Original Article

Protect Hakka Architecture: A Concept of Cultural Inheritance

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Abstract: Hakka culture takes the traditional culture of the Han nationality as its core, and the breeding and formation of Hakka culture conform to the laws of cultural development. It is a complete system that integrates Hakka customs, values, and aesthetic sentiments. However, preserving traditional Hakka buildings confronts challenges due to a lack of protection awareness and negative external impacts. It is urgent to explore strategies and approaches for the protection and sustainable development of the Hakka architecture. We conduct ethnographic research methods in fieldwork, which can provide the researchers with detailed and rich resources to further support the architectural analysis of explicit and implicit attributes in Hakka historical architectures. On the basis of the concept of cultural inheritance, it is necessary to explore and research the protection and renewal of current historical buildings from the explicit and implicit aspects. Taking the Hakka architecture in Heyuan as an example, preservation and renewal strategies from the view of cultural inheritance theory are proposed, providing a practical reference for solving the problems that arise during historical building protection. Although external factors may influence cultural inheritance during the inheritance process, we must ensure that with complete cultural attributes and in line with the requirements of the times, we integrate diverse cultural inheritance to promote the effective continuation of cultural inheritance.

Keywords: Hakka architecture; Architectural heritage; Cultural inheritance

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1. Introduction

Hakka architecture is an ancient and modern crystallization of Chinese culture with high value (Lei & Liu, 2023; Zhang, 2018). As an intuitive carrier of Hakka culture, Hakka historic buildings retain the cultural heritage of ancient buildings integrated with Hakka folk art, customs, ethics, and morality, forming a complete aesthetic system of Hakka residential architecture culture. With rapid social development, however, preserving Hakka traditional buildings confronts different challenges. There are many historical Hakka buildings in China, and conventional repair and protection methods are relatively obsolete (Huang et al., 2023). It is urgent to explore strategies and approaches for the protection and sustainable development of the Hakka architecture. Therefore, this paper conducts cultural inheritance theory to better understand art and science in the culture of Hakka historical buildings, which is beneficial to provide new ideas and methods for the inheritance and preservation of ancient architecture.
2. Literature Review
2.1. Hakka Traditional Architecture in China

The existing literature on traditional haka architecture is extensive and focuses mainly on theories, the provision of cases, the introduction of different Haka architectures, and type comparisons. Previous work by Lei et al. (2023) stated that much more information has become available on exploring Hakka traditional architecture. The literature on the Round House and Chinese Traditional Culture by Taiwanese scholar Lin Jiashu has highlighted the importance of Hakka architectural decoration. Lei et al. (2023) have comprehensively studied the origin, living customs, cultural characteristics, ethnic distribution, and other aspects of the Hakka ethnic group and have done in-depth research. It still has significant reference value for the study of Hakka culture. Also, Luo has laid a solid foundation for studying Hakka culture in China. Gao & Wu (2022) comprehensively discusses several influential Hakka architectures in China from a cultural and philosophical perspective, and even in Hong Kong, Macao, and Taiwan, which provides a clear and referential perspective for future study in Hakka architecture. In recent years, there has been an increasing amount of literature from foreign scholars. Keith et al., 2013 studied Hakka historical architecture. They found that Hakka culture revealed the lifestyle of ancient Chinese people and that Hakka's historical architecture reflected the architectural style of northern China in many aspects (Keith et al., 2013). Wang analyzed the formation of Hakka villages and the characteristics of Hakka historical architecture and discussed how to apply their noble to the protection and sustainable development of Hakka architecture (Song & Liao, 2023). Jin studied the relationship between Hakka culture and Hakka architectural forms through the characteristics of Hakka architecture in Meizhou City, Guangdong Province (Tao et al., 2018).

2.1.1. The Hakkas, the Origin and Culture

Hakka culture springs from the Confucian culture from 0 to A.D. 1000, which later developed during five migrations to the South from A.D. 1000 to A.D.2000 (Figure 1). However, the Hakka people in history adhered to the Confucian culture during the migrations. At the same time, they gradually integrate into cultures from place to place, which is a kind of derivative culture under the influence or the choice of the natural environment and human environment (De Sousa et al., 2009; Luo, 2001). Subsequently, due to the relocation to Nanyang, Hakka culture became a model of integration of Chinese culture and world culture.

