

## THE CITY ON STILTS: A HISTORIC SETTLEMENT IN THE HEART OF BRUNEI CAPITAL CITY

Nur Amanina Hazimah Azman<sup>1</sup>, Sharyzee Mohmad Shukri<sup>2\*</sup>, Saiful Hazmi Bachek<sup>3</sup>

<sup>1,3</sup> Faculty of Engineering, Built Environment & Information Tech, Segi University, Selangor, Malaysia

<sup>2</sup> Faculty of Architecture & Build Environment, Infrastructure University Kuala Lumpur, Malaysia

\*sharyzee@iukl.edu.my

Received: 1 Jan 2021

Final version received: 20 March 2021

Brunei Darussalam is a small country that is located in the southeast Asia on the north west of the island of Borneo. Brunei Darussalam means 'Abode of peace' where it is well known for its water village (kampong Ayer) that is built along both banks of Brunei river (Sungai Brunei). Kampong Ayer is the first village and house settlement that is built where the history of the village dated back to 1521. There are different types of houses in kampong Ayer that can be divided into 6 types of houses. This paper will give an overview of how the houses are built and structured centuries ago and how it is different from modern days settlement houses. As well as, how the houses are built long time ago that includes finding the right place to build, the first column raised (Tiang Seri), roof, floor and walls. This paper will also explain the restriction of building a house at the water village in terms of placing the door, windows and many more. That concludes on how different the houses built a long time ago then now as people in the old days would rather build and carved their own houses where now it is hard for people that really know how to build a house like the way it is before the modern era.

**Keywords:** City on stilts, Historic Settlement, Brunei, Kampong Ayer

### INTRODUCTION

Brunei Darussalam is a small country that is located in the Southeast Asia on the north west of the island of Borneo. Brunei means 'Adobe of peace' where it is well known for its water village (kampong ayer) that is built along both banks of Brunei river (Sungai Brunei) in which the houses that are still standing at kampong ayer right now are both timber and concrete houses where mosques, schools and restaurants are next to each other. Before civilization, humans do not have a permanent ideal place to stay as living situation is not prioritized as long as they are protected from the weather. People in the past also sought refuge in temporary homes where they use it to gather members of their relatives. When people start to know the meaning of civilizations, houses are built from tree branches and leaves. From here onwards

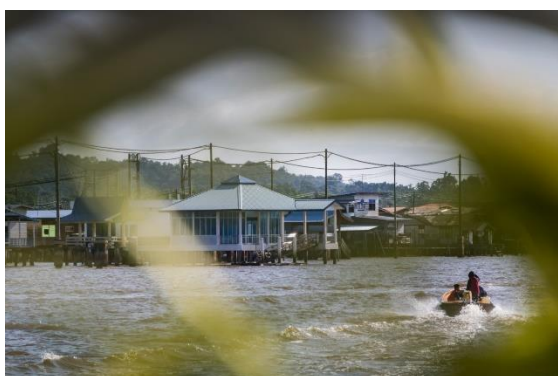
are where houses are developed throughout the years. In Brunei Malay society, a house represents a family where the member of the family is born and raised in kampong ayer and are continued through the generations as long time ago the shape and carvings of a house is not looked on, this is because a long time ago a house is only used to fulfill the needs of our daily lives.



*Figure 1 A view of Kampong Ayer  
Image by Mohammad Izzuddin Bin Haji Jali*

## 2. WHERE IS KAMPONG AYER?

Kampong Ayer is located at Sungai Brunei near the capital Bandar Seri Begawan where several of the villages are named Kampong Setia, Kampong Kelinik, Kampong Saba, Kampong Lurong Sikuna, Kampong Setia Pahlawan, Kampong Peramu, Kampong Bakut Pengiran Siraja Muda, Kampong Burung Pingai Ayer, Kampong Lurong Dalam, Kampong Pandai Besi, Kampong Pengiran Indera Kerma Lama as some of the names are based on the skills and knowledge or the title of a particular person. For example, Kampong Pandai Besi is named because the villagers know how to cast iron. On the other hand, same goes to Kampong Pengiran Kerma Indera Lama named due to the title 'Pengiran' given by the Cheteria. There are different types of houses in kampong ayer such as 'rumah belah bubung', 'rumah tungkup', 'rumah putong limas', 'rumah belanggar', 'rumah loteng' and 'rumah melintang'.



