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Organic Reconstruction of Hakka-Enclosed House Architecture Language in Modern Interior Design in Shenzhen

Canhui Xia

Doctoral Student of Philosophy Program in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Bangkok, Thailand, 10700
ORCID iD: https://orcid.org/0009-0001-4258-1646
Email: s63584948002@ssru.ac.th

Pisit Puntien*

Assistant Professor, Advisor in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Bangkok, Thailand, 10700
ORCID iD: https://orcid.org/0000-0002-4495-9147
Email: pisit.pu@ssru.ac.th (Corresponding Author)

Akapong Inkuer

Assistant Professor, Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Bangkok, Thailand, 10700
ORCID iD: https://orcid.org/0000-0003-4605-8390
Email: akapong.in@ssru.ac.th

Chanoknart Mayusoh

Assistant Professor, Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Bangkok, Thailand, 10700
ORCID iD: https://orcid.org/0000-0002-8063-549X
Email: chanoknart.ma@ssru.ac.th

Abstract

This study delves into the historical background and various types of Hakka-enclosed houses in Shenzhen, aiming to establish the architectural language system of these houses in the city. In addition, the study seeks to analyse inheritance principles, recreate Hakka houses' architectural language for modern interiors, and offer design guidelines for incorporating traditional architectural

languages into interior design. The study aims to incorporate architectural language features into dining space design, creating cultural and artistic forms that are well-suited for modern interior spaces. Experts and consumers will evaluate and verify the feasibility of this work. This article introduces a design method as a point of reference, viewed through the lens of modern "vision" and interior design. This article provides a theoretical foundation and empirical support for the preservation and renovation of Shenzhen Hakka cabinet houses in the context of interior design. The research employs both qualitative and quantitative methods to progress through three sequential steps: The study consists of three key steps: conducting a literature review and field investigation to identify the architectural language of enclosures; analysing and presenting the principles of inheritance and construction of the architectural language of cabinets in modern interiors; applying the architectural language of the surrounding house to the design of the dining area based on the principles of reconstruction; and conducting evaluations to assess its effectiveness. The results indicate that the dining space incorporating the linguistic characteristics of Hakka huts possesses educational, aesthetic, innovative, and regional qualities. The study's findings highlight the significance of incorporating architectural enclosure language into contemporary interior design to meet market demand, preserve and repurpose regional cultural artefacts, and underscore the crucial involvement of food and beverage design experts, Hakka research experts, and consumers in regional cultural design. The study's findings emphasise the potential benefits of incorporating the architectural language of the enclosure into contemporary interior design. The results indicate that interior design professionals and stakeholders incorporate Hakka enclosed house architectural language into their practices. The preservation and enhancement of local cultural heritage is supported, along with the creation of innovative urban interior designs that incorporate local elements. Several limitations should be considered in the context of this study. The study's ability to generalise findings for other regions with different cultural settings may be limited due to its focus on the enclosed Hakka houses in Shenzhen.

Keywords: Hakka Enclosed Houses, Architectural Languages, Modern Interior Design.

Introduction

The combination of modern science and technology serves as the catalyst for architectural progress, enabling us to soar into the new century. Being responsive to its era allows architecture to revive historical significance by depicting reality. The principle of conformity is also applicable to interior design. The design should be a reflection of the contemporary era and our individual personalities (Zou, 2005). Traditional Chinese architecture and interior design are considered conservative and outdated in modern society due to historical limitations. The system fails to meet The Times' characteristics and modern society's aesthetic requirements. Hakka enclosed

houses, one of the largest dwellings in China, represent a significant aspect of Hakka culture and are a distinctive cultural phenomenon within the traditional Chinese architectural culture. They are characterised by their symbolic and robust design. The traditional form of communal living in enclosed houses has become obsolete, as many of these houses have been abandoned and numerous heritage structures are gradually deteriorating (Chen, Meriggi, & Tan, 2023).

The integration of traditional architectural heritage with contemporary design principles is a key aspect of architecture and interior design. Science and technology have played a crucial role in advancing architectural development in the twenty-first century. Architecture, as a product of its era, authentically reflects the existing reality, giving the past a sense of vitality (Zou, 2005). Interior design also adheres to the principle of expressing zeitgeist and personality in relation to larger architectural concerns. However, historical norms have limited the old-fashioned and traditional Chinese architectural styles, causing them to seem conservative in relation to modern society and aesthetic standards (Kleck, 2007). For instance, Hakka enclosed houses are integral to traditional Chinese architecture, but they have been neglected and fallen into disrepair. The enclosed houses, once vibrant symbols of Hakka culture, now stand as relics in an abandoned community, unable to withstand the passage of time (Xiaonan & Yizhe, 2021). The modernization of contemporary society has significantly transformed the traditional Chinese architectural landscape and decor to an unprecedented extent, rendering it inadequate to fulfil the constantly evolving demands of society. The conservative nature of historical design imposes limitations on its timeliness. Hakka enclosed houses are a significant component of Hakka culture and a distinct type of dwelling in traditional Chinese architecture, carrying profound cultural significance. Modernity exposes a transient identity through abandoned homes that decay over time (Xue, 2005).

Considering this context, several studies (Curl & Wilson, 2015; Hensel, 2013; Szalapaj, 2014) aim to bridge the divide between traditional architectural terminology associated with enclosed dwellings and the demands of modern design. This pertains to the challenge of combining various languages that share a common heritage and need to be reconstructed. The essence of transformation should focus on improving

the urban regional environment, enhancing users' experience, and meeting both material and spiritual needs. The enclosed house language refers to a contemporary indoor space that embodies both modernity and regional identity.

Considering this context, scholars have developed methods to enhance the preservation of traditional architectural language and the advancement of interior design. This is achieved by connecting the linguistic characteristics of enclosed house architecture with contemporary interior design. The primary research question is how to integrate traditional architectural language with modern interior works, guided by principles of inheritance and reconstruction. This aims to enhance the urban regional characteristic environment, improve the quality of user experience, and address both material and spiritual needs. The primary objective of this research is to incorporate the architectural language of enclosed houses into contemporary food and beverage design. This involves creating indoor spaces that consider both the temporal and regional aspects, as well as conducting a thorough evaluation and feasibility analysis of these designs.

Research Objectives

1. To explore the historical background and types of Hakka-enclosed houses in Shenzhen to construct the architectural language system of Hakka-enclosed houses in Shenzhen.
2. To analyse the principles of inheritance, recreate the architectural language of Hakka houses for modern interiors, and provide design guidelines for recreating traditional architectural languages in interior design.
3. To apply architectural language features to dining space design to form cultural and artistic forms suitable for contemporary interior
4. To evaluate and verify the feasibility of the work by experts and consumers.

Literature Review

Previous research has extensively investigated Hakka culture and the architectural style of Hakka dwellings in the Longgang region of Shenzhen. In 2000, multiple articles were published and a renowned conference on Hakka dwellings took

place in Shenzhen, stimulating discussions. The cultural constructs of contemporary Shenzhen were significantly enriched by notable publications in 2022 authored by Ardizzoni (2022) and Peng (2022). Although there are numerous research papers available, such as those from the seminar, there is a lack of comprehensive analysis on Hakka waist houses in Longgang County. Existing literature only provides brief introductions or descriptions of the samples of these houses in the area. The complexity of design language surpasses that of everyday speech and lacks consensus within academic circles. Wartmann and Purves (2018) have made significant contributions to the discourse on design and landscape design language, offering their insights and framework for this domain.

