were subjected to long-term natural and human damage in their natural environment and were unsuitable for in situ protection. Therefore, he suggested establishing a Southern Dynasties stone carving museum to protect the scattered Southern Dynasties stone carvings, which is beneficial for effectively protecting Southern Dynasties stone carvings (Yang, 2021; Yang, 2024; Yang, 2025). Building museums helps the public to more conveniently appreciate the stone carvings of the Southern Dynasties and promotes the sustainable development of cultural heritage.

Diao Meng from Nanjing University of Posts and Telecommunications used augmented reality technology to construct a digital display platform for Southern Dynasties stone carvings, enhancing public understanding and interest in Southern Dynasties stone carvings and promoting digital protection and dissemination education of cultural heritage (Diao, 2022). Wang Qian from Nanjing University of Posts and Telecommunications analyzed the current situation and problems of traditional cultural education in her master's thesis, pointing out the shortcomings of traditional teaching methods in terms of attractiveness and interactivity. She designed a user-centered educational app, providing a novel idea for integrating Southern Dynasties stone carvings into education (Wang, 2021). In addition, the Nanjing Museum has launched the "Cloud Exhibition of Southern Dynasties Stone Carvings", showcasing the artistic charm of Southern Dynasties stone carvings through digital means and enhancing public awareness and attention to Southern Dynasties stone carvings.

Although many scholars have achieved certain results in studying Southern Dynasties stone carvings, very few studies combine Southern Dynasties stone carvings with education, and research on integrating Southern Dynasties stone carvings into children's education is even more blank. Currently, relevant research is mostly focused on higher education or museum education, lacking teaching content and methods tailored to children's cognitive characteristics. In addition, a current research gap is also a way to strike a balance between digital tools and traditional physical teaching and enhance children's awareness and interest in cultural heritage. This study aims to explore the path and effect of integrating Southern Dynasties stone carvings into children's education, design teaching activities suitable for children based on their cognitive characteristics, and evaluate their effectiveness in enhancing cultural identity and aesthetic ability, providing new practical models and theoretical support for cultural heritage education.

C. Methods

1. Research Design

This study adopts a mixed qualitative and quantitative research method to comprehensively evaluate the effectiveness of integrating Southern Dynasty stone carvings into children's education. The quantitative research part adopts an offline questionnaire survey to collect data on students' mastery of cultural heritage knowledge and their interest in cultural heritage. The qualitative research part adopts the mode of face-to-face interviews and remote observation to comprehensively understand students' learning situations and teachers' teaching feedback.

2. Research Participants

The stone carvings of the Southern Dynasties are mainly located in the Nanjing and Zhenjiang areas of Jiangsu Province. Therefore, the research subjects selected for this study are 20 students from a primary school in Nanjing, aged 7 to 11 years old. These students were randomly divided into two groups, with 10 students in each group, namely the experimental and control groups. The experimental group students adopt a teaching mode that combines cultural heritage, while the control group adopts a traditional teaching mode.

3. Instructional Design

Design a teaching practice activity for the experimental students, including the Southern Dynasties' stone carvings. The teaching content includes: on-site investigation of Southern Dynasties stone carving sites in the Nanjing area; Appreciating 3D printed stone carvings from the Southern Dynasties; experiencing Southern Dynasties stone carvings based on augmented reality technology; Hand drawn works related to Southern Dynasties stone carvings; Tell stories related to the stone carvings of the Southern Dynasties. The control group was taught according to the conventional teaching method without involving the experimental group's teaching practice content.

4. Data Collection

Before and after the teaching activities, evaluate two groups of students separately: a test of knowledge related to cultural heritage, Survey questionnaire on the level of interest in the stone carvings of the Southern Dynasties; Observe students' enthusiasm and interaction in teaching practice activities from a distance; Feedback and opinions from teachers and parents on students and curriculum design.

5. Data Analysis

Quantitative data: SPSS software was used to analyze test scores and questionnaire survey results in-depth. t-tests and analysis of variance were used to compare the changes between the

experimental group and the control group before and after teaching and to evaluate the effectiveness of cultural heritage in children's education (Mishra et al., 2019). Qualitative data: Using textual data obtained through remote observation and face-to-face interviews, identify students' understanding and interest changes in the stone carvings of the Southern Dynasties, and explore the positive factors and potential issues of integrating Southern Dynasties stone carvings into teaching activities.

