

Exploring Heritage Significance:

A Study of Traditional Chinese Architecture in Pontianak, Indonesia

Andi Zhang, Emilya Kalsum & Zain Zairin (Indonesia); Raja Norashekin Raja Othman & Harun Siti Norlizaiha (Malaysia)

Abstract

Heritage buildings in Indonesia face increasing threats of extinction due to a lack of public awareness and limited application of formal heritage assessment, especially for privately owned, unlisted structures. This study explores the significance of a traditional Chinese house located along the Kapuas River in West Kalimantan, emphasizing its worth for conservation. The research aims to demonstrate how national heritage criteria can be applied to evaluate such buildings and support their conservation. This study employs observation, site visits, digital documentation, and interviews with the house's owner to understand its usage and spatial arrangement. The study assesses heritage values of the house using existing literature and formulates its heritage significance. Key findings reveal unique spatial configurations typical of Chinese shophouses, with a narrow floor plan extending backward, and architectural features such as timber structures designed to adapt to swampy conditions. This study highlights how this study contributes to defining heritage values of the house and aims to advance its recognition as a heritage asset. This work also seeks to renew the literature on heritage listing and underscore the importance of preserving cultural heritage.

Keywords: *Chinese Traditional Architecture, Heritage Conservation, Indonesia, Heritage Significance, Timber Structure*

+ Andi Zhang, Researcher, Dept. of Architecture, Universitas Katolik Parahyangan, Indonesia. email: andi.zhang@unpar.ac.id.

++ Emilya Kalsum, Senior Lecturer, Dept. of Architecture / Faculty of Engineering, Universitas Tanjungpura, Indonesia. email: emilyakalsum@teknik.untan.ac.id.

3 Zain Zairin, Professor, Dept. of Architecture / Faculty of Engineering, Universitas Tanjungpura, Indonesia. email: zairin.zain@untan.ac.id.

4 Raja Norashekin Raja Othman, Senior Lecturer, Studies of Town & Regional Planning, Faculty of Built Environment, Universiti Teknologi MARA. Malaysia. email: rnora747@uitm.edu.my.

5 Harun Siti Norlizaiha, Associated Professor, Studies of Town & Regional Planning, Faculty of Built Environment, Universiti Teknologi MARA. Malaysia. email: sitin009@uitm.edu.my.

Introduction

Heritage, particularly architectural heritage, encompasses historic monuments and sites that are tangible carriers of human historical activities and memories (Wang et al., 2021). This architectural heritage also extends to entire towns or villages with historical and cultural significance, illustrating the broad scope of what constitutes heritage (Al-Sakkaf et al., 2020). The act of preserving these cultural assets is known as heritage conservation, which helps on delaying the natural deterioration of tangible items to ensure the transmission of significant heritage messages and values to future generations (Otero, 2022). Architectural conservation specifically aims to maintain the valuable elements of architecture, addressing not only the physical preservation but also the artistic, aesthetic, and symbolic aspects that contribute to the overall heritage value (Taher Tolou Del et al., 2020). This approach also underscores the cultural and economic relevance of heritage, which supports community identity, tourism, and resource efficiency, as emphasized in the context of sustainable development (Saleh et al., 2022).

Heritage conservation today increasingly confronts the challenge of identifying what constitutes heritage, which values of architectural heritage are truly worth preserving, especially in response to development needs, societal transformation, and the growing public awareness of heritage (Dao Thi, 2023; International Commission on the Futures of Education, 2021). People are often unaware that the buildings they possess are not only valuable cultural assets, but also play important role in shaping identity and preserving collective memory (Saleh et al, 2022). Buildings established in the past are often overlooked as they age and weather. They may be renovated in a modern style, completely changing their original traditional appearance. Private owners might prioritize economic gains over heritage preservation, leading to insensitive renovations (Abdou, 2021). Eryudhawan and Andi (2021) summarize that environmental aspects become challenges for conservation, including building condition, location, worthiness of conservation, ignorance, inaction, and minimal intervention. Without awareness, the heritage objects are unknowingly eaten by time and become extinct. To address this, identifying the significance of surrounding buildings serves as a critical first step, not as a substitute for conservation, but as a way to clarify what should be protected and why.

Heritage value assessment involves identifying and prioritizing the values inherent in a building to understand and convey its significance. According to Taher Tolou Del et al. (2020), the first step in this process is setting a conservation goal and recognizing the values that the building embodies. This recognition is essential for developing effective conservation policies, as the value of an object or place determines the decisions regarding its treatment and intervention. However, the assessment process is fraught with challenges, where the lack of standardized methods for analysing architectural and historical values often leads to reliance on subjective judgment (Li et al., 2021).

Currently, the heritages assessment faces additional challenges such as the absence of participatory processes, lack of guidance, and limited financial resources. Although, policies and guidelines present in some country, they are still lack of clarity regarding the methodology and the indicator (Saleh et al, 2022). These factors complicate the integration of conservation efforts with sustainable development and the transmission of traditional skills to future generations (Pintossi et al., 2021). In the context of Indonesia, there remains a gap in the application of heritage assessment for privately owned buildings that have not yet been formally recognized but may hold significant historical and cultural value. To address these

challenges, heritage listing serves as a fundamental solution. It involves identifying and documenting items of heritage significance before claiming to be listed by the state legal organization or international organization such as UNESCO, thereby ensuring that they receive the attention and protection they deserve (Lixinski, 2017).

Motivated by the gap in conservation, this study conducts a heritage assessment on a traditional Chinese house in Pontianak, Indonesia, following the heritage listing process. The objectives of this study include learning what heritage listing entails, exploring the criteria used in heritage assessment, and applying these criteria to justify the preservation of the traditional Chinese house in Pontianak. The purpose of this study is to thoroughly understand the heritage listing process and use the criteria to support actions aimed at preserving this cultural asset. Additionally, this article explores the heritage significance of an object under private ownership, the house of Tjong Tjen Tjan and discusses why it is worth preserving. In Indonesia, heritage assessment is encouraged at both national and local levels, allowing even non-experts to propose objects for heritage listing.¹ This inclusive approach aims to bridge the gap in heritage listing knowledge and increase public participation in the conservation process.

Literature Review: Value, Criteria, and Significance of Heritage Assessment

Heritage assessment is a multifaceted process that aims to identify and evaluate the cultural, historical, and social values of the “object suspected to be cultural heritage” (Chartady et al., 2024; Fitri et al., 2014, 2019). This review synthesizes various sources to highlight the value, criteria, and significance of heritage assessment, providing a foundation for justifying conservation efforts and enhancing the understanding of heritage significance (De la Torre, 2002). The value encompasses various dimensions, including historical, cultural, social, and aesthetic values. According to Kalman and Létourneau (2021), the World Heritage List, managed by the World Heritage Centre in Paris, comprises places of “outstanding universal value,” which necessitates protection and management in accordance with formal plans. While this concept is developed at the international level, it serves as a reference point for understanding how certain values can elevate the importance of a heritage object. Such frameworks contribute to a deeper understanding of value identification processes, even in local contexts, by clarifying which aspects make an object worthy of preservation.

The Burra Charter further defines cultural significance as comprising aesthetic, historic, scientific, social, or spiritual value for past, present, or future generations (Australia ICOMOS², 2013). The word “significance” here refers to the synthesis of the values that represent the related value of the object, highlighting its worth for conservation. “Value” itself refers to the important characteristics of a heritage object (Kalman & Létourneau, 2021). English Heritage identifies four primary heritage values: evidential, historical, aesthetic, and communal (Drury & McPherson, 2008). These values collectively contribute to a place's overall significance, illustrating its importance to various stakeholders, including the community, historians, and conservationists.

