

Architecture of the Malay House in Melaka: Cultural Heritage and Local Adaptation

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Abstract

The traditional Malay house in Melaka is an important example of Malaysia's rich cultural heritage. It combines local design with outside influences that have developed over centuries of trade, migration, and colonization. These structures show both aesthetic and functional values, and they adapt well to the local climate and environment. However, rapid urban growth and modernization put these traditional houses at risk. This study looks at the architectural features of the Melaka Malay house, examines the social, cultural, and environmental factors that affect its design, and identifies current challenges in preserving this heritage. The research uses a qualitative approach, including literature review and visual analysis, to explore the form, layout, materials, and decorative elements of the Melaka house. Data is analyzed to uncover the meanings and adaptive strategies within its architecture. The findings emphasize that these houses represent cultural identity and sustainable design principles, like passive ventilation and the use of local materials. They also show a growing gap between efforts to conserve heritage and current architectural trends. The study concludes that maintaining the Melaka Malay house requires a more connected approach involving policy support, community involvement, and education. It also suggests integrating traditional architectural values into modern design to preserve cultural identity while meeting present-day needs. This research adds to ongoing conversations about heritage preservation and sustainable architecture in Malaysia.

Keywords: Architecture, Malay House, Melaka, Heritage and Culture

Introduction

The architecture of the Melaka House is a significant cultural heritage in Malaysia's traditional architectural history (Ahmad, 1999). It reflects the combination of local architectural elements with foreign influences, enriched by unique adaptations to the environment and the needs of the local community (Nasir, 1985). As a symbol of Malay cultural identity, the Melaka House is not merely a physical structure but also represents aesthetics, beliefs, and social

values passed down through generations (Samsudin, 2018). However, globalization and rapid urbanization have put pressure on the survival of this traditional house, raising concerns about our ability to preserve this heritage for future generations (Zakaria & Ibrahim, 2017).

The Melaka House is known for its unique design, featuring intricately carved wooden structures, layered roofs, and practical spatial arrangements (Mohd Yusof & Ismail, 2015). Despite this, the importance of the research gap remains in understanding how the architectural features of the Melaka House can be systematically documented and interpreted to support long-term heritage conservation. Previous studies have highlighted the historical significance, characteristic of architecture and cultural values of traditional Malay houses. Further attention is needed to connect architecture documentation with the identification and preservation of distinctive local features. It also addressing the gap is important to ensure that conservation efforts extend beyond maintaining the physical structure to safeguarding the aesthetic, functional and cultural meanings embodied in Melaka House. The use of cengal wood as the primary material not only reflects sensitivity to the tropical environment but also symbolizes the refined craftsmanship of Malay artisans (Nasir, 1985). Its design, which includes serambi (veranda), ruang tengah (central space), and dapur (kitchen), demonstrates a deep understanding of the house's social function as a center of family and community activities (Ahmad, 1999). Additionally, decorative elements such as floral, geometric, and Islamic calligraphy carvings reflect strong artistic and religious values in Malay culture (Samsudin, 2018).



Figure 1. Example of Melaka House Architecture in Kampung Jasin Hilir, Melaka
Source: Research field at Jasin, Melaka

However, modern lifestyle changes and rapid development pose significant challenges to the preservation of the Melaka House. The conversion of traditional areas into modern housing, high maintenance costs, and a lack of public awareness about the historical value of these houses are among the main factors contributing to their decline (Zakaria & Ibrahim, 2017). Furthermore, the lack of systematic documentation and in-depth studies on the architectural elements of the Melaka House further complicates conservation efforts, leading to the risk of losing this cultural treasure (Mohd Yusof & Ismail, 2015). Digital technologies may offer additional opportunities to document and communicate architectural heritage. Mahamarowi et al. (2023) explored the use of augmented reality (AR) to support the learning of façade

design elements in Malaysian colonial buildings. Although their study focuses on colonial architecture, it provides a relevant reference for considering how digital visualization could complement the documentation and interpretation of traditional architectural features, including those of the Melaka Houses.

In the effort to preserve the Melaka House, an integrated approach involving the government, NGOs, and the community is essential. The provision of special funds by the authorities for the conservation of traditional houses, along with incentives for traditional homeowners, can help ensure these structures are well maintained (Samsudin, 2018). Additionally, public education and awareness programs through exhibitions, workshops, and seminars can enhance societal understanding of the importance of traditional architecture (Zakaria & Ibrahim, 2017). Integrating traditional elements into modern architecture is also a crucial step to ensure the continuity of this cultural heritage while meeting the needs of contemporary society (Ahmad, 1999).