The realm of modern interior design is a creative process that centres on the inner environment of a building. The body of the entity is represented by spiritual beings, while its utilisation is demonstrated through material entities (Xiao, 2007). The localization of buildings and interiors is a complex process, as discussed in several studies (Pena & Parshall, 2012; Xiong et al., 2013). The significance of the built environment: For instance, non-verbal expression methods examine the various perspectives, such as the user's viewpoint and the daily environment, to understand the significance of the functions of the built environment. The article "Responses to Cultural and Technological Change" provides a global perspective on contemporary architectural changes, exploring the relationship between tradition and innovation. There is a lack of research specifically focused on the architectural language of Hakka walled houses in Shenzhen and how it is inherited and reproduced in modern contemporary interior design.

Scholars have extensively studied the Hakka architectural landscape, with a specific focus on the enclosed houses found at the Longgang site in Shenzhen. The International Academic Seminar on Hakka dwellings in Shenzhen in 2000 marked a significant turning point. The collection of research articles has significantly enhanced scholarship on Hakka buildings and communities. Two relevant studies on the topic are Li's (2020) research on the politicisation of cultural heritage conservation and Kato et al.'s (2018) study on "Rebuilding from the Countryside". The study conducted by Chen et al. (2023) examines the historical and cultural significance of Hakka buildings

within the broader context of Chinese architecture. However, these sources have not been enough to conduct a comprehensive analysis of waist-houses in the Longgang region. Most literature only offers descriptive accounts of waist-houses and lacks systematic studies. A thorough examination is necessary to uncover the intricate aspects, including the culture, people, and economies, associated with such structures.

Marotta et al. (2017) have presented different perspectives on design language. The study conducted by Marotta et al. (2017) examines the semiotic aspects of design language, specifically exploring the symbolic meanings associated with various architectural elements. The study conducted by Loughran et al. (2008) examines the use of design language in the field of architecture, specifically focusing on the concept of Architecture as Language. The Architectural language model posits that architecture functions as a means of communication and is only successful in facilitating understanding between two individuals. The study conducted by Raaphorst et al. (2017) explores the field of Landscape Architectural Semiotics and its application in landscape architecture. Specifically, the authors discuss how design language extends beyond buildings. Xiao (2007) suggests that the contemporary field of interior design considers the creative process as a fusion of life science and life art. The local aspects of Longgang, specifically the case of Longgang Hakkas, have not been thoroughly analysed.

Cai and Zimring (2019) made an original contribution in their study "Cross-cultural studies in space syntax" by establishing a basis for understanding the cultural significance and interpretation of the built environment. Further research is needed to apply these insights to Hakka-enclosed houses in Shenzhen. It is important to acknowledge certain gaps and limitations in the existing literature as this study commences its research. This study aims to develop a framework that combines contemporary interior design for restaurant spaces with the local architectural language found in rural Hakka houses in the township of Longgang, Shenzen. The goal is to explore the culture and design principles specific to this locale.

This study seeks to address the lack of a framework that incorporates architectural language in the spatial design of current restaurants. The framework is intended to provide guidance for the design process. Thus, given the limited number

of comprehensive systemic studies on Hakka waist houses in the Longgang region, it is important to acknowledge the novelty of this study. To establish credibility and robustness, the study should rely on existing evidence and acknowledge the limited information in current scientific resources. Including specific citations for the data used in this review would enhance the credibility of these claims. The subsequent sections of this research discuss the intricacies, drawing on existing scholarship to scrutinise its shortcomings.

This paper constructed a model of integrating architectural language into modern dining space design to guide the design process (Figure 1).

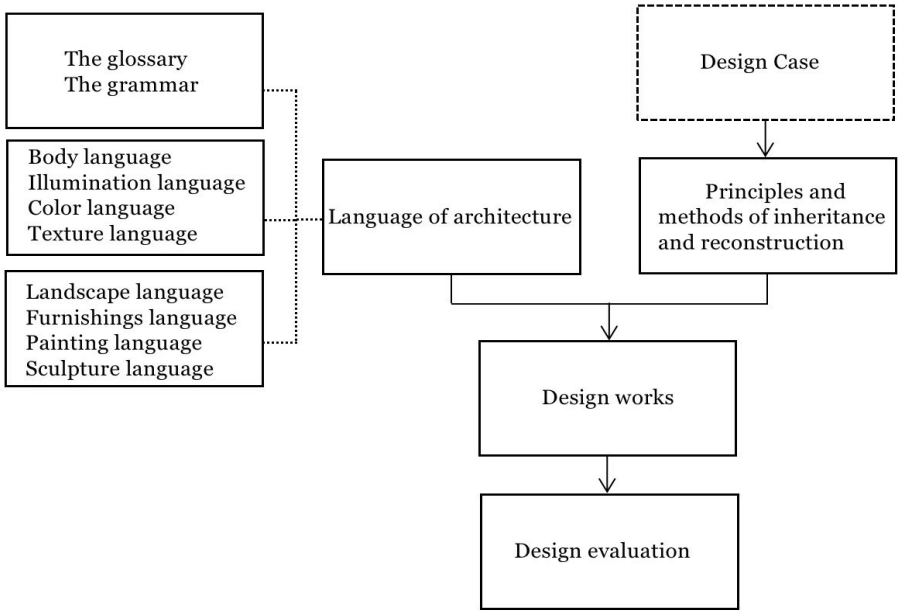

Figure 1: The Constructed Design Process.

Based on the literature review, this study proposes the following hypotheses:

Hypothesis 1: The use of enclosure building language to design restaurant features has a positive impact on consumers' consumption intentions.

Hypothesis 2: Using enclosure architecture language to design restaurant features positively impacts consumers' cultural identity.

Hypothesis 3: Consumer cultural identity positively impacts consumer consumption intention.

Hypothesis 4: Consumers' cultural identity plays a part in the media effect between

the characteristics of the restaurant design using the architectural language of the enclosure and the consumption intention of consumers.

Based on the above assumptions, this study sets the following model in the Figure 2.

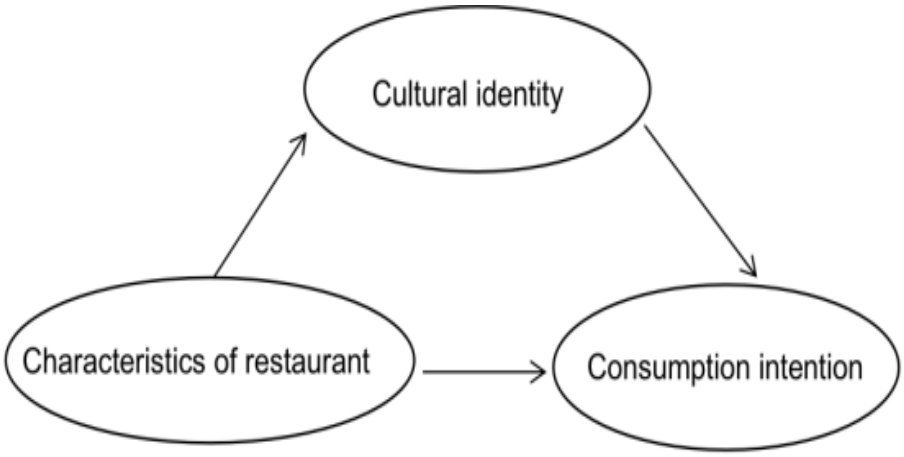

Figure 2: Research Model.