Criteria for Heritage Assessment

The criteria for assessing heritage significance vary by region but generally include historical, cultural, and physical attributes. Government Regulation of the Republic of Indonesia, Number 1 of 2022, Concerning National Register and Conservation of Cultural Heritage (2022) outlines four criteria: (1) age (50 years or older); (2) representation of a historical

style; (3) significance for history, science, education, religion, or culture, and; (4) cultural value for national identity (Indonesian Government, 2022). However, some heritage studies in Indonesia apply broader or alternative criteria. For instance, Chartady et al., (2024) in a case study, employs criteria such as government recognition, economic benefits, regulatory framework, community value, practical importance, and protective measures. Similarly, Fitri et al. (2014) emphasize the importance of historical, cultural, scientific, physical design, social, educational, economic, recreational, and legal values in heritage assessment. From a regional perspective, Pattananurot and Khongsaktrakun (2025) emphasize a context-sensitive approach through their study in Thailand, using criteria such as historical significance, age, form and condition, value as a city element, way of life, and the conservation of cultural originalities. In Malaysia, Harun (2011) outlines nine heritage assessment criteria, including historical importance, aesthetic characteristics, scientific innovation, social associations, educational potential, and rarity. Together, these multifaceted criteria ensure a holistic evaluation of heritage object (refer to Figure 1), considering both tangible and intangible aspects.

From the literature of several regulations and expert opinions above, the criteria for heritage assessment are grouped into five categories: 1) Historical and cultural significance, 2) Physical and aesthetic attributes, 3) Educational and scientific value, 4) Economic and practical importance, and 5) Regulatory and protective measures. Historical and cultural significance marks the history and cultural identity and the value of the object to the community. Physical and aesthetic attributes consider the age of the building, its architectural style, and construction quality. Educational and scientific value evaluates the contribution to knowledge and innovation. Economic and practical importance highlights the financial advantages, functional aspects, and opportunities for tourism. Regulatory and protective measures focus on the legal actions and supports required to protect the heritage.

Criteria	Sources				
	Indonesia Govt (2022)	Chartady et al. (2024)	Harun (2011)	Fitri et al. (2014)	Pattananurot and Khongsaktrakun (2025)
Historical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural/Spiritual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Age	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Aesthetic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Scientific		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Social		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic		<input type="checkbox"/>		<input type="checkbox"/>	
Regulatory Framework	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Community Value	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Practical Importance		<input type="checkbox"/>			
Protective Measures		<input type="checkbox"/>			
Building Form and Condition					<input type="checkbox"/>

Figure 1. Table Comparison of Heritage Assessment Criteria.

Significance of Heritage Assessment

The significance of heritage assessment lies in its ability to inform and justify conservation strategies. Kalman and Létourneau (2021) highlight that heritage significance is determined by synthesizing various values. Canadian Register of Historic Places (2011) defines

a Statement of Significance (SOS) as a concise declaration that explains a historic place's importance, identifying key elements that must be protected. This approach ensures that the essential characteristics of a heritage site are preserved for future generations. The Burra Charter and the Australian state of Victoria's SOS structure (What is significant? How is it significant? Why is it significant?) provide clear frameworks for articulating heritage significance (Australia ICOMOS2, 2013). These frameworks help in developing effective conservation policies and interventions, ensuring that heritage sites' values are recognized and preserved. Heritage assessment is crucial for identifying and preserving cultural, historical, and social values inherent in heritage sites. The comprehensive criteria outlined by various sources provide a robust framework for evaluating heritage significance.

Methods

This study employs a qualitative approach to assess the heritage significance of the traditional Chinese house in Pontianak, Indonesia. The qualitative method is chosen to deeply understand the cultural, historical, and architectural values of the house through detailed observations, interviews, and literature reviews. To begin with, detailed observations of the house were conducted and the findings were linked to existing literature on timber architecture in West Kalimantan. This method is the extension of the methods called “physical investigation” from Kalman and Létourneau (2021) that employ recording, documentation, or a field survey.

For data collection, a comprehensive site survey was carried out, during which a combination of manual measurement and digital documentation was employed. Traditional tape measures, roll meters, and laser meters were used to capture precise dimensions of the building. The collected data were then used to create a digital representation of the house. This process involved photographing the house and using these images to construct accurate models. In addition to the physical investigation, interviews were conducted with the family members residing in the house to gain insights into its features and their historical and cultural context. The interviews focused on how different spaces within the house are used, any alterations made to the house since its establishment, and the connections between observed phenomena and traditional Chinese culture and architecture.

Using the criteria gathered from the literature review, a detailed assessment outline was formulated and included various aspects of heritage significance. The house was evaluated using these five categories: 1) Historical and cultural significance, 2) Physical and aesthetic attributes, 3) Educational and scientific value, 4) Economic and practical importance, and 5) Regulatory and protective measures. From there, category held the most significance were determined for the object suspected to be cultural heritage, aiding in the formulation of the heritage statement of the house. This comprehensive method ensures a robust evaluation of the heritage significance of the traditional Chinese house, supporting its potential inclusion in heritage listings and highlighting its value for conservation efforts.

Objectives

The object of study, or the object suspected to be cultural heritage, is a traditional Chinese house (refer to Figure 2). This house was originally built by Chinese carpenters, employing architectural techniques similar to other traditional buildings across West Kalimantan. The owner of this house is Tjong Tjen Tjan's family, therefore this article refers the object study as Tjong Tjen Tjan's House. The house is part of a contiguous block of 12 Chinese shop-houses (see Figure 3). These buildings serve a dual function, operating as both residential spaces and shops depending on the needs and desires of the residents. This typology, often

called shophouses, is evident in one of the twelve, which uses the front portion as a shop (see Figure 2, second house from the left). Many houses in this block have been renovated due to structural deterioration and the shift to modern concrete materials. The urgency of preserving this building lies in its private ownership. Without legal protection or public oversight, the heritage value it holds can be altered or lost any time.



Figure 2. The Front Façade of the Tjong Tjen Tjan's House (the House in the Middle).

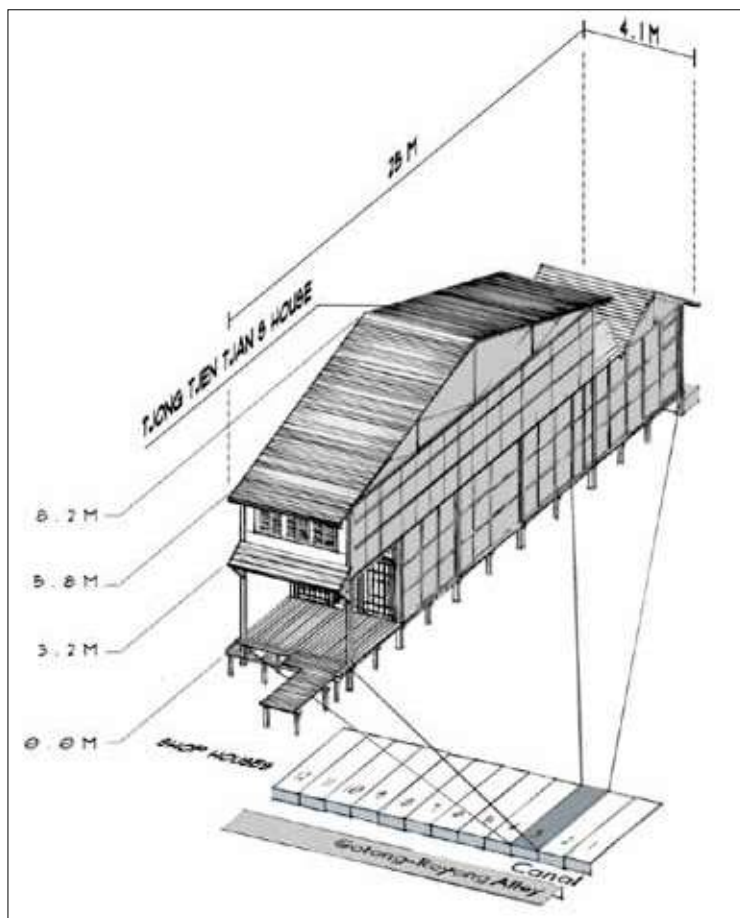


Figure 3. Isometric View of the Tjong Tjen Tjan's House and the Diagram Plan of the Block.

The building is located in Pontianak City, West Kalimantan, Indonesia, near the confluence of the Kapuas and Landak Rivers (see Figure 4). This area is culturally and historically significant, as it divides the land into three parts, with the riverbanks being the starting points of Pontianak's three early settlements (Gunawan et al., 2024). The land on the north side of the river was the early settlement for Chinese people, placing this house in the Chinese town (Pecinan). The Chinese Hakka community predominates in this area. In front of the house, there is a reinforced gertak,³ followed by a canal, and then an alley connecting to the main road. The canal links to the Kapuas River, about 300 meters from the house. Behind the house, there is a wet market,⁴ and further behind are several supermarkets and stores, forming the business center of this district. To the northeast of the house is the Vihara Kwan Im Temple, a significant site for the district's predominantly Taoist Chinese population. The riverside area is also home to several factories, marking the district as Pontianak's industrial center.



