

ITU A Z • Vol 17 No 1 • March 2020 • 25-36

The intangible characteristics of the two indigenous traditional dwellings in West Kalimantan

Zairin ZAİN¹, Uray Fery ANDİ²

- ¹zairin.zain@untan.ac.id Department of Architecture, Faculty of Engineering Universitas Tanjungpura, Pontianak, Indonesia
- ² urayandi@gmail.com Department of Architecture, Faculty of Engineering Universitas Tanjungpura, Pontianak, Indonesia

Received: March 2019 • Final Acceptance: November 2019

Abstract

A house has an important role in our lives. It is built to meet the physical and spiritual needs of the occupants. It is also a part of the physical culture, which in the traditional context, is a form of expression and closely linked with the personality of the community. All parts or features of a house possess valuable norms held by the community, and applied in the physical appearance of the house. In the traditional sense, the layout of and functions of the rooms in a house reflect the values, principles, and norms that are held by a family and prevail in their community. The influences of the religious concepts, their beliefs, and the community culture are expressed in the physical, architectural form of their dwellings. The belief is the benchmark to distinguish the understanding of the house elements on these two types of architecture. The rules adhered by the Malays are based on the Quran and Al-Hadith. These sources of authority regulate the two main aspects of Malay lives, i.e. human relationship with God and human relationship with the others. The positive rules to the life of the Dayaks are the customary law, customs, and traditional beliefs.



Keywords

Traditional dwellings, Malays, Dayaks, Intangible characteristics.

doi: 10.5505/itujfa.2019.97720

1. Introduction

Human beings need a house as a place for living, growing up, and carrying out daily activities. As a place for human shelter and living, houses have continued to evolve from time to time. In the past, primitive people occupied caves as dwellings and shelter from predators and extreme weather. After having experiences in the development of dwellings, with the influence of their own culture and the increase in knowledge, humans began to control nature and start thinking of building houses (Lefas, 2009: 19).

The housing adjustments people have made can be seen in the application in the traditional houses. They link to the local culture, which contains special orders for the rooms' functions. All parts or facilities in the home have valuable hereditary norms held by the community, and applied in the physical appearance of the house. In the understanding of the traditional community, the physical appearance of the dwelling is reflected in the sequence of the rooms' function. The facilities and the parts of the house also reflect the values held by a family as principles and norms prevailing in their community.

Generally, the original types of Indonesian houses in the past could be constructed with a cognitive understanding of most traditional people (Noble, 2007: 13). This applies to both constructions built on land and floating on water. In most Indonesian traditional points of view, the dwellings' construction could be erected directly on the land or on a stage above the ground. This makes the vernacular product of indigenous ethnic groups in West Kalimantan a work of architecture rich with meanings, which needs to be explored deeply and studied further. The intangible elements are perceived through the senses of dwellers (Hosseini et.al.: 2016: 94). By exploring intangible elements of the traditional houses, the meaning in houses as works of architecture may be found. The purpose of this paper is to find the characteristics of the intangible elements of the traditional Malay dwellings and the Dayak longhouses in West Kalimantan.

2. Traditional architecture

Noble (2007: 1-3) defines the word "traditional" as referring both to the procedures and objects that have become accepted as the norm in society, and elements passed from generation to generation, usually orally, or sometimes in the form of documents that have the knowledge transmitted orally and codified in the form of instructions, and procedures. The concept of "traditional dwelling" is usually used to describe a simple structure, but often a complex concept. In traditional communities with a good interrelationship and interaction among others, the concept of home as a structure is less important than that of the variety of the activities within the complexity. The home is the idea of turning land into enclosed spaces and building walls to protect personal activities. This idea is realized through the artefacts which are always being considered and becoming one with nature. Every part of the house is formed precisely by taking into account the local conditions (Mahayuddin et.al., 2017: 1016).

Dwellings are focused on a variety of functions, some contained within them, others provided within specialized nearby buildings. The idea of the dwelling persists, expressed in the continuity of form, plan, structure, and its uses (Oliver, 1987: 10). Marcussen (2008: 17) mentioned that an evolutionary description of the history of the cultural space consisted of three stages or levels in an interrelated process. The aspects of cultural history that will be looked at are the visual art, the cosmology, and the architecture. Pheasant (2003: 7) reported that people often use expressions which are designed for human scales, generally found in the classical styles of architecture. The implication is that the particular building (also a dwelling) is aesthetically well-proportioned and conveys a certain sense of precision and harmony. The precision and harmony for the occupants are intended as measures used in the forming of space, which is based on the measurement of the parts of the human body, and also designed to adjust to the physical characteristics of occupants.