Research Methodology

This paper used an appropriate research method, design and samples to fulfil this study's objectives.

Research Methodology

This study employs a mixed methods approach to investigate the organic reconstruction of Hakka's enclosed house architecture language in modern interior design in Shenzhen. The study employed a mixed methods approach, incorporating qualitative and quantitative research methods. It also utilised a co-design process that involved experts in interior design, researchers of the Hakka language, and visitors. This approach ensured a comprehensive examination of the subject matter.

Creswell and Creswell (2017) define mixed-method research as the integration of qualitative and quantitative research methods in a single study. The holistic approach allows researchers to utilise the benefits of both approaches, resulting in a more comprehensive and extensive study (Creswell & Creswell, 2017). The Mixed Method is utilised to reconstruct Hakka enclosed house architecture language in the

given context, providing a comprehensive understanding. The qualitative approach allows for a deeper understanding of the integration of culture and aesthetics in Hakka architecture. This provides information on the significance of symbols for individuals and their experiences. The quantitative approach allows for the measurement and analysis of specific components of the environment, ensuring full integration.

This study utilised a co-design process involving interior designers, Hakka linguist scholars, and visitors. This participatory approach aligns with the principles found in the literature on co-design and participatory design. The study involved inviting interior design experts to ensure that the modernist reconstructions adhere to contemporary designs and align with Hakka architectural traditions. Engaging researchers of the Hakka language contribute to a linguistic perspective, explaining the semantic and cultural meaning of the Hakka architectural language. Norman (2013) advocates for user-cantered design and suggests including visitors in the co-design process. The functionality and aesthetic appeal of the reconstructed spaces are guided by visitors' perceptions and preferences, emphasising a user-centric approach.

The literature supports that combining mixed method approaches and the co-design process aids integration. Creswell and Creswell (2017) emphasise the importance of employing both qualitative and quantitative methods to enhance the rigour and validity of research. Sanders and Stappers (2008) suggest that co-design can be used to capture multiple perspectives and enhance creativity in the design process. The methodological choices are grounded in a scholarly tradition that considers research as a holistic activity that values teamwork.

This study aimed to analyse the vocabulary reconstruction of traditionally developed Hakka enclosed houses within the context of contemporary interior design in Shenzhen. It employed a combination of methods and incorporated a co-design process.

Research Design

This study utilises a qualitative systemic literature review to examine and consolidate existing knowledge on the language of Hakka gated/enclosed house

architecture in the context of contemporary spatial design in Shenzhen city. The organisation of this work is based on a rigorous and systematic approach to identify, assess, and include relevant qualitative research, academic articles, and writings (Iden & Eikebrokk, 2013). This study employs a systematic literature review design to provide a qualitative foundation on the cultural and historical characteristics and design of Hakkas closed houses in relation to contemporary interior design practice.

The mixed method approach utilised a questionnaire survey to gather structured information from the respondents, employing quantitative research methods. The structure facilitates the assessment of factors associated with the integration of Hakka enclosed house architectural language into modern interior design. The questionnaire survey design served as a quantitative component of the research process, allowing for the measurement of participants' perspectives and preferences on topics related to the study.

Data Collection

In the first step, the academic journal articles and various libraries have been searched for architectural studies of Hakka Enclosure House and its relationship to modern design work. The search has focused on keywords such as "Hakka architecture, enclosed houses" and "modern interior design". The constitutional information on enclosed houses in Shenzhen province was primarily sourced from Hakka-related literature. The identified studies have undergone a systematic screening process to eliminate duplicates and non-inclusion studies. The study needed to satisfy three main requirements: relevance to Hakka architecture, incorporation of modern interior design, and utilisation of qualitative research methods. The objective of this study is to conduct a field survey in the Shenzhen region, focusing on the current usage and implementation of Hakka enclosed homes. The survey aims to gather information on the various types, styles, and cultural aspects associated with enclosed homes. The architectural language system of Shenzhen Hakka enclosed houses was analysed through extensive dialogues and interviews with interior design experts. A quality assessment was conducted to determine the appropriateness of the research methods used in the selected studies.

Only high-quality studies are included in the synthesis stage in this case. This

study examines the principles of inheritance and restoration of architectural language in waist houses for modern interior design. The chosen studies will undergo a systematic extraction of selective data, including crucial findings, methods used, and theoretical frames. This statement suggests that it offers a comprehensive understanding of the status of qualitative research. Three dining area design works utilise the reconstruction principle to incorporate the language of enclosure architecture. An evaluation form is used to assess experts' opinions on the feasibility of incorporating the Hakka architectural language into Shenzhen's catering space. A single questionnaire form with three different design sets is used to capture the customer's preferences, which will guide the designer's efforts to improve their work. The questionnaire approach targeted specific populations, including residents, visitors, and experts in interior design and Hakka architecture. A representative sample was selected using random or stratified sampling.

The study developed a standardised questionnaire consisting of multiple-choice questions to collect quantitative data. This study examines preferences, perception, and assessment of modern interior design with Hakka elements. Subsequently, the questionnaire was distributed to a small group to address any potential issues or uncertainties that may have arisen during the instrument's development. During the pilot phase, the study refined the questionnaire based on received feedback. The revised questionnaire was subsequently distributed to the participants selected for the study. Various methods, including online surveys, have been utilised to accomplish these objectives.

The study involved three interior design experts, three Hakka research experts, and 503 consumers from Shenzhen. The participants provided informed consent and their identities were kept confidential.

Data Analysis

The qualitative data were thematically synthesised to identify patterns, commonalities, and differences found in the reviewed literature. The thematic analysis for the subsequent stages of the research is derived from the qualitative groundwork conducted in this section. This study employs statistical analysis methods to interpret the quantitative

data. A descriptive analysis was conducted on enclosure building samples obtained from literature and research, focusing on their language and reconstruction principles. The responses to the questionnaire and evaluation form were analysed quantitatively using mean, percentage, and standard deviation. The integration of quantitative results into a systemic literature review of qualitative findings provides a comprehensive understanding of the organic reconstruction of Hakka enclosed house architecture.

Analysis, Results and Discussion

The Architectural Language of Hakka Encloses and the Principles of Inheritance and Reconstruction in Modern Interior Design

Hakka Enclosed Houses Architecture Language

The Hakka enclosed houses serve as the distinctive architectural landmarks in Hakka villages. Hakka enclosures are typically found in Hakka settlements. The migration of Hakka people to Shenzhen has resulted in changes to both the natural and cultural environment. The architectural forms of Hakka enclosed houses also vary across different locations, resulting in a diverse range of types. This has contributed to the development of a unique and vibrant Hakka residential architectural culture. The characteristics and representative buildings of each type are detailed in Table 1.

