

Available Online at www.e-iph.co.uk
Indexed in Clarivate Analytics WoS, and ScienceOPEN



AicE-Bs2022KotaKinabalu

<https://www.amerabra.org>



10th Asia-Pacific International Conference on E-B Studies
The Magellan Sutera Resort, Kota Kinabalu, Sabah, Malaysia, 07-08 Sep 2022

Traditional Malay House in Negeri Sembilan: Cultural influence in design and construction

**Nor Syawallina Azman ¹, Ida Marlina Mazlan ², Ilyana Sujak ¹,
Noor Fatehah Mat So'od ¹, Lawrence Wallen ³**

¹ School of Architecture and Built Environment, UCSI University, Malaysia

² School of Architecture and Built Environment, UCSI University, Malaysia, PhD. Candidate, Faculty of Engineering and Built Environment, Universiti Kebangsaan Malaysia, Malaysia

³ School of Architecture, University of Technology Sydney Australia

syawallina@ucsiuniversity.edu.my, ida@ucsiuniversity.edu.my, ilyana@ucsiuniversity.edu.my, fatehah@ucsiuniversity.edu.my, lawrence.wallen@uts.edu.au
Tel: +60173264517

Abstract

The architecture of the Traditional Malay houses reflects the physical environment to portray the family and community manifestation of the cultures and behaviours. This research attempts to discover the cultural manifestation that has affected the design and construction. The case study method is applied, specifically focusing on a case study of Rumah Telapak Ibu Soko, Tanah Datar 48, located in Kuala Pilah, Malaysia, consisting of on-site physical measurement and observation and an interview with the owner. The findings are part of explored social values and the impact of cultural influence on design and construction.

Keywords: Architecture; Traditional House; Community and Culture

eISSN: 2398-4287 © 2022. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians/Africans/Arabians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.
DOI: <https://doi.org/10.21834/ebpj.v7i21.3775>

1.0 Introduction

The traditional Malay house is a structural timber house built on stilts made with lintel and post structures with bamboo or wooden walls (Kamal et al., 2004). It is common to see traditional Malay houses erected on a large compound as the focus is not just on the building but also relates the environmental, socio-economic and cultural needs. The traditional Malay houses retain their original character with a small plot of land in the remote villages as it is crucial for harmonious living among neighbours, relatives and family members. However, despite the increased concern over the depletion of existing traditional Malay houses, it still faces threats due to rapid modernisation, urbanisation and socio-economic transformation. In the case of traditional Malay houses in Negeri Sembilan, most houses are over one hundred years old and unprotected and neglected.

Negeri Sembilan is unique as it follows the matrilineal *Adat Perpatih*, ancestral property held by women and passed down to their female lineage. However, many ancestral properties are left abandoned. Due to these issues, this paper attempt to identify the relationship

eISSN: 2398-4287 © 2022. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians/Africans/Arabians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.
DOI: <https://doi.org/10.21834/ebpj.v7i21.3775>

between social-cultural values and the traditional Malay House in Negeri Sembilan using Rumah Telapak Ibu Soko, Tanah Datar 48, Kuala Pilah (RTAIS) as a case study. This finding would be a significant study in the design and construction of traditional Malay houses in Negeri Sembilan regarding socio-cultural values.

2.0 Literature Review

2.1 Adat Perpatih

Adat Perpatih is considered part of the intangible cultural heritage of Malaysia, which uses a matrilineal form of administration that focuses more on the female lineage (Saludin et al.,2020). *Adat Perpatih* was brought to Negeri Sembilan by Minangkabau male immigrants from Sumatra (Tan-Wong, 1992; Abdul Khalid, 1992). Thirteen (13) customary districts in Negeri Sembilan practice this custom. Additionally, there are twelve (12) clans whereby nine (9) originating from Minangkabau. *Adat Perpatih* also revolves around the custom leaders: *Datuk Lembaga, Buapak, Besar Waris* and *Ibu Soko*. *Ibu Soko* refers to a status given to a woman who is an expert in cultural, social, economic, and political issues in the Negeri Sembilan society. Therefore, *Ibu Soko* is prioritised over others in the community and involved in important events such as the nomination of *Buapak* and customs leaders in Negeri Sembilan. Although *Adat Perpatih* has evolved through time, this system is still in use today (Abdul Latif et al., 2018).

