

## **THE VALUE OF TRADITIONAL ARCHITECTURE AND ITS ENLIGHTENMENT TO CONTEMPORARY ARCHITECTURAL DESIGN**

Yang Xeumei & Golnoosh Manteghi  
*Infrastructure University Kuala Lumpur, MALAYSIA*

---

### **ABSTRACT**

This master's thesis, titled "The Value of Traditional Architecture and its Enlightenment to Contemporary Architectural Design," delves into the significance of traditional architectural forms and their relevance to modern design practices. The study is rooted in the recognition of the diminishing appreciation for traditional architecture amidst rapid urbanization and globalization, posing a critical question regarding its preservation and adaptation. The literature review traces the evolution of traditional Chinese residential architecture, comparing it with global counterparts, and examines survival strategies in contemporary contexts. It further explores cultural and social influences that have shaped traditional residences, alongside preservation and adaptation techniques. Methodologically, the research employs a comprehensive approach, integrating historical analysis, case studies, and comparative methodologies to gather data from various sources. Ethical considerations and study limitations are also discussed. The results highlight key elements and features of traditional residential buildings, showcasing regional case studies to underscore the diversity and richness of traditional architecture. The thesis argues for the integration of traditional residential architecture into modern designs, emphasizing the value of traditional wisdom in addressing contemporary challenges such as sustainability and cultural identity. The study underscores the need for a balanced approach to architectural design, where traditional values are not only preserved but also serve as a source of inspiration for innovative and culturally responsive contemporary architecture. Recommendations for future research include deeper exploration of specific traditional techniques and their potential applications in sustainable building practices.

### **Keywords:**

*Traditional Architecture, Contemporary Architectural Design, Sustainable Design*

### **INTRODUCTION**

China has a rich history of agricultural civilization, with traditional rural settlements representing the life mode of most Chinese people. These villages are rich in natural resources and have preserved their traditional architecture, which is an important historical relic and carrier of social material and spiritual civilization. Similarly, the large amount of industrial fragments caused by traditional industrial management during the Industrial Revolution is also a relic of history, and it also led to the birth of many abandoned industrial sites and mines. From "Abandoned Tin Mine Opencast Site to Urban Regeneration" the study explores the impact and benefits of industrial land restoration projects and sustainable urban planning. The facilities, buildings and ruins that remain today now face the problem of the necessary harmony with contemporary society. The development of new and more challenging environmental legislation in Malaysia and the public pressure associated with the need to protect the environment increase the need to transform post-industrial sites into multipurpose landscapes. As more industrial sites are transformed into multifunctional landscapes, these projects will not simply become regular ornamental landscape features. The project was transformed into a complex and neat multi-purpose landscape corridor with an artificial lake, bike path, exhibition hall, swimming pool, racetrack, art gallery, park, golf course, shopping center and surrounding landscape amenities. Traditional architecture has significant value and significance in various fields such as history, architecture, art, science, technology, landscape, ecology, aesthetics, philosophy, and more. However, the development of the economy and industrialization has led to threats to traditional architecture, such as natural erosion, artificial damage, and blind construction that does not follow

regional contexts. People's lack of understanding of the value of ancient villages and imperfect existing protection measures has resulted in some traditional architectural resources being demolished, rebuilt, or completely renovated, losing their original vernacular flavor, rural charm, and aesthetic feeling. Urban landscape elements, such as cement roads, have also been incorporated into construction, destroying the original spatial scale and pattern of buildings. In recent years, the tourism industry has favored ancient architectural resources, leading to new challenges to the protection of traditional architecture. Balancing protection and development is crucial for the protection of modern traditional architecture. A win-win situation of "promoting development through protection and promoting protection through development" is essential for preserving the inheritance of Chinese ancient civilization. In China, a large number of traditional dwellings have been kept less and less, which has a great relationship with people's indifference to traditional culture and art. Driven by the trend of international design, traditional architecture has gradually been forgotten by us. However, with the appeal of some designers who love traditional elements, new understanding of traditional architectural dwellings has been put into the process, and the extraction of new elements of traditional architectural dwellings has been made possible.

