

Raft house of Palembang: A Chinese Malay cross-cultural exploration

Anna Pudianti*^{ORCID}, Antonia Nezwha Rosary, Alwyn Gavra Buono Sihole,
Elvin Dwiva Putra Mahenu, Kevin Pratama, Surya Kurniawan Kristanto

Department of Architecture, Faculty of Engineering,
Universitas Atma Jaya Yogyakarta, Indonesia



ARTICLE INFO	ABSTRACT
<p><i>Article history:</i> Received June 02, 2025 Received in revised form Sept. 13, 2025 Accepted September 27, 2025 Available online December 01, 2025</p> <p><i>Keywords:</i> Chinese Cross-cultural Malay Palembang Raft house</p> <p>*Corresponding author: Anna Pudianti Department of Architecture, Faculty of Engineering, Universitas Atma Jaya Yogyakarta, Indonesia Email: anna.pudianti@uajy.ac.id ORCID: https://orcid.org/0000-0002-6352-5926</p>	<p><i>This paper investigates the raft houses of Palembang, known as "rumah rakit," which epitomize the affluent cultural amalgamation of Chinese and Malay influences. These floating dwellings, integral to the riverine lifestyle of Palembang, offer a unique lens through which to examine the historical and socio-cultural interactions between Chinese immigrants and the indigenous Malay community. The study employs comparative architectural analysis and historical documentation methods to uncover how these structures blend cultural practices, traditions, and environmental adaptations. The raft houses reflect the practical responses to living on water and symbolize the harmonious coexistence and mutual influence of Chinese and Malay cultures. By exploring these homes' evolution, design, and cultural significance, the research highlights their role as living heritage sites that preserve and perpetuate the dynamic process of cross-cultural exchange. The findings underscore the importance of these structures in understanding the broader narrative of cultural integration and identity formation in Palembang, with the leader as a key factor in the "Rumah Rakit" transformation, especially in the stage of collective action to modify the raft house. That community's collective action could be analyzed in another case of cross-cultural architecture.</i></p>

Introduction

The raft houses of Palembang, locally known as "rumah rakit," represent a fascinating intersection of Chinese and Malay cultural influences. These unique floating dwellings, situated along the Musi River, are architectural marvels and significant cultural artifacts that reflect the historical interactions and socio-cultural exchanges between Chinese immigrants and the indigenous Malay population. The origins of these raft houses can be traced back to the era of the Sriwijaya Kingdom when Palembang was a prominent political and economic center in Southeast Asia.

Figure 1 shows a map of the Musi River with a tiny distribution of raft houses compared to the 1945 map (figure 2), which shows a relatively

broad distribution of raft houses on the banks of water bodies around the river (black dot maps the banks of the river in 1931 while in 1945 orange dot represent it).





Figure 1. Map of Musi River in 1931
Source: Mr. Abdul Rachmad Zahrial Amin's and A. Bayu Adi Pratama's collection 2024



Figure 2. Map of Musi River in 1945
Source: Mr. Abdul Rachmad Zahrial Amin's and A. Bayu Adi Pratama's collection 2024

The Sriwijaya Kingdom, a powerful maritime and commercial empire, flourished between the 7th and 13th centuries (Sastika, Nur Ali, and Yudha 2023), even though from the 6th century, Palembang was well known as an international hub (Anwar et al. 2011). Originating in Palembang on the island of Sumatra, Sriwijaya extended its influence across much of Southeast Asia, controlling key trade routes and becoming a significant center for the expansion of Buddhism.

There have been quite a lot of studies that examine raft houses, each of which explores the discussion side of various groups; the first is from the side of environmental adaptation and historical context (Aziz, Aziz, and Angkasa 2023; Sastika, Nur Ali, and Yudha 2023). The cultural significance side is written by looking at the existence of raft houses, also showing the flexibility and creativity of the community in facing environmental and social challenges (Bambang et al. 2016). Wicaksono also sees it from the preservation side which sees the importance of raft houses as Palembang Cultural Heritage (Wicaksono 2019). The writing that is quite close to the discussion of this article is from the architectural fusion side, which also discusses the fusion of Chinese and Malay architectural traditions but only discusses more bamboo and wood materials as similarities between the two cultures as local wisdom (Siswanto 2009). In addition, there has also been research on the elements that form the two cultures (Aziz, Aziz, and Angkasa 2023).

