

Residential Spatial Design for the Development of Ecotourism in Tenganan Pegringsingan Village, Karangasem, Bali

I Wayan Runa, Anak Agung Gede Raka, and I Nyoman Warnata

Lecturer – Department of Architecture, Faculty of Engineering and Planning, Univ. Warmadewa, Jln. Terompong No. 24 Tanjung Bungkak Denpasar-Bali
Home: Jln. Soka Gang Kertapura VB Nomor 9 Kesiman Denpasar

ABSTRACT

The long-term objective of the research on spatial design of settlements is for the development of ecotourism in Tenganan Pegringsingan as a tourism village. This study is expected to solve problems related to the locals' needs. To be exact, problems that concern preserving the residential architecture. This study uses a qualitative method, with an emphasis on observation. It is related to unique contextual factors, which cause each context to be handled from its context. This study deals with value systems, concepts, perceptions, diversity, uniqueness, local wisdom, and people's beliefs about something outside of themselves. The research unit/observation area for this research covers the entire residential setting. The residential-scale research unit in Tenganan Pegringsingan is expected to produce identification or information on values or ideas about local wisdom concerning traditional houses. Tenganan Pegringsingan is a *Bali Aga* village between three hills, with the *gringsing* cloth as its unique potential. The typology of spatial design of settlements that form a liner pattern, with an orientation to the center, is viewed as the most important. The village spatial primarily consists of open spaces, with some public buildings, which rise to the north, and river stones as the dominant pavement material. The usage of natural stones is evidence of the megalithic heritage. The development of the spatial of village settlement that highlights local wisdom for tourism is only possible to the east and south of the village center. Meanwhile, for residential areas, it is only possible to the back (*teba*).

Keywords: *gringsing*, linear, megalithic.

Date of Submission: 16-02-2021

Date of Acceptance: 02-03-2021

I. BACKGROUND OF THE STUDY

Humans, animals, and plants have an interdependent nature with one another, even with non-living things created by God. When trade developed and dominated people's lives, buildings with modern nuances emerged. Over time, the unique traditional houses experience many changes. The preservation of residential buildings that serve as the characteristic of an area becomes crucial. The traditional house is not just a building but also contains philosophical values, which strongly influence the local community.

From ancient times to the era of copper inscriptions, Bali already has autonomous villages and village unions. Village charters usually list the privileges of the villagers, regularly renewed at each new king's inauguration. Whenever something new is added, the villagers must know. After Majapahit took control of Bali, the villages were investigated to determine which privileges could remain. The villages without a charter or inscription are grouped under domestic government (*apanage*). If a village made a mistake, its charter is revoked and thrown

into the sea as a punishment. It left the village with no written evidence of the privileges (Liefcrinck, 1890).

Korn (1932) stated that Bali has two kinds of villages: mountain villages (*Bali Aga*) and plain villages (*desa Bali dataran*). Mountain Balinese villages are older and mostly located in the mountains. There are only a few of them, but they have more physical variation than the plain villages. They also display many pre-Hindu (Hindu-Balinese) characteristics. The plain villages are younger, located mostly in the plains of southern Bali. Also, the plain villages receive strong Hindu-Javanese (Majapahit) influences.

A mountain village is primarily characterized by its communal open space that follows the *kaja-kelod* (mountain-sea) direction, which divides the village into two parts. The open space usually uses river stone pavements and rises towards mountains or hills. On the other hand, a plain village is characterized by crossing roads, common public facilities (such as meeting halls and

sacred places), and aristocratic residences around the road crossing (Parimin, 1986).

Due to their uniqueness and diversity, village settlements today become attractions that bring additional value or economic progress, especially from ecotourism. It is necessary to examine these varying uniqueness to learn about the factors that draw people to visit Tenganan Pegringsingan. The houses in mountain villages also have more variety than those in plain Balinese villages. Hence, the houses in plain villages are viewed as the “*perummas*” of Bali, as they have a similar design and less variety.

The Provincial Government of Bali, through the Tourism and Culture Office, runs the tourism village development program since 2012. The Karangasem Regency Government focuses on developing 190 tourism villages by optimizing the local potentials to attract visitors. One of which is the Tenganan Pegringsingan Customary Village. The development of 190 tourism villages is expected to improve and bring prosperity to rural communities, thereby reducing the flow of urbanization and poverty.

Karangasem is considered the “*taksu*” (spirit) of Bali due to its Mount Agung, culture, and other potentials, which need to be explored together. Besakih Village, with its spiritual tourism destination, Pura Besakih, develop further due to its edelweiss garden. Agro-tourism and ecotourism are developed in addition to nature tourism.

Tenganan Pegringsingan Village in Manggis District, Karangasem Regency, Bali Province was chosen as a research site because it has several advantages. Tenganan Pegringsingan is an old village in Bali with distinctive residential architectural patterns and forms. Many domestic and foreign visitors also love to visit settlements in Tenganan Pegringsingan Village, which is surrounded by three hills, due to its beauty. Tenganan Pegringsingan Village will also become a UNESCO World Cultural Heritage Site because of its unique settlement and natural beauty. Finally, research and personal and institutional visits (by the Faculty of Engineering and Planning Universitas Warmadewa) have helped to understand the village’s uniqueness and plan further development.



Fig. 1: The Location of Tenganan Pegringsingan Village, Karangasem, Bali (Korn 1932).



Fig. 2: The Spatial (Banjar Kauh) of Tenganan Pegringsingan Village (left) with dominant open spaces. Buffaloes are considered sacred animals offered at important ceremonies such as *Usabha Sambah* (right).

