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Tongkonan in Kalimbuang Bori and its Built Environment in the North Toraja Regency of South Sulawesi, Indonesia

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Abstract: This study aims to determine the function of the Toraja traditional house (Tongkonan) and its built environment which is a unique environmental product of architecture in Kalimbuang Bori' Tana Toraja Indonesia. The type of research is qualitative research. Data collection is done by observation, interviews and documentation. The research variables consist of: the function of the Traditional House (Tongkonan) and its built environment, consisting of: granary (Alang), home page (Luba'ba), forests (Kombong), rice fields (Uma), place of funeral ceremony (Rante) and gravestone (Liang Paa). Data analysis technique used is descriptive qualitative analysis that is analyzing each variable descriptively, consisting of flow of activity that is data selection, data presentation, analysis of interpretation and conclusion. The results show that: in general, the main function of the traditional house (Tongkonan) and its built environment is as a container of human activities supporting Toraja culture, consisting of Rambu Soloq that is the customary ceremony associated with death and Rambu Tukaq or all things consisting of good lifestyle as well ceremonies related to daily life. Specifically, the function of each of the built environment has the following functions: Alang serves as a storage place of rice and ceremonial place, Pangrampak or Luba'ba serves as a place of traditional ceremonies, Kombong serves as a forest reserve of structural materials, gardens and nature conservation, Uma serves as a producer of rice for daily food needs, Rante serves as a special function for the funeral ceremony Rambu Soloq and Liang Paa' serves as a grave or as a preserved corpse.

Key words: Tongkonan build environment in Kalimbuang Bori, technique, associated, customary ceremony, preserved corpse

INTRODUCTION

Many people talk about the architecture of the environment in terms of the biological architecture, green architecture, environmentally friendly tropical architecture and others. On the other hand, big cities are still dominated by architectural products that challenge nature consisting of skyscrapers, massive buildings of glass and concrete that absorb heat and the reduced green open space, so that, global warming increases. As a lecturer who learns about the science of architecture and also learns about environmental science sees that this phenomenon is not enough to answer the challenge of environmental architecture. More research is needed to enrich the treasures of science in the field of environmental architecture and to learn from many sources including traditional architecture which is a product of local wisdom from ancestors that has been tested for centuries.

The tribes that inhabit the various regions in Indonesia for centuries have formed the characteristics of culture and architecture. That is why, there is a variety of traditional buildings ranging from simple forms to the perfect form that stands in groups or singly, each with a characteristic or specificity in accordance with the views of each tribal life. The growth and development of traditional architecture is in tandem with the development of a tribe. Therefore, traditional architecture is an identity of a community group that supports it and in the traditional architecture reflects the personality of its supporting community (Mithen and Onesimus, 2007).

One traditional architecture that is the product of local wisdom is traditional Toraja architecture, better known as Tongkonan. The traditional architecture of Toraja (Tongkonan) has been written about by many scientists including overseas researchers but only in terms of anthropology and the architectural point of view as unique and characteristic ancestral works not found elsewhere. A review of the architectural environment still is specifically missing. Therefore, the researcher sees that this phenomenon is very interesting to be studied and also can support the competence of the researcher as a lecturer of environmental architecture.

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The concept of Tongkonan as the center of traditional rulers and kinship ties usually consists of several houses each carrying out different functions, supported by: the rice barn, the Rante or the place of the rambu soloq (funeral ceremony), the grave (Liang), bamboo and wooden gardens (Kombong) for building materials if Tongkonan house is to be renovated, the rice fields and the fields (Uma and Bela) as the livelihood of the residents of Tongkonan's house and Luba'ba or pangrampak, i.e., the space between Tongkonan and Alang's house. Thus, a Tongkonan group actually covers a broad aspect as it covers aspects of traditional ceremonies, life arrangements and other aspects of life, so, it can be concluded that Tongkonan is a Toraja traditional house building and its built environment (Mithen and Onesimus, 2007).

The Tongkonan group in Toraja, scattered in various places has a certain territory as the center of the Adats Governance in the past and has the same position, so that, one Tongkonan group with another Tongkonan group has no hirakhi as subordinate or superior but has the same position and forms a larger federation known as Tondok Lebongan bulan Tana Matahari Allo or at present better known as Tana Toraja Region which administratively consists of two regencies, namely Tana Toraja and North Toraja.

One of the Tongkonan groups in the Sesean sub-district, North Toraja which is the Tongkonan in Kalimbuang Bori Group. This Tongkonan group, consisting of eight Tongkonan that function customarily and have their respective roles in managing the life of the people who are in the territory of Bori customs in the past. Although, this Tongkonan group has the same function as other Tongkonan groups in Tana Toraja, the Tongkonan group has its own charm, especially, its built-in environment and is located in one adjacent area, so, it is suitable to be the object of research related to environmental architecture.