This research will also discuss the two cultures, especially from the perspective of forming raft houses with an emphasis on cross-cultural processes.

This study explores the raft houses' architectural features, historical context, and cultural significance, highlighting how they blend Chinese and Malay traditions. By examining the design, construction methods, and the inhabitants' daily lives, the research seeks to uncover how these structures have facilitated cultural integration and mutual influence. The raft houses of Palembang serve as living heritage sites, preserving the legacy of cross-cultural interaction and offering insights into the adaptive strategies of communities living in harmony with their environment.

Methods

This paper explores the old Raft House of Musi Palembang, now almost lost. The current condition of the original raft houses from the past is scarce. Most of them were destroyed by time; some were sold to people in the country and also abroad. Therefore, this study is critical to be carried out with the aim of creating a raft house repository as a source of knowledge and learning

about the process of making raft houses in a cross-cultural context.

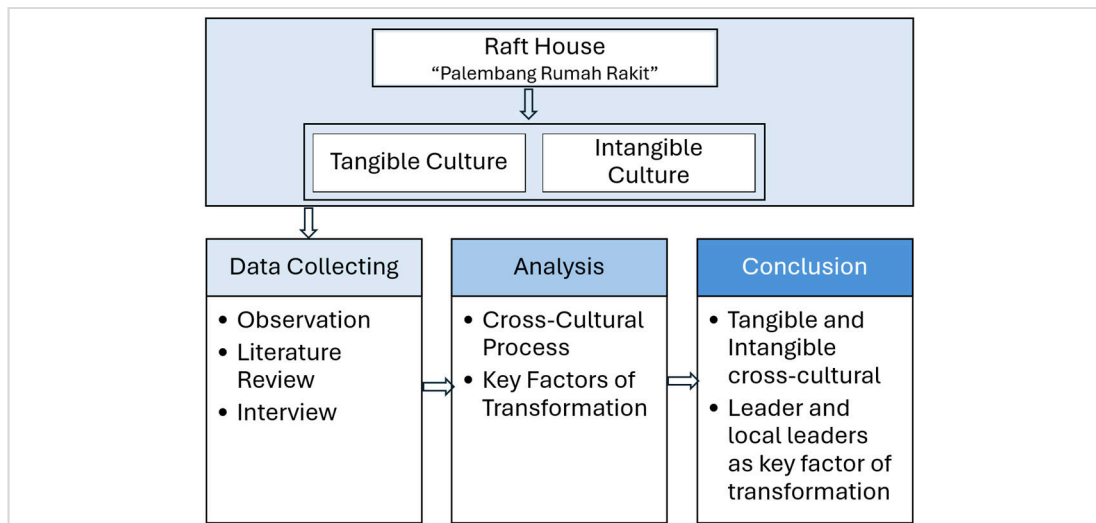


Figure 3. Methodology framework

Based on the fact of the rarity of raft houses and people who know how to build them in detail, and the influence of Chinese and Malay cultures, this paper uses a qualitative approach to study raft houses in Palembang compared to raft houses in other regions that are not influenced by cultures from outside Indonesia. To explain the cross-cultural process, this research explores the tangible and intangible culture. Figure 3 shows that this method aims to generate valuable insights into this unique dwelling and its cultural, architectural, and environmental adaptations from tangible and intangible aspects. Previous studies using the same method have indeed added to the richness, both in terms of tangible and intangible heritage (Rudwiarti, Pudianti, and Vitasurya 2017).