## **LITERATURE REVIEW**

This study focuses on the adaptability and protection of Chinese traditional residential buildings in a contemporary society. It explores the evolution trajectory of traditional Chinese residential architecture since ancient times, focusing on its unique design philosophy, architectural skills, and dynamic interaction with the social and cultural environment. The study also examines the challenges and opportunities faced by traditional housing in the current process of rapid urbanization and the positioning and value embodiment in modern society. From a cross-cultural perspective, the study places Chinese traditional houses in a global scope for comparative analysis, exploring how traditional buildings in different cultural contexts and geographical environments show their own characteristics and adaptation strategies. This contrast deepens the understanding of traditional housing characteristics and provides multiple perspectives and practical insights for the research.

The study explores the survival and development of Chinese traditional housing in the rapidly changing urban environment, refining the core discovery and theoretical model about the adaptability and sustainability of traditional housing in the contemporary background. Cultural and social factors, such as family structure, lifestyle, and religious belief, shape the form and function of traditional housing, giving them a unique cultural identity and significant impact on their adaptability and vitality in contemporary times. Such as Beijing quadrangle courtyard Fujian Tulou, Water Townhouses in Jiangnan Region, Weilongwu, Lingnan Vernacular Houses in Southern China, Tibetan Stone and Timber Houses. The Siheyuan, or quadrangle courtyard houses, found predominantly in Northern China, epitomize the Confucian hierarchy and the balance between man and nature. The Fujian Tulou of southern China. The water townhouses along the Yangtze River Delta illustrate the harmony between human settlement and waterways. Weilongwu their concentric rings of living spaces radiating from a central courtyard demonstrate effective use of space and efficient ventilation systems. Lingnan Vernacular Houses in Southern China these traditional structures, deeply rooted in local geography and climatic conditions, exhibit a refined balance between functionality and aesthetics that reflects the wisdom and creativity of the Lingnan people. In essence, Tibetan architecture is a living embodiment of resilience and adaptation, encapsulating the deep-rooted wisdom of a culture that has evolved over centuries to live in harmony with its breathtaking yet unforgiving environment. It is a narrative of survival and spiritual sustenance, written in stone, timber, and the unyielding resolve of a people whose existence is intrinsically tied to the majesty of the Himalayas. Technological innovation and practice are discussed, highlighting the latest progress in material science, structural engineering, and energy efficiency to promote the sustainable

development of traditional architecture and the inheritance of cultural heritage from generation to generation. The study aims to highlight the urgency and necessity of research, filling knowledge gaps, and promoting academic progress and practical innovation. This study aimed to understand the conservation and development of traditional Chinese residential architecture through both primary and secondary sources. Primary data was collected through field surveys and interviews with experts, architects, local residents, and authorities involved in the topic. Site visits were essential for firsthand observation and documentation of architectural features, construction techniques, and their current state. Secondary data was obtained from various published and unpublished materials, including books, academic journals, reports, historical documents, and online resources. A structured questionnaire was designed and administered to targeted respondents to gather quantitative and qualitative information about their perceptions, attitudes, and experiences related to the topic. Archival research was conducted to trace the historical development and transformation of these buildings over time. Ethnographic methods were also employed to observe how people interacted with and utilized traditional spaces in contemporary settings. The collected data were meticulously recorded, organized, and systematically analyzed to contribute significantly to achieving the research objectives outlined in Chapter 1. Ethical considerations were strictly adhered to throughout the process, ensuring the privacy and confidentiality of participants and respecting intellectual property rights when using secondary sources. Limitations inherent to data availability, access constraints, and potential biases were acknowledged and addressed as part of the study's methodology.