Mithen and Onesimus (2007) says that: "Understanding architecture is a work in designing and planning space as a vessel of human life that is useful and can give a sense of happiness at certain period of time". Anonymous (2011) says: "The environment is everything that is around us in the form of living things. Be they humans, animals and plants". Then, Rachmad and Susilo (2008) quoted Otto Soemarwoto who argued that the is everything that exists in every living thing or organism and affects its life.

Ramadhan (2013) says that, environmentally sound architecture is an environmentally sound development that utilizes all the potential that exists around the environment but still within the limits that also pay attention to the surrounding environment in order not to be damaged and remain balanced. An environmentally sound architecture is necessary because the destruction of existing ecosystems on earth as a result of various developments that do not pay attention to the natural environment and surrounding areas. As a result of this there is global warming, flooding and many other types of natural disasters. Izzah (2012) says architecture is the art and science of designing buildings. In a broader sense, architecture includes designing and building the entire built environment, ranging from the macro level of urban planning and landscape architecture to the micro level of building design, furniture design and product design. Architecture also refers to the results of the design process.

Based on some of the above opinions, if the science of architecture combined with environmental science can give birth to a new science, the architecture related to the environment or environmental assessment of environmental studies into environmental architecture. Therefore, it can be concluded that the architecture of the environment is the study of the art of designing and planning the natural environment into a living environment built in the form of living space as a container of human activities that are beneficial to life.

The philosophy of Tongkonan layout, derived from the teachings of Aluk Todolo (ancestral religion) about cosmology where the village conceptually always follows the four directions of the wind then, Tongkonan conceptually also follows the village model that is rectangular. Thus, the form of the village that flows from east to west, gives birth to the Tongkonan layout that forms a path according to the East-West pattern.

Sumalyo says, "a row of tongkonans facing an elongated yard is formed by a row of tongkonans with rows of barns (alang). This page is open space (+). This opinion is also supported by Tangdilintin (1985) which says: Tingayo banua (front of house) has its own position among all parts of the house as a high ceremony place called "Inan Panguranda-randean" (special place). "Then, Stanislaus (2002) said that "Tongkonan and alang are opposite, like men and women, among them there is pangrampak or tarampak or Luba'ba". Furthermore, Sampebulu explained that in the pangrampak or Luba'ba, there is a kind of privacy line to distinguish between functions and actors or between insiders (families) and outsiders.

The built environment of the Tongkonan, consisting of: Alang (rice granary), Rante where the ceremony Rambu soloq (funeral ceremony), Liang (graves), consisting of: erong graves, stone gaves (Liang Paa') or patane graves and Kombong (protected forests where

wood, bamboo and others) as building materials to renovate Tongkonan or alang if the time has arrived for renovation (Mithen and Onesimus 2007). Further, Mithen *et al*. (2015) explains that: "In Toraja, each family has a traditional house called Tongkonan. The neighborhood was built on Tongkonan, consisting of Alang (granary), Rante (place of funeral ceremony), Liang (grave) and the Kombong (a protected forest reserve with wood, bamboo, etc.) for building materials to renovate Tongkonan or Alang when the time was ripe for renovation".

Tongkonan built environment should be maintained properly. Harmony and balance with nature must be maintained because in the teachings of ancestral religions (Aluk Todolo), hinting that if nature is angry, it will bring disaster to humans (Tangdilintin, 1980). After these cultural supporters converted from Aluk Todolo to Christianity and Islam, their ancestor's culture was preserved, mainly Tongkonan's preservation because of Tongkonan's function to maintain kinship ties in addition to tourism needs in this area. As long as Tongkonan remains, then Kombong as part of the Tongkonan built environment will also be maintained. Therefore, Kombong is one of the local wisdoms of the Toraja community that is related to the preservation of the environment.

Kombong is a part that cannot be separated from Tongkonan Kombong. It is a forest area built from Tongkonan, planted with various types of wood and bamboo which is very useful for building materials if structural material from traditional houses or granaries are weathered and need to be replaced. Kombong, maintained from generation to generation of the Tongkonan family and must be preserved. The main concept of this kombong system is as a reserve of building materials for traditional houses and rice gardens in Toraja society. In addition, the ancestors of the Toraja people realized that their area, upstream of the Saddang River plays an important role for other areas as a source of water to irrigate existing rice fields, especially in the downstream neighboring areas, namely Sidenreng Rappang and Sawitto Pinrang. Both of these areas require a source of water from the Saddang River as irrigation, so, this area is well known as a rice producer in Eastern Indonesia. The policy of the ancestors of the Toraja people to maintain the forest in their area is local wisdom that is not only useful for themselves but also useful for other areas.