The research steps are as follows:

1. Identify Key Characteristics: Determine the defining features of raft houses in Palembang, such as their construction materials, design, and cultural significance;
2. Select Comparison Sites: Choose Banjarmasin Raft House “*Lanting*” in Indonesia, which has notable raft house traditions;
3. Field Observations and Documentation: Conduct field visits to observe and document the raft houses in each location or from the literature review. The topic to be explored was the similarities and differences in their architecture, materials, and usage;

4. Interviews and Surveys: Engage with residents and experts to gather qualitative data on the historical and cultural contexts of the raft houses to understand the reasons behind specific design choices and their cultural significance;
5. Analyze Environmental Adaptations: Compare how raft houses in different regions adapt to their respective environments, such as river conditions, climate, and available resources;
6. Cultural and Social Aspects: The cultural and social life of the society is examined. Please observe the method of the structures accommodating the community cultural practices and interactions;
7. Synthesize Findings: Data and observations are compiled in emphasizing the houses shared characteristics and uniqueness in all regions. Please have a look the method of the structures accommodating the community cultural practices and interactions.

Results and discussion

The Origin of the Raft house in Palembang

Palembang raft houses own a wealthy historical story combined with the city’s social and political atmosphere. Sriwijaya kingdom as one of biggest empires in Indonesia becomes

evidence of the emergence of the distinguished floating dwellings.

Palembang became the center of economic and political activities in Southeast Asia during that period, attracting traders and immigrants from various regions, including China. The political history of Palembang played a crucial role in the development of raft houses. During the Palembang Sultanate, Chinese immigrants faced restrictions on land ownership (Sevenhoven 1971; Febrian and Yunani Hasan 2015). As a result, many of these immigrants adapted to the riverine environment by constructing homes on the water. This innovative solution allowed them to circumvent land ownership laws and integrate into the local community while maintaining their cultural identity.

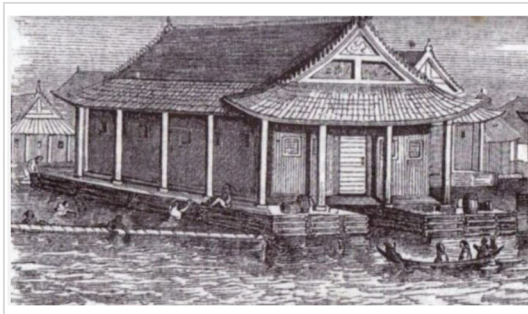


Figure 4. Palembang raft house, pre-colonial
Source: Collection of Kemas Ari Panji (Panji 2019)

The shape of the raft house has changed over time. Figure 4 shows a pre-colonial raft house; figure 5 shows the shape in the 1920s (colonial period). It was during this period that cross-cultural settlement between the Chinese and Malay occurred.



Figure 5. Palembang Raft house, 1920
Source: Collection of Tropen Museum (Sastika, Nur Ali, and Yudha 2023)

Figure 6 shows a visualization of the raft house during the colonial period to clarify the discussion of the raft house. The raft house at this time was the home of the owners or workers of small or large industries who would be moored to a pole on the right and left sides of the house when stopping at one location. The shape of the raft house also no longer used European pillars but had adapted to using a shape based on the shape of the Palembang traditional house, called locally *Rumah Limas*, with details of a Chinese house.



Figure 6. Re-drawing of the raft house

The raft houses were designed to accommodate the unique geographical conditions of the Musi River. Built on floating platforms, these homes were able to rise and fall with the river's tides, providing a stable living environment despite the fluctuating water levels.

The construction methods and materials used in raft houses reflect a blend of Chinese and Malay architectural traditions, showcasing the cultural synthesis that occurred in Palembang. Over time, the raft houses became integral to Palembang's cultural landscape, symbolizing the harmonious coexistence and mutual influence of Chinese and Malay cultures. Although the prevalence of raft houses has diminished due to changes in government policies and urban development, they remain a significant cultural heritage, offering insights into the adaptive strategies of communities living in harmony with their environment.

Tangible raft house: Cross-cultural Malay and Chinese

Raft houses in Palembang, particularly those along the Musi River, have been shaped by various cultural influences, including Chinese architectural traditions. Historically, raft houses in Palembang emerged due to political restrictions that prevented foreigners from owning land,

leading many immigrants, including Chinese settlers, to build homes on the river.

Chinese influence can be seen in the structural adaptations of Palembang's raft houses, such as wooden materials, elevated platforms, and spatial arrangements that accommodate residential and commercial activities. Over time, these houses evolved to suit the environmental conditions of the Musi River while maintaining elements of traditional Chinese riverine architecture.