Table 1: Five Types of Hakka Architecture.

Types	Representative buildings	Features
Huizhou type of Hakka system:	Dawan Shiju, Crane Lake New House, Longtian House, Qingpai House;	Instead of using the ring-long part at the back, a second floor was built on top of the outer ring-house, called the “ring-house” by the locals.
Xingmei type of Hakka system:	Hongwei,Chengdu Neiwei, Longwan Shiju, Toyota Shiju, Xinqiao Shiju;	There is a semi-circular “Weilong” in the back, and the middle and front are the same as other Hakka enclosures, consisting of a semi-circular pond and a rectangular hall.

Hakka Wai and Guangfu type rounds:	Xikeng round, Nanling round, Jixia old round, Wangmu round, Tangkeng round;	The local materials are used to use the old houses left by the local aboriginals before the boundary move, which are shown explicitly as the plane shape of the waist-house of the Guangfu system and the overall rectangle.
Hakka-style rounds imitating Cantonese:	Qixing Residence, Jianhu Residence, Tianxin round;	Built concerning the Guangfu type of enclosure, the Hakka housing form featuring a flying belt and Doulang row, without closed walls or enclosures, is a row house village.
Heyuan types of the Hakka system:	Wangtongshan Zhong clan round, Malu Dongsheng round.	There are two front turrets in the plan layout.

The study generalises the understanding of architectural language by applying the definition of human language and its transfer principle (Ali & Akhtar, 2022). The architectural language is a visual symbol system developed and refined by humans through extensive architectural practice to convey values and aesthetic emotions. Architectural language encompasses the study and appreciation of architecture through written and visual means. Architectural language serves as a reference system that allows us to observe and explore architectural phenomena both locally and internationally.

The framework analysis conducted by Miller (2015) and Yang and Tang (2020) reveals that individuals' perspectives on the content of design language vary. These perspectives are primarily influenced by their background theory and research objectives. The academic community does not have a consensus on the content and hierarchical structure of design language, leading to significant differences among scholars. This paper focuses on the language used in Shenzhen Hakka surround-house architecture. The primary objective of this research is to integrate design elements that can symbolise the language of Shenzhen's surrounding-house architecture with modern interior design. The aim is to generate new content within the existing tradition, identify the point of convergence with historical characteristics of the era, and express it through modern interior design. The modern interior design emphasises the inheritance and reconstruction of the building language, resulting in a more explicit purpose, direction, and distinct characteristics. The language system

of Shenzhen Hakka enclosures is developed based on the unique architectural elements and design techniques found in these structures. The architecture of Shenzhen Hakka waist house is a specialised subset within the broader field of architecture, focusing on specific aspects and content that are distinct from general architectural research. The research scope has been narrowed and the goal has become more precise, making it appropriate to develop a simplified and specific framework.

The language system of Shenzhen Hakka waist house architecture comprises two components: the structural frame system and the compositional composite system. The structural frame system encompasses various terms. The term "building element" refers to the fundamental unit of a building, like a building component. The field of grammar encompasses the study of both syntactic and rhetorical content. It primarily examines the way words are combined and organised, with a specific focus on spatial organisation and form coordination. The composite system comprises two components: the first system represents the morphological language of the spatial entity, while the second system represents the pictorial language of the environmental scenery. Figure 3.

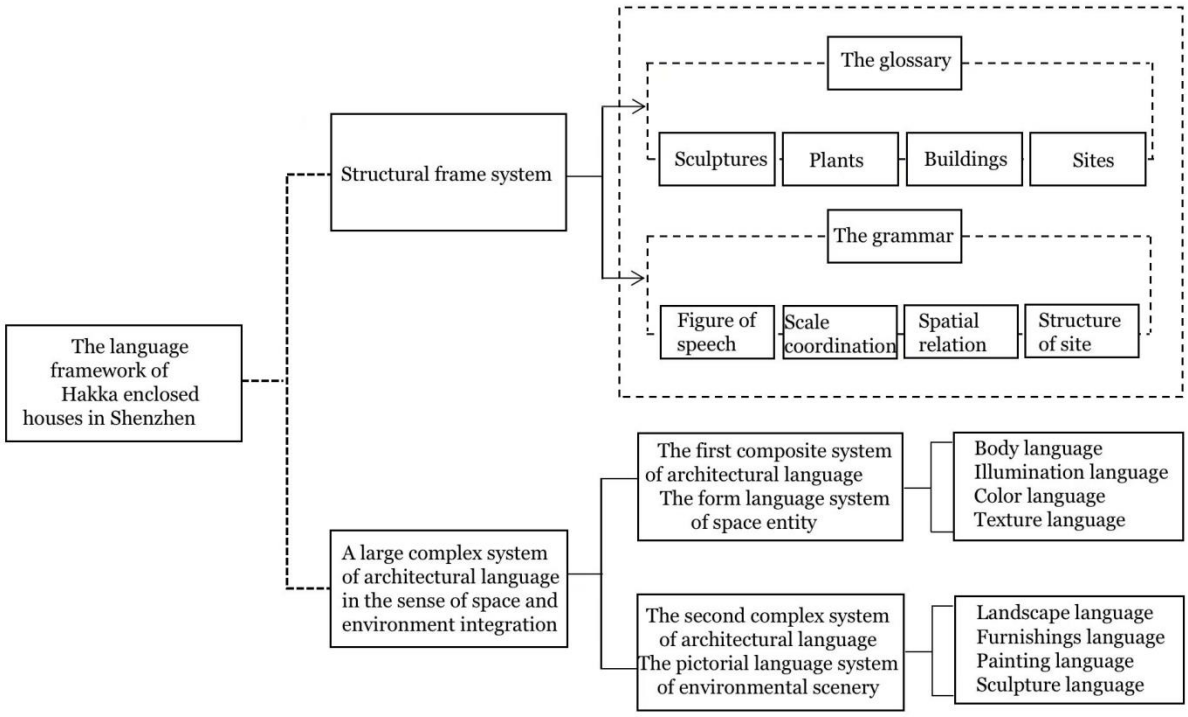

Figure 3: Hakka Enclosed Houses in Shenzhen.

Principles of Inheritance and Refactoring

a) Meet the Needs of Modern Life

Zheng (2004) said in his book building revolution, "Turtle, shell, screw shell is alive, always growing with age and body, how wonderful opportunely? But a lot of people see the shell and forget the life. Architecture is not the empty shell of a dead turtle, but the shell of life, the skin of life" (Zheng, 2004). Interior design creates a living environment that caters to people's physical and emotional needs. The content of people's needs varies due to differences in time and changes in lifestyles and life circumstances. The traditional architectural language is a cultural expression that arises from the practical requirements of traditional life. Due to variations in lifestyle, life content, conditions, and behaviour, certain aspects of traditional architectural language may no longer be appropriate for the demands of contemporary life. Hence, there is a need to adapt the conventional architectural language to cater to the requirements of contemporary society. As Jin (1985) said in The Hundred Questions of Traditional Chinese Houses: "As long as the material conditions and social lifestyle have changed, its original meaning has ceased to exist, but the traditional form suitable for the needs of later generations has been inherited". Therefore, in terms of historical impact, the fundamental principle of modern interior design is to refine and modify the formal characteristics of traditional architectural culture to cater to the physiological and psychological needs of contemporary individuals.

