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# A CRITICAL DISCOURSE ANALYSIS PHYSICAL CHARACTERISTICS OF TRADITIONAL TERENGGANU ARCHITECTURE AS A TOURIST ATTRACTION ON THE EAST COAST OF PENINSULAR MALAYSIA: A CASE STUDY OF TERRAPURI HERITAGE VILLAGE IN TERENGGANU

*CIRI FIZIKAL SENI BINA TRADISIONAL TERENGGANU SEBAGAI TARIKAN PELANCONG DI PANTAI TIMUR SEMENANJUNG MALAYSIA: KAJIAN KES TERRAPURI HERITAGE VILLAGE DI TERENGGANU*

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**ABSTRACT**

Traditional Terengganu architecture, including the *Rumah Bujang Berselasar* (bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house), is the earliest and most prevalent type of housing in the northeastern region of Peninsular Malaysia, specifically in Terengganu. Site observation was conducted in Terrapuri Heritage Village in Setiu, Terengganu. These Malay houses are considered a crucial part of the region's architectural history, reflecting numerous changes in their architectural elements and their continuity with the past and present built environment. Beyond being mere structures for shelter, the physical characteristics of these houses embody traditional values, beliefs, and ways of life. Rooted in the rich cultural heritage of the Malay community, they have been shaped over centuries by history, geography, and social interactions. Hence, studying the physical features of traditional Terengganu architecture requires an interdisciplinary approach that encompasses not only technical and functional aspects but also cultural and symbolic significance. This necessitates integrating architectural and construction principles with social, cultural, and historical perspectives. The objective of this study is to identify the structural and non-structural elements of traditional Terengganu houses, specifically *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*. These distinctive features reflect the local context and cultural influences, contributing to the creation of a coastal resort identity. Thus, it is imperative to continue efforts to preserve and promote traditional Malay architecture, including *Rumah Bujang Berselasar* (bachelor house with unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house), to ensure the sustainability and preservation of cultural heritage for future generations to come.

**Keywords:** physical characteristics; traditional Terengganu architecture; Terengganu identity; tourist attraction; coastal resort design

**ABSTRAK**

Seni bina tradisional Terengganu, termasuk Rumah Bujang Berselasar (rumah bujang dengan platform tanpa atap) dan Rumah Tiang Dua Belas (rumah berdinding dua belas tiang), merupakan jenis rumah yang paling awal dan meluas di wilayah timur laut Semenanjung Malaysia, khususnya di Terengganu. Pemerhatian tapak telah dijalankan di Terrapuri Heritage Village di Setiu, Terengganu. Rumah-rumah Melayu tradisional ini dianggap sebagai sebahagian penting dalam sejarah seni bina wilayah ini, mencerminkan banyak perubahan dalam elemen-elemen seni bina mereka dan kesinambungan mereka dalam persekitaran binaan masa lalu dan kini. Lebih daripada sekadar struktur untuk perlindungan, ciri fizikal rumah-rumah ini mencerminkan nilai-nilai tradisional, kepercayaan, dan cara hidup. Berakar dalam warisan budaya yang kaya dari komuniti Melayu, mereka telah dibentuk selama berabad-abad oleh sejarah, geografi, dan interaksi sosial. Sebagai hasilnya, mengkaji ciri fizikal seni bina tradisional Terengganu memerlukan pendekatan interdisiplin yang merangkumi bukan sahaja aspek teknikal dan fungsional tetapi juga kepentingan budaya dan simbolik. Ini memerlukan integrasi prinsip seni bina dan pembinaan dengan perspektif sosial, budaya, dan sejarah. Objektif kajian ini adalah untuk mengenal pasti elemen struktur dan bukan struktur rumah tradisional Terengganu, khususnya Rumah Bujang Berselasar dan Rumah Tiang Dua Belas. Ciri-ciri istimewa ini mencerminkan konteks tempatan dan pengaruh budaya, menyumbang kepada penciptaan identiti resort pesisiran. Oleh itu, adalah penting untuk terus berusaha untuk mengekalkan dan mempromosikan seni bina Melayu tradisional, termasuk Rumah Bujang Berselasar (rumah bujang dengan platform terbuka) dan Rumah Tiang Dua Belas (rumah dengan dua belas tiang), bagi memastikan kelestarian dan pemeliharaan warisan budaya untuk generasi masa depan.