The roof structure of Palembang raft houses shares some similarities with traditional Chinese architecture, particularly in terms of form and function.

1. **Sloping Roofs:** Many raft houses in Palembang feature sloping roofs, which help with water drainage and protection against heavy rainfall. This design is reminiscent of traditional Chinese roofs, which often have curved or sloping structures to manage precipitation.
2. **Extended Eaves:** Chinese roofs (figure 7) typically have wide, overhanging eaves to shield the walls from rain and sun. Palembang raft houses also incorporate extended eaves (figure 8), providing shade and reducing heat absorption.
3. **Lightweight Materials:** Palembang raft houses and traditional Chinese homes use lightweight wooden roof materials. This allows flexibility and adaptability to environmental conditions, especially in humid climates (Siswanto 2009).
4. **Adaptation of Structure:** The architectural principles of China were adopted by Palembang raft houses in building the floating foundation. The point of the adaptation exists in maintaining the houses from water movement (Sastika, Nur Ali, and Yudha 2023).

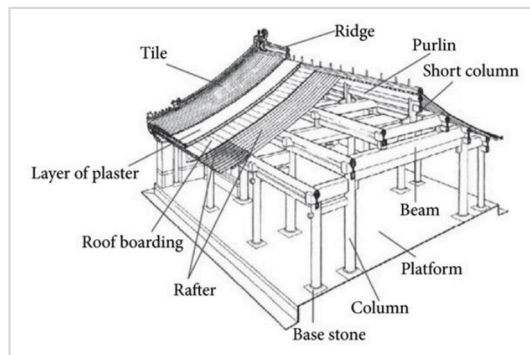


Figure 7. Traditional Chuan-Dou style wooden structure folk house in Southwest China

Source: Hindawi Advances in Civil Engineering Volume 2023, Article ID 5398662, (Gan et al. 2023)



Figure 8. Traditional Malay House (*Rumah Limas Palembang*)

Source: Arsitektur Tradisional Sumatera Selatan page 32 (Siswanto 2021)

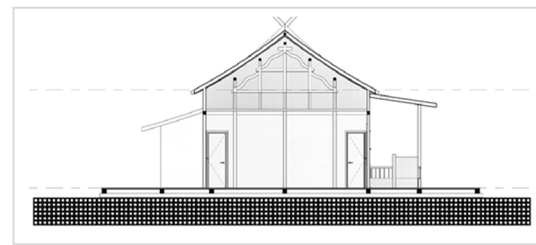


Figure 9. Elevation of Palembang Raft house (*Rumah Rakit*)

The raft house “Rumah Rakit” combines the shape and structure of the Palembang Rumah Limas and Chinese Chuan-Dou into a unique Rumah Rakit (figure 9). However, this form only exists in the raft houses of Chinese dignitaries.

Compared to the Banjarmasin “Lanting” Raft house (figure 10), which has not been influenced by outside culture, the Lanting house has a traditional local form.

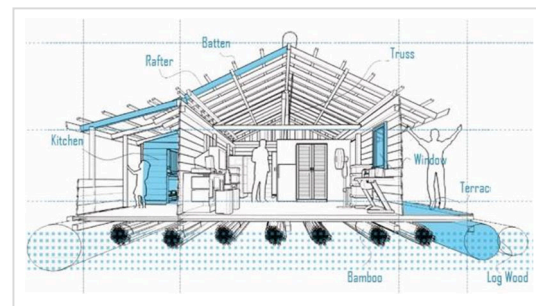


Figure 10. Elevation of Banjarmasin Raft House (*Lanting*)

Source: (Mentayani and Hadinata 2021)

The structure of “Rumah Sakit” Palembang presents the structural adaptation incorporating Chinese and Malay architectural styles as demonstrated in figure 11.