Primary data collection included field surveys, expert interviews, and community engagement to document the physical attributes, spatial configurations, and structural systems of traditional Chinese residential sites. Secondary data collection included a literature review, archaeological research, and instrumentation and data collection. The comprehensive analysis of the collected data was carried out using a combination of rigorous methodologies and techniques designed to extract meaningful insights and patterns.

## **RESEARCH METHODOLOGY**

This chapter provides a detailed explanation of the research methodology used in this study, which is fundamental to the investigation of traditional Chinese residential architecture. The study also points out that in the process of construction projects, it will inevitably encounter some uncertain factors, which will make the construction projects face many risks. If active measures are not taken to deal with these risks, serious quality problems are likely to occur in the construction project. This will bring huge economic losses and pose a serious threat to the safety of people's lives and property. Therefore, it is very important to strengthen the risk management of construction engineering and construction projects. The methodology includes the selection of appropriate research designs, identification of data sources, instruments and methods used for data collection, and procedures for analyzing the gathered information. The methodology chapter emphasizes the suitability of these methods in addressing the research aims and objectives, as well as answering the research questions posed earlier. It also discusses the alignment of the chosen methodology with the scope and significance of the study, ensuring that the methods are adequate to address the complexities inherent in the topic. The methodology adopted ensures a blend of quantitative and qualitative techniques to achieve a comprehensive understanding of the multifaceted aspects of traditional Chinese residential architecture. It is designed to delve deep into the historical roots, cultural nuances, and practical applications while considering the contemporary demands and possibilities for integration into modern architectural practices. Ethical considerations are taken into account during the research process to ensure the rights of the subjects and the integrity of the data, and it acknowledges the limitations encountered and how they were managed to minimize their impact on the research outcomes. The research design is structured around a mixed-methods approach that combines both

quantitative and qualitative strategies to ensure comprehensive coverage of the subject matter. Quantitatively, the study employs statistical analyses to assess trends, patterns, and correlations within available data sets related to the prevalence, condition, and transformation of traditional houses across different regions in China. Qualitatively, an in-depth analysis of the historical context, cultural nuances, and practical applications of traditional Chinese residential architecture is conducted. Traditional dwellings, born within China's 5000-year cultural heritage, hold significant value in modern architecture and culture dissemination. Huizhou style residential buildings, as representative examples, provide fresh design inspiration for designers and architects. These buildings have profound artistic research value, providing an authentic entity for studying the value of traditional dwellings and understanding their cultural connotations. The academic research value of Huizhou style residential buildings is immeasurable, as they provide authentic and researchable knowledge for understanding ancient architecture. The unique architectural structure and material use in these buildings represent the level of development in architectural techniques at the time. Drawing on good architectural concepts has higher scientific research value for modern design. Traditional residential buildings have become ancient artifacts, and their artistic value in modern times has become an object of appreciation for people. The preservation and inheritance of traditional dwellings can promote the development of the tourism industry, stimulate demand, and promote economic development. Traditional dwellings are immeasurable in terms of enhancing socio-economic value, and new design concepts from traditional living environments are needed to meet people's further needs. The aesthetic value of Huizhou style residential buildings is reflected in their architectural layout, form, and use of colors and materials. The expression of details can further enhance their artistic connotation and charm. Huizhou style residential architecture is different from other residential buildings due to its unique regional characteristics, which often represent the cultural source of the local area.

Hongcun and Xidi, as unique residential buildings in southern Anhui, demonstrate the importance of preserving and preserving traditional dwellings in order to better serve people and drive economic growth.