![Figure 1. The Hakka migration route and the location of Heyuan - A history of Hakka culture, 1970)](image-url)
local and regional cultures. This cultural system integrates the shared historical memory, common values, and everyday living habits of ethnic groups and can significantly strengthen the cohesion of ethnic groups. Hakka culture is a cultural type of unity and diversity, and unity refers to the Hakka culture as a whole; diversity is a component of Hakka culture, among which the traditional Central Plains culture occupies a dominant position.

### 2.1.2. Hakka Architecture

The study of Hakka architecture is an important part of the study of ancient Chinese residential buildings. Hakka architecture is a building style in southern China that is unique to the Hakka people. They are typically designed for defensive purposes, consisting of one entrance and no ground-level windows. The English word for "architecture" is derived from the Greek words "Archi" (art) and "tekt" (first and foremost). From the "first art," we can see that architecture is the superposition of the dual attributes of material space and spiritual symbols. Nowadays, the world tends to be diverse, with different cultures constantly colliding, interacting, and blending. The dual attributes of architecture, without exception, make Hakka architecture not only a tangible, external, and physical representation of Hakka culture but also its architectural style and structure reflect the architectural style of the Chinese nation. At the same time, it is also a living fossil that records the development and evolution of the Hakka ethnic system, providing valuable material information for future generations to study the origin, the clan society, the etiquette, and the culture of Hakka. Therefore, Hakka architecture is regarded as the carrier and model of Hakka people and culture.

### 2.2. Theory of Cultural Inheritance

Most historical architecture aims to adapt a design to human physical and psychological needs. At the same time, however, a particular style of architecture represents a group of cultural inheritances that are copied for as long as that style remains in favor. Humanity needs to house itself, and architecture represents a worldwide building industry that is forever looking for prototypes to copy. The process by which architectural styles spread through copying lends to a cultural inheritance theory explanation. A style that is difficult to reproduce will die out. The style succeeds not because its original examples are attractive or useful but because it infects the vernacular building tradition. Both domestically and internationally, scholars have proposed different definitions and insights on the concept of cultural inheritance. The representative explanation in this article is that cultural inheritance is the fundamental factor determining the inheritance and change of cultural systems, possessing the ability for cultural presentation to impart and inherit over time.

#### 2.2.1. The Cultural Inheritance Theory in Western Countries

Cultural inheritance theory has also been combined with other theories and evolved into interdisciplinary theoretical research. Atran et al. (2005) argue that high replication and fidelity in cultural information transmission are exceptions rather than rules. The continuous and rapid mutation of information has created countless changes. Min & Lee (2017) applied the concept of cultural inheritance to virtual architecture on the term "Cultural DNA" from the Perspectives of Physical and Virtual Architecture.* John Wilkins argues that most cultural innovation is recombination and variation of existing cultural inheritance rather than selecting possible novelty.

#### 2.2.2. The Cultural Inheritance Theory in China

In recent years, scholars in architecture have noticed the impact of cultural inheritance on architectural research. Chang (2019) argues that Shanghai's urban spirit and architectural characteristics are closely related to cultural inheritance. Schaeverbeke & Aarts (2021) pointed out that architects should learn from tradition, exploring the source of architectural creation during the design program. Cheng (2022) contributed to the Construction of Huizhou Traditional Settlements. The analysis of building characteristics classified the cultural inheritance of traditional settlements according to their characteristics. Using cultural inheritance theory, Li (2022) analyzes Chinese architecture from the perspective of the development and evolution of cultural inheritance in the modern era. Wei & Qingna (2021) analyze cultural inheritance and establish a cultural map of architectural regions from the perspective of the central role of regional cultural inheritance. The main directions include the fields of architecture on regional and residential scales. Among them, the building energy consumption cultural inheritance from Tweed & Sutherland (2007), the landscape cultural inheritance from Zhang et al. (2022), and the regional cultural inheritance from Wang, and the cultural inheritance are the prominent representatives who provide new knowledge and idea for solutions. However, it should be noted that there are still some limitations in applying the new theory regarding the depth of research, the system completeness, and the validation of hypotheses.
3. Materials and Methods

3.1. Document Analysis

Document analysis, a qualitative research technique, is used by researchers for interpretation, to understand their meaning, and to develop upon the information they provide. This paper uses three main types of documents: public records, personal documents, and physical evidence. The process involves evaluating electronic and physical documents, including public records and personal documents, to interpret them and understand their development. The paper interprets the findings to build on current research and established sources to gather ideas and evidence to support the analysis of cultural inheritance in Haka architecture.

