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TRADITIONAL HOUSE ARCHITECTURE OF THE MANDAR TRIBE IN WEST SULAWESI, INDONESIA

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Abstract: West Sulawesi Province is a Mandar region that is characterized by its traditional house called Boyang Mandar. The purpose of this research is to reveal local wisdom about the concept and construction system of Mandar houses based on the anatomy of the human body. This research method uses a qualitative method with a Case Study Approach. The analysis method used is Discovering Cultural Themes. The results showed that Mandar people use human manifestations, especially homeowners (husband and wife) as the concept and system of the house, both vertically and horizontally, which means that the life of the homeowner will be in harmony with nature in order to be safe and lucky in the house.

Keywords: Local wisdom, Mandar house

INTRODUCTION

Traditional architecture in West Sulawesi pays attention to environmental and socio-cultural aspects of the community. The house is built on stilts and materials are obtained from the surrounding environment, which is part of the adaptation to the climate and environment. This is in line with the Regional Regulation of West Sulawesi Province Number 1 of 2014 concerning the 2014-2023 regional spatial plan which outlines the spatial planning development strategy that develops rural settlements based on the wisdom of Mandar cultural local values such as garden house patterns with buildings on stilts. The housing buildings of the West Sulawesi

community are directed to build buildings made of lightweight wood and bamboo that are attractively designed.

Mandar is a cultural entity and ethnic group, not a kingdom. There is no Mandar kingdom led by a king who is referred to as the king of Mandar. Instead, there are kings in Mandar who are divided into fourteen kingdoms, which as a whole belong to two main groups, namely Pitu Ulunna Salu (seven kingdoms in the upper reaches of the river) and Pitu Baqbana Binanga (seven kingdoms at the mouth of the river). These fourteen kingdoms each have their sovereignty and self-government within their kingdoms, without interfering in each other's affairs or power. This group aimed to maintain peace, live together cooperatively, and protect themselves from threats and threats. Attacks from outside, with no domination of power or rule between kingdoms orgroups.

Mandar culture consists of the origin of *pitu ulunna salu* and *pitu baqbana binanga* which means that the power in Mandar land consists of seven royal territories in mountainous areas and seven royal territories in coastal areas (Mattuladain Koentjaraningrat, 1999). West Sulawesi was originally an area of South Sulawesi province, but then on October 5, 2004, it was formed into a province based on Law No. 26 of 2004. Within the scope of the area inhabited by fourteen kingdoms, there are houses, both residential houses, royal houses (Kraton) and houses of worship and so on, there are Mandar houses, whose forms are typical of Mandar, although theseforms vary according to the development of the times and the social strata of its people.

One of the cultural facilities produced by society is the house. A house is a place for organizing life and livelihood for everyone. The house is considered a basic need that functions as a place to live or shelter and a means of family development (Sembiring, Novia W., n.d.). Home is one of the most basic needs for every familygroup and individual. In accordance with this definition, one of the physical identities of each cultural group is the traditional house, as a place to gather and carry out various cultural activities. The traditional houses of each indigenous group certainly have appeal and meaning for each region. The traditional house is also a reflection of the overall meaning of community life which is depicted in symbols and has a deep meaning to their entire life order.

Mandar houses made of wood are a long-standing tradition for communities in West Sulawesi (Robinson, 2005). Mandar houses are made of wood with no professional architects (academics) involved during their construction, involving the help of Sando Boyang, a traditional expert who is considered to have pertinent knowledge on how to build a house, which must be followed and obeyed even if the knowledge is intangible (Beddu, 2006). The structure of the house is influenced by the universe; the upper, middle and lower worlds. The upper world is for sacred nature, the holy world, the middle world for humans and the lower world for interaction with the surrounding environment. Customary law is a kind of custom that

must be obeyed by the owner of the house. Violation of the order will bring calamity to those who violate it. Therefore, the prediction of floods, winds, and earthquakes is considered to be represented by the consideration of choosing the location and orientation of the house (Abbas, 2016).

The shape of Mandar houses is almost the same as Bugis and Makassar houses. Bugis houses according to Robinson (2005) are strongly influenced by the structure of the cosmos; the upper world, the middle world, and the lower world where people are. Mandarese people consider that A house is the manifestation of a human being. According to Mandarese people, the house is where they will live forever. All stages of their lives from birth, marriage and death occur in the house so the house must reflect themselves. As a human manifestation, the house is built based on values that can provide safety, harmony and sustenance for its inhabitants (Data, 1985). Therefore, all parts that occupy a Mandar house will be considered a sacred area, because Mandar people consider the house as a place to live forever.