## **RESULTS AND DISCUSSION**

The development and protection of traditional dwellings should be diversified. Only by overcoming the bottleneck of their own development can China's traditional dwellings enter a new path of development. This new development will bring new design theories and innovative design thinking to the development of modern architecture. Only by means of diversified inheritance can they bring more space for their own development, and also provide enlightening guidance to modern architectural design. The study emphasizes the critical role of residential architecture in shaping communities and influencing societal well-being. Sustainability has led to increased adoption of green technologies, energy-efficient materials, and passive design principles, which not only reduce the carbon footprint of homes but also contribute to improved health and living conditions for occupants. The rise of smart homes and digital integration is transforming how we interact with our living spaces, emphasizing the importance of considering technological advancements in future architectural practices. Universal design principles are essential for creating residential environments that cater to diverse needs and lifestyles across different stages of life. Future architectural practices must prioritize sustainability by integrating renewable energy systems, water conservation methods, and waste management techniques into building designs. Architects should engage in interdisciplinary collaboration with engineers, urban planners, and policymakers to develop holistic and resilient residential solutions. Design education and professional development should emphasize the understanding and application of emerging technologies like AI and IoT in home design. The traditional Malay residence is one of the most unique residential designs in Asia and is of very important Malay heritage. The significance of choosing the traditional Malay residence is that the

traditional residence is closely related to Malaysia as a whole, thus becoming an iconic feature. The Malays hoped that the reference and analysis of this type of house would provide better house design for future generations and what could be learned from the "natural wisdom" of the original traditional Malay house carpenters. In 2008, the number of recorded well-preserved traditional Malay homes is declining and the remains of ancient wisdom are disappearing, a huge loss for the world, and this design concept needs to be passed on. The ingenious ideas of the ancients should incorporate modern ideas. In the study entitled "The Future of Traditional Malay House Design in Peninsular Malaysia:", one of the most famous features of the traditional Malay house, is the "loft field roof", which is made of natural materials. It successfully handled the climate of the tropical country by filtering heat from sunlight, while successfully taking heat from the inside of the house through cross-ventilation of the "iron layer". Policymakers play a pivotal role in shaping the future of residential architecture by encouraging green building codes, offering incentives for sustainable construction, and mandating universal design standards. Urban policies promoting mixed-use developments, social housing schemes, and community-oriented designs can foster more equitable and sustainable neighborhoods. Comprehensive housing policies should address the mismatch between current housing stocks and changing demographics, facilitate renovation of existing buildings to meet modern standards, and incentivize new builds that adhere to sustainable and inclusive design principles. Residential architecture is deeply intertwined with urban planning and community development strategies. Future urban plans should accommodate and encourage a variety of housing types and densities to cater to diverse lifestyles and income levels. Mixed-use developments, community-focused design, and participatory planning processes are key implication.

## **CONCLUSION**

The paper explores the historical significance of traditional Chinese dwellings and their influence on modern architecture. It focuses on the Anhui style residential buildings in southern Anhui, analyzing the overall form and architectural characteristics of Hongcun and Xidi ancient villages. The essence theory of traditional residential design is obtained, which can be integrated into modern architecture by inheriting traditional residential culture. The Huizhou style represents the path of integration between tradition and modernity. The paper concludes that for the preservation or protection of tradition, it should not only remain in the literal sense of "retention" but also be reflected in constantly developing things. Modern architecture should absorb valuable traditional elements and apply them in its own design in the new era, separating the mother body of traditional personality elements and recombine and interpret its essence with new elements. This process requires a balance between tradition and modernity, endowing each with a new personality.

The focus of this paper is to extract and integrate the design ideas of traditional residential buildings in southern Anhui into modern architectural design, implant the essence of tradition into modern architecture, make the development of modern architecture active and traceable, present new design highlights, implant traditional new life elements into modern architectural design, and present historical and cultural connotations in modern architecture. The value of traditional architecture is a treasure trove of wisdom and inspiration for contemporary design, providing a blueprint for sustainable, contextually sensitive, and emotionally resonant design. Modern architecture must draw from the timeless lessons of traditional residential design, embracing its principles of resourcefulness, sustainability, and cultural responsiveness to craft built environments that resonate with both the physical and spiritual world.