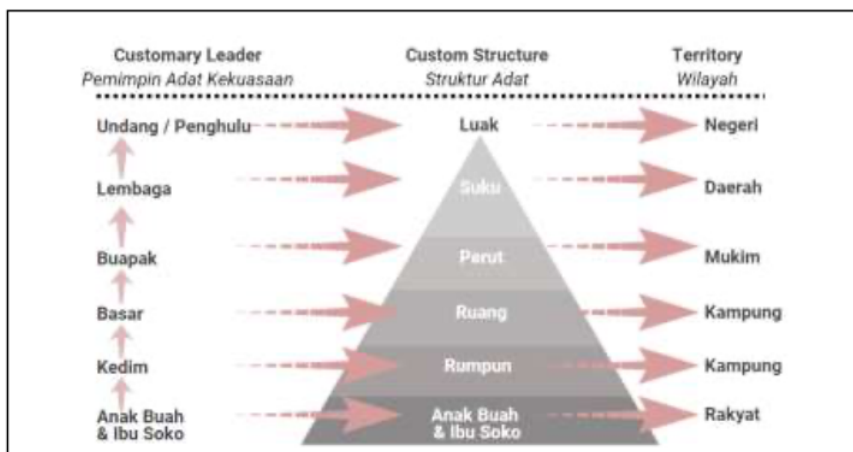


Fig. 1: Social Order in Adat Perpatih



Fig. 2: Importance of Ibu Soko in Adat Perpatih

2.2 Customary Land

Customary land (*Tanah Adat*) is considered sacred or the most critical thing in the life of the Malays of *Adat Perpatih*. It is a place to stay and contribute economically (Radzuan et al.,2019).

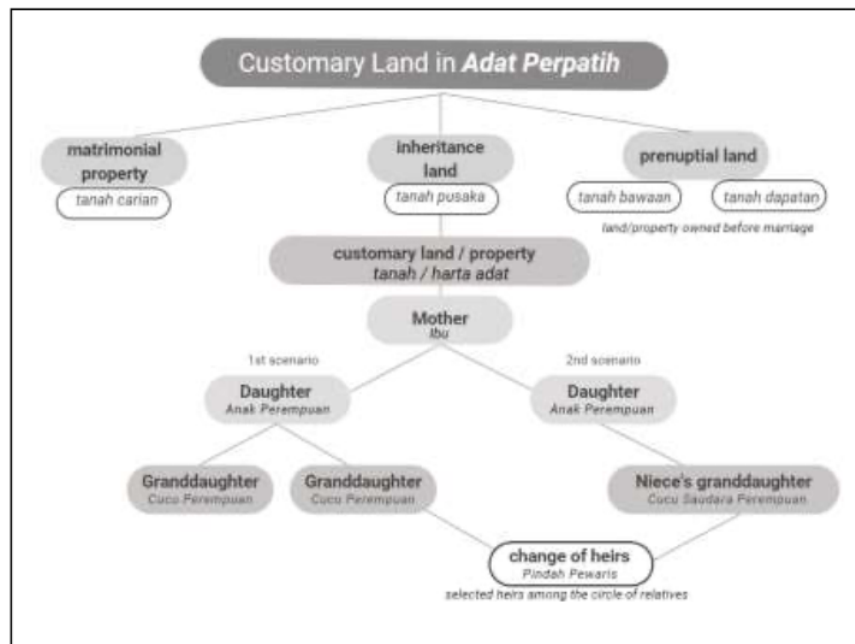


Fig. 3: Customary Land in Adat Perpatih

Women inherit the customary land that cannot be sold to anyone but only to their female kin. It is a crucial concept to protect the welfare of women in society while also recognising the importance of women's roles in ensuring the continuation of the generation. Besides the land, women also inherit the family house, household goods, and other valuables. Without female children, a lineage and kinship group will perish. Invariably, the family faced with such a predicament overcomes it by adopting a female child, which will be formalised through a ritual ceremony called the '*berkadim*' (Kasim, A., 1992). Having less power over land ownership encourages men to move to urban areas, which leaves the customary land idle with no agricultural activities, leading to economic issues (Shamsuddin et al., 2019). Nowadays, many women leave the village; they marry out and live elsewhere, which is also one of the causes of the abandonment of customary land and family residences (Abdullah et al., 2022).

2.3 Relationship between Traditional Malay House and Culture

Traditional Malay house is noted as one of the richest components of Malaysian cultural heritage, closely related to people's beliefs and cultural practices of the Malay community (Hossaini et al., 2012). A master carpenter commonly builds traditional Malay houses with verbal specifications from the owner, which plays an important role in the whole process of construction (Abidin, 1981). Part of the traditional Malay house construction involves the community in an event called *gotong-royong*.