3. Methodology

This research used a qualitative method in which data were discussed for the relevant theories. The research was designed by doing an interpretation of the compilation data, collected as a primary and a secondary throughout several field surveys. The research analysis was carried out using selected cases of the two indigenous traditional architectures in West Kalimantan: Malay and Dayak dwellings. At the beginning, a process of data classification was done. The classified data, which is the characteristics of the dwellings, will be discussed further. A brief description was applied to the clasified data to obtain the intangible characteristics of those two types of indigenous traditional architectures. The discussion on this research is the extension of the paper on Malay Dwellings that was written by the author (2016). The purpose of this article is doing a comparison between the Malay dwellings and the Dayak dwellings, and the findings are the result of the intangible character-



Figure 1. Map of West Kalimantan province and locations of the objects space composition and building parts.

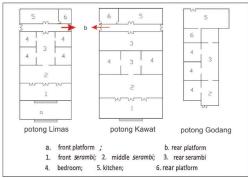


Figure 2. The floorplan of three types of the traditional Malay dwellings in West Kalimantan.

istics of both indigenous dwellings in West Kalimantan.

Survey sites were in the cities around West Kalimantan where the research objects of traditional dwellings are still in the original conditions and lacking considerable alterations. As primary data, the observation was conducted on the Malay dwellings established in the city which was the capital of the Malay kingdom in the past. Other observations were also conducted on Dayaks dwellings, which consisted of indigenous longhouses in several villages across West Kalimantan (Zain, 2016). Similar to the author (2016), from each of these cities, the researcher chose three types of Malay dwellings as research objects. Traditional Dayak dwellings, well-known as longhouses, were selected as research objects in Kapuas Hulu regency.

According to Güney (2007), typological thoughts and actions for researchers are needed to recognize and discover the basic types and the ability to explore objects in complementary relationships. Im & Han (2018) stated that in a typological strategy, typology is a tool for creating form in changing paradigms of architectural studies. As a tool, this research utilized typology methods to seek consistency of logic in traditional Malay and Dayak dwellings' identities. The type of research objects acts as a principle, which is fundamental to providing guidance for making an assessment of the objects, for controlling various conditions and variables (Rousseau, 2018).

All research objects chosen as Dayak dwellings were taken from indigenous longhouses of the Tamanic sub-ethnic group. The type of traditional Malay dwellings which were taken as research objects consisted of Potong Limas (Limas type), Potong Kawat (Kawat type), and Potong Godang (Godang type). 31 objects of traditional Malay dwellings, which were taken as case studies, represented the type of traditional Malay dwellings in 10 cities across West Kalimantan. A total of four traditional Dayak dwellings as research objects represented the Tamanic sub-ethnic group across West Kalimantan: the architecture of rumah panjang, or longhouse.

According to the composition of building parts, a fundamental difference between the Malay dwellings and the Dayak longhouse in the number of building parts was found. The Malay dwellings' composition consists of two building parts of the main house (rumah induk) and the support house or rumah anak (Zain, 2012: 14). Meanwhile, the Dayak longhouses only have one large building part (Beynon, 2013:91).

The main house in the Malay dwellings includes serambi depan (front porch), serambi tengah (middle verandah) as guest room, serambi belakang (rear verandah) as living room and family room and bedrooms (Zain, 2012: 141), while the kitchen is in the support house (Sahabuddin & Gonzalez-Longo, 2015:32). By contrast, in Dayak longhouses, all activities are sheltered in one large space, integrated in the same building (Beynon, 2013:91). The kitchen, which was in the past placed in the Ruai room, by the current social evolutions in Dayak societies then moved to the back of the longhouse (Barret, 2004: 25).

4. Building orientation

The orientation of buildings was found in every traditional house involved in this research to be towards the river, sun, and path. One of the aims of the buildings' orientation is the use of access in front of the house as the circulation and an important element to facilitate the movement of residents to other places (Prasojo, 2017: 198). The main orientation of traditional houses in West Kalimantan in the past was a river. Rivers as a major transportation route in the past linked villages or cities within West Kalimantan (Esariti et.al: 2018). A fundamental difference was found in two groups of cases of this study. In the traditional Malay dwellings, the orientation of facades of the houses does not consider the river as the main orientation, but for the Malays, the river is understood as the element of life support. Rivers, for the Malays, as for the other tribes in Kalimantan, are the source of life providing many benefits for survival (Esariti et.al: 2018). Therefore, the Malay house will be close to the water source (river),

although the orientation of the house may not be close to a riverbank. Conversely, the Dayaks built longhouses with the river as the main orientation, as well as a water source, fertile soil, transportation path, wash, bath, and even as the toilet (Sangalang and Darjosanjoto, 2011; Beynon, 2016), linked to the beliefs understood by the Dayak people about the forces of nature which control the river.

