

Comparative Study of Traditional House Forms in Indonesia: Loloan and Bugis Stilt Houses

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Abstract— Indonesia has a diverse culture. One of the cultural products is traditional architecture. The Loloan stilt house is a traditional house in Loloan Village, Bali. The shape was inspired by a Bugis stilt house, then adapted to the Loloan environment. This study examines the form of Loloan stilt houses and Bugis stilt houses for comparison. This study aims to see the changes in the shape of the Loloan stilt house. The method used in this study is a comparative method using observation and literature study tactics. The results of this study indicate that the Loloan stilt house has similarities with the Bugis stilt house. The difference between the two is in the details of the building such as ornament, roof arrangement, room arrangement, terrace, and the shape of the pillars.

Keywords— Culture, Traditional Architecture, Stilt Houses, Change.

I. INTRODUCTION

Architecture, as a cultural product, reflects the cultural level of the local community or what is called civilization. Traditions that survive because their values are still held and passed down between generations will be reflected in the architectural form of the built environment. The physical form of this culture is known as Traditional Architecture. (Sardjono, 2016) Traditional architecture is architecture that is alive and supported by several generations in succession. (Prasetyo, 2007)

Every region in Indonesia has a diverse culture. Various customs, culture, and natural wealth into a separate identity. Traditional architecture as a cultural product in Indonesia is a characteristic of each region. Traditional architecture as an architectural concept prioritizes traditions that reflect the identity of an area (Cahyani, 2015). Indonesia, with its diverse culture, creates different traditional houses in each region.

The typical stilt house of Loloan Village is a traditional house originating from Loloan Village, Bali. Different from traditional Balinese houses in general, Loloan traditional houses have a stilt shape. This house comes from a Bugis stilt house brought by ancestors from the Bugis Tribe. (Sabara, 2018) Migrants from the Bugis tribe cleared the pedestal of the Loloan area to become what it is today. Then they built the area based on the culture and traditions of the Bugis, one of which was a house on stilts. Therefore, the typical stilt house of Loloan Village is a cultural product of Loloan Village originating from Bugis which has a unique shape compared to Balinese houses in general. The following figure 1.1 is a typical stilt house in Loloan Village:



Fig. 1.1. Loloan Stilt House
Source: Utami (2016)

The existence of a new environment with different surrounding conditions can cause changes to the original form of architecture so that a typical stilt house is created in Loloan Village. Loloan stilt houses and Bugis stilt houses are different traditional houses but have the same origin. So, as the original shape, the Loloan stilt house will be compared to the Bugis stilt house. This is studied to see the difference between the two houses on stilts so that changes can be seen in the stilt houses in Loloan Village.

II. LITERATURE REVIEW

Shape according to the KBBI is (1) curved, flexible (2) shape, image (3) appearance, form. Form in architecture according to Bacon (1974) in (Ching, 2000) is the meeting point between mass and space. Form is an exclusive term that has several meanings. Form can be related to outward appearances or certain conditions under which something can manifest its existence. According to Ching (2000) in architecture form can be connected with internal structure as well as external lines and principles that provide overall unity. In Ching (2000) form has visual characteristics, among others:

- Shape:** Shape is the outer characteristic or surface configuration of a particular form. Shape is the main aspect so that the shape can be recognized.
- Dimensions:** The physical dimensions of a shape are length, width, and thickness. These dimensions determine the proportions of the shape, while the scale is determined by its size relative to other forms in its context.
- Color:** Color is a phenomenon of lighting and visual perception that describes individual perceptions of hue, intensity, and color. Color is a striking attribute that distinguishes a form from its surroundings. Color affects the visual weight of a form.

d. Texture: Texture is the palpable and visible quality on the surface of an object with the size, shape, arrangement and proportion of the object's parts. Texture also determines the extent to which light can be absorbed or reflected by objects.

According to Ashadi (2018) Form is a space consisting of the lower, middle, and upper spheres. According to Pramesti (2014) the form of the Loloan stilt house consists of 3 parts, namely the top, middle, and bottom. This aspect of form will later become a research reference to be interpreted.

III. METHODS

The method used in this research is a comparative method, which is to compare the shape of the Loloan stilt house with its original form, the Bugis stilt house. The data collection methods used in this study is literature studies and field observations/surveys. Literature study was used to collect data related to Bugis stilt houses. Meanwhile, observations were made to find data related to Loloan's stilt house. Observations of this research were carried out at the Loloan stilt house in Loloan Village.

The data analysis method used was to observe the shape of the Loloan stilt house and then compare it with the Bugis stilt house to find out the changes that occurred in the Loloan stilt house.