Research on the Melaka House also provides an opportunity for a deeper understanding of the history, aesthetics, and social values of the Malay community (Nasir, 1985). This effort is vital not only for conservation purposes but also for enriching architectural development in Malaysia, allowing it to honor cultural roots while progressing toward modernity. The architecture of the Melaka House, with all its uniqueness, stands as a testament to the resilience and creativity of the Malay community and should continue to be valued and preserved for future generations (Mohd Yusof & Ismail, 2015). In this context, the present study contributes to the documentation and understanding of Melaka House by focusing on architectural characteristics with cultural significance. The contributions lie in bringing together the physical, aesthetic and cultural dimensions of traditional architecture to provide a more comprehensive basis for understanding the heritage values of Melaka House. This focus can help address the identified documentation gap and provide a foundation for future research and conservation initiatives.

Literature Review

Melaka House is one of the iconic representations of traditional Malay architecture and stands as a significant cultural symbol in Malaysia. The character by elevated timber structures, detailed wood carvings and a design suited to tropical climates which is these homes reflect not only architectural ingenuity but also deep-rooted cultural and social values. However, despite their architectural uniqueness and aesthetic value, Melaka Houses nowadays face threats from the pressures of globalization, rapid urbanization and shifting lifestyle patterns. These factors contribute to the decline of traditional homes, as modernity encroaches on heritage landscapes. Without any action taking from comprehensive intervention, many of these cultural treasures are at risk of being lost.

The urbanization is one of the most pressing challenges to the survival of the Melaka House. In recent decades, rapid development has transformed from rural and peri-urban areas where these houses once stood into modern residential and commercial spaces area. These areas were once home to rows of traditional houses, are now dominated by concrete buildings that reflect contemporary design trends, often without consideration for cultural and historical contexts. Regarding to Zakaria and Ibrahim (2017) highlight how the process of urbanization leads to the conversion of traditional lands with little regard for the preservation of

indigenous architectural heritage. As land value increases every year, the incentive to replace traditional houses with modern structures grows, further accelerating the disappearance of the Melaka House from the Malaysian architectural landscape.

One of the biggest challenges is the process of urbanization, which has led to the conversion of traditional land into modern residential areas. Locations that once housed traditional homes are now often replaced by modern buildings that do not consider historical or cultural aesthetic values. Additionally, the high maintenance costs of the Melaka House have become a burden for traditional homeowners. The use of high-quality materials such as *cengal* wood, which is durable and well-suited for tropical climates, requires significant restoration costs (Nasir, 1985). The lack of financial support, whether from the government or non-governmental organizations (NGOs), makes preservation efforts increasingly difficult.

Moreover, the lack of systematic documentation and in-depth studies on the architectural elements of the Melaka House further contributes to the challenges of preserving this heritage. Existing research is often limited to surface-level aspects without thoroughly exploring the aesthetic values, symbolism, and social functions of these houses (Mohd Yusof & Ismail, 2015). As a result, many unique traditional architectural features are at risk of being forgotten or overlooked in the context of modern development. These limitations highlight a gap between recognizing the importance of traditional architecture and developing a systematic understanding of the specific architectural features that require preservation. In particular, documenting the physical characteristics of Melaka House alongside with its aesthetic, functional and cultural aspects can also provide a more comprehensive perspective on its heritage value. Such an approach is important because conservation decisions based only on general descriptions of traditional houses may overlook distinctive local characteristics that contribute to the architectural identity of Melaka.

Public awareness of the importance of preserving the Melaka House remains low. Younger generations may not appreciate the historical and aesthetic values of the Melaka House due to a lack of exposure and education on traditional architecture. For instance, decorative elements such as floral-patterned wood carvings, geometric motifs, and Islamic calligraphy are often not understood as artistic heritage that embodies the cultural values of the Malay community (Samsudin, 2018).



Figure 2 Traditional houses usually have perforated carvings (*ukiran tebuk tembus*) above doors and windows to allow better natural light and ventilation inside the house.

