




Local Wisdom in the Spatial Patterns of the Fatubesi Traditional Village, Belu, East Nusa Tenggara

Nyoman Rema¹ (✉) , Nyoman Arisanti², Ni Putu Eka Juliawati², and I Wayan Rupa³

¹ Research Center for Prehistoric and History Archeology, Research Organization for Archeology, Language, and Literature, National Research and Innovation Agency, Jakarta, Indonesia

nyomanrema@yahoo.co.id

² Research Center for Environmental Archaeology, Maritime Archaeology, and Cultural Sustainability, Research Organization for Archeology, Language, and Literature, National Research and Innovation Agency, Jakarta, Indonesia

³ Research Center for Treasures of Religion and Civilization, Research Organization for Archeology, Language, and Literature, National Research and Innovation Agency, Jakarta, Indonesia

Abstract. Even though the people have lived a modern life, the Fatubesi traditional village still maintains its traditional village spatial patterns. This survival occurs because of the substantial value of local wisdom inherited by their ancestors. This study aims to determine local wisdom in the persistence of spatial patterns in the Fatubesi Traditional Village. This research is qualitative research whose data were collected through direct observation in the Fatubesi Traditional Village, supported by interviews and literature studies, and interpreted using typology and symbol theory. The findings of this study are in the form of local wisdom in spatial planning of traditional villages, based on the carrying capacity of nature at the top of the hill, arranged by making terraces, supported by the presence of springs, and locations at an altitude, making it easy to monitor enemies. The concept of belief that stems from the megalithic tradition greatly influences the arrangement of the village's spatial pattern on a hill and is oriented to Mount Lakaan, which is believed to be the origin of their ancestors. This belief also affects the architectural order of the village and the architecture of traditional houses aside from the order of community life manifested in various religious rites or religious ceremonies. This can be seen in the division of space in the traditional village yard by placing a sacred worship building at the highest topography. This belief concept also causes space division in traditional houses, which clearly distinguishes between sacred and profane rooms.

Keywords: Traditional Village · Local Wisdom · Resilience of Spatial Patterns

1 Introduction

Belu Regency is one of the regencies in Nusa Tenggara Province. Traditionally, its people live communally on the hills in the traditional village they are proud of. Each village has continuous sacred megalithic traditions [1]. Even nowadays, when global culture rapidly invades, and the locals have been converted to Catholicism or Christianity for years, they still hold the cultural practices of their ancestors. This village's traditional house is a wooden house on stilts with a reed roof. Recently, the locals have faced some problems due to the rarity of redwoods and reeds. The cultivation effort might be needed to solve these problems as it is closely connected to preserving the traditional house. The traditional house is sacred and profane since it requires lavish cultural rituals. Other problems they have are clean water shortage and poor sanitary. Besides, they need to live with the danger of fire as their traditional house is combustible, not to mention that they have a fireplace inside. Those problems require solutions.

Some changes in the living cultures also happen. People, who used to live on the top of the hills in their traditional village, due to the development of roads, now move to live near the streets and markets and leaving few people that still live in the traditional village. Based on the information gathered from the inhabitants of the traditional village, the changes started during the age of colonialism when the people were commanded to live near the streetside so that they would be more open, and it would ease the economic efforts. However, some still observed the traditional construction custom as they built a house on stilts with three vertical and horizontal rooms. Even when there have been some settlements on the streetside with more complete and modern facilities, the traditional village's inhabitants of Nualain, Duarato, Matabesi, Fatubesi, Tasain, et cetera, consider their traditional villages on the hills hold better value and pride, and show their identity.

2 Literature Review

A study conducted by Bali Archeological Center Research Team in 2018 discovered some artifacts, such as lithic tools, fossils of an ancient elephant trunk, traditional houses, and megalithic artifacts [2]. Research on vertebrate animals was also conducted in Belu Regency, and it successfully documented fauna fossils and lithic artifacts discovered in the Atambua basin [3]. In 2020, Rema and Bagus published an article about the village spatial patterns and traditional architecture of the Duarato Traditional Village located in the Belu Regency [4].