Genes play a crucial role in controlling heredity and regulating the development of various body parts. Gene alterations lead to corresponding changes in an organism's body. From an evolutionary standpoint, organisms undergo genetic adjustments in response to changes in their external environment to adapt to new living conditions. Otherwise, the organism may be gradually or permanently eliminated during its development. There is a comparable pattern in the evolution of architectural culture. Changes in architectural cultures, such as social, economic form, political form, structure composition, lifestyle, architectural function, and architectural technology, lead to changes in architectural culture, like biological evolution. Traditional architectural culture encompasses two aspects: the external

tradition, which pertains to the physical characteristics of existing architecture and reflects traditional forms; and the internal tradition, which encompasses people's values, aesthetic preferences, behaviour patterns, environmental considerations, spatial intentions, and other factors that reflect the deeper meaning and spiritual aspects of tradition. An internal factor is concealed within the external traditional culture. The morphological characteristics of architectural culture are controlled by biological genes, just as they control an organism's external form. The internal tradition of architectural culture can be understood as the cultural gene of architectural culture. Internal motivation is a key factor in the interdependence, integration, and joint development of architecture, interior design, and public life. It serves as an internal symbol that sets architectural culture apart from other architectural cultures.

It is mainly composed of the following relatively stable factors in architectural culture:

- Culture, religion, philosophy and other characteristics of a nation and a region are fluent in the blood of a nation and determine people's thoughts and behaviours.
- The natural conditions of the area where the building is located and people's living habits.
- Aesthetic consciousness. These relatively stable factors determine the inheritance and continuity of traditional culture and become the cultural genes of architectural culture.

In order to incorporate traditional architectural language into interior design, it is essential for researchers to maintain a focused mindset and prioritise the fundamental objective of design, which is to effectively communicate and connect with people in the present moment, while also creating a space that genuinely fulfils their life requirements (Xu, 2005). The "place spirit" of a specific time and location is an expression that embodies the cultural essence of architecture. Modern interior design aims to create a cohesive living space. Hence, the incorporation of traditional architectural language is considered a fundamental aspect in the preservation and advancement of traditional architectural language within contemporary interior

design. The organisational structure of a culture is demonstrated through the ongoing self-replication and evolution of cultural genes. The phenomenon of culture is characterised by its multiple structure, which involves continuous self-propagation, self-reproduction, and self-evolution. This indicates that culture undergoes changes and evolves in tandem with societal changes and evolution.

b) Meet the Requirements of Modern Science and Technology

According to Marx (2000), one key distinction between humans and animals is the ability of humans to utilise tools. The utilisation of tools represents the advancement of human technology. The production tools and technologies used throughout history are integral to the civilization of each era. The phenomenon has a direct impact on individuals' way of life, behavioural tendencies, aesthetic preferences, and perspectives on nature and the world. Furthermore, it has a significant impact on philosophy and has implications for the political, economic, and organisational structure of society. The aforementioned factors have a direct impact on the establishment and evolution of architectural culture. Some argue that all forms of architecture are ultimately influenced by the lifestyle and technological advancements of the people during a specific period. To capture the essence of today's society, modern interior design must consider the new needs arising from contemporary technology and the use of modern tools and technologies. It should also reflect the inner spirit and characteristics of the current era. The inheritance and development of traditional architectural culture in modern interior design must align with contemporary science and technology.

c) Meet the Requirements of Modern People’s Aesthetic Cultural Psychology

Aesthetic cultural psychology refers to the interdependent and inseparable relationship between cultural psychology and aesthetic psychology (Jin, 2005). The aesthetic cultural psychology of modern individuals encompasses two aspects: the traditional aesthetic cultural psychology that has evolved over time and the modern aesthetic cultural psychology that has emerged in contemporary society.

Modern culture exhibits the characteristics of being "exogenous," as it originates from Western civilization and reflects the characteristics of the current era. This gives rise to a new aesthetic and cultural psychology. The interplay between tradition, modern aesthetics, and cultural psychology mutually shapes and transform one another. The primary focus of interior design is to create a living space that accommodates people's diverse activities, including their psychological well-being. In terms of establishing the indoor psychological field in our country, it encompasses two aspects of modern individuals' aesthetic cultural psychology. Modern interior design integrates traditional aesthetics and cultural psychology with modern aesthetics and cultural psychology to create interior spaces that embody national, regional, and contemporary characteristics.

Dining Space Design

The following three sets of works integrate the architectural language vocabulary, grammar, and form language in the first system of the form language, light language, colour language, texture language and the painting language in the second system of the environment language, display language, painting language, sculpture language, organically integrate the principles and methods of inheritance and reconstruction to design.

Figure 4: Dining Space Design 1.

Figure 5: Dining Space Design 2s.

Figure 6: Dining Space Design 3.

Design Evaluation

Table 2 presents the comprehensive results and evaluation of three dining design experts and three Hakka research experts regarding the reconfiguration design of the architectural language of Hakka-enclosed houses in Shenzhen. The third model achieved the highest score with an average of 4.64 points. The experts provided favourable ratings for the first and second categories, with an average of 4.52 and 4.26, respectively.

Table 2: Design Results and Expert Evaluation.

NO.	Design	Mean	SD	Satisfaction
1		4.52	0.62	High
2		4.26	0.81	High
3		4.64	0.60	The Highest

The design of Work 3 incorporates the architectural language of Shenzhen Hakka enclosed houses, specifically the spatial concept of a "patio" and the use of a "light language" within the spatial entity language system. The patio roof is made of transparent glass to enhance the artistic effect of connecting indoor spaces with nature. The study utilises natural light as a linguistic material to transform the original solid architectural form through the dynamic fluctuations of light. The manipulation of light and shade in the spatial arrangement creates a partially illuminated and partially shadowed space, enhancing the rhythmic flow of the indoor space and satisfying the physiological and psychological requirements of diners. The language of light, specifically the natural light captured by architecture, is unparalleled in its ability to convey sublime and sacred artistic concepts. This study demonstrates the peculiar phenomena caused by light. This project applies the principles of inheritance and reconstruction of enclosed house architecture language in modern interior design. The researcher implemented two methods for sampling consumers' formal questionnaires in Project 3: online and physical filling.

The questionnaire survey lasted for approximately one month, resulting in the recovery of 503 questionnaires. The results indicate that 407 valid questionnaires were collected, with a recovery efficiency of 80.91%. The study was conducted based on the collection of 407 questionnaires. The study's questionnaire consists of 24 questions divided into three parts: the characteristics of restaurant design, the language of enclosure building, and the consumption intention of cultural identity. The restaurant design incorporates

architectural elements, specifically an enclosure divided into four sub-dimensions and 12 questions. There are three perspectives on education, aesthetics, creativity, and regionalism. The concept of cultural identity can be categorised into two sub-dimensions: emotional commitment, which consists of 5 questions, and behavioural exploration, which consists of 4 questions. Additionally, there are three types of consumption intentions.