Similar to the orientation of the sun's circulation, the Malays did not make this orientation as the main thing that had to be fulfilled in their dwellings. The opposite occurred in the Dayak longhouse, which makes the orientation of the east - west as the primary basis for the front facade of house. The belief in *Matari Tumboh* (sunrise) and Matari Mati (sunset) is linked to the philosophy of the human life cycle. Dayaks will refer their behavior to the sun; i.e. non-physical and physical things. This is reflected on how Dayak will face their body towards to the sunrise direction when they go to sleep. However, for physical things, the river becomes the source of orientation with adjustment to the orientation of the east - west as the primary basis.

The beliefs embraced by the respective indigenous people of West Kalimantan distinguishe their basic understanding about the orientation

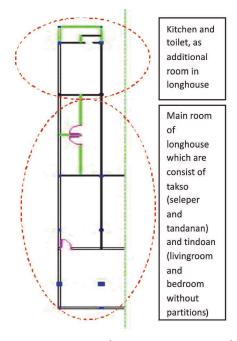


Figure 3. Room division in Tamanic subethnic of Dayak traditional longhouse.

Table 1. Comparison of functions in the rooms sequence of the Indigenous Traditional Dwellings in West Kalimantan.

NO.		Dayak Longhouse	Function's comparison
1	Front Porch	Takso Seleper	Both have the same function
			i.e. as a place to receive and
			serve guests. Both for the
			Malays and Dayaks, this space
			is usually reserved for
			receiving the foreign guests.
			For daily activities, this place is
			used by inhabitants as a place
			to relax in the morning or
			evening.
2	Middle Verandah	Takso Tandanan	These rooms have the same
			function as a place to held the
			traditional ceremonies.
			Besides that, in the house
			Malay, the middle serambi of
			this gallery is used daily to
			receive the important and
			formal guests.
3	Rear Verandah	Tindoan	These spaces basically has
	Bedroom		the same function, either in
			Malays or Dayaks, both as the
			family room for a break time
			and the interacting room. In the
			Malays house (Soenarpo et.al,
			1986: 56), this space is
			separated by a partition wall
			which is not permanent or only
			lined by a curtain or closet.
			While in the Dayaks
			longhouse, the space is
			currently divided into several
			bedrooms with or without a
			family room. In the past of the
			Dayak longhouses, this space
			did not have any room's
			division. As the room partition
			for sleep at night, usually they
			use fabric curtains or bed nets
			(kelambu).
1	Kitchen (in	Kitchen (currently	This space is an element of the
	separate house)	as the additional	room which becomes the
		room)	fundamental difference
			between Malay dwellings and
			Dayak longhouses. Kitchen is
			a permanent space built to
			support the activities in the
			Malay dwellings, while in the
			Dayaks longhouses in the past
			was a part of the Ruai room
			but at present, it is an
			additional room that is placed
			on the rear of every biliks in
			the Dayak longhouses.

of the front facade of houses on both types of architecture. The Malays, who embraced Islam as their religion, are banned from worshipping the presence of elements or creatures excessively (A GhaffarianHoseini, 2014: 163). According to Islamic teachings, everything created by God is good and can be used as fully as possible for the good of mankind. So, if there are great benefits of God's creation which could be obtained, the Malays would use and exploit it with no doubt. This attitude is based on Islamic teaching that the Malays have a habit of always being thankful for what they receive and should not be prejudiced against God's creation or sustenance received from God.

Different conditions happened to the Dayak longhouse orientation due to the the traditional beliefs that they carried from the past and some of the Dayak people still maintain until today. However, the implementation of the rules of traditional belief began to experience a friction in which some of the inhabitants of the Dayak community no longer considered the river as the main orientation of longhouses and changed it by following the path as a new orientation of the front facades of their longhouses.