IV. RESULT AND DISCUSSION

4.1 Loloan Stage House

Typical Loloan traditional house is a stage-shaped house which is a form of adaptation from the house of the Bugis Sulawesi tribe. This house has adapted to the surrounding environment. According to Pramesti (2014) this house has the characteristic of using tangi wood and its construction does not use a single nail. This house uses 6-12 pillars and uses Palembang tiles. According to Pramesti (2014) the form of the Loloan stilt house consists of 3 parts, namely the top, middle, and bottom. This aspect of form will later become a research reference to be interpreted. Then the arrangement of the house on stilts can be seen in Figure 4.1 below:

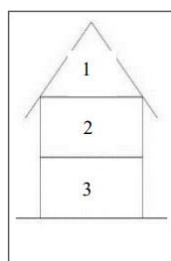


Fig. 4. 1. The Arrangement of the stilt house 1)pare-pare 2)geladak 3)kolong
Source: Pramesti, 2014

If the spatial arrangement is viewed vertically, the Loloan stilt house is divided into 3 parts, namely the top floor/attic called pare-pare, the middle/main floor called the deck and the ground floor/under.

a. Ground Floor/Kolong

The ground floor / under is a multifunctional room without a partition with a big cover. The ground floor / under is used to store household appliances, a place to work and store work

equipment, a place to store firewood, to sit around can also be used as a cattle pen. The ground floor is given a height in anticipation of flooding (Pramesti, 2014). The walls at the bottom are made of gedek with original earth floors or without coverings. The number of columns in the column section is 16-20 columns.

b. Middle Floor/Deck

There are two stairs as a link between the ground floor and the middle floor. The front staircase is used as a staircase for guests, while there is a back staircase that is specifically used for family and close relatives. The middle floor consists of 3 parts, namely front, middle, and back. The middle floor is the center for the activities of its residents where all related spaces are located on the middle floor. The layout of the middle floor of the house on stilts can be seen in Figure 4.2 below:

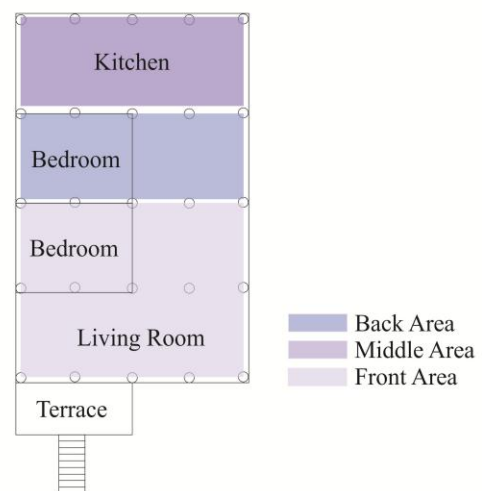


Fig. 4.2. Middle Floor Layout

At the front there is a foyer/ambien and a vestibule. The foyer / ambien is a place for guests before being invited in by the owner of the house. There is a foot washing area in the foyer, so guests who will enter the house are clean feet. The front room serves as receiving guests, a place for family gatherings, a place to eat, recite the Koran, pray together, a place to hold ceremonies and at night it is used for sleeping. Bedrooms / cubicles generally have 2 rooms. If more is needed, a barrier will be given in the form of a semi-permanent wall in the form of wooden boards or stilts. The kitchen is located at the back which is used as a place to store cooking utensils and carry out cooking activities. There are some societal norms that the kitchen should be placed at the back of the house because according to them the kitchen is a secret place for the family/household. Guests are considered taboo to enter the kitchen area. The kitchen is only limited by the closest person or relative so that it is placed at the back.

The doors, windows and ventilation of the stilt houses in Loloan are made of wood. Doors, windows and ventilation are generally located on the middle/main floor. The door is rectangular. The window, Loloan stilt house has the same shape as a door, but smaller or lower in size. Shutters consist of 1 or 2 shutters. A window with 1 leaf is called a tongtongan. Tongtongan comes from the Bugis language

which means window. A window with 2 leaves is called a window which comes from the Malay language which means window. The front/façade of the Loloan stilt house has three doors and windows. The ventilation contained in the stilt house in Loloan are carvings, blinds and jaro. In Figure 4.3 the following shows the windows and ventilation in the stilt house:



Fig. 4.3. Window and Ventilation
Source: Pramesti, 2014

The decoration used in the stilt houses in Loloan comes from the teachings of Islam. On the walls there are wooden lists and carvings of flora or calligraphy. On the doors and windows there are decorative gates in the form of wood carvings placed on the door and window sills. Figure 4.4 is a decorative picture of doors and walls on a stilt house typical of Loloan Village.