D. Results and Discussion

1. Extent of Knowledge Acquisition

Before the teaching activity began, the average scores of the experimental and control group students in the cultural heritage knowledge test were 61.8 and 62.2 points, respectively. After the teaching activity ended, the average score of the experimental group students increased significantly, reaching 85.1 points, with a p -value <0.0001 , and the statistical results were highly significant. However, the average score of the control group students improved less, only 66.2 points. The test results indicate that integrating the practical activities of Southern Dynasties' stone carvings into children's education can enhance students' mastery of cultural heritage knowledge.

Table 1. Knowledge Acquisition Scores of the Experimental and Control Groups (Full Score : 100)

Student ID (Experimental Group)	Score before teaching	Score after teaching	Student ID (Control Group)	Score before teaching	Score after teaching
1	62	83	11	60	63
2	58	85	12	63	66
3	62	81	13	63	65
4	61	86	14	65	66
5	66	88	15	61	67
6	60	83	16	62	69
7	64	85	17	59	68
8	59	86	18	60	65
9	61	88	19	64	66
10	65	86	20	65	67

Table 2. Comparison of Scores Between the Experimental and Control Groups

Group	Pre-test Mean Score	Post-test Mean Score	Pre-test Standard Deviation	Post-test Standard Deviation	t- value	p-value
Experimental Group	61.8	85.1	2.66	2.03	27.33	< 0.0001
Control Group	62.2	66.2	2.18	1.68	4.77	0.001

2. Interest and Engagement

According to the Likert scale survey questionnaire, the average interest score of the experimental group students in Southern Dynasties stone carvings before teaching was 2.7 points, while the average score of the control group was 2.8 points. After teaching, the average score of the experimental group reached 4.3 points, with a significant increase in data. The average score of the control group was only 3.1 points, with a small change. In addition,

according to the observation records, the students in the experimental group showed significantly better activity and interaction during the practical activities compared to the students in the control group. The students in the experimental group exhibited a more proactive learning attitude and higher enthusiasm for participation.

Table 3. Interest and Engagement Scores of Students in the Experimental and Control Groups (Full Score: 5)

Student ID (Experimental Group)	Score before teaching	Score after teaching	Student ID (Control Group)	Score before teaching	Score after teaching
1	2.8	4.2	11	3.0	3.2
2	2.6	4.4	12	2.8	3.0
3	2.6	4.3	13	2.9	3.3
4	2.9	4.1	14	2.9	3.2
5	2.8	4.4	15	2.9	3.1
6	2.7	4.2	16	2.7	2.9
7	2.9	4.5	17	3.0	3.1
8	2.8	4.4	18	2.8	3.0
9	2.5	4.2	19	3.0	3.2
10	2.8	4.3	20	2.8	3.0

3. Qualitative Analysis

Through face-to-face interviews with teachers and parents, it was found that students in the experimental group would actively learn about other cultural heritage-related knowledge after teaching activities. According to teacher feedback, students can proactively raise their own questions during on-site inspections of cultural heritage and the handmade production of cultural and creative products, reflecting their proactive thinking and problem-solving. In addition, parents have also expressed that students actively share the cultural heritage knowledge they have recently learned at home, reflecting their strong interest in cultural heritage.

4. Interpretation and Implications

By analyzing the results of qualitative and quantitative research, it is concluded that integrating Southern Dynasty stone carvings into children's education can effectively enhance students' knowledge mastery and stimulate their enthusiasm for active learning. This result is consistent with Jean Piaget's "Concrete Operational Stage" theory, which suggests that children can better acquire knowledge through practical activities. In addition, this result is consistent with Lev Vygotsky's "Zone of Proximal Development" theory, which suggests that children's cognitive levels have significantly improved under the active guidance of teachers. Therefore, combining cultural heritage education with children's cognitive development level through diverse practical activities can stimulate children's strong interest in self-directed learning and promote comprehensive literacy improvement.