In 2019, the Research Team of Bali Archeological Center conducted another study in Belu Regency and successfully described some traditional village architectures. From the traditional villages being the research object, it could be learned some unique features they own and their environmental potentials with their various faunas, both living and extinct leaving their fossils in the ground. The research also proved that the people of Belu care significantly about their traditional village and consider it their pride and identity [5]. In 2019, there is a proceeding about the local wisdom that could be used to develop innovations for improving service quality [6]. Some potential elements are interesting to look at. However, this study is focused on how the people of Fatubesi local wisdom take part in the survival of Fatubesi Traditional Village spatial patterns.

3 Method

Fatubesi Traditional Village is located on the top of Fatubesi Hill, Lianain Country, Lakan Village, Lasiolat District, Belu Regency, Nusa Tenggara Timur Province. Its astronomical coordinate is S 09°.04.'771"; E 125°03' 061, at 671 m above sea level. The research applies the qualitative method, and the data is collected through direct observation in Fatubesi Traditional Village. The observation is supported by interviews and literature reviews. After the data is gathered, the data analysis and interpretation are performed using Religious Theory [7, 11], and symbol [8], ended with conclusions.

4 Results and Discussions

4.1 Local Wisdom in Spatial Arrangement

Fatubesi Traditional Village owns local wisdom that becomes the fundamental guidance for daily life. This local wisdom is called *tolu malaran*. It is a three-way relationship between people, God, and the ancestors; a relationship between fellow humans and people with nature. This local wisdom is always the people's fundamental guidance to live their life, including when managing their living space and traditional house. The purposes of the local wisdom are to manage their social life, balance their life with nature, and give them power, health, and prosperity [9]. This culture still lives today and has become a counter-hegemonic culture against global culture (Fig. 1).

The application of this local wisdom could be seen from the selection of settlement location on the 2-hectare area atop the Fatubesi hill. The soil composition is mainly limestone. Near the hill, there are some wells, one of them is *wé matan wai* at the

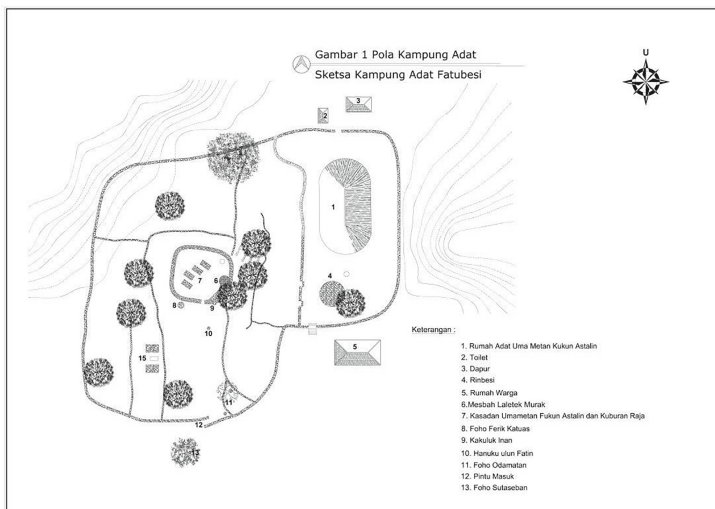


Fig. 1. Fatubesi Traditional Village Spatial Pattern. (Source: Regional Regency for Archaeological Research in Bali Province Document, 2019).

foot of Lakaan Mountain, Lakan Mau Village. There are numerous hardwood trees on the hillside, such as hazelnut, teak, coffee, mahogany, mango, jackfruit, tamarind, forest kapok, blackboard, kusum tree, and particularly banyan tree, which is considered a sacred plant. Those trees' functions are for the hydrological cycle, providing shade for the village, strengthening the hill's border, and providing oxygen. From the mezzo perspective, this traditional village is oriented to the south—to Lakaan Mountain, which is considered where their ancestors came from. From the micro perspective, it could be seen that the spatial arrangement of the village's yards and houses consists of three parts.