A sacred space is a place that has a sacred function related to religious activities, for example, to perform worship/ritual activities. Activities carried out in this area show distinctive characteristics that are different from other areas. It generally has a certain shape and boundaries. In a certain order of society, the ritual function is a cultural attribute, a very important factor in both public and private and produces a certain spatial structure (Knowles, 1996). Meanwhile, Broadbent (1980) states that space in traditional houses is a form of expression of local cultural identity, including sacred space. In a horizontal structure, the ale bola area (body of the house) in Bugis houses is a sacred area for carrying out various traditional ceremonial activities such as marriage ceremonies, birth initiations to funerals and so on (Yunus, 2012). This shows that Mandar houses are part of the cultural embodiment of the Mandar people. Various cultural processes were carried out in the house as part of the beliefs that developed in Mandar society.

Mandar houses consist of two types, namely sapo adaq and sapo samar. These two houses have a fundamental difference in function. Sapo adaq functions as a residence that is specialized for nobles or traditional leaders, while sapo samar is a residence for ordinary people. The two traditional houses have similarities in structure and construction but also have differences that can be seen from the following characteristics: 1). Sapo adaq has a three- to seven-stacked tumbaq layar that serves as a cover for the front and rear ridges. While sapo samar has a tumbaq screen with three to seven stacks that serve as a cover for the front and rear ridges, 2). Sapo adaq has two stairs while sapo samar only has one staircase with an odd number of steps, namely 3-11 steps, 3) Sapo adaq has a larger size when compared to sapo samar whichhas a smaller size.

Therefore, the Mandar house (Sapo Mandar) is also a cultural product that is physically realized and follows the cultural conditions of the Mandar people. Its realization goes through a long process by considering living in harmony with nature. Therefore, the Mandar house is a microform of the universe and the human body that reflects human behavior and nature. Based on this description, research on these concepts and systems has never been done in the

context of Mandar houses so it is interesting to study to find out how the traditional Mandar house forms horizontally vertically or both. This will add to the repertoire of theories in the concept of traditional house architecture.

RESEARCH AREA

This research area is in West Sulawesi province, namely traditional houses located in South Sulawesi province. With its unique characteristics, South Sulawesi province has a homogeneous population structure and is dominated by the Mandar tribe. In general, in South Sulawesi province, the community is in the stage of the development process, including the traditional way of thinking. Mandar traditional houses are still found in West Sulawesi province with a traditional building system as well. The process of building houses in West Sulawesi province is carried out in mutual cooperation. The construction is assisted by Sando Boyang, a person who is considered an expert and understands the procedures and intricacies of building Mandar houses in accordance with hereditary customs.



Figure 1 Map of the research location

RESEARCH METHODS

3.1 Methodology and Approach

The research method used in this study is a qualitative method (Creswell, 2008) because the research was conducted in traditional settlements that are still natural and still uphold traditions and customs in building houses. This research is also called natural research because it is conducted in a natural environment (Sugiyono, 2014). Qualitative research aims to find meaning from the data obtained in the field. The meaning revealed in this study includes the meaning of the relationship between dimensions in the human body as a manifestation of traditional Mandar houses.

In general, this research approach uses an architectural approach (artifacts) and an ethnographic approach (living culture) (Creswell in Sugiyono (2014), with the nature of descriptive research (Groat & Wang, 2002). The architectural approach explains the physical condition of traditional Mandar houses, the layout of the house (the lower part, the body of the house and the upper part of the house), symbolism, and overall home aesthetics in Mandar houses. While ethnographic research explains the knowledge system of the community in building houses related to human immunity. It aims to understand the angle of indigenous people in the relationship of building their houses with the dimensions of the human body, to get a view of their world (Spradley, 2006). The ethnographic approach is done by studying the culture of a group in natural conditions through observation and interviews.

This is stated by Daymon (2008), who explains that ethnographic research may be conducted in the form of descriptions, such as records about a community group that have been produced by previous researchers. The purpose of description is to describe the social reality in a group so that readers of ethnography can easily understand it.

3.2 Data Collection Methods and Techniques

Judging from the aspect of the setting, data collection was carried out in the Mandar traditional house environment and from the data source, this research consists of primary data sources and secondary data sources. The data collection techniques in this research are participant observation, in-depth interviews, documentation studies through recording images through photographs related to the vertical and horizontal parts of the house, etc. The observation method is used to collect physical data on traditional houses, settlements and the environment around traditional houses.

Documents are used to collect secondary data in the form of manuscripts/texts, books, research and results related to the research. While interviews are used to get the meaning of local wisdom from each concept, systems, symbols, forms and activities related to the construction of Mandar traditional houses in the Mambi sub-district and Tinambumng sub-district, West Sulawesi.