5. Limitations and Future Research

The sample size of this study is relatively limited, with only 20 students from a primary school in Nanjing selected, which may limit the generalizability of the research results. Future research can expand the sample size to cover students from different regions and age groups to verify the universality and stability of the research results. In addition, further exploration of strategies for digital technology in cultural heritage education, such as virtual reality, metaverse, digital twins, etc., will also provide novel directions for the development of children's education (Xia & Ye, 2023).

E. Conclusion

This study takes the stone carvings of the Southern Dynasties in China as an example to preliminarily analyze the feasibility of integrating cultural heritage into children's education. The research results indicate that diversified practical educational activities, such as on-site inspection of cultural heritage, interactive experience of digital products, and handmade cultural and creative products, can significantly improve students' mastery of cultural heritage knowledge and effectively stimulate their enthusiasm for self-directed learning and active exploration. The experimental results have verified the positive role of integrating cultural heritage into children's education.

The integration and development of cultural heritage and children's education have broad prospects. With the increasing advancement of technology, virtual reality, metaverse, digital twins, and other technological means have provided more diversified implementation strategies for developing cultural heritage in children's education. Researchers should actively integrate high-quality museum resources, archaeological resources, and digital conservation achievements, and establish more interesting and immersive teaching models based on different children's cognitive and behavioral characteristics. The innovation of teaching strategies helps to promote the all-around development of cultural heritage in the field of children's education. It is beneficial for boosting the comprehensive improvement of children's literacy.

References

- Allal, L., & Ducrey, G. P. (2000). Assessment of—or in—the zone of proximal development. *Learning and instruction*, 10(2), 137-152. [https://doi.org/10.1016/S0959-4752\(99\)00025-0](https://doi.org/10.1016/S0959-4752(99)00025-0)
- Bringuier, J. C., & Piaget, J. (1980). *Conversations with jean piaget*. University of Chicago Press.
- Chen, Z. W., & Gao, C. H. (2022). Dimensions of Value, Characteristics, and Strategy: A Threefold Analysis of Xi Jinping's Key Discourse on Cultural Heritage Protection. *Journal of Fujian Jiangxia University*, (02), 1–8, 61.
- China Daily. (2024, October 9). Heritage Lab wins top award for innovative education. *China Daily Hong Kong*. <https://www.chinadailyhk.com/hk/article/588807>
- Colglazier, W. (2015). Sustainable development agenda: 2030. *Science*, 349(6252), 1048-1050. <https://www.science.org/doi/10.1126/science.aad2333>
- Di Giovine, M. A. (2015). UNESCO's World Heritage Program: Challenges and ethics of community participation. In N. Adell, R. Bendix, C. Bortolotto, & M. Tauschek (Eds.), *Between imagined communities of practice: Participation, territory and the making of heritage* (pp. 83–108). Göttingen University Press. <https://doi.org/10.4000/books.gup.213>
- Diao, M. (2022). *Design and research on digital display platform for Southern Dynasties stone carvings based on augmented reality technology* (Master's thesis, Nanjing University of Posts and Telecommunications).
- Ghazi, S. R., & Ullah, K. (2015). Concrete operational stage of Piaget's cognitive development theory: An implication in learning general science. *Gomal University Journal of Research*, 31(1), 78-89. <https://www.gujr.com.pk/index.php/GUJR/article/view/326>
- Jagielska-Burduk, A., Pszczyński, M., & Stec, P. (2021). Cultural heritage education in UNESCO cultural conventions. *Sustainability*, 13(6), 3548. <https://doi.org/10.3390/su13063548>
- Jiao, J. L. (1998). The Enlightenment of Modern Cognitive Developmental Psychology Theory on CAI Teaching Design. *E-education Research*, (06), 73–79.