MATERIALS AND METHODS

This study aims to determine the function of the Toraja traditional house (Tongkonan) and its built environment which is a unique environmental product architecture in Bori Tana Toraja, Indonesia. The type of research is qualitative research. Data collection is done by observation, interviews and documentation. The research variables consist of: Function of Traditional House (Tongkonan) and its built environment, consisting of: granary (Alang), home page (Pangrampak or Luba'ba), forest maintained (Kombong), rice fields (Uma), place of funeral ceremony (Rante) and stone grave (Liang Paa). The data analysis technique used is descriptive qualitative analysis that is analyzing each variable descriptively, consisting of four activity flow that is data selection, data presentation, analysis and interpretation and conclusion.

RESULTS AND DISCUSSION

Tongkonan in Kalimbuang Bori there are eight Tongkonan with different functions governing the life of the people under the rule of adat Bori in the past and still preserved to this day. The eight Tongkonan are: Tongkonan Ne Ramba which functions as the holder of customary government, Tongkonan Lumika which serves as Tongkonan Layuk as a place of deliberation to determine the customary rules that will be applied in the community as the director and the advisor in customary government of Bori Tongkonan Papakayu which assumes the duties of security guards, Tongkonan Potoksia which assumes the task of governing agriculture and regulates the distribution of meat distribution at ritual ceremonies Tongkonan Ne Lame which carries out the task of dividing or cutting meat sacrifice at ritual ceremony, Tongkonan Lolokbatu as Toma'gandang or ritual ceremony leader both ceremonies are concerned with giving thanks to God (Rambu Tukaq) and funeral ceremony (Rambu Soloq), Tongkonan Ne Lunak and Tongkonan Ne Mambela which serves as assistant government to help Tongkonan Ne Ramba in carrying out its duties. Thus, the Tongkonan Ne Ramba and Tongkonan Lumika are classified into Tongkonan Layuk or Adat Rulers and 6 other Tongkonans function as Tongkonan Kaparengngesan that perform certain tasks in accordance with the division of tasks in regulating the course of customary government in the region of Kalimbuang Bori and surroundings. The function of each Tongonan is the local wisdom of the Torajan community that has been preserved from generation to generation and specifically in the Bori Region is estimated to begin in the early 18th century.

Apart from the 8 Tongkonan there are still Tongkonan or other traditional houses but these do not carry out customary functions and only function as Tongkonan Pa'buntuan Sugi or houses built after the owners become rich and also function as Tongkonan Batu A'riri or Tongkonan which serves to foster kinship for every family born from each Tongkonan.

Alang and Pangrampak or Luba'ba: The location of each Tongkonan is separated and each has a barn of rice (alang) which is lined up against each Tongkonan that serves as a place to store rice and perform traditional ceremonies. In addition in the space between the house (Tongkonan) and the barn (Alang) there is a home page named Pangrampak or Luba'ba which is also a place for the implementation of thanksgiving ceremony (Rambu Tukaq) and funeral ceremony (Rambu Soloq). At the time of the ceremony, the granary whose position is directly opposite the traditional house is a place of very high privacy because it occupies the seat of the adat ruler, so that, anyone cannot pass in front of him. Government officials also should not pass in front of the adat ruler as a tribute to the ruler of adat. If anyone dares to pass, he will be sanctioned or fined by the traditional leaders (Fig. 1 and 2).

Kombong: Another built environment that is not less important is Kombong or protected forest which is an integral part of the Tongkonan. In this forest are intentionally planted and maintained various types of local wood that are considered of good quality as well as bamboo. If a Tongkonan or Alang requires renovation, then the available timber forest material reserves are used and branches of wood serve as firewood for cooking purposes. In addition, bamboo plants are very important because the bamboo is used as a roof of the house and the roof of the barn is arranged in layers, although, currently after installation is usually coated again with a zinc roof, so that, the traditional impression is reduced. Bamboo plants also serve as a material to build various purposes that are temporary while the ceremony takes place.

Another function of Kombong is to support the economy with the cultivation in forest gaps, various commodity crops such as coffee, cocoa or vanilla. Thus Kombong function is very deep because in addition to the material reserve structure, it also functions to prevent erosion and flooding as well as functioning as a garden for various commodities. This is an environmentally sound concept of architecture that is a product of local wisdom passed down from generation to generation for the people of Toraja from time immemorial to the present (Fig. 3).

Uma: Rice field (Uma) is also a built environment Tongkonan whose function is very large as a source of family economy. The main food of the Toraja people is rice so, the cultivation of rice crop is very important, so that the life of the society supporting the culture becomes prosperous. Given the importance of this agricultural economy, one Tongkonan, i.e., Tongkonan Potoksia is given the special task of regulating the field of agriculture.