5. Basic norms in implementing the customs and traditions

Positive orders obeyed by the Malays are found in the Quran and Al-Hadith as guidelines in running their life on this world (Jalil, 2014: 17). These guidelines regulate the two aspects of the life of Malays; i.e. the human relationship with God (hablumminallah) and man's relationship with man (hablumminannas), while the rules controlling the life of the Dayak people are the customary laws, traditional customs, and beliefs (adat keyakinan). These guidelines are hereditary laws from the ancestors of the Dayaks and generally understood and executed in the form of oral culture in their communities. A person with the ability to understand all the traditional customs is selected from among the community members and he will be appointed as Tumenggung (Alcorn and Royo, 2000).

The similarity of views between Malays and Dayaks about the norms in

their lives is that the religious beliefs could not be separated from their daily lives. Religious beliefs are manifested in the creation of building forms and elements that support the space inside the dwellings. The implementation of the concept of Habluminannas in the lives of Malays is embodied in the form of customary rules, while the concept of Habluminallah in its implementation refers to the written rules in the Our'an and al-Hadith (Samra, 2017: 5). The same conditions are also found in the life of the Dayak people, divided into the form of norms that they have as the unwritten norms and delivered as hereditary from the ancestors, both customary law and customs of the traditional beliefs (Algadrie, 1990; Helliwell, 1990: 134; Thomson, 2000; Pebriano, 2006).

According Soenarpo et.al. (1986: 41-42), both the Malays and Dayaks as traditional societies in West Kalimantan still believe that in human lives, there are certain places outside the dimension of their life which are also inhabited and controlled by kinds of spiritual beings (Alcorn and Royo, 2000). Therefore, in several locations in West Kalimantan, it is still common for the Malay people to maintain the traditional rituals from their ancestors, while these rituals are quite contrary to the teaching of Islam. However, they contend that this is only customary and is separated from the behavior of worshipping these spirits. According to Thomson (2000), the ceremonies were created because the Malays, who live alongside the Dayak people, also share many features of the Dayak worldview and also maintain traditional ceremonies by using concepts which seem similar to the Dayaks for the activities that relate to their lives.

6. Meanings

The traditional interest in a dwelling emphasizes the local wisdom used to create the architectural designs that are attached to both buildings (Rachmawati and Mappajaya, 2012). In addition, as previously mentioned, the ornaments, colors, models, and the meanings applied to the building are considered as strongly reflecting the desire to accentuate the identity of each

community. Observers will be able to identify the architectural image of Malay dwellings, owned by Muslims, with the Dayak longhouses through the architectural image of buildings which are owned by a group of Dayak people who live together with a strong guidance of the customary rules.

Islamic values become the main sources which are highly featured by the Malays in the architecture of their houses (Samra, 2017: 5). The Malays always linked the problems of life in the world with the teaching of Islam is purposely According Soenarpo et.al. (1986: 43), For the Malays who obediently implement Islam, the basis of the religion is most dominant in every aspect of their lives. The same condition is also carried by the Dayaks. But the difference is that they receive knowledge about all the customary rules, getting the information passed on from generation to generation by their ancestors.

Another important finding is that the Malays also linked the section components of a house consisting of bottom, middle, and upper parts with the concept of phases hierarchy in the practice of their religion, namely Iman (faith), Islam, and Ihsan (good deeds). The three concepts in this hierarchy are seen as a process in the phase of attainment of perfection desired by all Muslims: Iman as a foundation, Islam as a body section, and Ihsan as deeds. This is the concept of Muslims as the journey toward goodness in the world (dunia) and the hereafter (akhirat). Iman as the foundation includes the six basic things that should be recognized by people proclaiming to be Muslims; Islam as a body section contains the five points of doctrine that must be implemented by Muslims, while Ihsan as a roof cover, has a meaning as a behavior that should characterize the Muslims by always remembering it (as the behaviour of his/her good deeds through the memory in the brain), so that they are able to establish or enhance the previous two concepts to be carried out well.

So here, the faith is acting as a foundation for a Muslim (Malay) in living life on earth. The dwelling's architecture is described by the number of wooden

poles as the foundation that holds the whole load of the house construction. According to the teaching of Islam, which they believe, Iman is the foundation (base) that enables them to carry out the other religious orders. Muslims have orders to shahadah (confession of faith), sholat (prayers), puasa (fasting), zakat (charity), and hajj. Some of the implementation of the five basic teachings of Islam is generally conducted in their respective houses. This condition is the main reason why the Malays always keep the room clean at the main house because a house is a perfect place to carry out the five basic teachings of Islam. The next phase is the effort to achieve the level of Ihsan to strengthen the foundation and body that have been formed. It also means that Ihsan shades and keeps the Islamic faith for all of the inhabitants in the house (the Malay) to always be alive and continue to increase by always running the religious orders in daily life.