Socio-cultural values are beliefs, traditions, and habits that influence our everyday behaviour. One of the notable socio-cultural values in the Malay community is hospitality (Ani et al., 2012). In addition, the Malays practice communal intimacy as traditional Malay houses are considered a larger community unit in a village setting (Hashim, Ali, M. & Asnarulkhadi, 2009). Socio-cultural values influence fenceless compounds to allow community interaction (Talib et al., 2012). Hence, in addition to the owner's requirements, spaces in the traditional Malay house are designed to accommodate the social-cultural needs of the society, such as spaces between houses where collective activities with community participation would be conducted.

Socio-cultural values also highly influence the form and spatial arrangement of the traditional Malay house. The traditional Malay society is dictated by customary practices, such as *Undang-Undang 99*, *Tajul Muluk*, and *Adat Perpatih*, besides the teachings from the Holy Quran and the Prophet's hadiths (Anuar, 2006). For example, it is common to observe the placement of an outdoor toilet that is separated from the bath due to the concern of hygiene. In the view of religion, the hygiene of a house includes building a house away from dirty places such as garbage dumps and puddles because cleanliness and sanctity are part of faith (Samra, 2017). Zainal (1994) also adds that *adat* or ritual is a part of the Malay identity that kept the Malays organised and efficient in their daily lives.

2.4 Negeri Sembilan Traditional Malay House (NSTMH)

The existence of traditional Malay architecture is highly influenced by its community, and their way of life is significantly manifested through the creation of their local architecture. The configuration and design of NSTMH have their uniqueness and are often associated with its traditional matrilineal lineage system. The house is built in respect of the owner's body measurements, the first woman according to the social system of *Adat Perpatih* (Azwar, 2001). Governed by matrilineal women as the sole heir, the owner's anthropometrics, status, wealth and roles in the community were materialised on the size of the house (Oliver, 1997).

2.4.1 NSTMH design influence

The authenticity of NSTMH is a complex mixture of the evolution of two cultures, the Minangkabau and the Biduanda (*Jakun*) communities (Masri, 2012). The Minangkabau is a community from Western Sumatera which migrated to Negeri Sembilan in the 14th century (Hamka, 1963), while the Biduanda clan are the original settlers in Negeri Sembilan (Gullick, 2003). Therefore, the uniqueness of the architectural elements in both houses is not naturally formed. However, it is built through the compatibility of an authentic Minangkabau matrilineal system and assimilated with the local matrilineal system in Negeri Sembilan, which forms a distinctive traditional house (Hardono, 2012). Hence, the design of NSTMH is highly influenced by the local community culture, despite a minor physical similarity to the Minangkabau house architecture.

2.4.2 NSTMH characteristic

The homogeneity of the NSTMH design can be easily identified from its unique physical form. According to Sulaiman (2016), a typical NSTMH can be characterised by the following two categories:

1. Physical attributes:

- Layout typologies: *serambi* (verandah): consist of *serambi pangkal*, *serambi tengah*, *serambi hujung*; *rumah ibu* (main house): with *loteng* (attic) and *rumah dapur* (kitchen).
- Curved roof at both ends acts as a style for Negeri Sembilan regional identity.
- Application of traditional *tanggam* (built without nails) construction methods and the sophisticated prefabricated extension (addition) system.
- Two specific shapes of the column: *tiang pecah lapan* (octagon shape column) or *tiang pecah empat* (square shape column). The decorative column and *tiang pecah lapan* represent the high status of the owners

2. External influences:

- Good-quality *chengal* (*penak*) timber and other local materials (palm leaves).
- The traditional expertise of a *tukang* (master builder).
- An effective response to the social system (*Adat Perpatih*), the religious system, and specific environmental constraints (hot and wet tropical climate).
- Incorporation of a 'time capsule' (coin) as evidence of the birth date of the house and concealed under the *tiang seri* (main central column).

3.0 Methodology

This paper looks at the methods of (1) physical measurement that has taken place in RTAIS (Fig. 4), (2) interview session, and (3) on-site observation and practical aspect practicality involving conventional and digital methods to record data. On-site observation includes collecting information on physical characteristics and construction methods. RTAIS is selected as a case study due to the status of the owner, who is the current Ibu Soko of Pagaruyung, which is significant in socio-cultural values.



Fig. 4: Case Study; Rumah Telapak Adat, Ibu Soko, Tanah Datar 48, Terachi, Kuala Pilah, Negeri Sembilan.
(Source: Author, 2022)

3.1 On-Site Building Measurement

With the assistance of a group of students, the building components were measured. The primary data is collected using measured drawings, technical sketches and photo taking of its joinery system. Precise and complete scaled drawings were necessary to understand and analyse the buildings' components and construction. The drawings opt to be drawn and documented by AutoCAD applications.