Figure 4. Pontianak Map and Location of Tjong Tjen Tjan's House.

The building measures 4.1 meters in width and 25 meters in length, giving it a narrow and long rectangular floor plan typical of Chinese shophouses (see Figure 3). The total area of the building is 102.5 m². The exact establishment date is untraceable, but the owner claims it was built in the early 1900s. This period coincided with a wave of Chinese urbanization to Pontianak (Gunawan et al., 2022). The house was built by the current owner's parents and has been passed down to him as the second generation. The family belongs to the Chinese Hakka community, who migrated from mainland China in the 1800s (Heidhues, 2018).

Result and Discussion: Heritage Values and Significances of Tjong Tjen Tjan's House

Tjong Tjen Tjan's House focuses on a unique surviving example of Chinese shophouses. This shophouse reflects a synthesis of Chinese identity and local influences, particularly in its use of local materials and architectural styles that respond to its surrounding context. The traditional Chinese style of house is characterized by long and narrow rectangular floor plan (see Figure 6). To explain the identity and locality of this house, this result and

discussion are divided into four parts: the space order and configuration of the house, its architectural features, the culture and religion of the occupants, and the structure and construction methods.

Space Order and Configuration

Chinese architecture often incorporates specific spatial configurations based on Feng Shui principles. Feng Shui guides the placement of furniture, the arrangement of spaces, and the shaping of rooms to achieve harmony with nature (Mariana, 2023). The Chinese believe that Feng Shui enables a house to attract prosperity or protect its residents from misfortune. In the shophouse under study, evidence of Feng Shui principles is seen in the large mirror in the front room, which reflects residents entering through the front door (see Figure 5). The practice of placing a large mirror in the front room, facing the main entrance, is commonly found in traditional Chinese houses. It is used to deflect negative energy, following the basic principle of Feng Shui, which aims to ensure that energy flows bring harmony and well-being to the occupants (Mariana, 2023).

Tjong Tjen Tjan's House is two stories with three bedrooms. The ground floor comprises a terrace (mun poi), front room (hak thong), one bedroom (kian tu), corridor (hong ci), living room (ka thong), washing area (shui shang), kitchen (heu mui), toilet (shui kian), and stairs (see Figure 6). Mun Poi, meaning 'after door,' refers to the terrace, which is similar to an arcade (kaki lima) and measures 3.5 meters wide. This terrace is connected to neighboring houses without fences, creating a shared semi-public space. The front room (hak thong) is traditionally used for receiving visitors or as a store area if the house functions as a shop. In this case, the Tjong Tjen Tjan family does not run a business from the house, so the front room serves as a garage and additional living space for visitors.

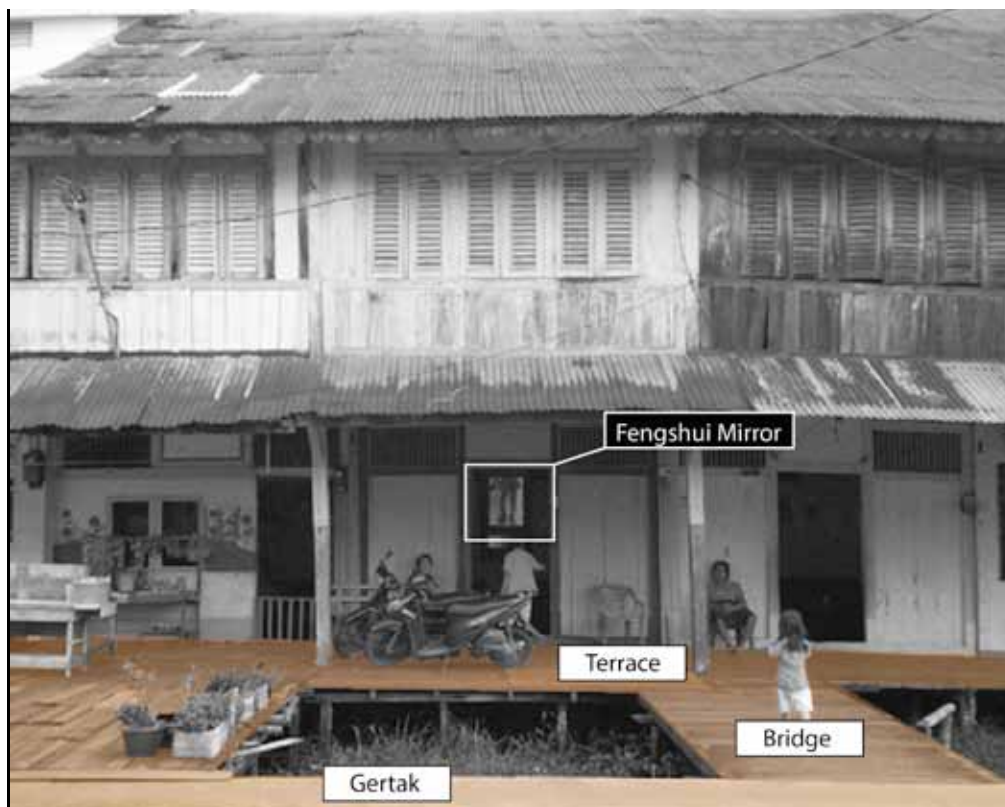


Figure 5. The Shared spaces of Front Area Highlighted in Orange (including Terrace, Gertak3, and Bridge).

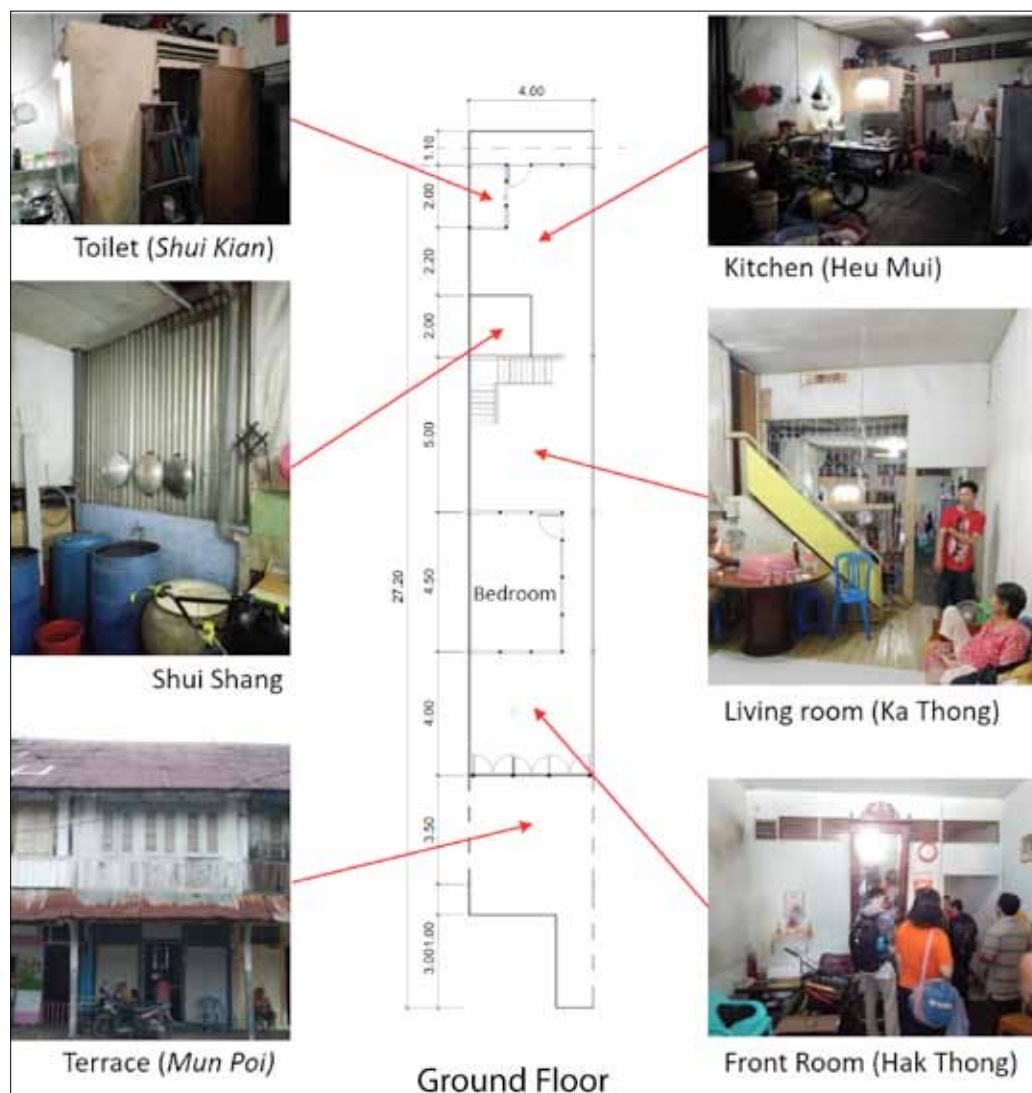


Figure 6. The Floor Plan of Ground Floor of Tjong Tjen Tjan's House.