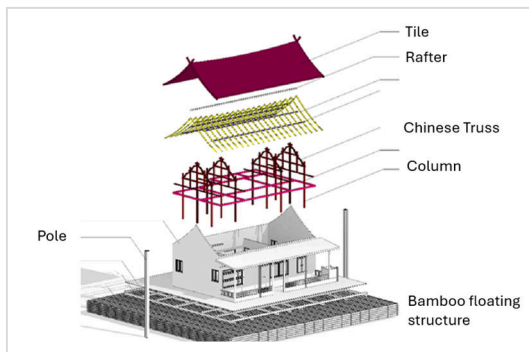


Figure 11. Rumah sakit structure

Raft house intangibility: cultural significance

In Southeast Asia, floating dwellings/raft houses possess prominent cultural values. This structure of living building functions not only as the solution to live in areas prone to flood but also as the historical and cultural identity.

Dwelling is not a mere term for raft houses. They symbolize community's adaptability and resilience in the interchangeable environment. Thus, raft houses significantly relate to the community's way of life and the environment encountered, as well as the historical experiences and cultural heritage. Although experiencing distinguished history and culture among the regions, the adaptation design and culture of raft houses share similarity, emphasizing the ingenuity and resourcefulness of human societies.

Adaptation to Environment in Palembang and Banjarmasin, raft houses respond to the challenges of riverine environments. These homes are designed to float, allowing inhabitants to live harmoniously with the fluctuating water levels. Raft houses often symbolize the integration of different cultural influences. In Palembang, the design of raft houses reflects a blend of Chinese and Malay architectural traditions, showcasing a synthesis of cultural elements. In Banjarmasin, the influence of foreign culture is not visible. Knowledge of the form and construction process has local characteristics.

The historical reasons for the development of raft houses vary. In Palembang, the construction of raft houses by Chinese immigrants was a way to circumvent land ownership restrictions imposed by the Palembang Sultanate. In contrast, In Banjarmasin, finding the form of a raft house is based on the knowledge of ancestors who have long lived in the river environment and have been a traditional way of life for centuries, primarily

driven by the need to adapt to the region's extensive river systems.

Both regions utilize floating platforms in Architectural Styles, but the materials and construction techniques can differ. In Palembang, raft houses often incorporate bamboo and wood, reflecting local resources.

In every transformation, there are two possibilities: change and no change. In changing conditions, there are three possibilities in a certain period of time: stagnant, changing for the better, changing for the worse, or disappearing (Pudianti 2019). Changes in the Palembang raft house: At the beginning of its formation, it changed for the better until its peak after the colonial period. The Palembang raft house is currently experiencing the possibility of disappearing without a trace. Therefore, documenting the knowledge of the raft house from the beginning of its construction, elements, and meanings is important. All of that is to preserve the knowledge that may one day be possible to disappear.

Based on the theory of tiered transformation (Pudianti 2019), the change factor is mainly influenced by the presence of a leader actor. In forming a raft house, its emergence began with a local leader, namely the sultan, who, during the colonial period, restricted immigrants from China from settling and controlling land on the mainland. So, at that time, raft houses emerged along the river, needing to settle while trading activities. The second factor is the existence of collective action, which drives the rapid growth of raft houses. This growth is marked by the Chinese industry, whose owners make beautiful raft houses with various Chinese ornaments and adapt to roofs that have terraces at the front of their houses. In contrast, the houses of Chinese workers are simpler, even though the characteristics of Chinese and Palembang culture are still visible. The second stage can be seen in the construction of beautiful raft houses with various Chinese ornaments (figure 12). This second transformation is a development based on the motivation to gain appreciation reflected in the beauty and grandeur of the raft houses. In the third stage, the colonial rulers began to open opportunities for Chinese traders to live on land in an area known as the Kapitan village. At this time, the houses of Chinese traders on land used a blend of Chinese, Palembang, and European cultures. European culture can be seen using pillars at the front of the house, later called eclectic architecture (figure 13).

The new policy of the colonial government that allowed Chinese citizens to build houses on land impacted the raft houses that were poorly maintained or, transferred and taken abroad. Currently, Chinese Malay-style “*Rumah Rakit*” is very rare. Maybe this is the end of the history of Chinese Malay-style *Rumah Rakit*.