The village yard is divided into three by placing the structure stone ring enclosure called the sacred *k'sadan* that is oriented to Lakaan Mountain. The second yard is for a traditional house, but now it is empty because the previous house was damaged and has not been restored yet. The third yard is the lowest used for the village inhabitants' daily activities. It has a traditional house in good condition with a decent clean water supply and sanitary. The yard is bordered by surrounding walls made of limestone, with an entrance on the west wall and an exit on the south wall. A *rinbesi*—a large stone table used to welcome guests—is placed in front of the yard's entrance.

The inhabitants also beautify their village by planting trees, some of which are betel and betel nut trees that people regularly consume to welcome guests, for cultural rituals, and since they are profitable commodities. The people here also keep the likes of chickens, pigs, and cows as they are required for cultural rituals. Besides, numerous wild and rare animals, such as kooks, spotted doves, zebra doves, and lories, also live there thanks to the preserved environment.

4.2 K'sadan

K'sadan is an open yard with a round shape made of a pattern of plank stones—in archeology, known as *batu temu gelang* or stone ring enclosure [1]. *K'sadan* is utilized as a place for rituals, to put the harvest offering, to ask for permission before holding an event, to ask for fertility, power, and health, a place for tribal meetings, court, a place to inaugurate the king or tribe's chief, and some others. In the past, this place was also used to celebrate victory after winning a war against another tribe. According to Florentina Abuk (78 years old), a female elder of Fatubesi, *K'sadan* is considered very sacred by her people. In daily life, no one is allowed to enter it without having a cultural ceremony involving a red-haired pig, betel nut, and others. In addition, it is forbidden to offer food during the mourning period after someone dies (Fig. 2).

K'sadan has two doors; the entrance in the south and the exit in the west. In the north of the entrance, there is a round stone located on the highest spot called *kakaluk inan* or *Tasi Lor Mèmi Lor*. This stone is so sacred that anyone is forbidden to touch it. When people do so, they believe something terrible will happen to them. The army generals and the soldiers would go to this stone, asking for power before going to war. Behind the wall of *k'sadan*, in the south of *kakaluk inan*, there is a stone throne made of plank stones and limestones under the banyan tree. This tree keeps many memories of tribal wars as it was used to put the enemy's skull as the symbol of victory.

In the *k'sadan*, there is an artifact of *mesbah Lal'èrèk Murak Sasabak Murak* made of chunks and planks of limestone stacked around and conical with a function of a “bridge” between humans and the Supreme God. Initially, the area of *k'sadan* was used as a burial



Fig. 2. *K'sadan*. (Source: Regional Regency for Archaeological Research in Bali Province Document, 2019).

site for the tribal heroes. The last time the fallen warriors were buried here was in the 1800s. Outside the *k'sadan*, on its highest yard, some foho or stones are stacked in a particular pattern with sacred functions.

4.3 Traditional House

The traditional house here applies the wooden construction of the house of stilts with three stories. The house faces south to the Lakaan Mountain as the people believe it is the home of their ancestors. The house has two great pillars with the bottom supporting pillars connected with the bordering board that separates the living room and the kitchen or the backroom located between the female and male pillars called *manèk-mèsak*. Those three pillars hold the essential values of the traditional house. The *manèk-mèsak* is the symbol of intermediary, unification, and the morality borderline. This house has eight attic poles and 17 bottom supporting pillars. The shape of the roof is like a capsizing boat. It is made of reeds tied with the sticks of buri palms, rattans, and the stems of creeper plants. On the rooftop, there are three *kakaduk*, the symbol of *tolu malaran* or the three relationships between humans, God, and ancestors, between fellow humans, and between humans and nature (Fig. 3).