3.3 Participatory Observation

Spradley (1980 in Susan Stainback, 1988) states that in participatory observation, researchers observe what people do, listen to what they say, and participate in their activities. With this participatory observation, the data obtained will be more complete, sharp and researchers can find out at the level of meaning of every behavior that appears (Sugiyono, 2007). The benefit of observation is that researchers can see things that are not observed by others, especially for people because these things are considered "ordinary" so that they will not be revealed in interviews. The observation method was used to collect physical data on traditional houses, settlements and the environment around traditional houses.

This research uses passive participation where researchers do not participate in what informants do. Several activities at the research location do not allow researchers to participate in what informants do, such as building houses that require special skills. However, researchers also felt and observed behavior and words, related to the parts of the Mandar traditional house in West Sulawesi province.

3.4 In-depth interview

To get more in-depth information about the participants, researchers used in-depth interviews. According to Esterberg (2002), an interview is a meeting of two people to exchange information information and ideas through questions and answers, so that meaning can be constructed on a certain topic. In this study, interviews were conducted with the managers of Mandar traditional houses according to the sample that had been selected by Sando Boyang to get the meaning of local wisdom from each concept, symbol system, and form related to the construction of traditional houses in West Sulawesi province.

The traditional house managers interviewed were those who were considered to have knowledge and understand the ins and outs of house construction both in general and specifically. The interview method was carried out by selecting traditional house managers who were considered the most knowledgeable about the concept of building traditional houses. The residents will explain the facts and meanings. After that, the researcher will move to the second traditional house to interview the manager of another traditional house with the same questions. And so on, the interviews were conducted in relay. Meanwhile, in-depth interviews with Sando boyang were conducted by selecting one who was considered to understand the concept and had the knowledge and experience of being Sando boyang from generation to generation. Interview with Sando Boyang includes determining the size of the house that reflects the meaning contained in each size, shape and space produced.

3.5 Sample

Samples in qualitative research are not called respondents but as sources, or participants, informants, friends and teachers in research. Samples in qualitative research are also not statistical samples, but rather statistical samples, but rather theoretical samples. In this qualitative research, data source participants were selected by purposive and snowball

sampling. Purposive sampling is a data source sampling technique with certain considerations. This particular consideration, for example, is that the person is considered to know best about what we expect or he is the ruler or the situation or object of the house under study to accommodate what the researcher needs in collecting data.

Snowball sampling is a technique of sampling data sources, from initially a few then more. a small source of data has not been able to provide satisfactory data, it will be obtained. Thus the number of samples of data sources is getting bigger. Faisal (1990) quoting Spradley (1980) argues that the social situation in the initial sample is highly recommended for this study, the samples taken are traditional houses in Polewali Mandar and Mamasa districts that still apply the concept of human body anatomy in building their homes. The number of samples is not limited, but if enough interviews have been conducted, then the sample is considered sufficient. Therefore, the research took several samples of 2 traditional houses from a total of 5 traditional houses that have typical characteristics of Mandar houses.

The initial sample as a source of information was traditional house managers who were considered to have sufficient knowledge and understanding of traditional houses. Figure 2 below shows a layout map that includes the types of traditional houses taken as samples.





Figure 2 View of Boyang Kaiyang Art Studio, Survey (2023)





Figure 3 View of the Lantang Kada Nene Mambi Traditional House, Survey (2023)

3.6 Data Analysis Method

The data analysis method used in this research is the *Discovering Cultural Themes* method to reveal the findings of local wisdom concepts and systems for building Mandar traditional houses. This analysis collects cultural focuses, meanings and values as well as physical cultural symbols in the construction of Mandar traditional houses, which are analogous to the parts and symbols of the human body.

Analysis using the *Discovering Cultural Themes* method obtained relationships in symbols and parts of Mandar traditional houses that reflect the human body. This is used to find holistic findings of the concept and building system of Mandar traditional houses both vertically and horizontally based on the cosmological views of the Mandar people in West Sulawesi province. Based on the existing analysis, reconstruction is carried out in descriptive form regarding the concept and construction system of the Mandar traditional house that has been designed. This is harmonized with human embodiment to provide comfort, harmony, security and well-being both in the world and in the hereafter. The final step is to draw conclusions.