Figure 12. Chuan-Dou Construction in the truss of *Rumah Rakit*

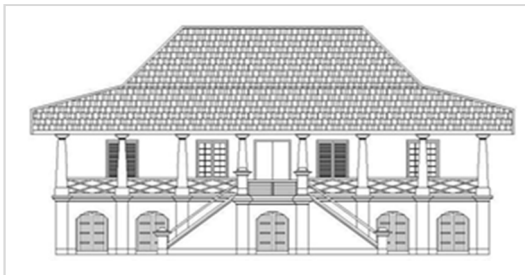


Figure 13. Eclectic Stilt house in Kampong Kapitan
Source: ZONING: Journal of Urban and Regional Planning (Fahri et al. 2023)

This intangible finding is an important finding that can explain the journey of the raft house from its beginning until now. The scheme depicting the transformation process of the raft house is drawn in figure 14.

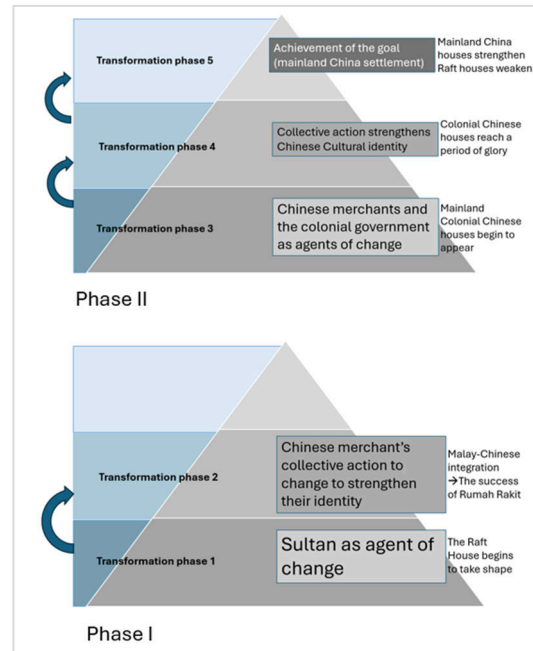


Figure 14. Scheme of intangible findings

Conclusions

The transformation of the Raft House shows the transformation process from both the tangible and intangible sides. On the tangible side, it can be seen how the influence of Chinese and Palembang cultures together forms a raft house that changes over time. However, from the intangible side, it is more interesting to consider the changes colored by changes in political policies and social processes. There are three stages of transformation, in the last stage of which Chinese culture experienced its glory, but it was precisely then that the raft house culture began to disappear.

Acknowledgments

We want to express our gratitude to Universitas Atma Jaya Yogyakarta in cooperation with Musi Caritas Catholic University, which has accommodated independent study activities through the 2024 PKK M grant, which resulted in valuable findings. To Mr. Bayu with the aquatic architecture class and Mrs. Ditha with the water building structure and construction class, who provided much learning about aquatic architecture. Also, I thank Mr. Kemas Ari Panji and Mr. Ari Siswanto, who have given their

valuable time as prominent resource persons for this research search. Also, we want to mention Mrs. Stefani and Mr. Rahmat, who accompanied us, and Mrs. Suzzana, the head of the study program, who helped organize the MBKM program. There are still many things that can be developed in the future. Hopefully, this research will add to the treasury of knowledge and inspire other research.