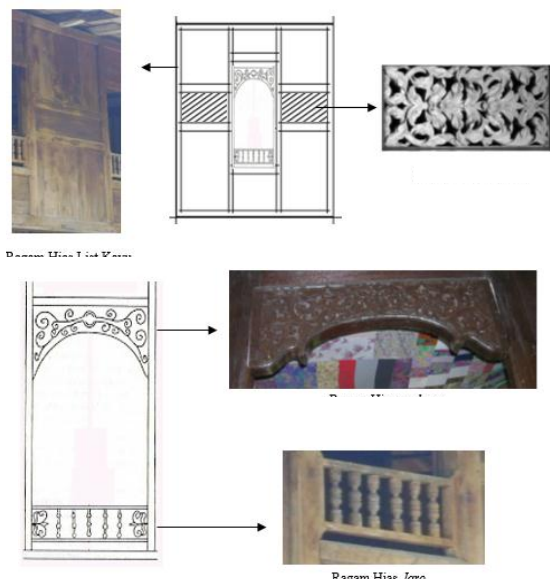


Fig. 4.4. Ornament
Source: Pramesti, 2014

c. Upstairs/pare-pare

There is a hierarchy of spaces in a typical Loloan stilt house. The higher up, the higher the position of a space. On

the top floor / attic is the room with the highest position. This room is used as storage of valuables or heirlooms. This room is also used as a place to seclude a girl who will marry.

The roof of the stilt house is in the form of a gable or pyramid. The roof covering material is made of tile. The following figure 4.5 is a picture of the roof of a typical stilt house in Loloan Village:

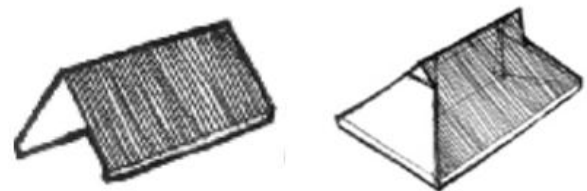


Fig. 4.5. The Roof
Source: Pramesti, 2014

There are various decorations used on the roof, namely decorative embossed screens at the end of the roof, decorative tread dares on the sides of the roof, and decorative combs mounted on the roof. More details are described in the following figure 4.6:

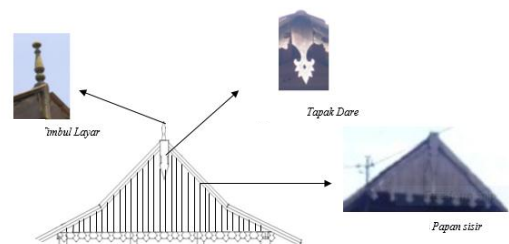


Fig. 4.6. Ornament
Source: Pramesti, 2014

4.2 Bugis Stilt House

The Bugis stilt house is divided into 3 parts, namely awaso, alebola, and rakkeang. The following is a form of Bugis stilt house based on its division:

a. Awaso

Awaso is the lowest part of the house. In Mattulada (1985) explained that Awaso is used as a storage place for agricultural tools and for chicken coops, goats, and so on. According to Hamka (2017), Awaso is divided into 3 parts, the front is a place to rest and play, the middle is a place to store tools, and the back is a place for cattle pens. Usually the height of the Awaso reaches approximately 2 meters. The shape of the pole on the Awaso is square and round. The material is wood or bamboo. More details are described in the following figure 4.7:



Fig. 4.7. Structure
Source: Rasyidah, 2009

The column on the Awaso is installed by planting it into the ground with a depth following the size of the navel of the owner of the house. (Rosyidah, 2009) The installation structure or connection uses without nails, this system is known as the knock down system. The construction form of the Bugis stilt building presents a series of structures in the shape of the letter "H".(Laente, 2019)

b. Alebola

Alebola is a place of activity for residents of the house. The shape of the alebola is closed from the outside. In Naing and Hadi (2010) it is explained that at the front there is an elongated porch called tamping/lego-lego which is useful for welcoming visiting guests. Tamping/lego-lego is also used as a waiting room before entering the living room (Lontang ri saliweg). After tamping there is a living room called lontang risaliweg. This room has a fairly large size and was previously made without partitions or furniture.

The next area is Lontang Riteng Tengah. This area is private which only consists of a family room, bedroom for parents and boys. After the middle riteng lontang, there is rilaleng lontang. This section is the bedroom area for girls and parents. It aims to protect. Lontang rilaleng is also usually used as an area for aqiqah events for newborn babies. Next is the kitchen which is located at the back of the house. In Hamka (2017) it is stated that this area is placed opposite the direction of the bedroom. More details are described in the following figure 4.8:

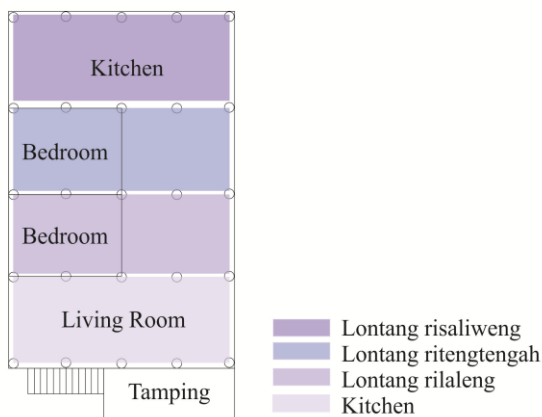


Fig. 4.8. Middle Floor Layout

The shape of the windows and doors in Bugis houses are rectangles that are placed regularly along the walls. The ornaments used on windows and other parts of alebola are in the form of flora, fauna, or calligraphy. The ornamental flora used is parengreng flower which means attractive. This flower has the form of a tendril without white so it has the meaning of fortune without breaking. More details are described in the following figure 4.9:



Fig. 4.9. Window

c. Rakkeang

Rakkeang consists of an attic and a roof. According to Mattulada (1990) the attic is the uppermost part of the house which is directly under the roof. The room is used as a place to store food and heirlooms. (Hamka, 2017)

In Alimuddin et al. (2020) the roof of the stilt house is also a symbol that distinguishes the social strata of the owner. The difference is in the number of ridges / arrangement of laja laja. The higher the number of ridges, the higher the position of the owner in society. The most numerous timpak laja are in the king's house, which is 5 pieces. Timpak laja 4 pieces are owned by nobles who have high positions. In addition to royalty, someone who has been a king is also entitled to occupy 4 timpak laja. The Bugis house with Timpak laja 3 indicates that the house is owned by a descendant of the king who is not in office or in office. Timpak laja 2 is owned by ordinary people and timpak laja with 1 fruit or nothing indicates the owner of the house is a slave. More details are described in the following figure 4.10:

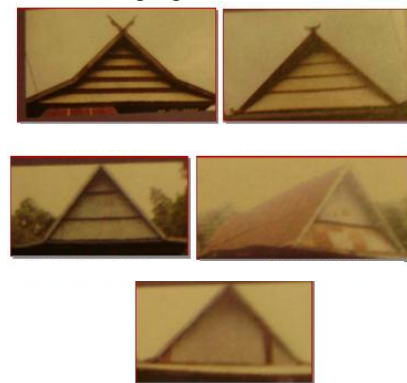


Fig. 4.10. Timpak Laja
Source: Rasyidah . 2009

The rakkeang house on stilts is also inseparable from ornaments. Usually there are ornaments on the roof ridge. In Yusuf (2012) it is stated that the motifs commonly used are types of flora and fauna. Flora motifs consist of parengreng flowers, pineapple, bamboo shoots, etc. The fauna motifs are usually found in the form of roosters, dragons, and buffalo heads. The parengreng motif is the most common motif. This flower has a tendril shape as if it never breaks. This flower symbol has the meaning of a symbol of fertility and prosperity. As with the types of flora motifs, fauna motifs are usually placed at the top of the roof (anjong). The rooster motif is a symbol that has a meaning as the sun that brings goodness in the house. In addition, the rooster symbol is believed to be a symbol of strength, courage, and patience. The buffalo motif usually has a shape resembling a buffalo or just a crossed shape. This motif is a symbol that has the meaning of protecting from evil spirits and as a vehicle for the dead. The dragon snake motif is considered a very strong motif. So its application to Bugis houses as a form of home protection that is unmatched.

V. CONCLUSION

The lower part of the Loloan and Bugis stilt houses have the same structural form. The difference is in the diversity of the shape of the Bugis house on stilts, namely round and square. In the middle, both have the same function, namely as a place to accommodate all activities. Some of the differences found, one of which is that there is a terrace right above the stairs before the entrance to the front of the house. At Loloan's house there is usually no terrace but directly to the entrance of the house. The arrangement of the space in the middle is the same with a slight difference in the division of the rooms. While at the top, both have the same function and roof structure, but there are differences in the number of ridges. Bugis stilt houses have 1-5 ridges, while Loloan stilt houses only have 1-2.

Based on the shape of the traditional Loloan and Bugis houses, overall both have the same shape. Both have the same roof shape and the same upper, middle and lower elements. Although they have different names, their functions are similar. The differences between Bugis and Loloan houses are in the detail elements such as ornaments, floor plans, etc. The shape of the middle part of the Loloan and Bugis houses has a difference where the Bugis house has a larger floor plan. The use of ornamentation in the Bugis house is also more diverse and meaningful than the Loloan house where the Bugis house uses various kinds of ornaments from flora and fauna while the Loloan house only uses flora. From the comparison of the forms that have been discussed, it can be concluded that there are differences between the two. This difference indicates that

there has indeed been a change in the Bugis stilt house to the Loloan stilt house.

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