**Kata Kunci:** ciri-ciri fizikal; seni bina tradisional Terengganu; identiti Terengganu; tarikan pelancong; reka bentuk resort pesisiran

## Introduction

Traditional Malay architecture is a significant cultural heritage that offers valuable insights into the lifestyle and cultural practices of the Malay community (Sabrizan Rashid et al., 2020). The unique designs and features of traditional Malay houses reflect not only the functional and practical aspects of the architecture but also the social, cultural, and spiritual beliefs of the people who built them. Among the various types of traditional Malay houses, the *Rumah Bujang Berselasar* (bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) stand out as remarkable examples of traditional Terengganu architecture and have become the earliest and most prevalent types of housing in this region (Zumahiran Kamarudin, 2015; Azreena Abu Bakar et al., 2022). These houses are characterised by their intricate wooden structure constructed without nails and their symbolic features, such as the Makara and Hindu-inspired designs (Lokman Mohd Zen, 2005). Although Islam has greatly influenced the culture and architecture of Terengganu, *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* still retain their traditional features and cultural significance, making them an essential part of Terengganu's cultural identity and heritage.

This research paper explores the physical characteristics of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* and analyses the cultural and symbolic meanings behind them. The study of the structural and non-structural components of the house, as well as the design and decorative elements, such as the unique windows and intricate carvings, have been carried out. Additionally, a comparison of the features of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* with other traditional Malay houses was also conducted to understand the similarities and differences in the design and cultural significance.

The case study was conducted in Terrapuri Heritage Village in Setiu, Terengganu. This is where most of the original types of traditional Terengganu houses have been moved to and had their originality preserved, according to the function of the resort. It is hoped that this study might trigger a deeper understanding of the architectural and cultural heritage of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*, as well as their significance in the context of traditional Terengganu architecture.

## *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*

*Rumah Bujang Berselasar* (bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) are two traditional Malay houses that are easily recognised by their unique physical features. One of the most notable features is their steeply pitched roofing system made of Singgora tiles, which allows rainwater to flow off quickly during tropical rainstorms. The walls of these houses are constructed using woven bamboo or timber and have an airway passage, which creates a light and airy interior. This helps to keep the house cool in a hot and humid climate and allows for natural ventilation (Fadhlina Ahmad @Taufik et al., 2021). These houses also have decorative elements, such as intricate carvings on the walls and unique windows with wooden shutters that add to their aesthetic value. In summary, the physical features of these houses serve a practical purpose as a shelter from the elements while also representing the cultural significance of traditional Malay architecture and way of life (Zumahiran Kamarudin & Ismail Said, 2008).

## Structural Components

*Rumah Bujang Berselasar* (bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) are traditional Terengganu houses built using the mortise and tenon system, a traditional construction method that does not require nails. The structural elements of this type of house include:

*i.* *Tiang seri* (Main pillar)
*ii.* *Alang panjang* (Long tie-beam)
*iii.* *Alang pendek* (Short tie-beam)
*iv.* *Gegulung* (Rafter)
*v.* *Rasuk* (Floor beam)
*vi.* *Kasau lintang* (Purlin)
*vii.* *Kasau jantan* (Main rafter)
*viii.* *Kasau betina* (Rafter)
ix. *Bendul* (Crossbeam)

Initially, the design of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas's* structural elements is based on the principles of simplicity, flexibility, and strength, which are essential for creating a safe and comfortable living space.

## *Tiang Seri* (Main Pillar)

The *tiang seri* is considered the central pillar and is usually located at the centre of the *Rumah Ibu*, the main living space in the house. It is believed to be the most crucial part of the house as it symbolises the strength and stability of the structure and the spiritual centre of the household since *Bunga Halang* is placed on top of the column. The *Bunga Halang* is made from three pieces of coloured fabric and is placed on top of the *tiang seri* to ward off evil spirits and protect its occupants.