*Figure 2 Kampong Ayer  
Image by Mohammad Izzuddin Bin Haji Jali*

## 3. DIFFERENT TYPES OF HOUSES IN KAMPONG AYER



*Figure 3 Types of old houses in Kampong Ayer in the year 1950s*

### RUMAH BELAH BUBUNG

'Rumah belah Bubung' is one of the mostly used types of house in Kampong Ayer as the roof is shaped like an upside-down letter 'V' and it also has a horizontal bone roof structure. Before the modern era, the rooftop is made from arranged 'nipah' leaf and 'kajang' leaf where it is commonly used as it is easy to fix and install. Other than that, there is another roof which is called 'Sarani' roof that have the same characteristics and shapes as to rumah belah bubung where it was not known where it came from but are still categorized under rumah belah bubung. On the other hand, rumah belah bubung is one of the houses that is simple that makes it easy for the homeowner to repair and replace the roof in the event of damage, this is because it is one of the easiest roofs to build than 'rumah tungkup'.



*Figure 4 Rumah Belah Bubung*

### RUMAH TUNGKUP

As for 'rumah tungkup', the construction of this roof is not commonly used in kampong ayer as it is only built by certain people. The construction of 'rumah tungkup' roofs are complicated and are difficult to change and fix. A long time ago, rumah tungkup is only build and owned with someone who have a higher rank or positioned but now 'rumah tungkup' is built in both kampong ayer and ashore.

## **RUMAH PUTONG LIMAS**

Rumah putong limas is not as popular as rumah belah bubung and rumah tungkup as majority of the residents in kampong ayer used rumah belah bubung and rumah tungkup. Rumah putong limas is first build in 1940s, the shape of the house is elongated and the roof is longitudinal as it is usually built up on the right and left side of the house.

## **RUMAH BELANGGAR**

One of the unique houses, as per according to one of the oldest residents where 'Rumah Belanggar' is first build in the year 1950s with the shape of the house rectangular and the roofs are like 'Belah Bubungan'. This house is called 'Rumah Belanggar' is because the front of the house was breached or added to one section that is used for the living room, but this type of house is not very popular and there is no more houses like 'Rumah Belanggar' in kampong ayer or ashore. Nevertheless, this type is house is built long time ago in several villages of kampong ayer.

## **RUMAH LOTENG**

Rumah loteng can be located in one of the Kampong Ayer villages on which there are only a few lefts that is in Kampong Saba and Kampong Lurong Sikuna as this type of houses is only owned and can be owned by those who is rich and are with high ranking positions. This type of house resembles the houses that we owned nowadays that have two floors where the first floor is quite small than the ground floor. The first floor of Rumah Loteng is specially for the girls that is not married to prevent them from socializing and anything bad from happening especially with boys that is not related to the family. This topic outline details of study.

## **RUMAH MELINTANG**

One of the houses that is not so prominent in Kampong Ayer, it is called Rumah Melintang is because of the positioned of the house built horizontally with the river compared to the other houses, this is because of the length of this house resembles long house. This type of house is very rare and there is only one house built in Kampong Lurong Sikuna that is built in between 1940s and 1950s. Rumah melintang have 4 rooms that is connected and are arranged longitudinally. The residents of the house are usually 4 different families that are siblings or closed families. In addition, Rumah melintang have a huge living room and separate kitchen for every families. Despite the rare sight of rumah melintang, in Kampong Lurong Sikuna it is destroyed in the year 1960s. Rumah

melintang roofs is belah bubung that is made from 'nipah' leaf or kajang leaf then changed to zinc roof. The structure of this house is mainly wood as it is from 1940s where the length of this house can be at least 30m long.