3.2 On-Site Building Observation

Execution of observation towards the site and building is carried out during the site visit. RTAIS includes a series of site visits focusing on several elements of the house, including roof, wall, flooring and secondary elements (door, window, column and balustrade design). The observation continued and compared the Minangkabau house as a comparative study.

3.3 Interview

In an interview with the 5th generation of the RTAIS, Ibu Soko, Puan Noraini Binti Mohammad provided some data on the house regarding culture and spaces. From the information given, the relationship between spaces and cultural manifestation is better understood in fulfilling the role of Ibu Soko.

4.0 Findings

4.1 Cultural manifestation in Rumah Telapak Adat Ibu Soko (RTAIS) design

This study aims to identify the cultural influence in space organisation and construction that shape the characteristics of the case study. The culture significantly influences the RTAIS design, as seen in the owner's building rituals, customs, traditions, and social roles. These cultural elements are portrayed in the traditional house's site planning, spatial arrangement, and building attributes, producing a unique local architecture.

4.1.1 Site consideration and cultural manifestation

From the initial building phase, wise and careful consideration is taken in choosing the site for the RTAIS house erection, as told during the interview session. Nature understanding and surrounding environment observation are considered external factors in site selection. Aspects such as the soil condition for the foundation erection are examined for suitability. Underground water availability is highly required for the owner to dig up a well as a clean water source for daily use. The fertility of surrounding land is examined for agricultural activities. The direction of the prevailing wind and the land contour is also part of the consideration for the occupants to live comfortably in the house day and night. The house building starts with performing various rituals and prayers to seek blessing for the occupants.

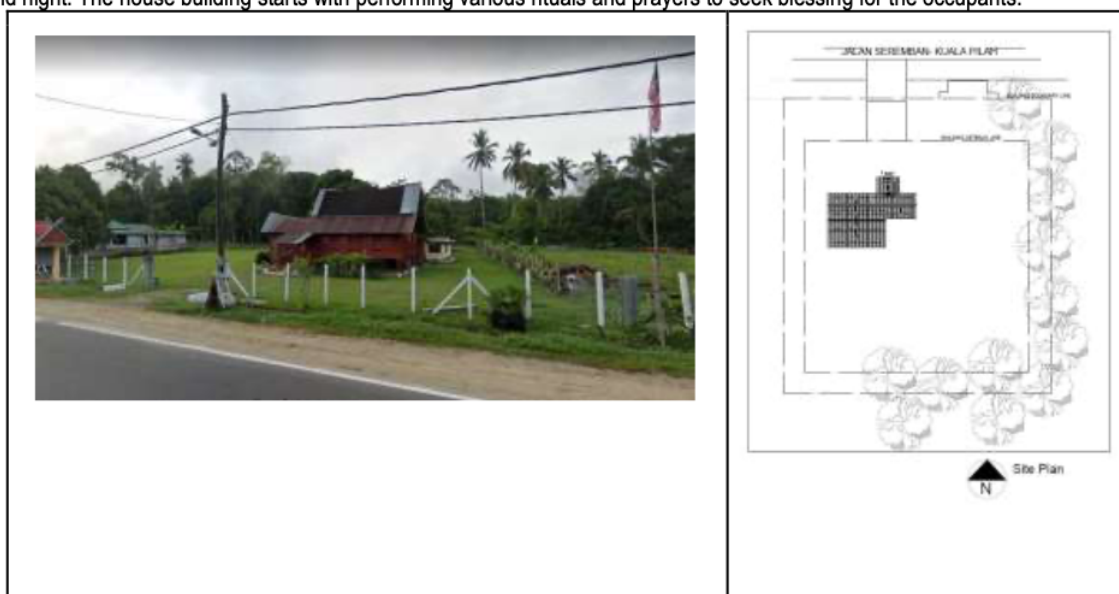


Fig. 5: The image and site plan of RTAIS shows a large lawn area to accommodate various activities.
(Source: Author, 2022)



Fig. 6: Vegetation at the RTAIS surrounding compound.
(Source: Author, 2022)

The RTAIS is the "house of custom" (*rumah adat*) for the surrounding community. The house holds a high status as the owner is the current *Ibu Soko* (inherited the social status from her ancestor) for the locals. RTAIS was once a place to receive guests of the state's

Azman, N.S., et al., 10th Asia-Pacific International Conference on E-B Studies, AicE-Bs2022KotaKinabalu, Sabah, Malaysia, 07-08 Sep 2022, E-BPJ, 7(21), Sep 2022 (pp. 323-332)

highest chief and was the stopover when the delegation travelled from Rembau to Seri Menanti. In addition, celebrations and festivals such as cultural events, the village chief's coronation and important community leaders' funerals are held in the house. Apart from the official events such as *Istiadat Menyandang Pesaka Adat*, the compound of the traditional house is also utilised as an open area to conduct a wedding reception and other community cultural ceremonies such as *Olek Ibu Soko Adat Lingkungan dan Luak Tanah Mengandung*. Traditionally, many locals also use it to practice the traditional Malay martial art (*silat*). Hence, the house compound has a huge grass lawn to accommodate different events.