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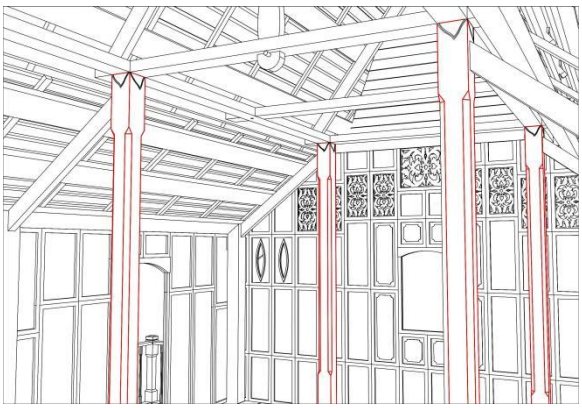
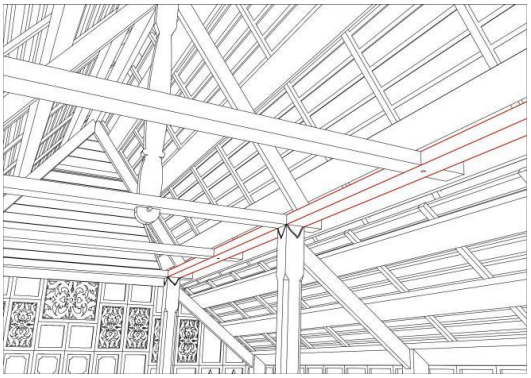
**Figure 1**
*Illustration of Tiang Seri in Rumah Bujang Terengganu*



***Alang Panjang* (Long Tie-Beam)**

*Alang panjang* is a type of long tie-beam commonly used to construct traditional Malay houses, including the *Rumah Bujang Terengganu*. The *alang panjang* (long tie-beam) is placed at the top of each pillar and runs parallel to the length of the house, forming the primary structural support for the roof (Khairul Fikri Khairudin et al., 2018). The *alang panjang* (long tie-beam) are made from hardwood and shaped to fit into the mortise and tenon joints of the pillars.

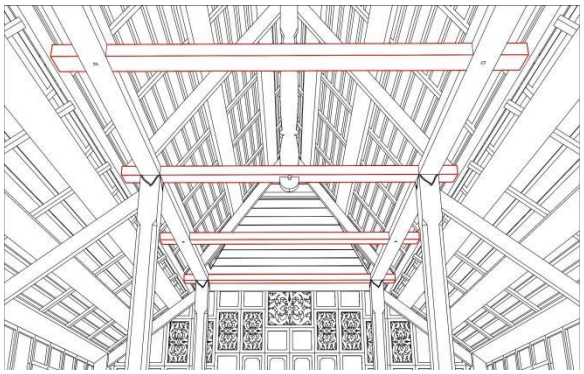
**Figure 2**
*llustration of Alang Panjang Connected to other Structural Systems*



***Alang Pendek* (Short Tie-Beam)**

The *alang pendek* (short tie-beam) is placed perpendicular to the *alang panjang* (long tie-beam) and is typically used to reinforce the roof structure and provide additional support. The *alang pendek* is usually shorter and generally placed at regular intervals along the length of the roof. They are fitted into the mortise and tenon joints of the pillars. In a *Rumah Bujang Berselasar* (bachelor house with an unroofed platform), the *alang pendek* beams are only used in the *Rumah Ibu* area, which is the main living space in the house. In other areas, such as the kitchen and veranda, where there may be fewer pillars to support the roof, the *alang panjang* alone distributes the loads to the pillars.