The main bedroom on the ground floor is adjacent to the front room, prioritizing safety over privacy, allowing the occupants to hear any potential intruders. The term *heu mui* means the back or tail of the house, typically used for washing and cooking. The back of this house features a door connecting to the back alley, providing easy access to the nearby wet market⁴. Due to the house's long shape, a corridor (*hong ci*) connects the rooms. The width of this corridor is 1 meter. The corridor can be considered a room itself due to open spaces without doors separating it from other rooms. Indirahajeng and Widyastuti (2023) conducted research on shophouses in Bali and identified a similar corridor, which they referred to as a “dark corridor” because it is typically left unlit, serving only as a passage-way rather than a space for activities. This spatial characteristic is similar to that found in the house of Tjong Tjen Tjan. From the front room, one can see through the corridor to the kitchen, passing by the living room (*ka thong*).

The first floor has a shorter rectangular floor plan than the ground floor, measuring 19 meters in length compared to the ground floor's 24.2 meters. It includes two bedrooms, a living room, a storage room (*tun kian*), and a drying room (*sai sam khu bui*) (see Figure 7). This floor is more private than the ground floor, with the living room reserved for close visitors. The living room on the ground floor is more vibrant, featuring recreational elements like a television.



Figure 7. The Floor Plan of First Floor of Tjong Tjen Tjan's House.

The house's spatial zoning includes semi-public areas, semi-private zones, service zones, and private zones (refer to Figure 8). Semi-public areas include the terrace, while semi-private zones consist of the front room, corridors, and living rooms. Private zones are primarily located on the first floor, except for the main bedroom on the ground floor. Service zones, typically situated at the back of the house, are physically separated from the rest of the house by a different roof. The service area at the back connects to the back alley (see Figure 9).

A unique feature of this shophouse is the air well (tian ciang) (see Figure 9), a characteristic found in traditional Chinese houses in China, Taiwan, and Southeast Asia (Knapp & Ong, 2013). The term tian ciang, from Chinese Hakka or tian jing in Mandarin, means 'well of sky.' The air well aids in air circulation and rainwater harvesting,⁵ essential for houses without side openings. This feature, derived from traditional Chinese courtyard houses (Sun, 2013), adapts to smaller, denser land areas in hot, humid climates by transforming into an air well (Kubota et al., 2017).

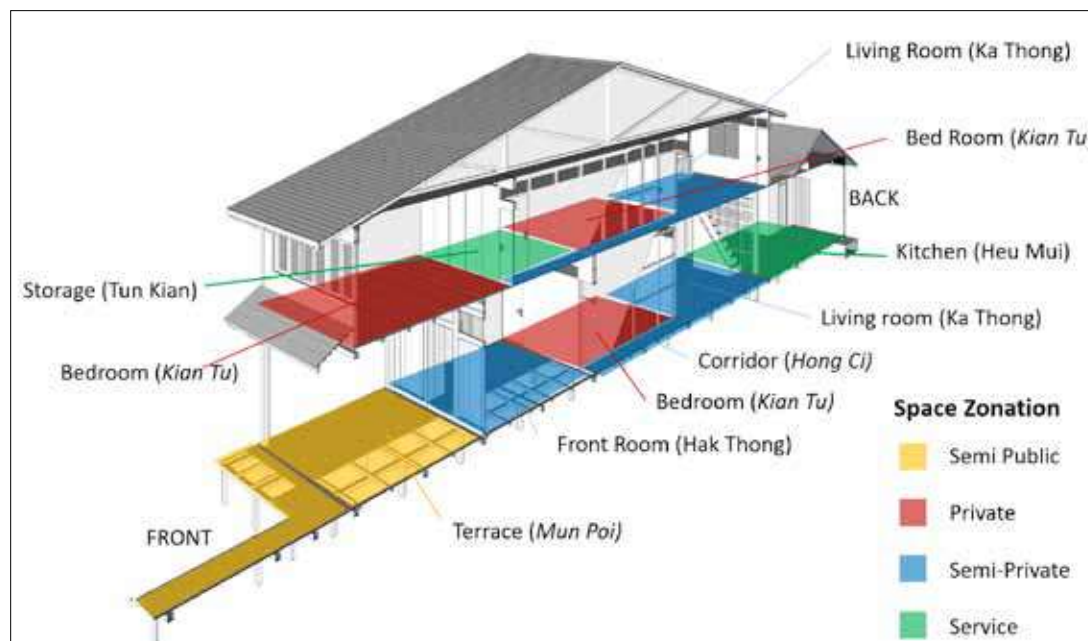


Figure 8. Spatial Zoning of Tjong Tjen Tjan's House.

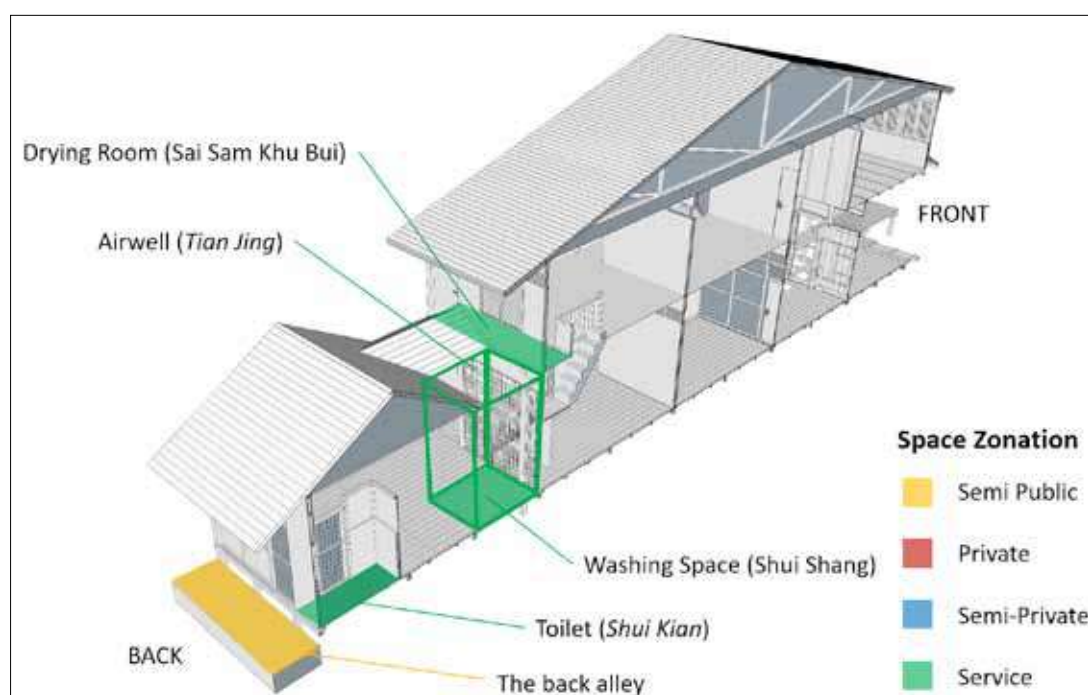


Figure 9. Spatial Zoning at the Back Side of the House of Tjong Tjen Tjan.