The RTAIS house compound plays an important role for the owner and the local community. The compound is planted with herbs and vegetables as the cooking ingredient or used as a concoction for traditional medicine. In addition, the house compound itself.

4.1.2 Spatial planning and cultural manifestation

The layout of the RTAIS consists of three (3) space zoning, *serambi* (veranda) at the front part, *rumah ibu* (the main house; comprising a living area and a bedroom) in the middle and *rumah dapur* (kitchen) at the back. The veranda area is dominantly used by males and guests visiting the house. The main house is the most private and important space for the owner and family. The kitchen area is highly used by women conducting daily chores such as cooking. Even though there is no visible border between the areas, the demarcation of different interior planning in RTAIS is indicated by various functional spaces. The openness seems to create a large and airy house design.

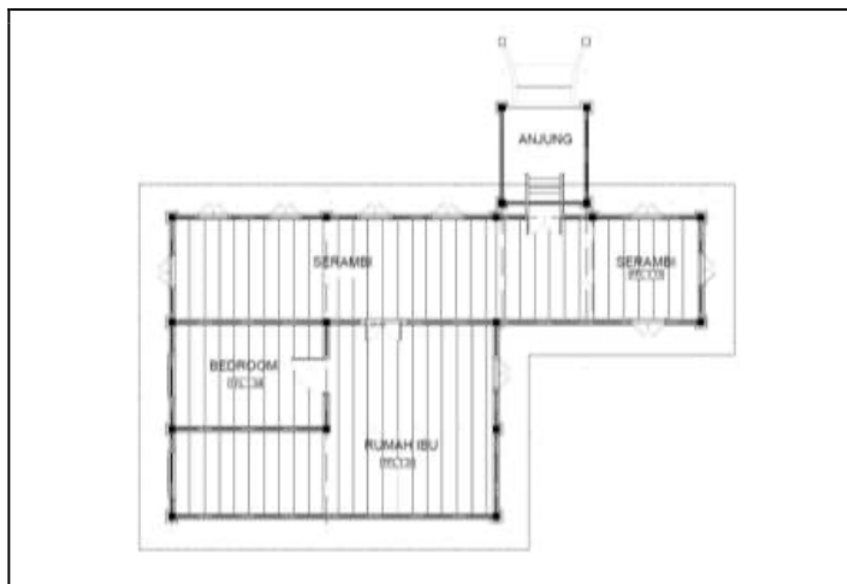


Fig. 7: Indication of spaces in RTAIS layout plan. The kitchen was demolished during the house extension.

The veranda of RTAIS is divided into three (3) sections. The *serambi pangkal* (base veranda) is nearest the stairs and is considered a sacred area in *Adat Perpatih*. It is positioned towards the river upstream, where the water source is unpolluted and pristine, therefore, deemed sacred. This area is mostly used to discuss family matters, community issues, or *Adat Perpatih*. In the presence of *Buapak* (community chief) for negotiation and discussion events, *serambi pangkal* will be adorned with *kain tabir lelangit* to honour the chief. For a different event such as a wedding ceremony, this area will be fitted with *kain tabir panjang* and *tilam pandak* (small sitting mattress for the groom during wedding vows solemnisation). The center part of the veranda is called *serambi tengah* (middle veranda). The furthest is *serambi hujung* (end veranda), accommodating important guests other than the chief.



Fig. 8: Images of the foyer area and staircase leading to the veranda and the interior of *serambi pangkal*.

(Source: Author, 2022)

Unlike the veranda area, which is one (1) level in height, *rumah ibu* (main house) is a double volume height area. The roof structure is uncovered, exposing the beams and other roof elements. This creates a spacious double-volume space, and the airy space provides a cool interior in tropic climates. This is supported by the intricate design of air vents carved at the roof gables. Upon the guest's arrival, the male visitors will direct themselves to the veranda area to be entertained. In contrast, the female will automatically move to the side of the lawn where the *selang* area is located to enter the *rumah ibu* or the *rumah dapur*. The aspect of courtesy and separation between males and females is strongly practised in the *Adat Perpatih*, aligned with the teaching of Islamic doctrine.