Demographics: There are four demographic questions such as gender, age, education, and monthly income.

In this study, the study employed quantitative methods for data analysis and utilised questionnaires as a means of data collection. The data was analysed using SPSS 26.0 and AMOS 26.0, which are statistical analysis software. The processing methods of the test questionnaire involved analysing the scale's basic data, conducting Cronbach's α reliability analysis, correlation analysis, and factor analysis. These methods were used to assess the validity and reliability of the scale and to test the research hypothesis.

Description of Basic Sample Data

In this study, a total of 503 questionnaires were collected, both online and through physical means. The survey lasted approximately one month and included two primary screening indicators for the questionnaires. Questionnaires with identical variable items were excluded. Another approach is to exclude questionnaires that can be completed in less than one minute, as the survey consists of 28 questions. A low response time suggests insufficient attention to the questions by the respondents, thereby compromising the reliability of the sample data. According to the final response, the number of valid questionnaires was with a recovery efficiency of 80.91%

For the 407 valid questionnaires, demographic analysis was carried out, mainly gender, age, education, and monthly income, and the detailed description of the results shown in Table 3.

It shows that there are 200 males and 207 females, resulting in a male-to-female ratio of 1. The sex ratio (or gender ratio) for this study was approximately 1.03, which closely aligns with the sex ratio reported in the recent census in China, estimated at around 1.08:1. The gender ratio does not significantly impact the age distribution, which is primarily

concentrated in the 19–29-year range, accounting for approximately 48.4% of the sample. This suggests that the sample consists of a relatively young population, capable of effectively assimilating and learning new information. Most subjects in the study have completed at least high school education, indicating a high level of overall educational achievement. Out of the total sample, 36 individuals (8.85%) had a disposable income below 3 thousand yuan, while 21 individuals (5.16%) had an income between 3 and 6 thousand yuan. Out of the total, 80 individuals, accounting for 19.66%, had an amount between 6,000-8,999 yuan, while 148 individuals had 9,000-11,999 yuan, comprising 36.3%. Furthermore, it demonstrates that the average sample's consumption capacity is constant.

Table 3: Distribution of Sample Demographic Variables (N=407).

Demographic variable	Category	Frequency	Percent
Sex	Male	200	49.14%
	Female	207	50.86%
Age	18 and below	36	8.85%
	19-29	197	48.4%
	30-49	141	34.64%
	Over 50 years old	33	8.11%
Educational background	High school and below	69	16.95%
	Junior college	136	33.42%
	Undergraduate course	139	34.15%
	Master's degree or above	63	15.48%
Monthly income	Less than 3000 RMB	36	8.85%
	3000~5999 RMB	21	5.16%
	6000~8999 RMB	80	19.66%
	9000~11999 RMB	148	36.36%
	12000~14999 RMB	69	16.95%
	15000 RMB and above	53	13.02%

The questionnaire results pertain to individuals of various age groups, education levels, and monthly income. The demographic characteristics and coverage of consumer consumption behaviour survey samples are comprehensive and consistent with the research objectives.

According to the test results in Table 4, the standardised factor loads of each variable range from 0.671 to 0.855, all of which are greater than 0.4. X2 / df = 1.233 < 3. GFI, AGFI, NFI, CFI and IFI are all greater than 0.9, and RMSEA value is 0.024< 0.08; AVE values range from 0.56 to 0.69, all greater than 0.5, CR values range from 0.79-0.90, all greater than 0.7. The indicators align with the detection standards, indicating good structural and discriminative validity of the measurement scales used in this study. The reliability of the sample data was tested using SPSS 26.0 in this

study. The test results indicated that the Cronbach's α coefficients for the scale of design characteristics, cultural identity, and consumption intention were all above 0.7, suggesting that the scale demonstrated strong reliability and validity. Meeting the study requirements ensures subsequent research reliability.

Table 4: The Result of Convergent Validity (Confirmatory Factor Analysis) (n=407).

Factor	(Coef.)	Std. Estimate)	SE.	Z	p	AVE	CR	α
X1	1	0.796	-	-	-			
X2	1.069	0.840	0.053	20.171	***	0.66	0.85	0.949
X3	0.971	0.802	0.051	18.887	***			
X4	1	0.711	-	-	-			
X5	0.920	0.723	0.063	14.609	***	0.56	0.79	0.937
X6	0.961	0.811	0.059	16.406	***			
X7	1	0.811	-	-	-			
X8	0.877	0.780	0.047	18.542	***	0.64	0.84	0.932
X9	0.971	0.810	0.05	19.575	***			
X10	1	0.813	-	-	-			
X11	1.122	0.849	0.053	21.215	***	0.69	0.87	0.928
X12	1.014	0.830	0.049	20.503	***			
M1	1	0.802	-	-	-			
M2	0.984	0.790	0.053	18.398	***			
M3	1.115	0.824	0.057	19.523	***	0.62	0.90	0.922
M4	1.147	0.702	0.073	15.756	***			
M5	1.121	0.824	0.057	19.543	***			
M6	1	0.855	-	-	-			
M7	0.918	0.684	0.057	16.214	***	0.58	0.85	0.915
M8	0.840	0.671	0.053	15.787	***			
M9	0.872	0.818	0.041	21.438	***			
Y1	1	0.811	-	-	-			
Y2	0.963	0.802	0.050	19.211	***	0.66	0.85	0.853
Y3	0.999	0.824	0.050	19.979	***			

Fitting index model fit：X2=284.833, X2/df=1.233, GFI=0.947, AGFI=0.931, NFI=0.967, IFI=0.994, CFI=0.994, RMSEA=0.024

The correlation test is a fundamental component of a hypothesis test. The Pearson correlation test was conducted for each variable using SPSS 26.0 in this study. The test results indicate that design features have a positive correlation of 0.01 in all dimensions and correlations of 0.86, 0.83, 0.86, and 0.86 in each dimension, respectively.

The p-values for all four design feature dimensions are 0.01, with values of 0.86, 0.82, and a BETA value of 0.87 for each dimension. At a significance level of 5%, it was found that both design features and behavioural exploration dimensions have a

significantly positive effect. The correlation coefficients for these dimensions, in decreasing order, are .83, .81, and .84.

Consumption intention is positively correlated with cultural identity, which requires cultural significance in all three dimensions. The verification results are provided in Table 5.

Table 5: Correlation Analysis.

	M	SD	1	2	3	4	5	6	7
1	4.24	0.81	-						
2	3.96	0.84	0.84**	-					
3	4.22	0.79	0.85**	0.82**	-				
4	4.29	0.83	0.89**	0.82**	0.86**	-			
5	4.18	0.80	0.86**	0.82**	0.87**	0.87**	-		
6	4.05	0.85	0.83**	0.81**	0.84**	0.86**	0.85**	-	
7	4.22	0.82	0.86**	0.83**	0.86**	0.86**	0.86**	0.84**	-

Note: 1= perceived education, 2= perceived aesthetics, 3= perceived creativity, 4= perceived regionality, 5= emotional commitment, 6= behavioural exploration, 7= willingness to consume.