Source: Research field at Jasin, Melaka

Another challenge that needs attention is the pressure of modern lifestyles. Many traditional homeowners opt to renovate or rebuild their houses in a modern style, which is considered more practical and suited to contemporary needs. However, these changes often result in the loss of unique traditional elements of the Melaka House, such as the layout of the *serambi* (veranda), *ruang tengah* (central space), and *dapur* (kitchen), which were originally designed to accommodate traditional social and cultural functions (Ahmad, 1999).

Based on the issues discussed, the main research gap concerns the need for a more integrated understanding of architectural characteristics, cultural meanings and conservation challenges associated with the Melaka House. Although previous studies have discussed traditional Malay architecture and the threats to its survival, further documentation of the distinctive features of Melaka House is necessary to support more informed conservation efforts. The present study addresses this gap by examining the architectural elements of the Melaka House and considering their significance in preserving local architectural identity. This provides a focused contribution to existing literature by linking architectural characteristics and cultural heritage documentation with conservation needs. Therefore, an integrated approach involving all stakeholders, including the government, NGOs, and the community, is needed to address these challenges. Financial incentives, public awareness campaigns, and the integration of traditional elements into modern architecture are essential steps to ensure the survival of the Melaka House as a cultural heritage symbol (Zakaria & Ibrahim, 2017). Additionally, more in-depth and systematic research must be conducted to document the unique elements of the Melaka House so that its historical, aesthetic, and functional values can be preserved for future generations.

Research Objectives

The study on the architecture of the Melaka House is conducted to assess and understand its significance as an important cultural heritage in Malaysia. The Melaka House not only reflects the creativity and identity of the Malay community but also showcases its unique adaptation to the local environment and needs. In the face of globalization and urbanization, this traditional architecture is increasingly threatened and requires serious attention to ensure its survival. Therefore, the primary objective of this study is to understand the architectural elements of the Melaka House, identify the factors influencing its design, and propose effective strategies for preserving this cultural heritage.

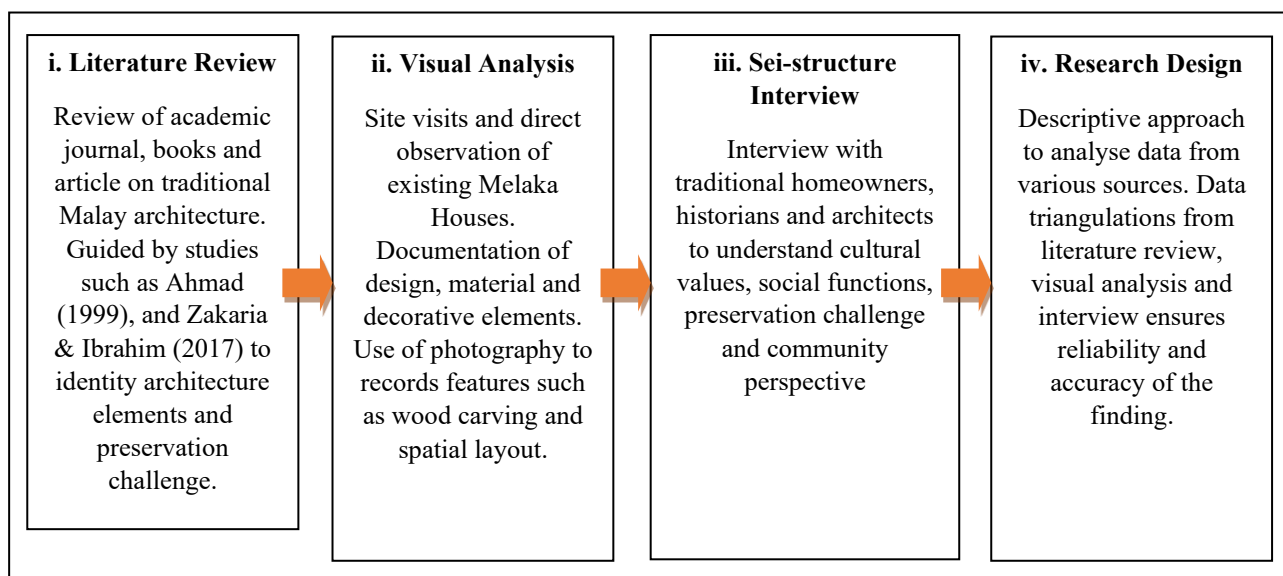
This study aims to:

- i. Identify the unique architectural features of the Melaka House, including building materials, design, and decorations.
- ii. Assess the aesthetic values, social functions, and historical significance of the Melaka House in Malay society.
- iii. Propose conservation measures and strategies for integrating traditional architectural elements into modern development.