Architectural Features

The house's natural ventilation system is enhanced by the use of louvers on the upper windows. These louvers, a feature commonly found in traditional Malay architecture in West Kalimantan (Zain, 2016), allow for air circulation while maintaining privacy. The influence of Chinese carpentry is evident in this design, highlighting the cross-cultural exchange in architectural styles (Knapp & Ong, 2013). Additionally, some upper windows have iron

bars instead of louvers, adding a security element without compromising ventilation. The doors of the house, capable of opening widely, showcase a design that accommodates both functionality and tradition. In this house, which is not used as a shop, only the middle part of the doors is typically opened, while the sides remain closed (see Figure 10), providing flexibility for the house to shift between commercial and private use as needed.



Figure 10. The View of the Front Door Entrance From Inside the House.

Culture and Religion

The religious practices of the family are accommodated through the practical use of available space, reflecting an adaptable approach to domestic layout. The presence of two altars, one in the front room for ancestor worship and another on the roof for praying to Tian (the Taoist God), illustrates the family's dedication to their faith (see Figure 11). The roof altar, accessible by a bridge, indicates the importance of making offerings to the heavens, a practice common in Taoism. This spatial expression of belief aligns with Taoist thought, which emphasizes harmony with cosmic forces and the transcendence of human affairs in favor of nature's primacy (Castelli, 2021). This dual-altar system is not only a reflection of religious beliefs but also signifies the social and cultural values of the occupants. It underscores the importance of spirituality and respect for ancestors in the daily lives of the family members, influencing the house's spatial arrangement and usage.



Figure 11. Taoism Altar on the Front Room (Left) and Altar on the Roof (Right).

Structure and Construction

The adaptation of local materials and construction techniques is evident in the house's structure. Located by a canal in a swampy area, the house utilizes ironwood (*kayu belian*) for its foundation, floor, structural frame, and roof. This choice of material, known for its durability and resistance to water, is crucial for the house's stability in a challenging environment. Historically, Pontianak riverside residents lived in *lanting*⁶ (floating) houses, which gradually evolved into stilt houses (*rumah tiang*) in the mid-20th century as the preferred architectural model (Lestari et al., 2016). The stilt house⁷ design elevates the house 1 to 2 meters above the water surface, effectively preventing flood damage. The foundation employs interlocking wood planks, a technique that enhances stability by distributing the weight evenly and preventing sinking (see Figure 12).

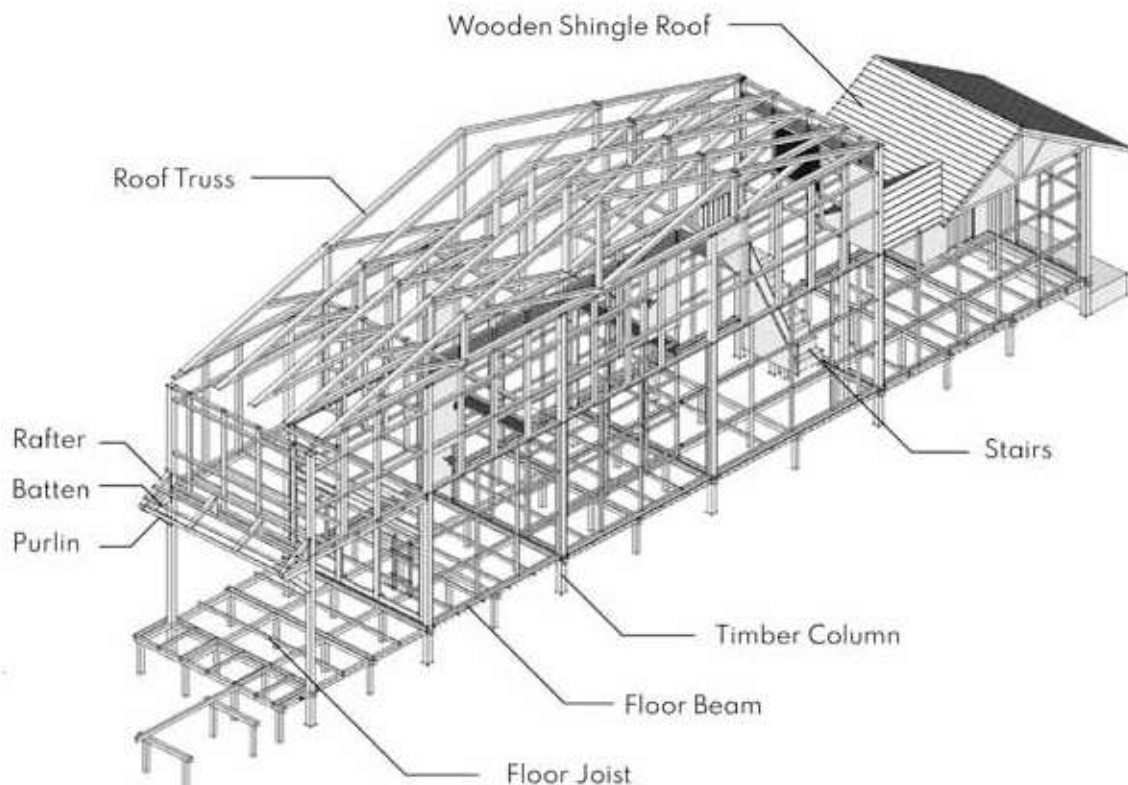


Figure 12. The Timber Frame Structure of Tjong Tjen Tjan's House.

The house's roof, originally made of wooden shingles (atap sirap), has been partially replaced with metallic roofing due to age and wear. However, remnants of the original sirap roof remain visible beneath the metallic layer, indicating the house's historical continuity and the pragmatic adaptation to modern materials. This blend of traditional and contemporary elements highlights the ongoing evolution of the house while preserving its architectural heritage through the retention of original materials beneath the newer additions.

The Suitable Criteria to be Suggested for National Heritage & The Assessment Criteria
The Tjong Tjen Tjan house, located at the confluence of the Kapuas and Landak Rivers, demonstrate a significant cultural heritage asset through its architectural authenticity, use of traditional materials, and representation of Chinese cultural identity in a predominantly Malay and colonial heritage zone. This area, rich in historical and cultural landmarks, includes the Keraton Kadariyah, Masjid Jami, and various Malay houses, which reflect the heritage of Malay Sultanate. On the southern side, colonial buildings mark a distinct period of influence. However, the northern region, where the Tjong Tjen Tjan house is situated, currently has no designated heritage buildings, making this house particularly valuable as a rare surviving example of Chinese merchant architecture in the area. As a representation of the Chinese community's history in Pontianak City, this house stands as a prime candidate for national heritage status.

Historical and Cultural Significance

The Tjong Tjen Tjan house fulfills several key criteria for national heritage designation. At approximately 80 to 100 years old, it far exceeds the requirement of being 50 years old or more (Indonesian Government, 2022). This longevity underscores its historical relevance and continuous presence in the community.

Architecturally, the house retains its original style and construction methods, which include the use of ironwood (kayu belian) for the foundation, structural frame, and roofing elements. The preservation of timber construction and the traditional shophouse design reflect the architectural style of the past 50 years (Kalman & Létourneau, 2021). This adherence to traditional building techniques highlights its value as a historical (Drury & McPherson, 2008).

The house's cultural and historical significance is profound. It symbolizes the Chinese community's influence in Pontianak City, contributing valuable insights into local history (Fitri et al., 2014). The inclusion of a Taoist altar on the roof further enhances its cultural importance, illustrating the religious practices of its original occupants (Australia ICO-MOS2, 2013).

Physical Attributes

The house's structural and material features, such as the ironwood foundation, wooden roofing, and elevated stilt design, demonstrate its adaptation to local environmental conditions (refer to Figure 13) (Lestari et al., 2016). The use of traditional materials and techniques, such as the interlocking wood planks and stilts raised 1 to 2 meters above the ground⁷, reflects historical construction practices (Sun, 2013).

The architectural features, including louver windows, air vents, and lattice ventilation (refer to Figure 13), align with traditional Chinese and Malay design principles (Zain, 2016;

Knapp & Ong, 2013). These elements facilitate natural ventilation and reflect the house's adaptation to its tropical climate, enhancing its historical and aesthetic value (Kubota et al., 2017).