Fig. 9: Section Y-Y of RTAIS, showing the different heights in the veranda and the main house area. (Source: Author, 2022)

The utilisation of the RTAIS is not merely a living space; it is also one of the important gathering places for *Adat Perpatih* rituals or customary ceremonies, apart from conducting communal meetings due to the owner's status. Therefore, the RTAIS has been designed to accommodate the matrilineal owner's convenience for their daily activities or during important events. The different heights in spaces represent the hierarchy, as the higher floor is dedicated to the community chief, a male leader. In comparison, the kitchen belongs to the womenfolk.

4.1.3 Physical attribution and adaptation



Fig. 10: The roof forms an overhang with slightly upward curves (*lentik*).

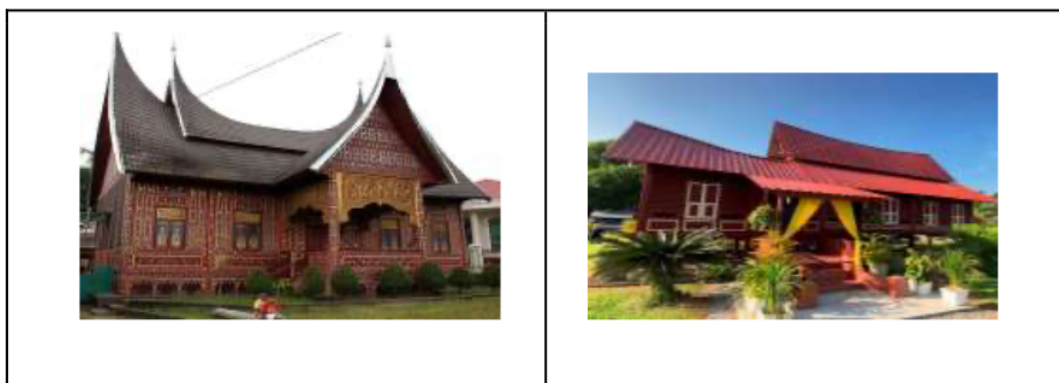


Fig. 11: The roof shape difference between Minangkabau (left) and RTAIS (right) can be seen through the "*lentik*"- the RTAIS ridge line is built with slight upward curves without the outward protrusion. (Source: Author, 2022)

A close observation of the RTAIS shows that the roof is a dominant characteristic of the house with slight upward curves (*lentik*) shape to the roof ridge line on both sides of the gable ends. Deep overhangs provide shade against the sun and protection from the rain. The air vent carved on the gable ends allows cross-ventilation providing a cool temperature at the roof level. This roof form is built above the *rumah ibu* (main house), without any *loteng* (attic), unlike the typical NSTMH design, and on one (1) side of *serambi pangkal* (base veranda).

Through observation, it can be seen that the RTAIS roof shape is different compared to the Minangkabau roof design as it has no outward protrusion at the edge of the ridgeline.

Three (3) entrances were originally built in the RTAIS; the main entrance is situated at the *anjung* (foyer) area, the second is at the *selang* (gap) area, and the third is at the *rumah dapur* (kitchen). However, due to major renovation made to the house, the original *selang* and *rumah dapur* no longer exist and were replaced with the newly built conventional mortar and brick construction materials. The changes were made due to the extended number of family members and the current need to have a larger kitchen area for holding events. The main entrance door was intentionally designed to be slightly lower than the typical door size height. The idea is to “force” the guest to bow once entering to respect the house owner. This is particularly important as Ibu Soko is a respected figure in the clan.

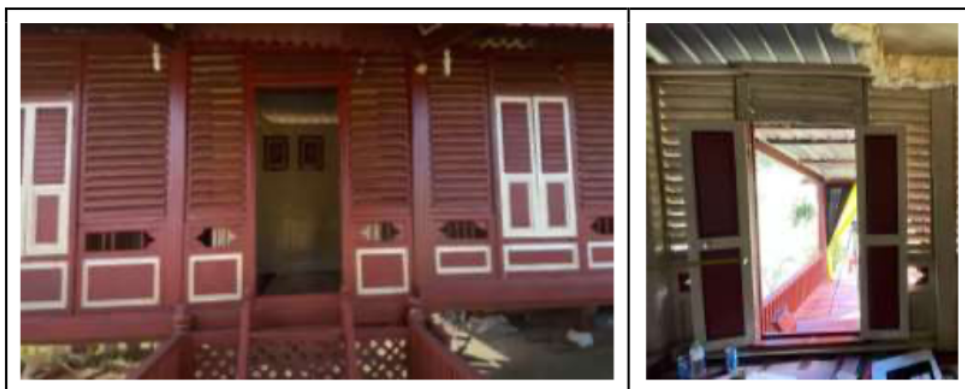


Fig. 12: Lower design of main entrance door leading to the veranda area. (Source: Author, 2022)