## **4. TYPES OF WOODS THAT ARE USED TO BUILD KAMPONG AYER HOUSES**

Houses that are built in Kampong Ayer a long time ago are mostly wood and leaves where the wood and leaves are built to be the columns, walls and roof on which it was taken from the forest nearby Kampong Ayer. For example, Nibung wood are used for the flooring or the column of the house because the nibung wood is a type of wood that can withstand long in water. The wood itself are sometimes cut into 10 to 15 m long for the column of the house. Other than nibung wood other wood are also used such as bulian wood, saumah wood, kapur wood, kulimpapa wood, sawar babu wood, meranti wood, salangan wood and many more. Just like nibung wood all the woods listed above can withstand long in water and are good for years.

On the other hand, nibung wood is also used for the flooring where the wood is cut into 4 or 5 pieces, depending on the owner. Most Brunei Malay people used nibung wood because other than its easy to obtain the wood, it can also withstand longer in water. For people with status, they would use bulian wood for the flooring, columns and also roof.

## **5. HOUSES IN KAMPONG AYER PAST Vs PRESENT (MODERN ERA)**

### **HOUSES IN THE PAST OF KAMPONG AYER**

The houses that are built in Kampong Ayer are usually far from each other, however, the houses that are built have its own architectural art work with carvings carved at the windows, stairs, doors and many more. The carver's skills played an important role in beautifying the house in Kampong Ayer in the past. Most of Brunei Malay house in Kampong Ayer in the past are using nipah or kajang leaves for their roof, as soon as the leaves are harvested it is then dried to be used. One of the reasons why most of the people in the past use this leaves is because it can last for many years. According to history, when the roofs is damaged it is usually the men's job to change the roof but the women's job to weave the leaves.

Averagely, Brunei Malay houses are built from wood, bamboo and leaves where it can be

easily obtained from the forest. The name for harvesting the woods is called 'beramu', when harvesting the woods to build a house it is depending on the persons own free will which is only can be done in the morning. All the woods are then chosen and picked according to woods durability.



*Figure 5 Kampong Ayer in the year 1970*

## HOUSES IN THE MODERN ERA OF KAMPONG AYER

Brunei Malay Kampong Ayer houses nowadays are mostly from bricks, concretes, cements, metals, sands and others on which all the ingredients to make it are bought locally and imports. However, the woods are used to build the roof and flooring are still used but different types-stained timber now can be bought from the industry of this country.



*Figure 6 Kampong Ayer in the year 2019  
Image by Mohammad Izzuddin Bin Haji Jali*

## 6. HOW THE HOUSES ARE BUILT IN KAMPONG AYER

Nowadays, the house in Kampong Ayer still shows the architectural artwork tradition without much change. The only significant changes are how the house are used and how the houses are divided into so many different rooms to

accommodate a family as well as the facilities that are brought in into the villages. The facilities that are supplied by the government are electricity, water, phone and public facilities such as, police post, post office, schools, clinics and others that change the face of Kampong Ayer.

There is process on how Malay Brunei Kampong Ayer house are built that is divided into 3 different part which is front, middle and back. The front area is used for the veranda for people to climb up and down of the house, the middle area is the heart of the house that is the living room where as the back area is for the kitchen where it is used for family gatherings for eating and drinking, cooking and washing the dishes as well as the laundry. The kitchen is usually connected to the heart of the house that is the living room but the kitchen level is lowered down a bit from the living room. The different level is done because when people are cooking in the kitchen the smoke will rise to the living room faster if both rooms are on the same level.

The first part of the house that is usually build is the living room rather than the other parts of the house. The living room is the heart of the house because it is the center of their daily activities such as entertaining guests, congregational prayer, discussion between husband and wife and sometimes for family members to sleepover. Other than that, it is also used for wedding ceremonies and other events. A long time ago, the heart of the house does not have so many rooms in it but at night the living room is transformed into sleeping area for the families but since the situation has changed where girls and boys are separated, this is why Brunei Malay house have rooms in the heart of the house.