Space usage features, such as the corridor (Hong Ci), five feet area (Kaki Lima), and sky well (Tian Ciang) (refer to Figure 13), illustrate the functional and “symbolic aspects” of traditional Chinese architecture. These features are deeply embedded in cultural meanings. For instance, Hong Ci (the corridor) and kaki lima (shared terrace), represent transitional spaces that mediate between public and private realms, reinforcing social hierarchy and community interaction. The sky well, in particular, highlights the adaptation of traditional courtyard elements to urban environments (Chartady et al., 2024).

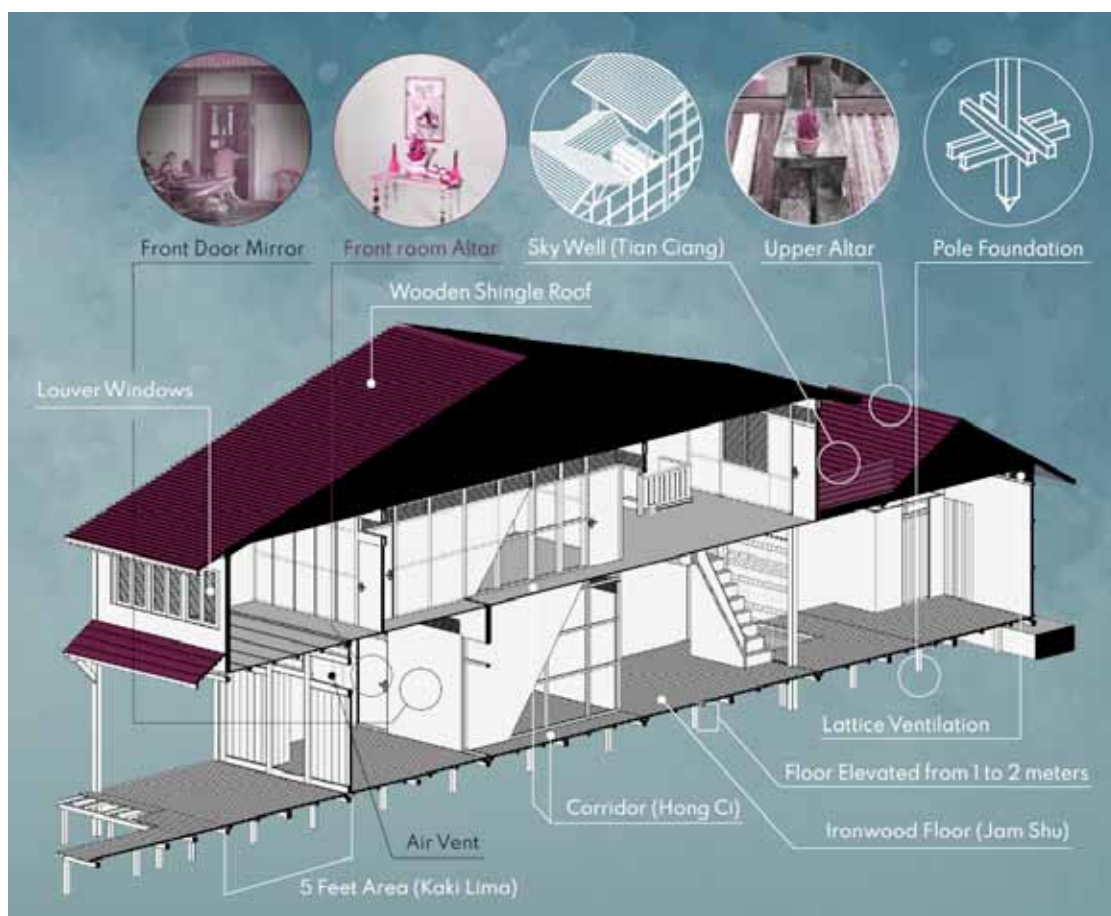


Figure 13. The of Tjong Tjen Tjan's House.

Contribution to National Cultural Values

The Tjong Tjen Tjan house embodies the diverse heritage of Indonesia and the contributions of the Chinese community within the broader national cultural narrative. Recognizing and preserving this house would not only honor its historical and cultural significance, but also support more inclusive heritage listing practices by acknowledging underrepresented cultural groups. This aligns with the objective of this study, which is to apply national heritage criteria to demonstrate why this privately owned house deserves preservation. By advocating for its inclusion in heritage registers, the study highlights how such recognition can contribute to national identity and encourage greater cultural appreciation, fostering social cohesion and understanding in a multi-ethnic society (De la Torre, 2002).

Based on the preliminary screening, the Tjong Tjen Tjan house meets the eligibility criteria outlined in Law No. 11 of 2010 on Cultural Heritage concerning cultural heritage objects, buildings, and structures. First, the building is estimated to be approximately 80 to 100 years old, thereby fulfilling the age requirement of being at least 50 years old. Second, it represents the architectural style of its period, as the shophouse form and timber construction have remained largely unchanged since it was originally built.

The house also holds special meaning across historical, educational, and cultural dimensions. Historically, it symbolizes the presence and contribution of the Chinese community in Pontianak City. From an educational perspective, the traditional shophouse model can be considered a distinctive architectural typology unique to Pontianak, particularly due to its timber-based construction. Culturally, the house contains a rare Taoist altar located on the roof, which reflects the spiritual practices of its occupants and contributes to the building's cultural significance.

Furthermore, the house embodies cultural values that support the strengthening of national identity. Promoting and preserving this Chinese community house contributes to greater public recognition of the Chinese-Indonesian heritage and its role in the broader national narrative, including their participation in Indonesia's fight for independence. As such, this building is a strong candidate for consideration as cultural heritage under the national heritage framework.

Evaluation of the Tjong Tjen Tjan House: Heritage Significance and Criteria

This section evaluates the Tjong Tjen Tjan house using the heritage assessment framework developed in the literature review. The assessment is based on five key criteria (see Figure 14): (1) Historical and Cultural Significance, (2) Physical and Aesthetic Attributes, (3) Educational and Scientific Value, (4) Economic and Practical Importance, and (5) Regulatory and Protective Measures. This structured approach aims to determine the heritage significance of the house and its potential eligibility for national heritage listing.

The Tjong Tjen Tjan house exemplifies remarkable historical and cultural significance, standing as a testament to the Chinese community's impact on Pontianak. At 80 to 100 years old, the house exceeds the 50-year minimum age requirement for heritage status, illustrating its longstanding role in the community (Indonesian Government, 2022). Its historical importance is highlighted by its representation of Chinese influence in the region, with features such as the Taoist altar on the roof reflecting the occupants' religious practices (Australia ICOMOS2, 2013). The integration of traditional elements, including a front room altar and a mirror on the front door, further underscores its cultural depth (Chartady et al., 2024).

Physically, the house adheres to traditional architectural styles while adapting to local environmental conditions. The use of ironwood for the foundation, wooden shingles for the roof, and the stilt construction demonstrates its adaptation to the swampy setting, aligning with historical practices (Lestari et al., 2016; Sun, 2013). The elevated stilt design, which raises the house 1 to 2 meters⁷ above the ground, prevents flood damage and preserves its structural integrity (Kubota et al., 2017). Features such as louver windows, air vents, and lattice ventilation highlight the house's sophisticated approach to natural ventilation, combining both aesthetic and practical considerations (Zain, 2016; Knapp & Ong, 2013). Additionally, the sky well (Tian Cang) reflects the adaptation of traditional features to urban settings, enhancing its architectural value (Knapp & Ong, 2013).

The house offers significant educational and scientific value by providing insights into traditional Chinese architecture. Its preservation of fengshui principles and traditional materials offers a tangible reference for understanding historical construction methods and architectural styles (Kalman & L  tourney, 2021). The blend of Chinese and local influences presents an opportunity to study the evolution of architectural practices in response to environmental and cultural factors (Chartady et al., 2024). This makes the house an important resource for scholars and students of architecture and cultural studies (Fitri et al., 2014).

However, this study did not uncover specific details regarding the economic and practical importance of the Tjong Tjen Tjan house. While the house's preservation support cultural tourism and community identity, concrete evidence of its economic impact or practical contributions was lacking. The private ownership of the house also restricts its use for adaptive reuse or tourism, which could potentially disturb the owner's privacy. Further investigation is needed to assess its influence on local economic activity and practical applications in heritage conservation.