Fig. 1: Tongkonan Lumika'

Fig. 2: Line of rice granary (Alang) in front of Tongkonan and Luba'ba or space between Tongkonan with Alang

Fig. 3: Protected forest (Kombong)

Fig. 4: Rice field (Uma) is one of Tongkonan built environment

Rante: Another built environment is Rante, a place for conducting funeral ceremonies (Rambu Soloq). In the Tongkonan Bori neighborhood there is a large Rante, equipped with stone pillars (Simbuang) to which are tied the buffaloes that will be killed during a funeral ceremony. In addition, there is also Lakkean which is a high stage covered with a roof which is where corpses are laid during the ceremony. In Rante Kalimbuang Bori 'there are 8 Lakkean which is a pair of each Tongkonan who perform custom function in Kalimbuang Bori area'. In addition, in the middle of the Rante there is a high stage which is also topped but its shape does not resemble a traditional Toraja house called Bala'kayan. It's a place to share meat. So, the buffalo meat that was slaughtered is carried up to the Bala'kayan; then the traditional ruler who served to divide the meat shouted from above the name of every person or group entitled to get meat at the ceremony (Fig. 4).

Liang: The last built environment is Liang (grave) which is a place to store corpses or to keep corpses that have been preserved. At the funeral ceremony (Rambu Soloq), after a person has died, especially if he is a noble his corpse is preserved with spices and kept in Tongkonan's house for some time, even several years and then a ceremony is conducted at Tongkonan's house. During the ceremony, the front yard (Luba'ba) becomes a very important place as the area of ceremonial execution, especially the reception procession. Then towards the cutting of a buffalo called Ma'tinggoro tedong, the corpse is taken to Rante and placed on the Lakkean for several days. On the day of the buffalo slaughter in Rante, usually before the killing, the buffalo are first pitted against each other and the ceremony is usually very crowded. Many people watch and some even bet which buffalo will win the buffalo fight. There are dozens of buffaloes for slaughter, up to 100 or more rich and influential people.

Fig. 5: Rante is one of the built environment Tongkonan with Simbuang batu (stone) and Lakkean as a place to lay the corpse during the funeral seremony and Bala kayan as a place to divide the meat

Fig. 6: Liang Paa' Grave stone carving is one Tongkonan built environment

After cutting the buffalo, the next day is usually followed by a funeral procession which is to bring the corpse to be stored in Liang Paa (stone grave). As the last built environment, every Tongkonan has its own chisel stone as the family grave, so that, 1 piece of stone carving, usually keeps up to dozens of corpses. According to him, although, the door of the stone grave looks small inside it is wide enough to accommodate scores of corpses. What else is the duration of the process of storing corpses is usually, so, long that the previously stored corpse is usually destroyed before the newly inserted corpse (Fig. 5 and 6).

Based on the research results presented above, it can be observed that the built environment Tongkonan serves a considerable number of functions, ranging from residential function in traditional house (Tongkonan) when a person is alive, then the supporting elements of life processes are good in managing the life-style in (Rambu Tukaq) as well as the ceremonies associated with

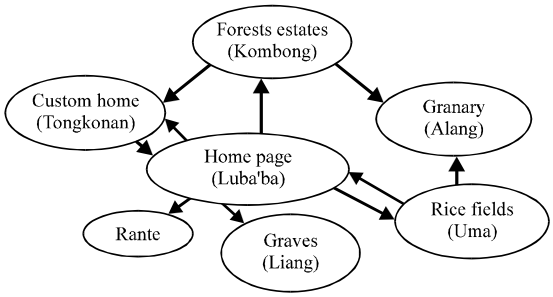

Fig. 7: Tongkonan relationship pattern with the built environment

funeral seremony (Rambu Soloq), all carried out or centered on traditional house (Tongkonan) and supported by its built environment. Thus the built environment Tongkonan is the site of Toraja community activities that support all activities carried out in traditional house (Tongkonan). The relationship between Tongkonan and its built environment can be seen in Fig. 7.

CONCLUSION

Based on the results of research and discussion above, it can be concluded that Tongkonan is a traditional house Toraja, there is a custom function and there is only a house of kinship ties in the community. Tongkonan has a built environment with different customary functions: Pangrampak or Luba'ba is a space or a broad yard in front of Tongkonan house and Alang that serves as a place of ceremony, Alang or rice barn which serves as a storage place for rice and also as a place of ceremony, Kombong is a forest built as a place to grow wood and bamboo which are the natural material for maintaining the Tongkonan and Alang and sustain an ecologically functioning environment, Uma or rice field, the producer of rice for the needs of residents of the Tongkonan, Rante, the venue of the funeral ceremony of Rambu Soloq and Liang or grave as the last morgue after the adat ceremony.

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