Intermediary Effect Test

Baron and Kenny (1986) proposed a mediation effect test method that involves three steps for testing the mediation effect: The initial phase entails assessing the predictive significance of the independent variable X on the dependent variable Y, while accounting for the moderating influence of the mediator M. The second stage of the analysis examines the predictive power of the independent variable X while accounting for the influence of the moderating variable M. The final stage assesses the impact of the independent variable X on the outcome and determines whether it remains significant. If it is not significant, it is considered a partial mediator. Another mediator occurs when there is a noticeable but still apparent reduction in the effect. There are three test steps. The first two have already been completed, and the third one is currently being tested.

The initial step is to regress the affective commitment of the four levels' design characteristics against one dimension (cultural identity) of the mediator. This is done to examine the mediation effect of cultural identity on the relationship between design characteristics and consumption intention. The adjusted R-square for model 1 is 0.817, indicating that the model accounts for approximately 81.7% of the variation in the

dependent variable. This suggests that the model's predictions of the dependent variable are accurate. The adjusted R-Square value of 0.828 for model 2 indicates that the linear regression model accounts for approximately 82.8% of the variation in the consumption intention of the dependent variable. The Adjusted R-squared value of model 3 is 0.82, indicating a strong prediction power. This value suggests that the model captures 82.4% of the variation in the dependent variable's consumption intent, indicating a good explanation of the dependent variable by the linear regression model. The independent variable has a significant effect on the dependent variable (model 1).

Additionally, the independent variable influences the intermediary variable in model 2. An alternative model is constructed for testing purposes by incorporating mediators from model 1. The Model 3 demonstrates a statistically significant influence of intermediary variables and independent variables on each dimension. However, the β coefficient for each dimension is lower than that of model 1. Emotional commitment is influenced by both cultural features and consumption intention. The analysis results are presented in Table 6.

Table 6: Mediating Effect Test of Emotional Commitment.

	Model 1	**Model 2**	**Model 3**
Constant	0.176 (1.803)	0.209* (2.263)	0.133 (1.377)
X1	0.251*** (4.737)	0.174**(3.461)	0.215** (4.076)
X2	0.184*** (4.485)	0.154*** (3.955)	0.153***(3.709)
X3	0.288*** (5.929)	0.309*** (6.698)	0.225*** (4.464)
X4	0.241*** (4.774)	0.308*** (6.449)	0.177** (3.407)
Emotional commitment			0.206*** (3.987)
R^2	0.819	0.829	0.826
adj.R^2	0.817	0.828	0.824
F	455.486(p=0.000)	488.825(p=0.000)	381.068(p=0.000)

Note: *p<0.05, **p<0.01, ***p<0.001

An assessment of the mediating role of behavioural exploration in the relationship between design characteristics and consumption intention, with cultural orientation as the mediator, requires a regression analysis. This analysis includes the four dimensions of behavioural exploration and the dimension of cultural orientation. The adjusted R-squared values for Model 4 and Model 6 were 0.817 and 0.821, respectively. These values indicate that the models explained 81.7% and 82.1% of the variance in the consumption

of the variable and consumption intention independent variables, respectively. Therefore, the linear regression models were effective in predicting the dependent variables. The standardising coefficient test indicates that the independent variable (IV) has a significant effect on the dependent variable (DV) in model 4. Nevertheless, the perceived allure of the designs is dismissed after the second step of the sequential procedure due to the significance level being $p>0.05$. All methods except for perceptual education have been examined. The structural model, which includes the mediating variable "behavioural search," is formed by applying model 4. This model represents the mediation effect of behavioural search between the four design features and purchase intent. Model 6 demonstrates that, except for one path, the mediation effect is statistically significant for all paths involving both dependent and independent variables. However, the β coefficients for each dimension of the independent variable are lower compared to model 4. This study demonstrates the role of behavioural exploration as a partial mediator between cultural identity and consumption intention. Table 7 presents the detailed analysis results.

Table 7: Mediating Effects of Behavioral Exploration.

	Model4	**Model5**	**Model6**
Constant	0.176 (1.803)	-0.050 (-0.466)	0.183 (1.895)
X1	0.251*** (4.737)	0.112 (1.929)	0.235*** (4.467)
X2	0.184*** (4.485)	0.206*** (4.581)	0.155*** (3.721)
X3	0.288*** (5.929)	0.259*** (4.864)	0.252***(5.086)
X4	0.241*** (4.774)	0.401*** (7.269)	0.184** (3.468)
Behavioural exploration			0.141** (3.136)
R^2	0.819	0.798	0.824
adj.R^2	0.817	0.796	0.821
F	455.486(p=0.000)	398.044(p=0.000)	374.366(p=0.000)

Note: *p<0.05, **p<0.01, p<0.001***

Conclusion

This study examines the architectural language of Hakka enclosed houses in Shenzhen and develops a model of interior design development and innovation process that emphasises regional culture. The analysis demonstrates that the architectural language of Hakka enclosed houses in Shenzhen consists of a structural frame and composite systems in its composition. The traditional architectural language is combined

with modern interior works to enhance the interior space's educational, aesthetic, innovative, and regional nature, guided by the principles of inheritance and reconstruction. According to evaluations by professional designers and experts, work 3 effectively embodies the essence and attributes of The Times. Consumers are highly satisfied with its educational, aesthetic, innovative, and regional qualities.

The study's findings emphasise the potential benefits of incorporating the architectural language of the enclosure into contemporary interior design. The spatial designs discussed here contribute to the preservation and repurposing of local cultural artefacts, while also creating a contemporary urban interior that reflects regional characteristics. These designs offer theoretical support for practical interior design and hold significant importance for the overall advancement of modern interior design in China. The study highlights the important contributions of consumers, food and beverage design experts, and Hakka research experts in the sustainable and effective design process.

Recommendations

Consequently, these results indicate that interior design professionals and stakeholders incorporate Hakka enclosed house architectural language into their practices. The preservation and enhancement of local cultural heritage is supported, while also fostering the creation of innovative contemporary designs for urban interiors that reflect local characteristics. Additionally, the study suggests collaboration between design experts from the food and beverages industry, Hakka specialists, and consumers to further enhance the environmental friendliness and efficiency of the process.

Limitations and Future Directions

Several limitations should be considered in the context of this study. The study's ability to generalise findings for regions with different cultural settings may be limited due to its focus on the enclosed Hakka houses in Shenzhen. The resulting model may lack uniform interpretation due to varying perspectives and evolving designs, necessitating frequent revisions.

The next step in advancing the field would involve conducting regional

assessments on Hakka enclosed houses in different geographical areas and analysing how regional variations contribute to their characteristics. The proposed system would possess adaptability and efficiency due to its continuous improvement and validation through iterative designs and feedback cycles. The impact of technological advancements and sustainability in design on the incorporation of Hakka architectural language into modern interior design is a topic that warrants further investigation.