For the house to be formally recognized as a national heritage asset, regulatory and protective measures are crucial. This includes establishing legal protections to prevent unauthorized modifications and ensuring adherence to conservation guidelines (Australian ICO-MOS2, 2013). Heritage registers would provide legal status and support for its preservation (Indonesian Government, 2022). Implementing these measures is essential to safeguard the house's historical and cultural integrity for future generations (Kalman & L  tourney, 2021).

No	Criteria	Checklist	Assessment
1	Historical and Cultural Significance	<input type="checkbox"/>	The house, 80-100 years old, surpasses the 50-year minimum and highlights Chinese community influence in Pontianak. Its Taoist altar and front room altar reflect cultural traditions (Indonesian Government, 2022; Fitri et al., 2014; Chartady et al., 2024).
2	Physical and Aesthetic Attributes	<input type="checkbox"/>	The house features traditional materials and design, including ironwood foundations and a stilt construction adapted for local conditions. It also includes aesthetic elements like louver windows and a sky well (Lestari et al., 2016; Sun, 2013; Knapp & Ong, 2013; Zain, 2016).
3	Educational and Scientific Value	<input type="checkbox"/>	The house offers insights into traditional Chinese architecture and construction methods, making it a valuable reference for academic study (Kalman & L��tourney, 2021; Fitri et al., 2014).
4	Economic and Practical Importance	<input type="checkbox"/>	No specific details on economic or practical importance were found. The house's private ownership and potential disturbance to the owner limit its practical reuse and economic impact assessment.
5	Regulatory and Protective Measures	<input type="checkbox"/>	No information on existing regulatory measures was found. Legal protections and inclusion in heritage registers are needed to safeguard the house (Australian ICOMOS ² , 2013; Indonesian Government, 2022).

Figure 14. Table Assessment of Heritage Significance and Criteria for the Tjong Tjen Tjan House.

Source: Authors (2024).

Conclusion

The Tjong Tjen Tjan House stands as a significant cultural and architectural heritage asset, embodying the historical and cultural contributions of the Chinese community in Pontianak. At 80 to 100 years old, it meets and exceeds the national heritage age requirement, affirming its historical significance. The house maintains traditional Chinese design ele-

ments while adapting to its local environment with features such as ironwood foundations and stilt construction, which address the swampy conditions effectively. Its architectural and cultural value is further enhanced by its adherence to fengshui principles and the inclusion of unique elements like the sky well (Tian Ciang).

The house also provides educational value through its preservation of traditional Chinese architectural practices. The integration of religious practices, highlighted by the Taoist altars, reflects the house's cultural depth and social context. However, this study was unable to identify specific economic value associated with the house. More importantly, the absence of regulatory and protective measures highlights the urgent need for legal recognition and conservation support to ensure its long-term preservation. This study contributes to the broader discourse on heritage conservation by offering a contextual evaluation of an unlisted, privately owned cultural asset and demonstrating the relevance of national heritage criteria at the local level. It is hoped that this study will inspire readers and researchers to recognize the value of heritage preservation and its impact on cultural conservation.

Acknowledgments

We extend our sincere gratitude to the Tjong Tjen Tjan's family for graciously consenting to the documentation of their house and providing valuable personal data relevant to the topic of heritage listing. Furthermore, we would like to express our appreciation to the dedicated team from the West Kalimantan Architecture Study of the Architecture Department at Universitas Tanjungpura, Pontianak, Indonesia, for their invaluable contribution to the survey and data collection process. Special thanks are due to Tribowo Caesariadi (Department of Architecture, Universitas Tanjungpura, Indonesia), who served as the lead surveyor, as well as the team members: Arif Rachmadhany, Aulia Maulani, Bethesda Bakara, Christian Harsono, Friska Johana Benedict, Hantoro Adi Rifai, Muhammad Rizky Setiawan, Najmi Zahir Handalan, Saskia Oktrifani Sinaga, Uul Pizzi, and Wawa Patricia, for their diligent efforts and dedication throughout the project. Their expertise and commitment were instrumental in the successful completion of this study endeavor.

Endnotes

- 1 Government Regulation of the Republic of Indonesia, Number 1 of 2022, Concerning National Register and Conservation of Cultural Heritage, Article 31: Every person may participate in the registration of Objects Suspected to be Cultural Heritage - *Objek yang Diduga Cagar Budaya* (ODCB).
- 2 ICOMOS or International Council on Monuments and Sites is a non-governmental organisation dedicated to the preservation and safeguarding of cultural heritage sites globally.
- 3 *Gertak* is local term that refers to a distinctive type of pedestrian pathway or bridge infrastructure found in stilt-house settlements along the Kapuas River. It serves as the main access route connecting individual houses, small bridges, and walkways.
- 4 *Wet market* refers to a type of market that sells fresh produce, meat, seafood, and sometimes live animals, often in open-air or semi-covered spaces where the floors are frequently wet due to melting ice, cleaning, or washing goods.
- 5 *Harvesting rainwater* for clean water consumption is a common practice among communities in West Kalimantan, especially in areas with limited access to piped water infrastructure.

- 6 *Lanting* or *Rumah Lanting* is a floating house made of wood. This type of house is commonly found in West and South Kalimantan. It floats on at least four large timber logs, each with a diameter of 0.8 to 1 meter, or alternatively, on a base of 80 to 100 bamboo poles.
- 7 Stilt houses, also known as pile dwellings or *rumah panggung*, are raised structures commonly found across Pontianak, with elevation heights typically ranging from 1 to 2 meters to protect against seasonal flooding.

References

- Abdou, Mahmoud. "Cultural Heritage Conservation and the Rise of the Private Sector: Hopes and Concerns." *International Journal of Heritage and Museum Studies* 3, no. 1 (2021): 56–67. <https://doi.org/10.21608/ijhms.2021.295978>.
- Al-Sakkaf, Abobakr, Tarek Zayed & Ashutosh Bagchi. "A Review of Definition and Classification of Heritage Buildings and Framework for Their Evaluation." Paper presented at the *2nd International Conference on New Horizons in Green Civil Engineering (NHICE-02)*, Victoria, August 24 – 27, 2020.
- Australia ICOMOS. *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*. Burwood: Australia ICOMOS Incorporated, 2013.
- Bayu, Chandra & Agus Susanto. "Perubahan Pola Ruang Perkotaan Dalam Transformasi Sosial Budaya Masyarakat Tepian Sungai Kapuas Di Pontianak – Kalimantan Barat." *Jurnal Ilmu Pengetahuan dan Rekayasa* (2013):1-9. <http://repository.polnep.ac.id/xmlui/handle/123456789/102>.
- Canadian Register of Historic Places. *The Standards & Guidelines for the Conservation of Historic Places in Canada*. Canadian's Historic Places, 2011. <https://www.historicplaces.ca/en/pages/standards-normes/document.aspx>.
- Castelli, Alberto. "Chinese Paradox: Where are Chinese Monuments?" *Journal of Urban Culture Research* 22, no 1 (2021): 20–36. <https://doi.org/10.14456/jucr.2021.2>
- Chartady, Rachmad, Djoko Suhardjanto, Eko Arief Sudaryono, Wahyu Widarjo & Supriyono Supriyono. "Assessment of Tangible Cultural Heritage of Penyengat Island: Evidence from the Indonesian Riau Islands." *Kurdish Studies* 12, no. 1 (2024): 73–83.
- Dao Thi, Nhu. "Identifying the Key Value of Urban Architectural Heritages vis-a-vis Human Awareness: Case Study in Hanoi." *Journal of Urban Culture Research* 26, No. 1 (2023): 190–205. <https://doi.org/10.14456/jucr.2023.11>
- De la Torre, Marta. *Assessing the Values of Cultural Heritage: Research Report*. Los Angeles: Getty Conservation Institute, 2002.
- Drury, Paul & Anna McPherson. *Conservation Principles, Policies and Guidance: For the Sustainable Management of the Historic Environment*. London: English Heritage, 2008.
- Eryudhawan, Bambang & Andi Andi. "The Challenges in Conserving the Heritage Based on Conservation Practice of AA Maramis Building in Jakarta." *International Journal of Environment, Architecture, and Societies* 2, no. 1 (2021): 43–54. <https://doi.org/10.26418/ijeas.2022.2.1.43-54>.