Research Methodology

This study adopts a qualitative approach, utilizing literature reviews, visual analysis, and semi-structured interviews.

- i. Literature Review – The literature review is the first step in understanding the historical, cultural, and architectural context of the Melaka House. Sources such as academic journals, books, and articles related to traditional Malay architecture are used as primary references. Studies conducted by Ahmad (1999) and Zakaria and Ibrahim (2017) serve as guidelines for identifying the unique architectural elements of the Melaka House and the challenges in its preservation.
- ii. Visual Analysis – This approach involves direct observation of existing Melaka House structures in the state of Melaka. Site visits are conducted to document the house design, building materials, and decorative elements. Visual analysis also includes the use of photography to record architectural features such as wood carvings and spatial layouts that reflect the uniqueness of Malay culture.
- iii. Semi-Structured Interviews – Interviews were conducted with traditional homeowners, historians, and architects to gain in-depth insights into the cultural values and social functions of the Melaka House. These interviews also helped identify practical challenges in preservation efforts as well as local community perspectives on the need to safeguard traditional architecture.
- iv. Research Design - A descriptive approach is used to analyze data from various sources. Data triangulation from literature review, visual analysis, and interviews ensures the reliability and accuracy of the research findings.



The architecture of the Melaka House is one of the most significant examples of traditional architecture in Malaysian culture. The Melaka House not only reflects the creativity of the Malay community but also illustrates its unique adaptation to the environment and external cultural influences (Ghafar Ahmad, 1997). This structure symbolizes aesthetic beauty, beliefs, and social functions that have been passed down through generations. This study discusses the architectural features of the Melaka House, the challenges in its preservation, and recommendations to ensure its uniqueness is not lost over time.

The Melaka House is renowned for its use of *cengal* wood as the primary building material, which is highly durable and well-suited to the tropical climate. This environmental sensitivity has resulted in a sturdy structure with a distinctive aesthetic (Nasir & Teh, 1996). One of its most prominent features is the intricate wood carvings with floral and geometric motifs, reflecting the refined craftsmanship of Malay artisans as well as Islamic influences. Additionally, its well-organized spatial design, including the *serambi* (veranda), *ruang tengah* (central space), and *dapur* (kitchen), demonstrates a deep understanding of its social function, often serving as the center for family and community activities (Mohamed, 2018).

External cultural influences have also contributed to the uniqueness of the Melaka House. The fusion of Malay architectural elements with Chinese, Indian, and colonial artistic influences has enriched its design (Said, 2005). For instance, the *limas*-shaped roof and stone staircase, which bear Chinese characteristics, reflect a harmonious cultural interaction. These influences not only enhance the architectural beauty of the house but also depict the Malay community as an open and adaptive society in response to its social surroundings.



Figure 4. Melaka House architecture adapted from foreign influences, such as Indian design and motifs on staircase tiles.

Source: Research field at Jasin, Melaka

However, modern lifestyle changes and urbanization pose significant challenges to the preservation of the Melaka House. One of the main challenges is the high maintenance cost. While *cengal* wood is durable, it requires meticulous care and substantial expenses. Development pressures have also led to the transformation of traditional areas into modern housing, often disregarding historical and cultural values (Jamaludin & Mohd Yusoff, 2013). Additionally, the lack of public awareness about the importance of the Melaka House has contributed to its decline.

The younger generation may not fully appreciate the historical and aesthetic value of the Melaka House due to limited exposure. The absence of systematic documentation and in-depth studies on its architectural elements further complicates conservation efforts (Nasir & Teh, 1996). Many unique traditional architectural features are at risk of being forgotten as society prioritizes modern development needs.

To ensure the continuity of this heritage, an integrated approach is necessary. The government, NGOs, and the community must collaborate to implement various initiatives. The provision of special funds for the conservation of traditional houses, along with incentives for homeowners, can help maintain these structures (Mohamed, 2018). Additionally, public education through exhibitions, workshops, and seminars can enhance awareness of the historical significance of the Melaka House.