On the other hand, veranda that is built at the front that is usually 3m wide is also used for the families to entertain guests. Other than veranda, 'Pantaran' is also set up connected with the heart of the house but pantaran have no roofs and are used to lay out the fish to be dried by the sun. It is usually built in the front of the house but some people built it at the back of the house. Pantaran is built from 'bulian', 'nibung' and bamboo wood.

In building a house there are different method where it is traditionally done or the modern way. The ways of building a house have become a culture to be obeyed for the people building the house. There are different processes on how the house are built:

- 1) To look for the best place to build a house
- 2) To build up or plant the columns



- 3) Pre-Placement for the floors
- 4) Roofs
- 5) Floorings
- 6) Walls

## 7. CONCLUSION

The modern built houses are different from the traditionally built houses in terms of their floor plans, the uses of the house and how its divided. The traditionally built house is more to simplified rooms like living rooms, kitchen, bedrooms and a shared toilet whereas a modern built house, the rooms are more divided to living rooms – private (for family use only) and public (for guests and families), wet kitchen, dry kitchen, dining area, toilets, laundry area, walk-in-closet and bedrooms. Kampong Ayer is divided by its villages on how that particular village is known for their skills or something that is memorable to the village. The types of houses built in kampong Ayer is also classified between the roofs and how big the houses are. Nowadays, houses are built with bricks and concrete but in Kampong Ayer a long time ago uses wood and a certain type of leaves.

That concludes on how different the houses built a long time ago then now as people in the old days would rather build and carved their own houses where now it is hard for people that really know how to build a house like the way it is before the modern era. How the materials are used to build a house evolved from the start of civilization where people know how to build a house and the types of houses we can see nowadays and how limited the houses that can be found before modern era in Kampong Ayer. Thus, the beauty of time, where the construction and materials of the house are evolving toward the future where we can find now people are producing everything pre-casted.

## 8. REFERENCES

- (N.D). (2019). Difference Between Traditional and Modern Homes. *Royal Homes*. Retrieved From: <https://www.royalhomes.com/tip/difference-between-traditional-and-modern-homes/#:~:text=The%20term%20'traditional'%20applies%20to,with%20its%20own%20unique%20features.&text=They%20use%20traditional%20building%20materials,of%20a%20simple%2C%20clean%20design.>
- (N.D). (2020). 5 Key Differences between Traditional Homes and Modern Homes. *Create Beautiful 3D Designs*. Retrieved From: <https://foyr.com/learn/5-differences-between-traditional-and-modern-homes/>
- Abadi, M. (2018). In Brunei, a tiny nation built on oil money, half the capital city's population lives in an otherworldly 'water village' where thousands of houses stand on monsoon-proof stilts. *Business Insider Nederland*. Retrieved From: <https://www.businessinsider.com/brunei-floating-village-kampung-ayer-2018-9>
- Haji Abu Bakar, Haji Tassim. (2018). Pembinaan dan Penyediaan Rumah Menaik Taraf Kampong Ayer di Negara Brunei Darussalam. *SOSIOHUMANIKA*. Retrieved From: <https://journals.mindamas.com/index.php/sosiohumanika/article/view/1001>
- Haji Mohd Daud Abdul Rahman, M. (2017). Rumah-rumah lama pada zaman dahulu. *Media Permata*. Retrieved From: <https://mediapermata.com.bn/rumah-rumah-lama-pada-zaman-dahulu/>
- Hays, J. (2019). KAMPONGS AND LIFE IN BRUNEI. *Facts and Details*. Retrieved From: [http://factsanddetails.com/southeast-asia/Brunei/sub5\\_10b/entry-3611.html](http://factsanddetails.com/southeast-asia/Brunei/sub5_10b/entry-3611.html)
- Maggie Hiufu Wong. Dan Tham. (2018). Brunei's Kampong Ayer: World's largest settlement on stilts. *CNN Travel*. Retrieved From: <https://edition.cnn.com/travel/article/kampung-ayer-brunei-water-village/index.html>
- The Editors of Encyclopaedia Britannica. (1999). Brunei – Justice. *Encyclopedia Britannica*. Retrieved From: <https://www.britannica.com/place/Brunei>
- Image by Mohammad Izzuddin Bin Haji jali