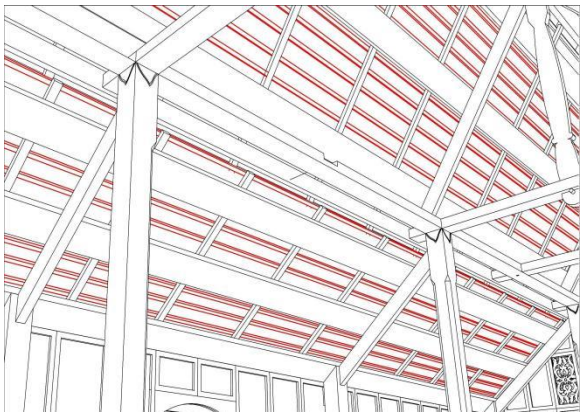
**Figure 3**
*An Illustration of a Short Tie-Beam that is Placed in the Rumah Ibu Area*



### ***Gegulung*** **(Rafter)**

In the context of traditional Terengganu houses, the *gegulung* refers to a type of roof rafter that runs horizontally across the roof structure, supporting the weight of the roof tiles. The *gegulung* rafters are arranged side by side with a type of purlin called *kasau lintang*, and both of the structures are supported by *kasau jantan*.

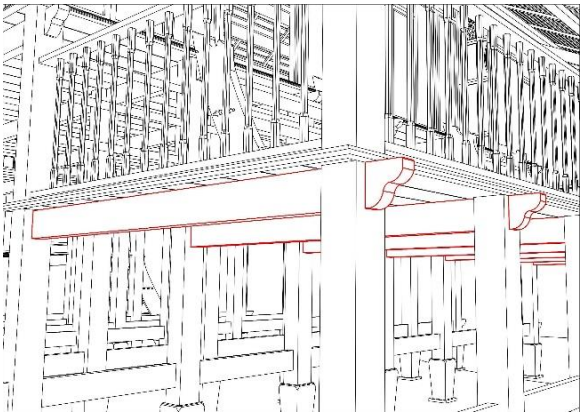
**Figure 4**
*Illustration of the Gegulung Serving as a Supporting Structure for the Roof and Placed Parallel to the Kasau Lintang*



### ***Rasuk*** **(Floor Beams)**

The upright pillars of a traditional Malay house are supported by floor beams called *rasuk*. These beams are an essential part of the structural system of the house, providing support for the elevated floor and helping to distribute the weight of the house evenly across the foundation (Khairudin et al., 2018). At the Terrapuri Heritage Village, it is interesting that all the houses only consist of *rasuk pendek*, which are placed horizontally at the bottom of the *papan lantai* (floorboards). This indicates that the houses have a more compact and closely-spaced structural system, with shorter spans between the pillars.

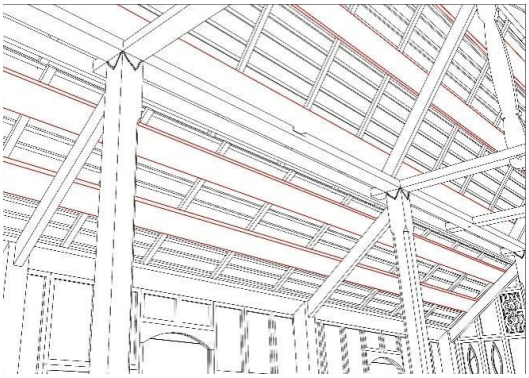
**Figure 5**
*An illustration of the Rasuk Functions as the Floor Beam of the House*



***Kasau Lintang* (Purlin)**

*Kasau lintang* is an essential structural component, providing horizontal support for the roof and a base for the *Singgora* tiles. It is similar in appearance to the *alang panjang*, which is also a horizontal beam used for structural support in the roof system. However, the *kasau lintang* differs from the *alang panjang* in that it is not attached to any pillars and is only connected to the *kasau jantan.*

**Figure 6**
*Kasau Lintang as the Roof Structure in Rumah Bujang Terengganu*



***Kasau Jantan* (Main Rafter)**

The *kasau jantan* is arranged vertically and attached to the beams and columns of the house. Its function is to transfer the loads from the roof to the support system of the house, and it is typically angled around 40 to 50 degrees (Fadhlina Ahmad @Taufik et al., 2021). *Kasau jantan* is an essential element in the roof system as it provides structural stability and support to the roof.