- Fitri, Isnen, Yahaya Ahmad & Faizah Ahmad. "Conservation of Tangible Cultural Heritage in Indonesia: A Review Current National Criteria for Assessing Heritage Value. ." Paper presented at *The 5th Arte Polis International Conference and Workshop, Bandung, August 8-9, 2014*. <https://doi.org/10.1016/j.sbspro.2015.05.055>.
- Fitri, Isnen, Ratna, Amy Marisa & Rudolf Sitorus. "Understanding the Historic Centre of Merdeka-Kesawan: Heritage Significance Assessment in Planning and Development Context." Paper presented at *The 5th Friendly City International Conference, Medan, September 12, 2019*. <https://doi.org/10.1088/1755-1315/452/1/012048>.
- Gunawan, Ivan, Bambang Soemardiono & Dewi Septanti. "From Thousand Canals to Roads: The Transformation of Transportation Mode in Pontianak." *Journal of Regional and City Planning* 34, no. 3 (2024): 342–58. <https://doi.org/10.5614/jpwk.2023.34.3.7>.
- Gunawan, Ivan, Bambang Soemardiono & Dewi Septanti. "The Typology of Settlement Development in Riverbanks in Pontianak." *International Journal of Environment, Architecture, and Societies* 2, no. 02 (2022): 73–84. <https://doi.org/10.26418/ijeas.2022.2.02.73-84>.
- Harun, S. N. "Heritage Building Conservation in Malaysia: Experience and Challenges." Paper presented at *The 2nd International Building Control Conference, Penang, July 11-12, 2011*. <https://doi.org/10.1016/j.proeng.2011.11.137>.
- Hasanudin, and Budi Kristanto. "Proses Terbentuknya Heterogenitas Etnis di Pontianak pada Abad ke-19." *Humaniora* 13, no. 1 (2012): 64–81. <https://doi.org/10.22146/jh.712>.
- Heidhues, Mary Somers. *Golddiggers, Farmers, and Traders in the "Chinese Districts" of West Kalimantan, Indonesia*. 2018.
- Indirahajeng, Putu Nanda, & Widyastuti, Dyah Titisari. "Architectural Physical and Spatial Characteristics of Chinatown Shop Houses in Singaraja City, Bali." *Architectural Research Journal* 3, no.1 (2012):27-33. <https://doi.org/10.22225/arj.3.1.2023.27-33>
- Indonesian Government. *Government Regulation (PP) Number 1 of 2022 on National Register and Cultural Heritage Preservation*. State Gazette of 2022 Number 1. Supplement to the State Gazette Number 6756. 2022. <https://jdih.setneg.go.id>.
- International Commission on the Futures of Education. *Reimagining Our Futures Together: A New Social Contract for Education*. UNESCO, 2021. <https://doi.org/10.54675/ASRB4722>.
- Kalman, Harold & Marcus R. Létourneau. *Heritage Planning: Principles and Process*. Second edition. New York: Routledge/ Taylor & Francis Group, 2021.
- Knapp, Ronald G. & A. Chester Ong. *Chinese Houses of Southeast Asia: Eclectic Architecture of the Overseas Chinese Diaspora*. Boston: Tuttle Publishing, 2013.
- Kubota, Tetsu, Mohd Azuan Zakaria, Seiji Abe & Doris Hooi Chyee Toe. "Thermal Functions of Internal Courtyards in Traditional Chinese Shophouses in the Hot-Humid Climate of Malaysia." *Building and Environment* 112 (2017): 115–31. <https://doi.org/10.1016/j.buildenv.2016.11.005>.
- Lestari, Lestari, Zairin Zain, Rudiyo, and Irwin. "Mengenal Arsitektur Lokal: Konstruksi Rumah Kayu Di Tepian Sungai Kapuas, Pontianak." *Langkau Betang: Jurnal Arsitektur* 3, no. 2 (2016): 1–11. <https://doi.org/10.26418/lantang.v3i2.18321>.

- Li, Yuan, Long Zhao, Jingxiong Huang, and Andrew Law. "Research Frameworks, Methodologies, and Assessment Methods Concerning the Adaptive Reuse of Architectural Heritage: A Review." *Built Heritage* 5, no. 1 (2021): 6. <https://doi.org/10.1186/s43238-021-00025-x>.
- Lixinski, Lucas. "Heritage Listing as Self-Determination." in *Heritage, Culture and Rights: Challenging Legal Discourses*. Edited by Andrea Durbach and Lucas Lixinski, Hart Publishing, 2017. <http://dx.doi.org/10.2139/ssrn.4253289>
- Mariana, Dewi. *Inspirasi Feng Shui: Buang, Pindah, Tambah*. PT Elex Media Komputindo, 2023.
- Nurchayani, Lisyawati, Pembayun Sulistyorini & Hasanudin. *Kota Pontianak Sebagai Bandar Dagang Di Jalur Sutra*. Jakarta: Departemen Pendidikan dan Kebudayaan RI, 1999.
- Otero, Jorge. "Heritage Conservation Future: Where We Stand, Challenges Ahead, and a Paradigm Shift." *Global Challenges* 6, no. 1 (2022): 2100084. <https://doi.org/10.1002/gch2.202100084>.
- Pattananurot, Pakorn & Khongsaktrakun, Suthon. "Conservation of Row Houses in Old Commercial District Mekong Riverside Nakhon Phanom Province, Thailand." *Journal of Urban Culture Research* 25 No. 1 (2025): 114–134. <https://doi.org/10.14456/jucr.2022.24>
- Pintossi, Nadia, Deniz Ikiz Kaya & Ana Pereira Roders. "Assessing Cultural Heritage Adaptive Reuse Practices: Multi-Scale Challenges and Solutions in Rijeka." *Sustainability* 13, no. 7 (2021): 3603. <https://doi.org/10.3390/su13073603>.
- Purmintasari, Yulita Dewi, and Yuver Kusnoto. "Pemukiman Awal Sungai Kapuas." *Socia: Jurnal Ilmu-Ilmu Sosial* 15, no. 1 (2018): 71–78. <https://doi.org/10.21831/socia.v15i1.22013>.
- Saleh, Yazid., Mahat, Hanifah, Hashim, Mohmadisa, Nayan, Nasir, Suhaily, Samsudin & Ghazali, Mohamad Khairul Anuar. "Sustainable Heritage City: An Empirical Study to Address Study Limitations in Previous Studies." *Journal of Urban Culture Research* 24, no. 1 (2022): 48–63. <https://doi.org/10.14456/jucr.2022.3>
- Saputra, Emanuel Edi. "Seribu Parit di Pontianak." *Tutur Visual - Kompas.id*, April 12, 2021. <https://interaktif.kompas.id/baca/pontianak-kota-seribu-parit/>.
- Sun, Feifei. "Chinese Climate and Vernacular Dwellings." *Buildings* 3, no. 1 (2013): 143–72. <https://doi.org/10.3390/buildings3010143>.
- Taher Tolou Del, Mohammad Sadegh, Bahram Saleh Sedghpour & Sina Kamali Tabrizi. "The Semantic Conservation of Architectural Heritage: The Missing Values." *Heritage Science* 8, no. 1 (2020): 70. <https://doi.org/10.1186/s40494-020-00416-w>.
- Usman, Syararuddin. *Kota Pontianak Doeloe-Kini-Mendatang*. Pontianak: Mitra Bangun, 2016.
- Wang, Xuefei, Jiazhen Zhang, Jeremy Cenci & Vincent Becue. "Spatial Distribution Characteristics and Influencing Factors of the World Architectural Heritage." *Heritage* 4, no. 4 (2021): 2942–59. <https://doi.org/10.3390/heritage4040164>.

Wu, James T. K. "The Impact of the Taiping Rebellion upon the Manchu Fiscal System." *Pacific Historical Review* 19, no. 3 (1950): 265–75. <https://doi.org/10.2307/3635591>.

Yusriadi. *Sinar Borneo Dan Bahasa Melayu Di Pontianak Awal Abad Ke-20*. Pontianak: TOP Indonesia, 2019.

Zain, Zairin. "The Ecological Responsive Buildings: Traditional House in the Kapuas Riverside of West Kalimantan." *Komunitas* 8, no. 2 (2016): 295–308. <https://doi.org/10.15294/komunitas.v8i2.5836>.