A similar understanding, with a different concept, is also found in the architecture of the Dayak longhouses. The macrocosmos understanding that overshadows their lives on earth is also manifested by the division of the house into three parts, namely the underworld, the middle world, and the upper world. This understanding, if compared with the concepts used in Malay dwellings, also showed relatively similar meanings. The underworld inhabited by the spirits of ancestors or the power of nature as a principle of belief (*Iman* in Malay terminology) of the Dayak to the powers that govern the universe (the macrocosm concept) is similarly found in the Malay as the understanding through one of the six aspects of Iman. In this case, both the Malays and Dayaks are equally convinced that there are a powerful 'creature(s)' regulating and controlling the universe.

Findings also rest on the understanding of the middle world as a place inhabited by humans to perform daily activities. For the Dayaks, this section serves as a place where the humans conduct various activities in life and on the other hand also serves as a place for conducting traditional ceremonies. This traditional ceremony is a medium

to ask for permission or an expression of gratitude to the owners of great forces in nature (Alcorn and Royo, 2000). This is the same concept found in the Malay dwellings. The difference is that in the Malay dwellings, the entire space in the main house is the place to practice their religion (A GhaffarianHoseini et al., 2014: 157–170) while in the Dayak longhouse, because of their life as a community, the implementation of the ceremonies is applied in certain sections of the community space.

As mentioned previously, in the Dayak longhouses, a concept of dunia atas (beyond world) in is found as a symbol of God's world. The upper world, which is bridged by the sadau room, is the location which becomes the perfect point to deliver a request to the Lord, who stays in heaven. The concept is still believed today where they usually put the offerings in one of the poles under the roof. This understanding seems to be different from the concept of *Ihsan* shown in the Malay dwellings, but the influence of the culture from the past could be found on the Malay dwellings. According Soenarpo et.al (1986), the traditional Malay societies in the past were still putting some offerings hanging on the tip of the main pillar (tiang seri) at the first time when the house was erected and the placement of poles on the roof top is still found as a symbol of tolak bala to avoid the catastrophes and misfortunes coming to the occupants of house.

The animist beliefs became the basic understanding of the Dayak people in all aspects of life, including homes, where the conditions already existed in the past life of the Dayak community, so that the Dayaks generally understand it as a part of their belief. This concept, as belief, is still carried out by some indigenous Dayak people as a part of the essential customary plan for their lives. The different conditions in understanding happen in the Malay, who basically always linked all aspects of life to the Islamic teachings that they follow as the basic rules in life. According to Sudarto, an expert who works in a government office, the habit of linking the concept of Malay Islamic teachings in daily life is a part of what is designed to beautify their lives. Thus,

the dwellings as artifacts are usually created with aims by following the environmental conditions (Ibrahim et al., 2015: 99) but then they are shaped with the concept of Islamic religion so that Malay people will always remember their identity as Muslims.

In the Dayak longhouse, the mass composition of the upper part looks more dominating compared to the middle part. A different condition was found on the Malay dwellings, where the middle and upper part are only found to be slightly different in the mass composition and are not as dominating as the overall appearance of the front facade. For the Malays, the top is a place for women, which is very protected to honor their activities, but the most important part is in the middle part as the place for daily activity (Samra, 2017: 4), whereas in the top of the Dayak longhouse, which is called the sadau, is the room to hang the offerings to Jubata (Gods), considered as the liaison space to communicate with the world above (Helliwell, 1990). The understanding of cosmology for the conical shape of the roof facing toward the sky, for both the Malays and Dayaks, has the same meaning that all activities undertaken inside the house (in the middle part) will be sent directly to the heaven where God resides. Manifestation of activity for the intended meanings in the respective communities is found to be different. Malay activity is characterized by reciting the prayers, reading the Qur'an and other religious activities, whereas for the Dayak it is by conducting the customary ceremonies that give offerings (sesaji) hung on the structures under the roof.

7. Terms of privacy

The privacy in the Malay dwellings has the hierarchy levels (Rahim, 2014: 540) started from the semi-public space that is represented by the serambi rooms in the front and middle, then semi-private space that is represented by the rear verandah, and the last is the private space that is represented by the bedroom (Razali & Talib, 2013). Meanwhile, the privacy in the Dayak longhouses has the hierarchy levels started from the public space represented by the *Takso Seleper* room, then

semi-public space represented by the *Takso Tandanan* room, and the Tindoan room serving as a private space for sleeping and family gatherings.

