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SEMINAR ON BUILT  
ENVIRONMENT  
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(USBET) 2023**

**SUSTAINABLE BUILT  
ENVIRONMENT**

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# e-Proceeding

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# A STUDY ON THE CHARACTERISTICS OF A MALAY TRADITIONAL HOUSE: THE KUTAI HOUSE

Nurul Erisya Binti Mohamad Safian<sup>1</sup>, Aida Affina Abd Ghani<sup>1\*</sup>

<sup>1</sup>Department of Built Environment Studies and Technology, College of Built Environment, Universiti Teknologi MARA, Perak Branch, 32610, Seri Iskandar, Perak, Malaysia

[nrlerisya@gmail.com](mailto:nrlerisya@gmail.com),\*[aidaa017@uitm.edu.my](mailto:aidaa017@uitm.edu.my)

## ABSTRACT

*This research aimed to describe the characteristics of Traditional Kutai Houses. This study was conducted at Rumah Kutai Kak Wok at the Kompleks Pasir Salak using a qualitative methodology, which consisted of field observations and a review of previous journals. The findings revealed that Rumah Kutai Kak Wok has a roof design that used “rumbia” or sago leaves, with a layout that includes “serambi”, “anjung”, “rumah ibu”, “selang kering”, kitchen, and “selang basah”. These features are a common design layout in traditional Kutai houses. Security features, such as door locks and stairs are also excellent, despite the lack of technology. Good natural ventilation is provided by windows, walls, and floors. The unique characteristics that define a Kutai house as a complete residence are its ability to bring together cultural, social, useful, and environmental factors that respond to the needs and preferences of its residents by offering them a cosy and fulfilling living environment. This study recommends that the design and features of this Kutai home receive broader exposure, which may add appealing elements to contemporary house designs. Such an effort could also help preserve the characteristics of Kutai houses in modern home designs.*

**Keywords:** *traditional house, characteristic, Perak architecture, rumah Kutai Kak Wok*

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## INTRODUCTION

A Kutai house is a Malay traditional house found in the state of Perak, Malaysia. The oldest Kutai traditional home is between 100 and 200 years old (Saleh, Mahat, & Nayan, 2018). It is one of the remnants of earlier generations for people to respect because of its unique architectural style, which is not present in today's contemporary houses. Traditional Kutai houses have fallen into disarray to the point that they can only be found in villages and along the banks of rivers in Hilir Perak, Perak Tengah, and Kuala Kangsar. Traditional Kutai houses, along with other traditional houses, are slowly becoming outdated, as a consequence of external influences in house design and technological advances in construction.

### **A Study on Malay Traditional House: The Kutai House**

The unique architectural design and cultural value of Traditional Kutai Houses are well known. They are built to withstand the humid environment of Southeast Asia, especially in Perak, where they are widely distributed. In general, Kutai houses fall into one of three categories, including *Kutai Asli*, *Kutai Anjung*, and *Kutai Anjung Beranda* according to Khairul Fikri Khairudin, Nurul Hamiruddin Salleh, and Srazali Aripin. Depending on how well the house fits them, these modifications may cause the building materials and methods to change (Khairudin et al., 2018). Therefore, the objective of this study was to identify the characteristics of a Traditional Kutai House.

## LITERATURE REVIEW

There are two types of Kutai houses, which is the 16-pole Kutai houses and the 12-pole Kutai houses. According to Khairul et al. (2018), the pillars, known as "*tiang seri*", are built of cengal, merbau, or damar wood and can be round, square, or octagonal in shape (Khairudin, Salleh, & Aripin, 2018). A Kutai house has a "*serambi*", "*anjung*", "*rumah ibu*", "*selang kering*", kitchen, and "*selang basah*". There are three ways to go out and into the house, which are the *serambi*, *selang kering*, and *selang basah*. The Kutai house has eight full pillars and eight half pillars. The full pillars extend from the floor to the roof, but the half pillars only extend from the floor to the roof truss or "*tulang atap*". A wandering blister-made screen that is set in the corner of a side wall also has a beam for "*peran*", which is a room with a roof and a floor where items may be stored.

## METHODOLOGY

The aim of this study was to identify the characteristics of a Kutai house. Thus, it was critical to scrutinise the characteristics of a Kutai house in depth. This study employed

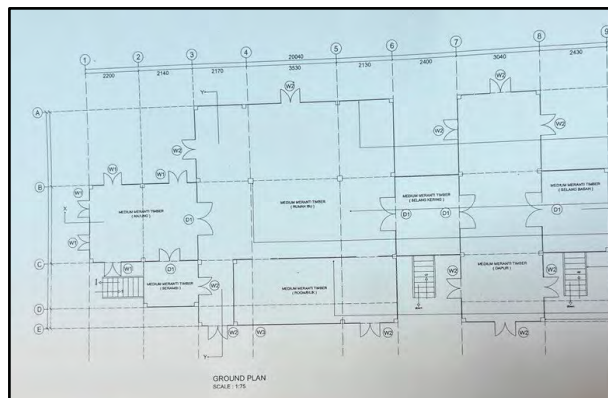
a qualitative method through literature review and observations at Rumah Kutai Puan Wok, Pasir Salak to gather the data. The qualitative method was chosen because it is the most effective strategy for answering research questions and to support the aim of this study. The findings served as a reference and aided in the development of this idea with the help of published journals. The limitations of this study were due to the lack of previous research studies on this subject matter and the fact that the number of Kutai homes continues to decrease year after year.