RESULTS AND DISCUSSION

Based on the results of the research, it can be seen that traditional house architecture in the Mandar tribe can be categorized based on the function of the house. The functions of traditional houses of the Mandar tribe are (1) Salassaq (Palace); (2) Sapo Sobvaq (Public meeting house); (3) Hadat House (noble house) Sapo/Boyang Adaq; (4) Sapo/Boyang Samar (Most People's House); (5) Masigi (Mosque); (6) Langgar (Mushallah); and (7) logo (Rice storage house/barn). This can be seen as follows:

4.1 Concept of Mambi Traditional House (Lantang Kada Nene)

Pongkapadang is the most popular and legendary ancestor in the region included in the Pitu Ulunna Salu confederation (seven regions). Adat in the inland areas around Mamasa and Polewali Mandar). It is narrated that Pongkapadang (to manurung from the mountain) around Sa'dam-toraja) had a wife named Turije'ne (to manurung from the water) and settled in Tabulahan-Kalumpang, giving birth to several children who spread to the seven directions and became the forerunners of the leaders in that place, including Tabulahan, Mambi, Aralle, Rante Bulahan, Matangnga, Tabang and Bambang. The ancestors of the Mamasa people are said to have come from Tabulahan (around Bonehau-Kalumpang, Mamuju Regency), which is one of Pongkapadang's grandchildren named Pakiringan. Pakiringan had a penchant for hunting animals. At one time during his hunt, he arrived in the Mamasa area and settled in Osango (narrated by Arrun Tasik, Osango Village). Furthermore, based on the narrative of Mr. D. Demmanongkan (Sepakuan-Balla Village), the seven customary areas in 'pitu ulunna salu' have their titles as well as being the origin of the Mamasa Customary Government. The Tabulahan region with the title Indona Litak, has the task of dividing the boundaries of the region (defense body); the Aralle region with the title Indona Kada Nene, has the task of Pabbicara pitu ulunna salu (Information Division); the Rantebulahan region with the title Indona Lembang To'

Madduatakin, has the task of Reconciler; Mambi region titled Lantang Kada Nene, served as a place of deliberation; Bambang region titled Su'buan Ada' Kondo Sapata-Undanan Lappa-Lappa, served as a defense command center; Matangnga region titled Andiri Tatemponna Kondo Sapata, served as an enforcer of sovereignty; and Tabang region titled Bubunganna Kada Nene, served as a protective advisor.

Nur Ilmiana and Andi Ima Kesuma (2022) argued that the history of the birth of Mambi certainly cannot be separated from the long history and development of the customary culture of Pitu Ulunna Salu (PUS) in the fifteenth century, which was built by Pongka Padang. Pitu Ulunna Salu, which means customary unity in seven upstream rivers, consists of seven customary territories and the titles of each region: 1. Tabulahan has the title Indona Lita' 2. Aralle has the title Indona Kada Nene' 3. Bambang has the title Su'buan Ada' 4. Mambie has the title Indona Lantang Kada Nene'. 5. Rantebulahan has the title Toma'dua Taking to Ma'tallu Sulekka 6. Matangga has the title Andiri Tatempon Samba' Tamarapo 7. Tabang has the title Bu'bunganna Ada'.





Figure 4 View of the Lantang Kada Nene Mambi Traditional House, Survey (2023).







Figure 5 Structure and stairs of the Lantang Kada Nenei traditional house, Survey (2023).

The Lantang Kada Nene traditional house is a traditional house of the Mambi community that has its own characteristics in terms of structure, construction, materials, and decoration. The following is a general description of these things:

- 1. The Lantang Kada Nene traditional house has a stage shape with a gable-shaped roof extending to the back. The front and back roofs are equipped with five-tiered tumbalayar covers. This house also usually has a long shape with several sections, such as the living room (balai adat), family room, and bedroom.
- 2. The main material used in the construction of the Lantang Kada Nene traditional house is wood. Wood was chosen because it is resistant to earthquakes and hot and humid tropical weather and is easily available in the area. In addition to wood, the roof of the house is usually made of palm fiber or thatch collected from the surrounding nature. But lately, these materials are increasingly difficult to obtain so they are replaced with metal roofing materials.
- 3. Apart from being a place to live, the Lantang Kada Nene traditional house also has a function as the center of traditional and cultural activities of the Mambi community. This house is often used for meetings, traditional ceremonies and other important events involving the entire community.
- 4. One of the columns in the lantang kada nene traditional house in Mambi, namely andiri posi, is deliberately chosen from wood that is larger than the size of other columns and is used as a whole. Andiri posi was used as a seat for the king during meetings and at certain times it can be used as a mortar for pounding rice. Andiri posi has a height of 60-80 cm above the floor level of the house and is perforated in the center so that it can be used to pound rice. But along with the development of technology, rice is no longer pounded using a mortar but using a rice grinding machine so that andiri posi no longer functions as a mortar.
- 5. There is a difference in floor elevation between the main floor and the tambour floor. The main floor is higher than the tambing floor. This shows the existence of social stratification in the lantang kada nene traditional house. Tambing serves as a guest place for ordinary people while the main floor can be occupied by nobles. The tambing floor also functions as a circulation space in the house.