The RTAIS was designed with a raised floor constructed on timber stilts to protect the house in case of flood and defend against animals which will also aid in maintaining the cleanliness of the house’s internal area, used to conduct daily prayers. Moreover, the floor planks were placed in a gap arrangement to allow airflow underneath the house and provide a cooling effect to the interior. Besides, it allows the debris to slip through the gap during the house cleaning.

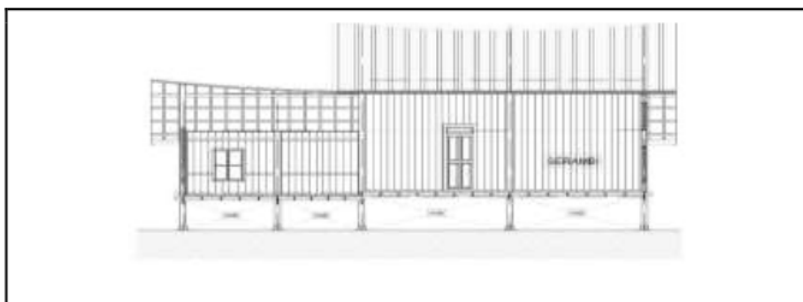


Fig. 13: Section X-X shows that RTAIS was raised on timber stilts. (Source: Author, 2022)



Fig. 14: A raised floor on stilts protects against flooding and animals. (Source: Author, 2022)

5.0 Discussion

The beliefs, values, traditions, and habits influence our daily conduct and socio-cultural values. Traditional Malay households are regarded as a unit of a wider community in a village setting which practise communal intimacy. As a result, spaces in traditional Malay houses, specifically RTAIS, are intended to meet society's social-cultural needs. In the case of RTAIS, the compound is also a part of cultural manifestation, promoting the community's relationship. Collective activities such as wedding feasts or any celebration requiring community participation would occur at RTAIS.

The findings reveal the significance of the cultural aspect in reinterpreting the Malay traditional house on Negeri Sembilan. As a result of the evidence, considerable attention should be paid to the custom and real intention of the craftsman in establishing a design approach in traditional architecture.

6.0 Recommendations and Conclusion

Further findings from this investigation will be developed into other conversations in the future. More information is required to ascertain the cultural impacts on the planning and building of the typical Malay house in Negeri Sembilan. Regarding the research purpose, this study can be expanded to include additional traditional Malay houses in Negeri Sembilan. Additionally, as part of the e-learning platform, the research's data and illustrations will be converted to digital format. The commercialisation of public information about the areas of culture, religion, custom, and construction that have contributed to the uniqueness of Negeri Sembilan houses is surely made possible by digitalising drawings in heritage houses.

Research has shown that there is a strong link between architectural culture (specifically *Adat Perpatih*) and design influence construction through traditional design values, namely (1) site consideration, (2) cultural manifestation and (3) physical attribution. These architectural design values are a vital asset in improving the Malay architectural character of today. Overall, the evidence supports future research into Malay traditional design values affecting the spatial design, specifically in Negeri Sembilan traditional houses.

Acknowledgement

The financial funding under Project code REIG-FETBE-2021/012 from the Centre of Excellence for Research, Value Innovation and Entrepreneurship (CERVIE) and UCSI University is gratefully acknowledged.

Paper Contribution to Related Field of Study

By exploring the past's-built environment, there are many discoveries and understanding of cultural aspects of Negeri Sembilan's Malay traditional houses. Moreover, this work complements many existing studies of the Malay traditional house on Negeri Sembilan. Therefore, the study on Rumah Telapak Ibu Soko, Tanah Datar 48 will continue to benefit society with valuable information on traditional Malay houses in Negeri Sembilan.