According to Florentina Abuk (78 years old) and Vius Fahik (58 years old), the functions of a traditional house can be seen from its spatial patterns that are divided into three, both horizontally and vertically. The house is vertically divided into three. The first one is the pit of the house, which symbolizes the underworld or the world of spirits and also the symbol of harmony with the earth. Nowadays, this spot is used for weaving. The second one is the living room which symbolizes the human world. Its function is the villagers' living room and place for their social interactions and activities. This spot is also the place of worship for the ancestors who are enshrined in a place upon. The

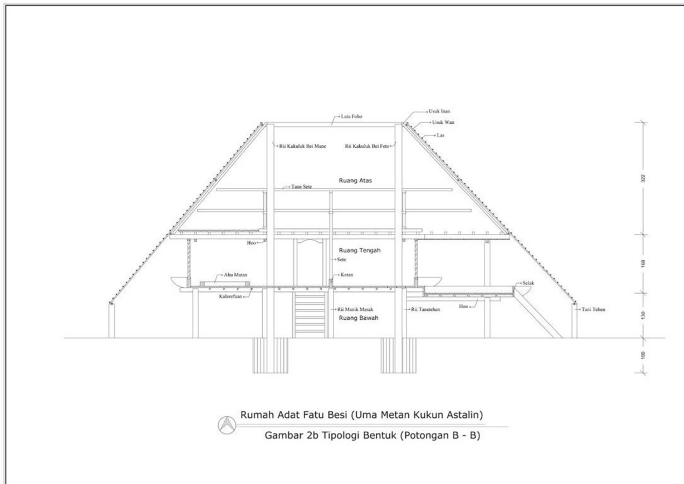


Fig. 3. Traditional Houses. (Source: Regional Regency for Archaeological Research in Bali Province Document, 2019).

third place is the symbol of the ancestors' world. It is where the ancestors are enshrined, and the people keep their heirlooms.

The living room is horizontally divided into three, while the front room near the entrance is an open space for anyone and is used to welcome guests. The living room has a sacred and profane function, which means it is used for rituals to ask for physical and spiritual prosperity besides for living room and family gatherings. The ritual is centered on the great male pillar, which is believed to be the ancestors' manifestation. The ritual here is performed before the ritual at *k'sadan*. Meanwhile, the backroom is where the great female pillar stands. It is also a kitchen and a resting place for the women, while the attic is used to keep the harvest. In the latest development, this house has porches on the right and left with profane functions as a place to sleep and keep the household furniture. Both great pillars symbolize the harmony between men and women and the spirits of the traditional villagers. Hence, besides a living place, the house is also a place for worship, a "meeting place" between people and their ancestors, and a "meeting place" between human beings and their Creator [10]. On the door of the house, there is a relief of a warlord called Rai Dikur Suri, who fought a tribal war against the Portuguese colonizers. The warlord is pictured half standing with the images of a beetle, bee, snake, and dog, which symbolize nature's army that helped him during the war after being summoned through the ritual.

In the past, the house floor was soil. Thanks to modernity, the traditional house now has cemented floor for hygiene and health reasons and to prevent rainwater from flooding the floor. In the past, the roof touched the ground to protect the inhabitants from severe weather, wild animals, and enemies. Now, after the situation is safe, the roof has almost a one-meter distance from the ground allowing the sunshine to enter and the fresh air to circulate better inside the house.

4.4 The Building Process of the Traditional House

Florentia Abuk (78 years old) said that before building the house, the people should discuss it, and then they would meet the *malun* (son-in-law), who would be invited and served meals made of freshly butchered pig. They then give the axe and machete to butcher the pig and cut the building materials. The pig is butchered after the betel nut ritual for the ancestors. After that, the building process starts with a ritual asking for permission from the ancestors and nature performed on the land on which the house would be built. The next step is to find the redwood to make the great female and male pillars. After the pillars are available, they hold a ritual of embedding the great and the other supporting pillars.

The digging process for the pillars is followed by a ritual of betel nut placed in *hanématan* (a particular container for betel nut) that match the number of the great and the supporting pillars. Each container has seven betel nut leaves and seven pieces of betel nuts. This ritual also involves metals; silver coin for the attic pillars and a silver plate with an image of the sun and moon for the great pillars. Finally, the last coin is placed inside the hole in which the pillars would be embedded.