Integrating traditional architectural elements into modern development is another crucial step. Features such as wood carvings and traditional spatial layouts can be incorporated into contemporary building designs (Ghafar Ahmad, 1997). This approach not only ensures cultural continuity but also enriches modern architecture with traditional aesthetic values.

Recommendations for Future Research

The architecture of the Melaka House is a cultural heritage symbol that reflects the identity of the local community. However, the rapid development of urbanization and modernization has led to the marginalization of these traditional elements. Research in this area has the

potential to revive the heritage value of the Melaka House through a more systematic and innovative approach. Therefore, relevant authorities should focus on the evolution of the Melaka House's design from the traditional era to the present. Changes in the use of materials, carvings, and spatial arrangements can be studied to understand how this architectural style has been adapted to meet modern needs. For instance, Mohd Hamdan et al. (2020) emphasized that the evolution of traditional architecture is often influenced by economic and technological factors while still retaining its aesthetic value. Preserving these values is crucial for safeguarding and maintaining Melaka's architectural heritage in the future.

Furthermore, this study also suggests how architectural elements of the Melaka House, such as curved roofs, stone staircases, and wood carvings, can be integrated into modern architectural designs. This approach not only preserves traditional elements but also ensures their relevance in contemporary urban development. According to Ismail and Rasdi (2019), the integration of traditional architecture with modern elements can enhance cultural identity in urban development.

The aim is to understand the level of awareness and appreciation among the younger generation regarding the Melaka House as a cultural heritage. This effort is crucial to ensuring the continuity of this heritage in the future. A study by Nor Zalina et al. (2021) found that educational programs and interactive exhibitions can enhance young people's awareness of traditional architecture.

Furthermore, this study can examine the financial burden faced by traditional homeowners and propose financing models or incentives from the government. These may include tax incentives or grants for the preservation of traditional houses. According to research by Hassan and Othman (2018), the conservation of traditional houses requires strategic collaboration between government agencies and homeowners to reduce cost burdens.

Additionally, modern technology such as 3D modeling and virtual reality (VR) can now be used to document the architectural elements of the Melaka House in detail. This approach not only aids conservation efforts but can also be utilized for educational and tourism promotion purposes. A study by Ahmad et al. (2020) indicates that digital technology enhances the effectiveness of traditional architecture documentation efforts.

This study proposes a comparison of the architectural elements of the Melaka House with traditional architecture in neighboring countries such as Indonesia, Thailand, and the Philippines. Understanding the cross-cultural influences that shape architecture in the Southeast Asian region is essential. According to Lim (2017), traditional architectural elements in Southeast Asia are heavily influenced by geography, beliefs, and trade history.

The findings of this study are not only important for understanding and preserving the architecture of the Melaka House but also for ensuring its relevance in the modern context. With support from various stakeholders, including researchers, policymakers, and the community, the architectural heritage of the Melaka House can be safeguarded for future generations.

Conclusion

The architecture of the Melaka House is a cultural heritage rich in aesthetic and historical value, reflecting a fusion of local architectural elements and foreign influences. Its design, featuring materials such as *cengal* wood and intricate wood carvings with floral and geometric motifs, showcases the craftsmanship of the Malay community and their awareness of the tropical environment. Additionally, the spatial layout, including the *serambi* (veranda), *ruang tengah* (central space), and *dapur* (kitchen), reflects social values that prioritize family and community interaction.

However, despite its uniqueness and significance, the Melaka House faces major challenges in its preservation, primarily due to rapid development and urbanization. The conversion of traditional areas into modern housing, high maintenance costs, and a lack of public awareness about the historical value of these traditional houses are key factors threatening its survival. Furthermore, the lack of systematic documentation on its unique architectural features further complicates conservation efforts.

To ensure the continuity of this heritage, an integrated approach must be implemented. The government, NGOs, and the community must collaborate to provide conservation funds and incentives for traditional homeowners. Public education through exhibitions and workshops can also help raise awareness of the importance of preserving the Melaka House. Additionally, incorporating traditional architectural elements into modern developments can ensure cultural continuity without compromising contemporary needs.

In conclusion, the Melaka House is a symbol of the rich Malay cultural heritage that must be preserved as a national legacy. With a comprehensive conservation effort, this architectural heritage can continue to be valued and serve as an inspiration for modern architecture while ensuring that cultural identity remains intact.

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