3.2. Ethnographic

Ethnography is a qualitative methodology in numerous disciplines, including anthropology, sociology, and education, and is a practical research strategy in marketing, management, and public policy (Sangasubana, 2011). As a first-hand resource and a research technique, Ethnography allows the researchers to observe and experience events, behaviors, interactions, and conversations that manifest society and culture in action. Ethnography seeks to discover and record different types of information that are not readily obtainable through relatively detached approaches like surveys and observations with surveyors’ cultural understandings or assumptions (DeVault, 2006). Besides, the ethnography is conducted to investigate work practices by analyzing social relationships and the relevance of experiences (DeVault, 2006). A field survey has to be well-designed and administered appropriately. It can even be carried out quickly at a distance using telephones, mail, or the Internet. A great deal of information studies a particular place or group of people regarding demographics, economic activities, political opinions, and many other things through a survey instrument.

3.3. Study Area

The Hakka architecture in Guangdong province is mainly distributed in the Hakka area represented by Meizhou City, and most of them are Wailong houses. Wailong House presents the architectural characteristics of the folk houses in the Lingnan area of Guangdong Province. Although it is different from the shape and details of the Round House in Fujian and the Hakka architecture in the Gannan region, it is also a residential building with Hakka-style characteristics in Hakka culture.

![Figure 2](source: Illustrated by Wang Huan)
The study area of this paper, Shangchenggen district, is one of the historical and cultural origins of Heyuan City, the birthplace of Lingnan Hakka culture (Figure 2). The traditional houses preserved at the root of the upper city have been damaged to varying degrees and need to be repaired urgently. And the traditional culture has not been well excavated and utilized. Street space is crowded, disorderly construction phenomena are prominent, and the overall style is not coordinated. The urban transportation system needs to be improved, the width of internal roads is different, and parking facilities are lacking. The construction of the municipal rain and sewage pipe network lags, and the quality of the internal space environment is poor. Further exploring the cultural characteristics contained in Hakka architecture as a living fossil of historical development, a vivid carrier of customs and local culture, persistently exerting its unique inheritance and memory function.

4. Architectural Analysis with Cultural Inheritance Theory

4.1. The Haka Traditional Architecture in Heyuan City, Guangdong

Guangdong Hakka Wailong House (围龙屋), also known as Wailong House, is a Hakka residential building with a roughly semicircular shape and an essential spatial carrier for Hakka ancestral temples. The Wailong House embodies the traditional etiquette and ethical concepts of ancient China while also possessing a strong sense of feng shui.

![Figure 3. Some Hakka Architectural Forms](Source: Chinese Hakka Architectural Culture (2007))

The Hakka-enclosed buildings in Guangdong are mainly distributed in the Hakka region represented by Meizhou City, most of which are enclosed dragon houses. Wailongwu is primarily distributed in areas such as Meizhou, Huizhou, Shenzhen, Heyuan, and Shaoguan in Guangdong, where Hakka people are widely distributed. The enclosed dragon house reflects the architectural characteristics of the folk houses in the Lingnan area of Guangdong Province. Wei Long Wu-type houses around Meizhou in the northeastern province have unique characteristics (Figure 3 and Figure 4). They included a semi-round pond in front of the dwelling; three buildings, namely, the lower house (Xia Tang: 下堂), middle house (Zhong Tang: 中堂), and upper house (Shang Tang: 上堂), located in the center of the dwelling; side houses (Heng Wu: 横屋) for habitation are arranged on both sides of these. Residential buildings surround the semi-round garden, which rises obliquely backward. The defensive function is less dominant; the complexes are more representative of an agricultural community. Although it is different from the shape and details of the Earthen Building in Fujian Province and Gannan Hakka enclosed houses, it is also a folk house with Hakka-style characteristics in Hakka culture.
4.2. Cultural inheritance theory in Hakka historical architecture

The architectural and cultural inheritance refers to their underlying components or architectural elements. On the basis of the architecture, this paper claims two categories: the explicit and implicit elements that refer to the material and spiritual, respectively. Only by understanding the inheritance of each part clearly, can we further study the inheritance and transmission of the value and culture of the historical architecture internally. It is important to identify the core of cultural inheritance factors that affect the development of architecture, which lays the foundation for the design research in the following part. A recent systematic literature review concluded that the research field of cultural inheritance, including architecture, urban planning, and landscape studies, explores and studies from different perspectives.