This study not only reveals the intricate architectural language linked to Hakka compounds, but also provides designers with guidelines for incorporating regional cultural identity into modern residential interiors. The sustainability and effectiveness of modern interior design in China can be enhanced through a multidisciplinary approach that incorporates consumers' perspectives and promotes collaboration between experts.

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References

Ali, S., & Akhtar, A. (2022). The Literary Darwinism: Sylvia's interaction with the void around her. *International Bulletin of Linguistics and Literature (IBLL), 5*(4), 89-99. https://ibll.com.pk/index.php/ibll/article/view/159

Ardizzoni, S. (2022). Hakka Culture. In S. Ardizzoni (Ed.), *Hakka Women in Tulou Villages* (pp. 59-81). Brill. https://doi.org/10.1163/9789004518193_004

Baron, R. M., & Kenny, D. A. (1986). The Moderator–mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

https://doi.org/10.1037/0022-3514.51.6.1173

Cai, H., & Zimring, C. (2019). Cultural impacts on nursing unit design: A comparative study on Chinese nursing unit typologies and their US counterparts using space syntax. *Environment and Planning B: Urban Analytics and City Science, 46*(3), 573-594. https://doi.org/10.1177/2399808317715639

Chen, Z., Meriggi, M., & Tan, Z. (2023). Rebuilding from the countryside. Huiyang Hakka Heritage Conservation Project. *Taglio Netto.* https://re.public.polimi.it/handle/11311/1256017

Creswell, J. W., & Creswell, J. D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications. https://edge.sagepub.com/creswellrd5e

Curl, J. S., & Wilson, S. (2015). *The Oxford Dictionary of Architecture*. OUP Oxford. https://doi.org/10.1093/acref/9780191918742.001.0001

Hensel, M. (2013). *Performance-Oriented Architecture: Rethinking Architectural Design and the Built Environment*. John Wiley & Sons.

Iden, J., & Eikebrokk, T. R. (2013). Implementing IT Service Management: A systematic literature review. *International Journal of Information Management, 33*(3), 512-523. https://doi.org/10.1016/j.ijinfomgt.2013.01.004

Jin, Q. (1985). *One Hundred Questions of Chinese Traditional Residence*. Tianjin: Tianjin Science and Technology Press.

Jin, X. (2005). *Chinese Garden Aesthetics*. Beijing: China Architecture Press.

Kato, R., Shimose, K.-I., & Shimizu, S. (2018). Predictability of precipitation caused by linear precipitation systems during the July 2017 Northern Kyushu Heavy Rainfall Event using a cloud-resolving numerical weather prediction model. *Journal of Disaster Research, 13*(5), 846-859. https://doi.org/10.20965/jdr.2018.p0846

Kleck, T. (2007). *Defining the Zeitgeist: A Search for Process in Architecture* [Master's thesis, University of Cincinnati]. http://rave.ohiolink.edu/etdc/view?acc_num=ucin1179419906

Li, H. (2020). Political Process of Cultural Heritage Preservation: A Case Study of the New Tile House Hakka Cultural District in Hsinchu. *Global Hakka Studies,* (15), 31-67. https://www.airitilibrary.com/Article/Detail/P20140114001-202011-202012040020-202012040020-31-67

Loughran, N., Sánchez, P., Garcia, A., & Fuentes, L. (2008). Language Support for Managing Variability in Architectural Models. In C. Pautasso & É. Tanter

(Eds.), *Software Composition* (pp. 36-51). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-78789-1_3

Marotta, A., Spallone, R., Turco, M. L., Zich, U., Vitali, M., Marchis, E., & Pavignano, M. (2017). Visual Images and Language in Architecture: Signifier Semiotics and Meaning Semiotics. *Proceedings, 1*(9), 964. https://doi.org/10.3390/proceedings1090964

Marx, K. (2000). *Karl Marx: Selected Writings*. Oxford University Press, USA. https://global.oup.com/academic/product/karl-marx-9780198782650

Miller, A. (2015). On Paper, in Person, and Online: A Multi-literacies Framework for University Teaching. *Journal of Academic Language and Learning, 9*(2), A19-A31. https://journal.aall.org.au/index.php/jall/article/view/359

Norman, D. (2013). *The Design of Everyday Things: Revised and Expanded Edition*. Basic Books. https://jnd.org/books/the-design-of-everyday-things-revised-and-expanded-edition

Pena, W. M., & Parshall, S. A. (2012). *Problem Seeking: An Architectural Programming Primer*. John Wiley & Sons.

Peng, H. P. (2022). Vernacular Architecture: Themes and Variations Over a Large Country. In J. Zhu, C. Wei, & L. Hua (Eds.), *Routledge Handbook of Chinese Architecture* (pp. 214-230). Routledge. https://doi.org/10.4324/9781315851112-18

Raaphorst, K., Duchhart, I., Van Der Knaap, W., Roeleveld, G., & Van Den Brink, A. (2017). The Semiotics of Landscape Design Communication: Towards a Critical Visual Research Approach in Landscape Architecture. *Landscape Research, 42*(1), 120-133. https://doi.org/10.1080/01426397.2016.1257706

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-Design, 4*(1), 5-18. https://doi.org/10.1080/15710880701875068

Szalapaj, P. (2014). *Contemporary Architecture and the Digital Design Process*. Routledge. https://doi.org/10.4324/9781315042879

Wartmann, F. M., & Purves, R. S. (2018). Investigating sense of place as a cultural ecosystem service in different landscapes through the lens of language. *Landscape and Urban Planning, 175*, 169-183. https://doi.org/10.1016/j.landurbplan.2018.03.021

Xiao, H. (2007). *From Tradition to Modernity -- Research on Huizhou Architectural Culture and Its Inheritance and Development in Modern Interior Design*. Nanjing Forestry University.

Xiaonan, W., & Yizhe, Z. (2021). Ethical Implication of Spatial Design of Hakka Enclosed-castled-houses in Southern Jiangxi. *Journal of Landscape Research, 13*(3), 97-100. https://doi.org/10.16785/j.issn1943-989x.2021.3.022

Xiong, X., Adan, A., Akinci, B., & Huber, D. (2013). Automatic creation of semantically rich 3D building models from laser scanner data. *Automation in Construction, 31*, 325-337. https://doi.org/10.1016/j.autcon.2012.10.006

Xu, Q. (2005). Reinterpreting "tradition" in the Context of Modernisation. *Journal of Logistics Engineering College.*

Xue, C. Q. (2005). *Building a Revolution: Chinese Architecture Since 1980* (Vol. 1). Hong Kong University Press.

Yang, X., & Tang, Z. (2020). Research on Transition of Hakka Enclosed Dwellings using Integral Theory. *IOP Conference Series: Earth and Environmental Science, 602*(1), 012005. https://doi.org/10.1088/1755-1315/602/1/012005

Zheng, G. (2004). *A Revolution in Architecture*. Southeast University Press.

Zou, H. (2005). *A Preliminary Study on the Relationship Between Traditional Inheritance and Modernisation of Architecture*. Shanxi Architecture.