Malay dwellings are designed as a single house inhabited only by one family, and any other family usually consists of the daughter of the owners with her partner, whereas the Dayak longhouse is designed as a dwelling house with lots of *biliks* and inhabited by many families (Barret, 2004: 25). Each chamber is also typically inhabited by more than one family, which is the daughter of the owner of the *bilik* with her partner.

The concept of a bilik in the Dayak longhouse is similar to a house in the Malay dwellings, i.e. as a place to cover the family activities from observation of the outsiders. The "inside house" for the Dayaks is in the bilik, while for the Malays is in the rear serambi and bedroom. On the other hand, we can see that the current composition of room division in *bilik* is similar to the "inside house" of Malay dwellings. Therefore, privacy in the Dayak longhouse is the individual activity of family members in the conditions of a family atmosphere carried out in the bilik, while in the Malay dwellings, privacy is emphasized as a private atmosphere for family activities located on the rear serambi and bedroom (Helliwell, 1990: 168-169). Although in the Malay dwellings, serambi on the front and middle is also a part of the house, the divisions of semi-private and private space from

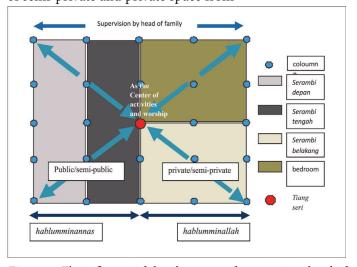


Figure 4. The influence of the placement of tiang seri as head of family provides supervision to the activities and worship of family members.

the public spaces were found inside of the residences (Rahim, 2014). There were different conditions found in the Dayak longhouse, namely, the division of the space made between public space and semi-public and the private spaces inside the *bilik*. Both parts of the house, either in Malay and Dayak dwellings, have limited access for others in "the inside house."

Physical barriers that surround the space and also limit human access to the spaces cause the similarities and differences in the terms of privacy found in each of these traditional houses of West Kalimantan. The similarity concept of privacy is found to limit the public and private space with massive walls, both in the Malay dwellings and the Dayak longhouses. In addition, there is a different concept in understanding the terms of space division and room characteristics of semi-private rooms in the Malay dwellings from a semi-public space in the Dayak longhouses. Semi-public spaces in the Dayak longhouses are bounded physically by a row of poles. The space is said to be semi-public because it is used specifically for the ceremonial activities and the meeting rooms of villagers or residents of the longhouse. Except for such purposes, the longhouse occupants rarely use it. Guests and the longhouse occupants use Seleper Takso rooms as the place to interact. The conditions of space utilization are the same conditions as found in the middle serambi of the Malay dwellings, which is also rarely used for daily activities except to receive the formal guests or to conduct the customary ceremony. On the other hand, semi-private rooms in the Malay house are bounded by massive walls with openings using a

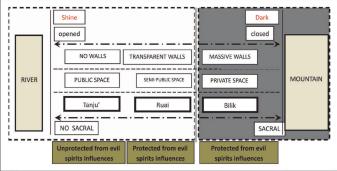


Figure 5. Spatial division in longhouse by the influences of nature and activities.

curtain or a door (Rahim, 2014: 542). The space is said to be a semi-private because it is only for family members, especially the mothers and daughters, and male guests are not allowed to enter. (Rahim, 2014: 541).

The explanation above gives an overview why the Malay divide the private space into two parts, while the Dayak divide the public space into two parts. The Malay dwellings require a private room for the family members, while in the Dayak longhouse, as the community buildings, the privacy in public space is required to conduct customary ceremonies or meetings needed by the occupants (Helliwell, 1990: 177).

8. Conclusion

The intangible characteristic of elements on the traditional Malay dwellings and the Dayak longhouses in West Kalimantan:

a)Orientation to the river

The main orientation of traditional houses in West Kalimantan in the past was the river. In the traditional Malay house, the front facade of the house does not use the river as the main orientation, but the Malays consider the river as life support. In the Dayak longhouse, besides their life, the river is also the central orientation associated with the belief of the Dayak people towards the forces of nature controlling the River;

b)Orientation to the circulation of the sun

The Malay dwellings did not use this as the main element, but the opposite condition occurred in the Dayak longhouse, which makes the east - west circulation of the sun as the main criterion for the orientation of the house. For the Dayaks, the rotation of sun is also as the cycle of human life.

c)Terms of privacy

The concepts of bilik in the long-house as a dwelling is the same as in the Malay houses. The family privacy in the Dayak longhouse resides in a private environment of biliks, while the private area for the occupants of the house is located on the rear serambi and bedroom. The different understanding of space is also found in the segregation of semi-private rooms of the Malay houses and semi-public

areas of the Dayak longhouses. But in common interpretation, both spaces are the transition area of a special purpose for guests who will be allowed to enter the personal space.

d)Main pole

The existence of seri poles in the traditional Malay dwellings and the pemun pole in the Dayak longhouse is a center of all rooms of the respective houses and acts as "the source of life." These poles are the symbols of nodes for the activities which are undertaken by the occupants inside the house.