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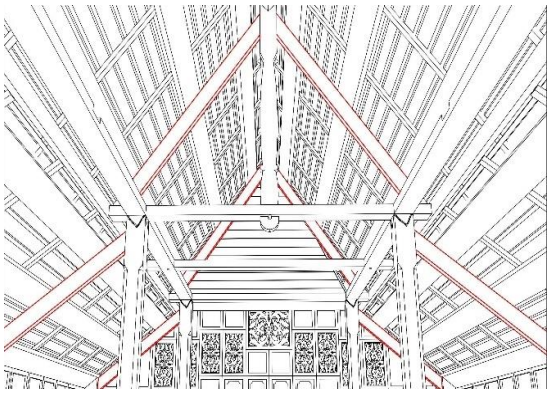
**Figure 7**
*Kasau Jantan, the Main Structure of the Roof that Transfers the Loads to the Pillars*



***Kasau Betina* (Rafter)**

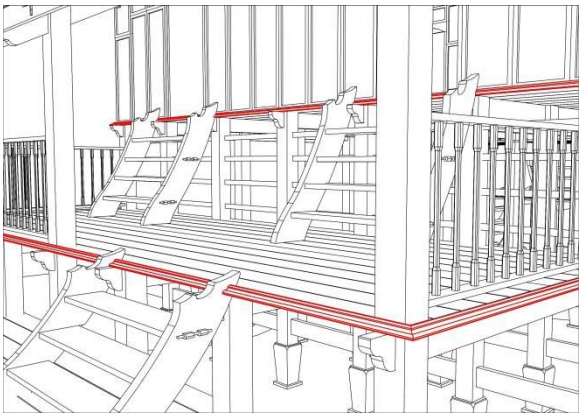
The subsidiary roof rafters at the end of the eave of a Traditional Malay house are known as *kasau betina*. They are typically smaller and arranged in the same position as the *kasau jantan*. *Kasau betina* serves as an additional layer of the roof, supporting the weight of the roof cover and helping to strengthen the structure against external pressures such as strong winds and heavy rain. They are typically made of the same durable hardwood as the other structural elements of the house and are carefully installed to ensure their proper function.

**Figure 8**
*Kasau Betina That is Placed to Support the Weight of the Singgora Tiles*

***Bendul* (Crossbeam)**

In the case of the *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*, the *bendul* serves a function similar to that of other traditional Malay houses: securing the structural framework by holding the pillars. However, according to Ab. Aziz Shuaib & Enoch (2014), the *bendul* also functions as the frame at the outer edges of the floor and encircles each specific space to divide the different portions of the house.

**Figure 9**
Illustration of Bendul, The Separator of Each Space in the House



**Non-Structural Components**

In a traditional Malay house, non-structural components can be divided into two main categories, which are the architectural and aesthetic components. Architectural components are essential elements that contribute to the stability, durability and safety of the house. In contrast, aesthetic components are non-essential elements that contribute to the beauty, elegance and cultural significance of the house (Ab. Aziz Shuaib & Enoch, 2014). Generally, the non-structural components are:

*i.* *Dinding* (Wall)
*ii.* *Tingkap* (Window)
*iii.* *Pintu* (Door)
*iv.* *Bumbung* (Roof)
*v.* *Tangga* (Staircase)
*vi.* *Tebar layar* (Projecting bargeboard)
*vii.* *Tunjuk langit* (King post) (Finials)
viii. *Pemeleh* (Fascia board)

While architectural components are necessary for the stability and safety of the house, aesthetic components are equally important in the preservation of the cultural and historical values of traditional Malay houses.

***Dinding* (Wall)**

In *Rumah Bujang Berselasar* (a bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house), there are two types of walls:

*1. Dinding Janda Berhias*: This term is used in traditional Malay architecture to refer to a decorative wall panel. They are decorated with simple motifs, such as *kerawang* and geometrical patterns carved directly onto the wood panels. The wood panels are then fitted together using the mortise and tenon joint system without the use of nails.