The planting process of the betel nut and the metals is started by putting a stone in the hole as the cornerstone. Then, the people would put the betel nut and the silver plate on the cornerstone while the pillars would be mounted atop. Then, the pig would be butchered, and its blood would be scattered on each pillar. This ritual is meant as an offering for God and the ancestors with the hope that the building process of the house would not find any obstacles and those pillars would be strong. The ritual involves the recital of a mantra called *Makoan* by the elder.

The betel nut and the silver plate and coin as the sitting base for the pillars are the symbols of the handshake between those elements and the earth to bless the building with the mythical power. After the house is erected, the people perform a ritual of building inauguration called *haisin siakruin* by offering betel nut, pig, and even buffalo to God and ancestors. After the offering ritual, the ritual is continued by butchering the animals. The meat is taken while the bones are kept. When the butchering is performed, some people will do the dance of *likurai* and *tébé* in the yard, not inside the *k'sadan*.

Based on the explanation above, it could be learned that the inhabitants of Fatubesi traditional village have a system of local knowledge to manage their settlement. The knowledge is based on a belief in their ancestors and the Supreme God they call *Nai Maromak*. They also manage a good interaction between the inhabitants of the village and the people surrounding them. Besides, they also have a point of view related to the utilization of the surrounding environment for their life, such as the source of the raw material for their house. They name all these principles *tolu malara* as symbolized by the shape of the roof called *kakaduk*.

Tolu malara symbolizes the relationships between humans and God, humans and nature, and the relationship between fellow humans. It inspires the spatial arrangement that is divided into three parts. The village yard arrangement consists of three terraces, while the most sacred site is placed on the highest terrace oriented to the south—to the Lakaan Mountain. The traditional house is also divided into three rooms, both horizontally and vertically, with its own sacred and profane functions. In regard to the orientation, their village yard, *k'sadan*, and traditional house all face south, as seen through the exit

door. Same thing as the construction of their traditional house that puts the importance of worshipping God and the ancestors above all through the great pillars. They also realize the concept of harmony between male and female ancestors in fulfilling their functions and roles.

The main or the great pillar symbolizes equality, power, greatness, and authority. Besides, it also has the ideas of ancestors' holy representation, a symbol of leadership that always be there among the people, a place where people can state their problems, the support giver, defender, and the guardian of justice and prosperity. Those are the symbolic elements of the building structure of the traditional house that represent the Belu people's existence [10]. Each of their problems would be discussed inside to house to find the solution. The traditional house gives a legitimate authority for each solution they have come into. In the spirit of the Belu people, any problem discussed outside the house would never find any solution. According to Florentia Abuk (78 years old), if there is a quarrel between her people, they would have a discussion inside the traditional house. The common solution simply involves a cup of water. The quarreling parties dip their little finger into the water in the cup and then drink it. The village leader leads this ritual. They believe that the quarrel will be done.

Hence, it could be concluded that the spatial patterns of the traditional village have some symbols that contain ideas or thoughts as the reflections of their local wisdom and its various elements that are meaningful for the social and cultural construct of the inhabitants of the traditional village [11]. The concept of harmony with God, between fellow humans, and with nature has influenced the spatial arrangement patterns and the architecture of the village and the traditional house. The religious emotions that create the fundamental harmony make the inhabitants tend towards a religious attitude. This attitude touches their soul and makes them stay in this state as they consider it relevant and one of the sources of their pride. Through this religious attitude, they hope to be blessed with serenity, security, and prosperity. The village inhabitants devoutly follow and practice this religious attitude since it has a vital role in their life [7]. Therefore, the local wisdom of Farabesi needs to prevail and develop, and it should be made an example of the preservation of nature since the soil of Belu is barren and lacks water so that the local wisdom could have a role as the ethics for the natural conservation [12].