References

- Abdullah, N., & Zainudin, A. Z. (2022). Factors Contributing To Vacant And Idle Houses Phenomenon In Rural Area From The Village Heads' Perspective. Case Study: Seri Menanti, Kuala Pilah. *Journal of Tourism Hospitality and Environment Management*, 7 (27), 353-363.
- Abdul Latif, R., Asbollah, A., Kamari, M. and Mohd Sharif, T., (2018). An Exploration Of Awareness On The Adat Perpatih In Mukim Pantai, Seremban, Negeri Sembilan. *The Asian Journal of Social Science Research*, 1(1).
- Abdul Khalid, A. A. (1992) 'Historical Development of The Matrilineal State of Negeri Sembilan', in Patel, V. & Tan-Wong, N. S. L. (eds.) *Adat Perpatih: A Matrilineal System In Negeri Sembilan, Malaysia And Other Matrilineal Kinship Systems Throughout The World*. Kuala Lumpur: Wintrac (WWB/ Malaysia). Pp.5-6.
- Abidin, W.B.b.W. (1981). *The Malay House: Rationale and Change (Master Thesis)*. MIT, Massachusetts. Cambridge.
- Ahmad, S., Kosman, K. A., Abdullah, S. Y., & Gaman, M. N. A. (2019). Teras Adat Perpatih Negeri Sembilan Sebagai Satu Keunikan Identiti Warisan Bangsa ('Adat Perpatih' negeri Sembilan as A Unique Identity of National Heritage). *Asian Journal of Environment, History And Heritage*, 3(2).
- Azwar, W. (2001). *Matrilokal dan Status Perempuan dalam Tradisi Bajapuk*. Yogyakarta: Galang Press
- Gullick, J. (2003). *A History of Negeri Sembilan*. Selangor: Malaysian Branch of Royal Asiatic Society (MBRAS).
- Hamka (1963). *Adat Minangkabau Menghadapi Revolusi*. Penerbit Firma Tekad Jakarta.
- Hardon, S., Awang, A. & Amrah, S. (2012) Negeri Sembilan Traditional House and Minangkabau House in Sumatera: The Assimilation of Matrilineal in the Architectural Sustainability. *Journal Online Jaringan Pengajian Seni Bina (JOJAPS)*.
- Ibrahim, I., Roslee, N., Abdullah, A., Ibrahim, M., & N Murtaza, F. F. (2020). Analysis on the Socio-Cultural Values of the Traditional Malay Houses Compound. *PLANNING MALAYSIA*, 18(12). <https://doi.org/10.21837/pm.v18i12.747>
- Kasim, A. (1992). *Women in Adat Perpatih Society*. Adat Perpatih. Wintract (WWB/Malaysia) Sdn Bhd, Kuala Lumpur

Azman, N.S., et al., 10th Asia-Pacific International Conference on E-B Studies, AicE-Bs2022KotaKinabalu, Sabah, Malaysia, 07-08 Sep 2022, E-BPJ, 7(21), Sep 2022 (pp. 323-332)

Masri, M. (2012). Negeri Sembilan Traditional House is Minangkabau Traditional House: A Misconception. Asia Pacific International Conference on Environment-Behaviour Studies (AicE-Bs 2012 Cairo). Cairo: Elsevier.

Mawar, M. (2012). The Misconceptions of Negeri Sembilan Traditional. AicE-Bs 2012 Cairo. ASIA Pacific International Conference on Environment-Behaviour Studies. Mercure Le Sphinx Cairo Hotel, Giza, Egypt, 31 October 2 November 2012

Oliver, P. (1997). Encyclopedia of Vernacular Architecture of the World. Cambridge University Press.

Radzuan, A. W., & Sukri, S. (2019). Predominant Practices Of Adat Perpatih Practised By The Malays Of Negeri Sembilan. In & M. Imran Qureshi (Ed.), Technology & Society: A Multidisciplinary Pathway for Sustainable Development, vol 62. European Proceedings of Social and Behavioural Sciences (pp. 375-386). Future Academy. <https://doi.org/10.15405/epsbs.2019.05.02.37>

Saludin, M. R., Ismail, N. S. A., & Razali, N. A. (2020). Management of the Adat Perpatih Matriarchy in Negeri Sembilan, International Journal of Management, 11(12), 2020, pp. 1527-1536. <http://iaeme.com/Home/issue/IJM?Volume=11&Issue=12>

Sulaiman, M., S. (2016). Challenges in the Conservation of the Negeri Sembilan Traditional Malay House (NSTMH) and Establishment of a Conservation Principles Framework. University of Edinburgh.

Syed A. I. S. A. (2005). Order in Traditional Malay House Form. Doctor of Philosophy, School of Architecture, Oxford Brookes University.

Tan-Wong, N. S. L. (1992) 'Adat Perpatih: Matrilineal System Based On Humanity And Simplicity', in Tan-Wong, N. S. L. & Patel, V. (eds.) Adat Perpatih: A Matrilineal System In Negeri Sembilan, Malaysia and Other Matrilineal Kinship Systems Throughout The World. Kuala Lumpur: Wintrac Sdn. Bhd. pp.7-9.