4.2.1. The Explicit Elements of Cultural Inheritance

The explicit elements represent the material elements that the building conveys, while the latter represents the culture or value of the building internally. On the one hand, the explicit elements are reflected in the architectural construction (Figure 5).
Taking the palace-type architecture in traditional Chinese ancient architecture as an example, its structure from top to bottom includes roof ridge decoration, roofs, roof trusses, and wooden frames below. The roof ridge decoration also includes decorations such as immortals and other animals. The roof includes double-eaved halls, Xie Shan, and wooden frame lifting beams and crossing. On the other hand, they are reflected in architectural ornament. Architectural ornament and traditional patterns, such as traditional architectural patterns, historical and cultural patterns, eclectic decoration patterns, and era decoration patterns, are highly distinctive in the historic district.

4.2.2. The Tacit Elements of Cultural Inheritance

Compared to the dominant architectural dominant culture, the architectural recessive culture is a recessive type. The inheritance of cultural factors is an important focus of the theory of cultural inheritance in architecture. There is no unified definition of the hidden architectural culture in research. It is argued that hidden cultural inheritance includes historical and folk cultures (Guo, 2022). Li & Zhang (2022) demonstrate that recessive cultural inheritance in community culture. The tacit elements in architecture have their roots in their trajectory, which is architectural culture's genetic factor (Figure 6). These iconic cultural heritages, such as decorations, colors, materials, etc., will become the focus of cultural exploration and the main object of heritage protection, and will also become the entry point for exploring the cultural element and information elements of the Hakka historical architecture.

4.3. Architectural Analysis of Hakka Buildings Applied with Cultural Inheritance Theory

Cultural inheritance is not immutable and will constantly change with the evolution of history. For Hakka historical buildings, the research results on Hakka historical architecture in the domestic academic community are very rich, mainly focusing on the constituent elements. However, a systematic approach is required to renew Hakka's historical architecture. There is a lack of discussion and insufficient consideration of the overall environment and cultural diversity. As the Genetic code of the cultural system, cultural inheritance is significant for maintaining regional vitality and inheriting historical culture. Therefore, based on the theory of cultural inheritance, the following text will attempt to analyze the many problems that exist in the continued development of Hakka historical buildings to achieve architectural transformation while inheriting history and culture, achieving sustainable development. There are many current situations in the architectural culture in the Shangchenggen District, such as the weakening of traditional culture and values, the decline of natural environmental carriers, and the disappearance of important historical nodes.

4.3.1. The Adaptability of Cultural Inheritance

Hakka historical architecture has undergone centuries of sedimentation and has a profound cultural heritage, gradually penetrating various aspects of the development of Shangchenggen District architecture. Cultural inheritance has adaptability, natural selection and survival of the fittest. If cultural inheritance cannot adapt to environmental changes and have no strong protection measures, they can only be swallowed or even disappeared. The inheritors of ancient architecture in the region did not correctly view traditional culture while accepting new culture and did not realize the irreplaceable and immeasurable nature of traditional culture. When pursuing new materials, they implemented a "one size fits all" approach to traditional culture. The collision between the new and rich era culture and traditional culture ultimately led to the decline of traditional culture.
4.3.2. The Continuity of Cultural Inheritance

The cultural inheritance is variant, undergoing mutations due to external negative influences. Hakka's historical architecture has undergone thousands of years of development, and its cultural inheritance has also changed accordingly. Hakka historical buildings are the core cultural inheritance of Shangchenggen District, recording its progress and prosperity over thousands of years and reflecting the aesthetic values of different eras. In recent years, with the acceleration of urbanization, many traditional buildings in Shangchenggen District have been unable to continue their value due to improper protection, and some buildings have even suffered damage due to a lack of attention (Figure 7). From field research, many ancient buildings in the Shangchenggen District area are severely damaged due to the lack of proper maintenance measures. Many exquisite structures have been lost, and some even become abandoned. Therefore, Hakka historical buildings are facing enormous pressure. In order to achieve architectural renewal under the theory of cultural inheritance, it is necessary to adapt cultural inheritance to the times. Whether it is the texture of streets and alleys, spatial layout, or architectural style, these elements all reflect Hakka's historical architectural characteristics and cultural heritage. It requires cultural inheritance to continuously regulate and update, adapt to generational changes, and achieve long-term and healthy development.