## **AUTHORS BIOGRAPHY**

**Yang Xuemei**, is a student at Kuala Lumpur Infrastructure University in Malaysia. Maste degree in Architectural Environment (graduate student), graduated from Haikou University of Economics with a bachelor degree. His research focuses on the inspiration of traditional architecture to modern architectural design. She is guided by Ts. Dr. Golnoosh Manteghi. *Email: 893775981@qq.com*

**Golnoosh Manteghi, Ts. PhD**, is head of the postgraduate programme and a lecturer at Infrastructure University Kuala Lumpur (IUKL) Faculty of Architecture and Built Environment. She received her PhD with Best Student Award from University Technology Malaysia (UTM) in 2016. Her current interests demonstrate the history of research and teaching interests focus on environmental and building science thermal comfort and skilled in theoretical, numerical and experimental methods in the higher education industry. Focused on publishing peer-reviewed journal papers including supervising and examining postgraduate student's thesis since 2016. *Email: golnoosh.manteghi@iukl.edu.my*

## **REFERENCES**

- Shen, Y., Chang, Q. H., & Wang, J. L. (2012). Enlightenment and Application of Infinite Rapport Structure in Architectural Design. *Advanced Materials Research*, 374, 174-177.
- Wu, N., & Wang, M. (2018). The Integration of Procedural Information in Traditional Architectural Design. *Computer-Aided Design and Applications*, 16(1).
- Wei, G. (2015). Study of architectural design logic in the view of Chinese traditional painting theory. *Shanxi Architecture*, 121(1), 52-7.
- Gao, Y., & Dong, Y. (2017). Analysis on the Architectural Form of Zhushan Academy. *Art and Design Review*, 5(03), 200.
- Peng, Y. (2015). Harmony between the old and the new: a case study of the traditional motifs in contemporary architectural ornament. *Huazhong Architecture*, (08), 164-166.
- Feiran, S., & Lihong, M. (2017). On the moral connotation of the traditional yi domestic architecture and its contemporary significance. *Journal of Chuxiong Normal University*. 32(5), 107-112.
- Jing-Fang, S, & Xi, H. (2012). The transition and application of traditional stained glass in contemporary architectural space. *Journal of Zhejiang University of Technology (Social Science)*. (03), 311-314.
- Alqalami, T., Elkadi, H., & Al-Alwan, H. (2020). The application of BIM tools to explore the dynamic characteristics of smart materials in a contemporary Shanashil building design element. *Int. J. Sustain. Dev. Plann*, 15(2), 193-199.
- Jianyu, S., & Ting, W. (2015). Analysis on the protection and utilization of traditional style architecture in rural construction. *Shanxi Architecture*. (04), 9-11.
- Xiaoping, H. (2005). Syncretizing the theory of traditional architecture and design of contemporary campus. *Construction & Design for Project*. (07), 23-25.
- Peng, W., Roslan, S. N. A., & Shakimon, M. N. (2023). Analysis of countermeasures for risk management of construction engineering. *International Journal of Infrastructure Research and Management*, 11(1), 77-87.
- Yi, H., & Manteghi, G. (2022). From abandoned tin mine opencast site to urban regeneration. *International Journal of Infrastructure Research and Management*, 10(2), 91-103.
- Farizal, A., & Hanafi, Z. (2018). The future of traditional Malay house design in Peninsular Malaysia. *Infrastructure University Kuala Lumpur Research Journal*, 6(1), 20-26.
- Peng, W., Roslan, S. N. A., & Shakimon, M. N. (2023). Analysis of countermeasures for risk management of construction engineering. *Infrastructure University Kuala Lumpur, University*

Putra Malaysia.

Adil Farizal Md Rashid, & Hanafi, Z. (2023). The future of traditional Malay house design in Peninsular Malaysia. Faculty of Architecture and Built Environment, Infrastructure University Kuala Lumpur.

Huan, Y., & Manteghi, G. (2023). From abandoned tin mine opencast site to urban regeneration. Infrastructure University Kuala Lumpur.