- Lee, B. X., Kjaerulf, F., Turner, S., Cohen, L., Donnelly, P. D., Muggah, R., ... & Gilligan, J. (2016). Transforming our world: implementing the 2030 agenda through sustainable development goal indicators. *Journal of public health policy*, 37, 13-31. <https://doi.org/10.1057/s41271-016-0002-7>
- Lu, X. (2014). A study on the architectural stone carvings of Southern Dynasties' mausoleums and related issues (Doctoral dissertation, Nanjing University).
- Mishra, P., Singh, U., Pandey, C. M., Mishra, P., & Pandey, G. (2019). Application of student's t-test, analysis of variance, and covariance. *Annals of cardiac anaesthesia*, 22(4), 407-411. DOI: https://doi.org/10.4103/aca.ACA_94_19
- Peng, J. N., Tan, Y. G., & Yao, Y. (2021, July 8). Cangdong Heritage Education Base in Kaiping, Jiangmen Recognized as an Outstanding Example of Innovation in Global World Heritage Education. Tencent News. <https://news.qq.com/rain/a/20210708A0CZ7B00>
- Piaget, J. (1976). Piaget's theory (pp. 11-23). Springer Berlin Heidelberg.
- Shabani, K., Khatib, M., & Ebadi, S. (2010). Vygotsky's zone of proximal development: Instructional implications and teachers' professional development. *English language teaching*, 3(4), 237-248. <https://eric.ed.gov/?id=EJ1081990>
- Shen, L. (2005). A study on the sculptural style of Southern Dynasties' mausoleums carvings (Doctoral dissertation, Nanjing University of the Arts).
- UNESCO. (2003). Convention for the Safeguarding of the Intangible Cultural Heritage. <https://unesdoc.unesco.org/ark:/48223/pf0000132540>
- United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. <https://sdgs.un.org/2030agenda>
- Wang, Q. (2021). Research and design of traditional culture education apps: A case study of Southern Dynasties stone carvings (Master's thesis, Nanjing University of Posts and Telecommunications).
- Weiland, S., Hickmann, T., Lederer, M., Marquardt, J., & Schwindenhammer, S. (2021). The 2030 agenda for sustainable development: transformative change through the sustainable development goals?. *Politics and Governance*, 9(1), 90-95. <https://doi.org/10.17645/pag.v9i1.4191>
- World Heritage Institute of Training and Research for the Asia and the Pacific Region. (2024, August 13). The 2024 AWHEIC winners announced at the 46th Session of WHC. [https://www.whitr-ap.org/index.php?classid=1461&newsid=3680&t=show​::contentReference\[oaicite:11\]{index=1}](https://www.whitr-ap.org/index.php?classid=1461&newsid=3680&t=show​::contentReference[oaicite:11]{index=1})
- Xia, J. C., & Ye, Z. Q. (2023). A study on the integrated development of cultural heritage and digital technology from the perspective of symbiosis theory. *Administration Reform*, 10, 14-24.
- Yang, Q. (2024). A study on the sculptural forms of auspicious stone beasts in front of Southern Dynasties imperial mausoleums (Master's thesis, China Academy of Art).
- Yang, X. (2021). A preliminary discussion on the realistic dilemma of in-situ protection of Southern Dynasties stone carvings. *Journal of Ethnic Art*, (4), 108-116.
- Yang, X. (2023). Discussion on the protection, inheritance and development plan of Southern Dynasties stone carving art. *Chinese Ethnic Fine Arts*, (4), 68-74.
- Yang, X. (2024). Investigation and evaluation of current protection measures for Southern Dynasties stone carving heritage. *Northwest Finearts*, (1), 138-143.
- Yang, X. (2025). The definition and interrelation of "immovable cultural relics" and "stone carvings": Also on the feasibility of preserving Southern Dynasties stone carving heritage as an independent sculpture collection. *Creativity and Design*, (1), 74-80.
- Yang, X. C. (2006). Research on the Origins of the Sacred Way Stone Sculptures of Southern Dynasties' Imperial Mausoleums. *Archaeology*, (08), 74-82.

Yang, X., & Diao, M. (2019). Research on digital construction and display of Southern Dynasties stone carving art. *Journal of Nanjing University of Posts and Telecommunications (Social Science Edition)*, (4), 87–94.

Yang, X., & Zhang, J. (2020). Digital protection and design of Southern Dynasties stone carving art. *Art & Design*, (2), 130–131.