2. *Dinding pelupuh*: This refers to the plain walls that do not feature any decorative elements. In particular, it was constructed from bamboo and woven into panels in traditional patterns. The walls are then set up in vertical panels and decorated with *kerawang*, similar to *Dinding Janda Berhias*.

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**Figure 10**
*(Left) Dinding Janda Berhias, (Right) Dinding Pelupuh*


### *Tingkap* (Window)

Windows in *Rumah Bujang Berselasar* (a bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) are typically smaller and lower on the wall, providing more privacy to the residents. The windows are usually rectangular and consist of multiple wooden panels that can be opened and closed for ventilation. The upper part of the windows is decorated with intricate carvings and motifs, such as *kerawang*. These motifs serve an aesthetic purpose and allow for air circulation and natural ventilation (Fadhlina Ahmad @ Taufik et al., 2021).

Another type of window with a *Gunungan* or *Meru* design is related to ancient Hindu beliefs and represents the goddess. However, as Islam became more prevalent, the design of the *Gunungan* has evolved and is now only used as a historical symbol in the house.

**Figure 11**
*(Left) Typical Window Design in Rumah Bujang Terengganu, (Right) Window with Gunungan or Meru Design*


### *Pintu* (Door)

The door is made of wood and has a simple design. It is a double door where the two halves can be opened and closed separately. The door also consists of a small arch, which is a decorative element and has cultural and functional significance. It serves as a symbol of respect and humility as visitors are expected to bow before entering the house (Fadhlina Ahmad @ Taufik et al., 2021). At the same time, the airway passage at the top of the door helps to improve natural ventilation within the house, which would be necessary in a tropical climate.

**Figure 12**
*Typical Door Design in Rumah Bujang Berselasar and Rumah Tiang Dua Belas*

***Bumbung* (Roof)**

These houses with long roofs show the distinctive shape and the main structural elements that make up their architectural identity (Zumahiran Kamarudin 2015). The roof of the houses in Terrapuri Heritage Village is a traditional Malay-style roof consisting of wooden frames, beams, and rafters. They are covered with *Singgora* tiles, a clay tile commonly used in traditional Malay architecture. The roof has a steep pitch, with the two sides meeting at a ridge in the centre. This design is intended to ensure that rainwater flows quickly downwards and away from the house during heavy rainfall. The roof is supported by a complex system of horizontal and vertical beams, including *kasau lintang*, *kasau jantan* and *kasau betina*, which distribute the roof's weight evenly and stabilise the structure.

**Figure 13**
*Roof With Singgora Tiles*

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### *Tangga* (Staircase)

The staircase of the traditional houses in Terrapuri has a unique design that symbolises *Makara*. However, after Islam was practised on the east coast, some elements were remodelled according to the Islamic style, which is why the number of steps is odd. According to the *Sunnah*, it is better to enter the house using the right foot; hence, the steps were arranged that way.

**Figure 14**
*Staircase With the Outline of Makara*

### *Tebar Layar* (Projecting Bargeboard)

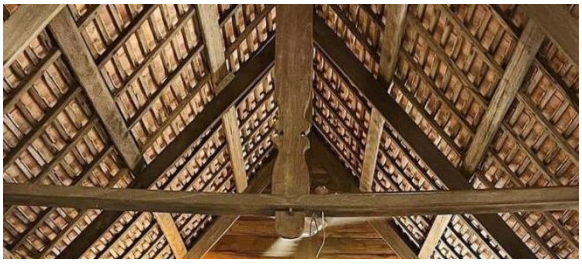
The *tebar layar* is a simple piece of wood board that runs along the edge of the roof gable. It is not decorated with any intricate carvings or motifs, and its primary function is to protect the roof structure from water damage caused by rainwater running off the roof. Despite its simplicity, the bargeboard adds a clean and tidy finish to the edge of the roof gable.