References

- Anwar, Widya Fransiska F., Ismail Said, Dilhsan R Ossen, and Muh. Hisyam Rasyidi. 2011. "The Dynamic of Cultural Expression of Ethnicity on Palembang's Riverside Urban Structure." In *3rd IGSSCI Proceedings*, 8–9. Yogyakarta. <https://igsci.pasca.ugm.ac.id/the-dynamic-of-cultural-expression-of-ethnicity-on-palembang-riverside-urban-structure/>.
- Aziz, Ahmad Malik Abdul, Ibnu Aziz, and Zuber Angkasa. 2023. "Chinese Eclectic Architecture of Kapitan Village Palembang, South Sumatra, Indonesia." *Civil Engineering and Architecture* 11 (6): 3414–29. <https://doi.org/10.13189/cea.2023.110614>.
- Bambang, Wicaksono, Siswanto Ari, Kusdiwanggo Susilo, and ANWAR Widya Fransiska Febriati. 2016. "Cultural Approach of Sustainability in Dwellings Culture Riparian Community Musi River Palembang." *DIMENSI (Journal of Architecture and Built Environment)* 43 (2): 100–113. <https://doi.org/10.9744/dimensi.43.2.85-92>.
- Fahri, Muhammad, Helfa Rahmadyani, Andina Syafrina, and Rizka Felly. 2023. "Pelestarian Bangunan Tradisional Limas Etnik Tionghoa Di Kawasan Kampung Kapitan 7 Ulu Palembang (Studi Kasus: Rumah Abu)." *Zoning: Journal of Urban and Regional Planning* 1 (1): 26–36. <https://doi.org/10.33019/zoning.v1i1.16>.
- Febrian, Eva, and Farida Yunani Hasan. 2015. "Perkembangan Permukiman Masyarakat Tionghoa Di Palembang Pasca Kesultanan Palembang (1852-1942)." *Criksetra: Jurnal Pendidikan* 4 (7): 18–28. <https://repository.unsri.ac.id/45091/1/Perkem>
- bangan Permukiman Masyarakat Tionghoa di Palembang Pasca Kesultanan Palembang.pdf.
- Gan, Shurong, Wen Pan, Hexian Su, Yucheng Jin, Chuanwei Zhu, and Shibin Yu. 2023. "Experimental Study and Numerical Simulation Analysis on Reinforcement of Mortise-Tenon Joints with Flat Steel Strips." Edited by Angelo Aloisio. *Advances in Civil Engineering* 2023 (March):1–24. <https://doi.org/10.1155/2023/5398662>.
- Mentayani, I, and I Y Hadinata. 2021. "Anatomy of Lanting House Architecture in Banjarmasin." *IOP Conference Series: Earth and Environmental Science* 780 (1): 012046. <https://doi.org/10.1088/1755-1315/780/1/012046>.
- Panji, Kemas Ari. 2019. *Rumah Rakit Palembang*. Dinas Kebudayaan Kota Palembang.
- Pudianti, Anna. 2019. "Transformasi Bermukim Perdesaan Di Kawasan Wilayah Pengaruh Kota Yogyakarta (Studi Kasus Desa Pentingsari, Desa Gabugan, Desa Manding, Desa Kasongan)." Universitas Diponegoro.
- Rudwiarti, Lucia Asdra, Anna Pudianti, and Vincentia Reni Vitasurya. 2017. "A Comparison Study of Tangible and Intangible Culture as Commercialisation Process of Tourism Village in Yogyakarta." *E-Journal of Tourism*, August, 71. <https://doi.org/10.24922/eot.v4i2.36398>.
- Sastika, Anta, Raden Ahmad Nur Ali, and Cito Pringga Yudha. 2023. "Characteristics Study of Raft Houses in the Musi River of Palembang." *Jurnal Arsitektur* 13 (1): 51. <https://doi.org/10.36448/ja.v13i1.2331>.
- Sevenhoven, J.I. Van. 1971. *Lukisan Tentang Ibu Kota Palembang*. Jakarta: Bhratara.
- Siswanto, Ari. 2009. "Kearifan Lokal Arsitektur Tradisional Sumatera Selatan Bagi Pembangunan Lingkungan Binaan." *Local Wisdom: Jurnal Ilmiah Kajian Kearifan Lokal* 1 (1): 37–45.
- Siswanto, Ari. 2021. *Arsitektur Tradisional Sumatera Selatan*. Yogyakarta: Pohon Cahaya.
- Wicaksono, Bambang. 2019. "Perubahan Budaya Bermukim Masyarakat Riparian Sungai Musi Palembang, Tinjauan Proses Dan Produk." *Jurnal Tekno Global UIGM Fakultas Teknik* 7 (2). <https://doi.org/10.36982/jtg.v7i2.547>.

Author(s) contribution

Anna Pudianti contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Antonia Nezwaha Rosary contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.

Alwyn Gavra Buono Sihole contribute to methodology, supervision, and validation.

Elvin Dwiva Putra Mahenu contribute to methodology, supervision, and validation.

Kevin Pratama contribute to methodology, supervision, and validation.

Surya Kurniawan Kristanto contribute to supervision, and validation.

This page is intentionally left blank