4.3.3. The Reconfiguration of Cultural Inheritance

There are mutated cultural inheritance in diverse cultural inheritance. Utilizing the characteristics of mutated cultural inheritance and innovating to achieve this approach can preserve the inherent functions of modern architecture, transplant cultural inheritance into it, and endow it with new cultural meanings. Maximizing the extraction of key core elements in architectural and cultural inheritance and transforming them, inheriting them through excavation, preservation, and transplantation of architectural cultural inheritance, making cultural inheritance an inherent driving force for the sustainable development of historical buildings.

4.4. Implementation

Cultural inheritance should be reconstructed and reproduced through design strategies and technical techniques when protecting and updating historical buildings. In many areas, architecture has begun to realize the combination of richness and diversity. According to this theory, it is necessary to build a modern architectural culture with the most Chinese characteristics and change the traditional architectural culture. We must always pay attention to the status of nations and regions in cultural history to inherit the same process of development and innovation. The ultimate goal of activating and utilizing Hakka historic buildings is to give them new sustainable uses without changing the original state of the facilities so that they can be revitalized and bring into play the economic and social benefits in line with the development of today's life. On the one hand, this requires the integration of architecture with people's emotions and national culture, and the combination of regional historical culture to endow architecture with historical character and humanistic spirit so that people can obtain resonance and a sense of belonging through architecture and truly inherit the cultural connotations in traditional architecture. On the other hand, in terms of action technology, to achieve sustainable development, traditional ancient architecture in Shangchenggen needs to adapt to the requirements of the times and integrate ancient architecture with
modern architecture. Due to technological advancements, modern architecture has a characteristic of variability, which enables it to better integrate with traditional architecture.

Respect the local architectural context, materials, and space, and maintain consistency with the original building. Traditional architecture in Shangchenggen should adapt to the environment while respecting history and reality because architecture is a part of the environmental ecology. In transforming traditional architecture, minimizing environmental damage and making adaptive changes based on terrain, climate, and other factors is necessary, rather than destroying the environment and forcibly integrating it into modern architecture.
In the adaptive transformation of traditional architecture, attention should also be paid to human spiritual and material feelings. Architecture should meet people's practical needs and infuse local humanistic ideas and emotions. It should be integrated with time, space, history, and nature to create an atmosphere that meets people's psychological needs. While renovating, we respect the form and context of traditional buildings in the surrounding area, maintain the original historical texture outside the building, and maintain the layout and decoration of the original building. Only in the construction of the internal space do we reflect the sense of comfort, highlight modernity, and conform to the living habits of modern people. Respecting historical reality and the environment also injects humanistic emotions (Figure 8 and Figure 9). Finally, we can focus on the traditional art and audience market and effectively expand the survival and development space of traditional art in traditional architecture by developing cultural and creative products that align with traditional art and audiences, promoting the auspicious culture and feng shui culture carried by traditional architectural art to be displayed through modern and diversified materials. It can align traditional architectural art with the aesthetic of modern society, narrow the distance between traditional architectural art and the modern public, and enable the modern public to show a greater degree of recognition of traditional architectural art.

5. Conclusions

On the basis of the concept of cultural inheritance, it is necessary to explore and research the protection and renewal of current historical buildings from the explicit and implicit aspects. Taking the Hakka architecture in Heyuan as an example, preservation and renewal strategies from the view of cultural inheritance theory are proposed, providing an effective reference for solving the problems that arise during historical building protection. Although external factors may influence cultural inheritance during the inheritance process, we must ensure that with complete cultural attributes and in line with the requirements of the times, we integrate diverse cultural inheritance to promote the effective continuation of cultural inheritance. The ultimate goal of activating and utilizing Hakka historic buildings is to give them new sustainable uses and provide economic and social benefits in daily life. This article believes it is necessary to strengthen the protection and promotion of traditional architectural culture and promote public opinion and other aspects to enhance the traditional cultural values of contemporary people. At the same time, traditional culture should also be re-created, integrated into modern functions, and implanted with new cultural ideas, which can achieve the secondary rebirth of traditional culture. Cultural inheritance has timeliness, and without the help of external forces, it cannot be passed down for a long time.

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