**Figure 15**
*Simple Design of Tebar Layar Without Any Decorations*

### *Tunjuk Langit* (King post) (Finials)

The *Tunjuk Langit*, or finials, are usually placed at the exterior tip of the gable end and serve as a decorative element. However, in the restored traditional Terengganu houses at Terrapuri Heritage Village in Setiu, Terengganu, the *Tunjuk Langit* is placed on the interior and connected to the main structure of the roof. However, it still functions as a decorative element rather than serving any structural purpose.

**Figure 16**
*Tunjuk Langit Placed on the Interior*



### *Pemeleh* (Fascia Board)

The *Pemeleh* serves both functional and decorative purposes in traditional Malay architecture. They are designed to cover the roof structure and add an aesthetic touch to the overall design. In addition, the use of the *Makara* motif in the design of *Pemeleh* is an example of how traditional Malay architecture incorporates elements from various cultural and religious influences (Norhidayah Mohd Noor Nasir & Mohammad Rusdi Mohd Nasir, 2019).

**Figure 17**
*The Pemeleh with the Outline of Makara Placed at the Gable End*

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## Methodologies

The physical features of *Rumah Bujang Berselasar* (a bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) have been studied in detail in this research. The study aims to categorise the elements of traditional Malay architecture in Terengganu into two categories: structural and non-structural. The first category included elements such as the *tiang seri, alang panjang, alang pendek, gegulung, rasuk, kasau lintang, kasau jantan, kasau betina* and *bendul*. On the other hand, the non-structural category consisted of elements such as *dinding, tingkap, pintu, bumbung, tangga, Tebar Layar, Tunjuk Langit* and *Pemeleh*. Furthermore, the research also focused on identifying the aesthetic elements of the door, window, walls, airway passage, and staircase. The author referred to the technical drawings of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* that were available in the Terrapuri Heritage Village archives to conduct a visual analysis and identify the physical features of the houses. The drawings and related documents of Terrapuri Heritage Village were prepared based on the data and information provided by the resort owner. These houses are approximately 150 to 200 years old and have been preserved in the Terrapuri Heritage Village. To gather more information, site observations and one-to-one formal interviews were conducted with the owner of Terrapuri Heritage Village, in August 2022 to gain insights into the physical features and cultural significance of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*.

## Result and Discussions

Table 1 shows the structural components of traditional Malay houses applied in twenty-two (22) villas at the Terrapuri Heritage Village in Setiu, Terengganu. Subsequently, Table 2 shows the non-structural components of the same houses.

**Table 1**

*Structural Components of Traditional Malay House Applied in 22 Villas in Terrapuri Heritage Village*

| Physical aspects in Traditional Malay Architecture | Building components | Rumah Kedai Buluh | Rumah Paloh | Rumah Belukar Titian | Rumah Tasek | Rumah Dusun | Rumah Binjai Rendah | Rumah Tembakang | Rumah Gelugor Raja | Rumah Seberang Takir | Rumah Jeram | Rumah Kubang Jela | Rumah Nibong | Rumah Pulau Musang | Rumah Pengkalan Kubu | Rumah Sungai Mas | Rumah Kolam | Rumah Tanjung | Rumah Pulau Rusa | Rumah Teluk Pasu | Rumah Serengas | Rumah Berang | Rumah Serada |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Structural | *Belebas* | | | | | | | | | | | | | | | | | | | | | | |
| | *Tetupai* | | | | | | | | | | | | | | | | | | | | | | |
| | *Alang panjang* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Alang pendek* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Gelegar* | | | | | | | | | | | | | | | | | | | | | | |
| | *Tunjuk langit* | | | | | | | | | | | | | | | | | | | | | | |
| | *Gegulung* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Tiang seri* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Tiang tongkat* | | | | | | | | | | | | | | | | | | | | | | |
| | *Rasuk* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Kasau lintang* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Kasau jantan* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Kasau betina* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Bendul* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |

Table 1 presents the structural components utilised in *Rumah Bujang Berselasar* (a bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house), which are classified into two categories: the structural system of the roof and the supporting structure for the body of the house and elevated floor to distribute weight to the foundation. The roof structural system comprises several components, namely *alang panjang, alang pendek, gegulung, kasau lintang, kasau jantan,* and *kasau betina*. Although the roof's structural system is comparable to other traditional houses, its assembly method may differ. The *tiang seri, rasuk* and *bendul* are the primary structural components of the body of the house, as the house cannot be erected and assembled without them.