The local culture and the religion (belief) influences the traditional Malay and the Dayak dwellings in West Kalimantan, as follows:

•The inherent beliefs are benchmarks to distinguish the understanding of house elements in these two types of architecture. The Malays, who embraced Islam, strictly prohibited worshipping the elements of the house. Different things happen on many elements of Dayak longhouses made or installed, associated with traditional beliefs held in the past and some of which still exist today. But both types of architecture are equally attached to the beliefs, values, or cultural symbols on architectural concepts of the respective houses.

•The positive orders which are obeyed by the Malays are the Qur'an and Al-Hadith as the guidelines in daily life. This guide regulates the two most important aspects of lives of the Malays, i.e. the human relationship with God and human relationship with others, while the positive rules that control the life of the Dayaks are the customary law, customs and traditional beliefs. Like the Malays, the three guidelines that govern the lives of the Dayak people help in their dealings with the great power that affects people's lives through the guidance of traditional beliefs, and also the relationship between human beings and others through the guide of customary law and customs. These orders are applied in creating the spaces and forms in the respective of examples of residential architecture;

•Islamic values become the main feature highlighted by the Malays in the architectural elements of their house. They always linked the problems in the world with the teachings of Islam. For the Malays, Islam as the basis of all aspects of daily activities is the most dominant. Islamic sharia law is strong enough to guide daily behavior. Whatever the problem of life, it always returned to the matter of religion. Conversely, the system of knowledge for indigenous Dayak people is based on the customary information obtained from their ancestors as the main feature to be presented on the longhouse.

References

A GhaffarianHoseini; Umberto Berardi; Nur Dalilah Dahlan; Ali GhaffarianHoseini. (2014). What can we learn from Malay vernacular houses?. Sustainable Cities and Society 13 (2014) 157–170

Alcorn, J. B.; Royo, A. G., Eds. (2000). *Indigenous Social Movements and Ecological Resilience: Lessons from the Dayak of Indonesia*. Biodiversity Support Program c/o World Wildlife Fund. Washington, D.C.

Alqadrie, S. I. (1990). Ethnicity and Social Change in Dyaknese Society of West Kalimantan Indonesia. Doctor of Philosophy dissertation at Kentucky University USA. University Microfilms International. Ann Arbor, MI.

Barrett, R. J. (2004). Space, repetition and collective interlocution: Psychiatric interviews in a Borneo Longhouse. Communication & *Medicine 1*(1) (2004), pp. 25–34.

Beynon, D. (2013). The Contemporary Iban Longhouse: The Sustenance and Applicability of a Socio-spatial Culture. *The International Journal of Social Sustainability in Economic, Social, and Cultural Context,* Volume 9 / 2013

Esariti, L; Yuliastuti, N; and Ratih, N K. (2012). Riverine Settlement Adaptation Characteristic in Mentaya River, East Kotawaringin Regency, Kalimantan Province. 2nd Geoplanning-International Conference on Geomatics and Planning, IOP Conf. Series: Earth and Environmental Science 123 (2018) 012039 DOI:10.1088/1755-1315/123/1/012039

Güney, Y. D.. (2007) Type and typology in architectural discourse. BAÜ FBE Dergisi Volume 9 No.1 pp. 3-18

Helliwell, C. 1990. *Social Relations In A Borneo Dayak Community*. A Thesis Submitted For The Degree Of Doctor Of Philosophy Of The Australian National University. Australia

Hosseini, E.; Mursib, G; Nafida, R bt R. S.. (2016). Implementation of Traditional Malay Design Values in Contemporary Malay Houses. *International Journal Of Built Environment And Sustainability*, IJBES 3(2)/2016, 93-101

Ibrahim, S.H; Liew A.A.H; Nawi M.N.M.; Yusoff M.N. (2015). Reinventing Traditional Malay House for Sustainable Housing Design: Obstacle and Proposed Solution. *Jurnal Teknologi (Sciences & Engineering)* 72:1 (2015) 97–102