4.2. Boyang Kaiyang Traditional House

Boyang kaiyang is a stilt construction built using coconut trunks. The number of poles is 114. Boyang kaiyang functions as an art studio. The building is 27 m wide and 49.80 m long. The main structure uses coconut trunks ranging from poles, aratang, pallollor, galaggar, and baek ottong baek. The trusses use mild steel material. Sapo Sobfaq uses a concrete pile foundation. The roof covering uses metal roof material. The ground floor is covered with ceramic material and the second floor uses coconut wood floor covering. The ceiling uses PVC material coverings hung using hollow galvalume frames 20x40 mm and 40x40 mm. The stair railing is made of Ø6 cm coconut wood and the main railing uses 4/8 cm coconut wood. The railing pole is Ø18 cm. Sapo Sobfaq is equipped with two stairs, namely the front stairs and the back stairs. Each staircase consists of two parts, namely the first staircase consists of 7 steps and the second staircase consists of 8 steps so that the total number of steps is 15. The first and second stairs have borders.

Sapo Sobfaq is not partitioned. The rectangular plan extends from front to back and has no walls with an open concept. The outside is equipped with a barrier of railings made of coconut wood. The front staircase is usually on the edge (Sumintardja,1981). Mandar houses can also be classified according to their function (Mattulada in Koentjaraningrat, 1999). Vertically spatial can be grouped into the following three parts: a) Tapangan, b) Alawe boyang, and c) Naung boyang, under the house located at the bottom between the floor and the ground.

In detail, the characteristics of the Mandarese house structure include: (1) The shape of the column is round for *aristocrats*, square and eighth for ordinary people; (2) There is a center of the house called di possi (*possi arriang*) in the form of the most important pillar in a house, usually made of jackfruit or durian wood, located in the second row of columns from the front, and second from the right side; (3) Stairs (*endeq*) are placed in front or behind, with characteristics: (3) The staircase (endeq) is placed at the front or back, *characterized by:* (4) The direction is in accordance with the length of the house or according to the width of the house; and (5) The roof (*Ateq*) is inthe shape of an isosceles triangle used to cover the front or back of the house. With its unique characteristics and its rich cultural values, the traditional houses of *lantang kada nene* and *boyang kaiyyang* are an important part of the cultural heritage of the Mandar people that needs to be preserved and maintained.





Figure 6 View of Boyang Kaiyang Art Studio, Survey (2023).





Figure 7 Columns, Floors, and Stairs of Boyang Kaiyyang Art Studio, Survey (2023).

The two traditional houses have similarities in structure and construction but also have differences that can be seen from the following characteristics: 1). Sapo adaq has a three- to seven-stacked tumbaq sail that serves as a cover for the front and back ridges. While sapo samar has a tumbaq screen with three to seven stacks that serve as a cover for the front and rear ridges, 2). Sapo adaq has two stairs while sapo samar only has one staircase with an odd number of steps, namely 3-11 steps, 3) Sapo adaq has a larger size when compared to sapo samar which has a smaller size.

The results showed that the position of the Sapo Sobfaq stairs was not placed on the edge but the position of the Sapo Sobfaq stairs was placed in the middle. Results This study differs from the results of research conducted by Sumintardja (1981) that stairs are usually placed on the left side of the house.

CONCLUSIONS

For most Mandar people in West Sulawesi Province, the concept and system of house construction are based on the anatomy of the human body. Vertically, the relationship between the concept of Mandar traditional house space and the human body is divided into three spaces, namely the upper space (roof and attic) which is analogous to the human head, space for the human body, and space under the house or the third order is considered a human leg. The shape of Mandar houses is almost he same as Bugis and Makassar houses. The difference lies in the terrace (*lego-lego*) which is sometimes larger with an emper-like roof sloping forward. This house is a house on stilts that stands on poles to avoid flooding and wild animals. The higher the size of the house underneath indicates the higher the social status of the owner. Because of the social status that will occupy the house. However, due to the swift flow of modernization and globalization, some of these Mandar traditional house constructions have gradually shifted both in physical and physical form and material form. Even so, in terms of understanding the concept of the house, the community stillunderstands the concept of anatomy in the construction of houses and sticks to existing local wisdom.

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