These structural components are essential for the stability and strength of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*, so they are carefully crafted and assembled by skilled craftsmen using traditional building techniques. It is also worth noting that the elevated floor, supported by the structural components, helps to distribute the weight of the house evenly to the foundation, further enhancing the house's stability.

**Table 2**

*Non-Structural Components of Traditional Malay Houses Applied in 22 Villas in Terrapuri Heritage Village*

| Physical aspects in Traditional Malay Architecture | Building components | Rumah Kedai Buluh | Rumah Paloh | Rumah Belukar | Rumah Tasek | Rumah Dusun | Rumah Binjai | Rumah Tembakang | Rumah Gelugor | Rumah Seberang | Rumah Jeram | Rumah Kubang Jela | Rumah Nibong | Rumah Pulau | Rumah Pengkalan | Rumah Sungai Mas | Rumah Kolam | Rumah Tanjung | Rumah Pulau Rusa | Rumah Teluk Pasu | Rumah Serengas | Rumah Berang | Rumah Serada |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Non-structural (Architectural) | *Dinding* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Tingkap* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Pintu* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | | √ | √ | √ | √ | √ |
| | *Bumbung* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Tangga* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Tebar layar* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| Non-structural (Aesthetics) | *Tunjuk langit* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Sisik naga* | | | | | | | | | | | | | | | | | | | | | | |
| | *Sulur bayung* | | | | | | | | | | | | | | | | | | | | | | |
| | *Ande-ande* | | | | | | | | | | | | | | | | | | | | | | |
| | *Pemeleh* | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| | *Kepala cicak* | | | | | | | | | | | | | | | | | | | | | | |

Table 2 provides a comprehensive explanation of the non-structural components found in *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas*, which are equally essential in creating the overall appearance and functionality of the house. The non-structural components can be further categorised into architectural and aesthetic elements. The architectural elements play a crucial role in providing safety, protection, and ventilation for the house, ensuring the comfort and well-being of its inhabitants. These components include the *dinding, pintu, tingkap, bumbung, tangga and Tebar Layar*. Each element is carefully designed and placed to serve a specific purpose, whether to regulate airflow, protect against the elements, or provide a passage for movement.

On the other hand, the aesthetic elements of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* are mainly used to symbolise the house owner's spiritual beliefs and social status. They are often influenced by local beliefs and customs, with some designs representing the natural environment while others depict spiritual beings or events (Ab. Aziz Shuaib & Enoch, 2014). Overall, the combination of both architectural and aesthetic elements in *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* contributes to the unique and distinctive appearance of the house, reflecting the rich cultural heritage and traditions of the Malay people in Terengganu.

## Conclusion

In conclusion, the study of the physical features of *Rumah Bujang Berselasar* (a bachelor house with an unroofed platform) and *Rumah Tiang Dua Belas* (twelve-pillared house) revealed the importance of traditional Malay architecture in preserving cultural heritage. The structural components, which include the *tiang seri, rasuk, bendul, alang panjang, alang pendek, gegulung, kasau lintang, kasau jantan, and kasau betina*, were found to be crucial in supporting the house's weight and ensuring its stability. The non-structural components, such as *dinding, pintu, tingkap, bumbung, tangga, Tebar Layar, Tunjuk Langit* and *Pemeleh,* also play essential roles in the provision of safety, protection, ventilation, and aesthetic value. The study also revealed the importance of the preservation of traditional architectural elements and motifs to maintain cultural identity and historical significance. The intricate carvings on the door, window, walls, airway passage, and staircase of *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas* reflect the house owner's spiritual beliefs and social status. It is imperative to continue efforts to preserve and promote traditional Malay architecture, including *Rumah Bujang Berselasar* and *Rumah Tiang Dua Belas,* to ensure the sustainability and preservation of cultural heritage for future generations.

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