Im, J.; Han, J. (2015) Typological Design Strategy of FOA's Architecture, Journal of Asian Architecture and Building Engineering, 14:2, 443-449

Jalil, M. N. A. (2014). The Roles of Malays in the Process of Islamization of the Malay World: A Preliminary Study. *International Journal of Nusantara Islam*. Vol. 02 No. 02 – 2014: 11 – 20

Mahayuddin, S.A.; Wan-Zaharuddin W. A. Z.; Harun S. N.; Ismail, B. 2017. Assessment of building typology and construction method of traditional longhouse. Procedia Engineering 180 (2017) 1015 – 1023

Marcussen, L. (2008). The Architecture of Space – The Space of Architecture. The Danish Architecture Press. Copenhagen, Danemark

Noble, A. G. (2007). Traditional Buildings ~ A Global Survey of Structural Forms and Cultural Functions. I.B.Tauris & Co Ltd, New York

Oliver, P. (1987). *Dwellings : The House across the World*. Phaidon Press. Oxford.

Pebriano, V. (2006). Budaya Bermukim Masyarakat Dayak Dosan di Kalimantan Barat (The Living Culture of the Community of Dayak Dosan of West Kalimantan). Master Thesis of Bandung Institute of Technology (unpublished). Bandung

Pheasant, S. (2003). Bodyspace: Anthropometric, Ergonomics and the Design of Work. Taylor and Francis inc. Philadelphia, USA

Prasojo, Z. H. (2017). Religious And Cultural Existences Within The Communities of Upper Kapuas Riverside of West Kalimantan. Al Albab Volume 6 Number 2 December 2017

Rachmawati, M; Mappajaya, A. (2012). Local Wisdom In Java's Architecture (Studied In Nature, Technology And Humanity). *Academic Research International*. Vol. 3, No. 1, July 2012

Rahim, Z. A. (2014). The Influence of Culture and Religion on Visual Privacy. Procedia - Social and Behavioral Sciences 170 (2015) 537 – 544

Razali, N.H.M.; Talib, A. (2013). The Concept of Privacy and the Malay Dwelling Interior Space Planning.. *Procedia* - Social and Behavioral Sciences 101 (2013) 404 – 414

Rousseau, D. (2018) On the Architecture of Systemology and the Typology of Its Principles. Systems - Open Access Journal Volume 6 No. 7: 17 pages

Sahabuddin, M.F.M; Gonzalez-Longo, C. (2015). Traditional Values And Their Adaptation In Social Housing Design: Towards A New Typology And Establishment Of 'Air House' Standard In Malaysia. *Archnet-IJAR: International Journal of Architectural Research*, Volume 9 - Issue 2 – July 2015 - (31-44) – Regular Section

Sangalang, I; Darjosanjoto, E. T. S. (2011). *The Dayak adaptation in kampong of Kahayan riverside Palangkaraya Indonesia*. Journal of Basic and Applied Scientific Research Volume 1 no. 3 page 283-289

Soenarpo; Wuryanto, H; Ahok, P; Barmaniki, F.S; Mahsor, M. (1986). Arsitektur Tradisional Kalimantan Barat (*Traditional Architecture of West Kalimantan*). Project of Inventory and Documentations of Regional Culture for the Department of Education and Culture Republic of Indonesia. Jakarta

Thomson, L K. (2000). The effect of the Dayak Worldview, Customs, Traditions and Customary Law (Adat Istiadat) on the Interpretation of the Gospel in West Kalimantan, Indonesian Borneo. Doctor of Ministry dissertation at Acadia University Canada. University Microfilms International. Ann Arbor, MI

Ting, J. (2005) The Egalitarian Architecture of the Iban Longhouse. in Leach, A. & Matthewson, G. 'Celebration – Proceedings of the 22nd. Annual Conference of the Society of Architec-

tural Historians, Australia and New Zealand, Napier, New Zealand, SAH-ANZ

Zain, Z. (2012). The Structural System of Traditional Malay Dwellings in Sambas Town West Kalimantan, Indonesia. International Journal of the Malay World and Civilisation (Iman)

30(1), 2012: 139 - 158.

Zain, Z. (2016). The Ecological Responsive Buildings: Traditional Houses in the Kapuas Riverside of West Kalimantan. KOMUNITAS: International Journal of Indonesian Society And Culture. Komunitas 8 (2) (2016): 295-308 DOI:10.15294/komunitas.v8i2.5836.