5 Conclusions

The survival of the spatial patterns of the Fratubesi traditional village is due to the strength of people's local wisdom called *tolu malara*, which means the balanced relationship between humans and the Supreme God—the Ruler of the Universe—and the ancestors, the relationship among fellow humans, and the relationship between humans and nature. Even when modernity and global culture have finally come fast, the people still stick to their local wisdom as they consider it their identity and pride. The three parts of their local wisdom will always be their reflection in life since they influence the people's harmony, prosperity, and generosity. Besides, local wisdom also becomes a medium of education to counter the hegemony of modern and global culture unsuitable for them. Therefore, they would always observe their local wisdom in every activity they do in their created space. That is why the sacred and profane features of their yard and house could survive, and the information could be passed on to the next generation.

Acknowledgment. We would like to thank the Head of the Department of Education and Culture of Belu Regency, Vius Fahik. We would also want to express our sincere gratitude to Florentia Abuk, the elder of Fatubesi, for being the main informant for this research. Finally, we also thank all inhabitants of Fatubesi Traditional Village for their kindness and friendliness towards the researchers when conducting the research there.

Authors Contribution. Four authors of this article are co-primary authors.

References

1. Sukendar, A., & Kesumawati, A.: *Penelitian Tradisi Megalitik di Timor Barat Nusa Tenggara Timur. Laporan Penelitian Arkeologi. Balai Arkeologi Denpasar.* (1992).
2. Tim Penelitian: *Penelitian Tinggalan Arkeologi di Kabupaten Belu Nusa Tenggara Timur. Laporan Penelitian Arkeologi.* (2018).
3. Hidayah, A. R., Wibowo, U. P., Purwoarminta, A., Price, G. J. & Noerwidi, S. Palaeoenvironments and palaeontology of the Atambua Basin, West Timor, Indonesia. *Quat. Int.* 603, pp. 82–89 (2021).
4. Rema, I. N. & Bagus, A. A. G.: Pola Ruang Permukiman dan Arsitektur Tradisional Kampung Adat Duarato. *Forum Arkeol.* 33, pp. 49 – 64 (2020).
5. Tim Penelitian: *Arsitektur dan Religi di Beberapa Kampung Adat Kabupaten Belu, Nusa Tenggara Timur. Laporan Penelitian Arkeologi.* (2019).
6. Kusuma, H. B.: Public Service Innovation Based on Local Wisdom in Belu Regency. in *Advances in Social Science, Education and Humanities Research, volume 343, 1st: International Conference on Administration Science (ICAS 2019)*, pp. 288–292 (2019). <https://doi.org/10.2991/icas-19.2019.59>.
7. Koentjaraningrat: *Sejarah Teori Antropologi I.* (Universitas Indonesia, 1987).
8. Triguna, I. B. Y.: *Teori Tentang Simbol.* (UNHI Denpasar, 2000).
9. Amabi, D. A. & Dima, T. K.: Pengaruh Ritual Adat terhadap Tata Ruang Permukiman Tradisional Suku Matabesi di Kabupaten Belu. *Gewang* 2, pp. 9–15 (2020).
10. Asa, F. D. A.: *Kosmologi Uma Manaran Rai Belu Perspektif Takan Tolu Bua Tolu. Makalah disampaikan pada Forum Group Discussion/FGD Pengumpulan Informasi Penelitian Arsitektur dan Religi Beberapa Kampung Adat Belu–Diselenggarakan oleh Balai ArkeologiBali, 10 Mei 2019.* (2019).
11. Koentjaraningrat.: *Pengantar Antropologi I.* (PT. Rinika Cipta, 2003).
12. Martoredjo, N. T., Fios, F. & Benny: Local Wisdom Values: Human And Nature Relations In The Belu People. In: *3rd International Conference on Environmental Geography and Geography Education, IOP Conf. Series: Earth and Environmental Science 747*, pp. 1–5 (2020). <https://doi.org/10.1088/1755-1315/747/1/012048>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