## DISCUSSION AND ANALYSIS

- Roof Design

Kutai houses have a long *rumbia* or sago roof. A Kutai house can be identified by its long roof and roofed storage area, known as the *peran* or attic (Khairudin, Salleh, & Aripin, 2018). The materials used to construct a Kutai house usually consist of local wood and bamboo. The decorations in a Kutai house may include tracery (*kerawang*), grille (*jerejak*), octagonal pillars, and woven walls. This form of house, according to Yazid Saleh, Hanifah Mahat, and Nasir Nayan, was influenced by Aceh and Bugis architectures. This influence may be traced back to the Sultanate of Perak's history with the Aceh and Bugis kingdoms (Khairudin, Salleh, & Aripin, 2018).

- Layout Of House



**Figure 1: Floor Plan of Rumah Kutai Kak Wok, Kompleks Pasir Salak**

Figure 1 shows that the *anjung* is the room close to the main entryway of the Kutai house. The *Anjung* kutai home is right across the Perak River. It is an area in the house where guests may congregate and where the host may entertain them. It acts as a reminder and boundary for guests not to enter the *rumah ibu* or the main house. When the host organises a celebration and

invites the villagers, the men can congregate in the *anjung* area, while the ladies congregate in another room.

The *rumah ibu* area is an important identity of the Kutai house. This area is supported by 16 or 12 essential pillars of the Kutai house. The main house pillars serve as a memorial of the location. There is also a *peran* in the main house that is on the same level as the purlin and acts as a storage place. The *rumah ibu* has only one room with two entrances and no doors, as it can be used for a variety of purposes.

The *selang kering* connects the *rumah ibu* to the kitchen. It often includes a staircase leading inside and outside of the house. It does not have a roof and only has a floor. Owners usually use this place to dry their clothes. The importance of this area is that if a fire starts in the kitchen, it will be completely shut off at the *selang kering* and will not do any damage to the *rumah ibu* or *anjung*. It is also one of the easiest escape routes in the event of an emergency or fire.

The Kutai home also has a special feature, known as “*para*” or shelf that is supported by horizontal beams, whose original function is to strengthen the roof structure. There are two types of shelves, which are *para gantung* and *para buang*, as shown in Figures 2 and 3. These *para* can be used to store kitchen utensils, such as pots, plates, and others. A “*tunjuk langit*” in the kitchen serves the same purpose as a horizontal beam, as it supports the roof structure. In the kitchen, the windows are limited because in the past, villagers used wood stoves to cook. This design is to prevent the fire from easily burning off, while ensuring that smoke does not blow towards the *rumah ibu* and disturbing occupants in that area. The smoke instead can exit the kitchen through a tiny hole in the wall.



**Figure 2: “Para Gantung” at Rumah Kutai, Kompleks Pasir Salak**





**Figure 3: “Para Buang” at Rumah Kutai, Kompleks Pasir Salak**

- Security

Traditional Kutai houses often include unique characteristics, such as safety measures. A Kutai house would have an outstanding degree of security that gives people a sense of safety, and attention to the state and surroundings of their house. Doors and stairs are two of the most significant parts of Kutai home security.

For escape and entry, a typical Kutai residence may include three staircases. The odd number approach is used in the design and construction of the stair steps of Kutai houses. The staircase of the Kutai house was previously part of the alarm and security system. As a Malay architectural method for safety, the staircase will have a powerful tread at the start and a slack tread that produces a noise when touched. It will keep going till it hits the last tread.

The door is usually built using “one-piece boards” as part of the security features, and has a rather complex locking mechanism. The door is completely connected to the lintel and does not have hinges, which is referred to as “*pintu gelangsar*”. When someone opens the door, the sound of friction between the door and the lintel is created. The Kutai door lock can be identified by its one-of-a-kind auto lock that employs a mortise (*selak*). When the shutter is fully opened, it will auto-lock, and when it is ready to be closed, there is a single button that will allow the shutter to be closed once again.

- Natural Ventilation

The walls of the main house and the other rooms are made of "*papan berdiri*". There is one air vent or window on the wall that allows air to flow in and out, while also indicating the time and time for prayers. The Kutai home is designed in such a way that it does not face the morning sun. From the kitchen, the sun will cross the Kutai home and falls on the porch. Its purpose is to decrease the harmful effects of sunlight or excessive light exposure to the occupants. For example, in the morning, the occupants will wash their clothes near the river, and at that time, the sun will be shining in the kitchen area. In the evening, the occupants will be in the kitchen to cook and so on, and the sun will be shining in the front area. As a result, the occupants will not be exposed to the hot sun or excessive light.

## CONCLUSION

The purpose of this research was to discover the features of a Kutai Traditional House in Perak, known as Rumah Kutai Kak Wok (Kak Wok's Kutai House). In the *rumah ibu* of Kak Wok's Kutai house, 16 major pillars are used as support. The roof design, home layout, security, and natural ventilation of Kak Wok's Kutai house have been highlighted in this research. The unique roof design with its ornaments, such as tracery, grille, octagonal pillars, and woven walls highlights and enhances the uniqueness of this Kutai house. This form of Malay architecture is outstanding in terms of house safety because despite the lack of security technology in the past, they were able to construct decent security mechanisms, such as door locks and stairsteps that serve as an alarm. As a recommendation, the design and characteristics of this house should be further exposed, which may be added as a captivating aspect to modern house designs, while also preserving the Kutai house design.

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