From the background, the researchers formulated two problems for this Year 1 research:

- a. How is the typology of spatial design of the settlement for ecotourism development in Tenganan Pegringsingan Village?
- b. How is the prototype of the development of the spatial of village settlement that highlights the local wisdom in receiving visitors?

II. METHODOLOGY

This study took traditional settlements in Tenganan Pegringsingan Village as the object. Tenganan Pegringsingan is an old or mountain village in East Bali. To be exact, it is in Manggis District, Karangasem Regency. Tenganan Pegringsingan is approximately 67 kilometers from the provincial capital. It is 10 kilometers to the northeast of the center of Manggis District. Connected by a paved road, the village stands in a lowland about 70 meters above sea level with a rainfall of 620 millimeters per year. Tenganan Pegringsingan also has around 20% slope. Tenganan Pegringsingan has unique residential houses. Each family lives in small yards (150-200m²) lined with one another. *Bale adat* is in the edge or front near the common open space. One residential unit usually has *bale adat/bale buga, bale meten, bale tengah/jineng, paon, and teba*.

This study is to be conducted for about two years (from March 2020 to December 2021). It is conducted in the village center to obtain traditional values related to the culture of residing. This study is strongly related to the observation of value systems, concepts, perceptions, diversity, uniqueness, local wisdom, and people's beliefs about something outside of themselves. This study is also related to transcendental matters or multiple realities that the local community felt and believed in, but difficult to explain. Hence, this study uses phenomenology as a paradigm.

According to Lincoln and Guba (1985), phenomenology (naturalistic) emphasizes the

'natural' context. A context of complete unanimity that one cannot understand by isolating or eliminating a particular aspect to make it independent of the context. The meaning of a phenomenon can be understood when it is in its entirety and results from interaction and not just a linear causal relationship.

The qualitative method (phenomenology) is general, flexible, and evolves in the research process. It aims to gain an understanding of meaning, develop theories, and describe a complex reality. This study uses human instruments (the researchers), notebooks, and voice recorders. Research assistants are not required for this study. The data are qualitative and are collected from participant observation, interviewee's documents, and in-depth unstructured interviews. Also, small samples are taken purposively and go through continuous analysis. They are taken inductively to find patterns, models, or themes. The design proposals are concise and general, with relevant problems and no hypotheses. The focus of the study is often written after data is collected from the research field.

Qualitative research is closely related to unique contextual factors. So, each context is examined by considering its context. The research unit or observation area in this study is the entire residential setting. The research unit at the village and residential scale in Tenganan Pegringsingan is expected to produce the identification or information on values or ideas about local wisdom concerning traditional houses. These values are expected to be developed into a model for preserving houses that receive modernization influence or become tourist attractions. The 'variables' observed at the village scale were the spatial design typology. On the other hand, the 'variables' observed at the residential scale is the conservation manual.

In Year 1, this study is expected to produce mandatory outputs in the form of publications in

international journals on village spatial design typology and prototypes of the development of the spatial of village settlements that highlight the values of local wisdom in Tenganan Pegringsingan, Karangasem, Bali. The Leading Applied Research of Higher Education in Tenganan Pegringsingan Village, Karangasem, Bali, is considered successful if it includes these achievement indicators: a typology of spatial change in settlements that develops local wisdom values, and an urgent need for preservation felt by the community.

III. FINDINGS AND DISCUSSION

Tenganan Pegringsingan's status as an object of ecotourism becomes the source of pride for its people. Due to this, many people come to visit and study the uniqueness of the village. The people of Tenganan Pegringsingan have long been implementing spiritual ecotourism. It is evident in the pattern the village used, *Jaga Satru*, the *gringsing* cloth weaving pattern, and the swing that symbolizes the + sign or female as the representation of the constantly rotating earth. Closely observing the village's spatial nature, there are thirteen steps from the south to the north of the village. It is in the form of ramps, with an average slope of 30 degrees and covered in natural stones. Because of that, there is a lack of facilities for aged visitors. Also, there is *palinggih* Yeh Santi as a manifestation of Mount Agung. People regularly *matur piuning* (offering gratitude) to the *palinggih* before conducting the village's largest ceremony (*Sambah*). There is also a very strict structured regeneration concerning the ceremony.

Local people believe that their ancestors originated from the south. It affects the location of the most important sacred place or *Sanggah Kelod* in the house yard. As a result, the *sanggah* is in the south (*kelod*). Similarly, the direction of the deceased's head or the burial of a corpse also points to the south. If the corpse of an adult or an aged person died from old age about to go to the graveyard, it must go from the front door or road of the house. If it is a child or those who died from unnatural causes, the corpse must go from the back door or road. For newlyweds, to reach the *natah* in

the middle of the yard, they have to go through the back door and then head to the northern part of the *Bale Tengah*. Thus, there must be a border or distance that separates the wall on the north side of the yard and *Bale Tengah*.

Still concerning the sacred and the profane, the front ditch or *boatan* in the middle of Awangan is seen as sacred since the water, which flows south, comes from the holy baths for men and women in the northern part of the village. The holy water also flows through the bottom part of some public buildings in the middle of Awangan Kauh, Awangan Tengah, and Awangan Kangin.

It is similar to the occurrence in neighboring villages, namely in Ngis and Pekarangan Villages. It is strongly related to the existence of sects/classes/status in society. Also, the Covid-19 pandemic affects the ecotourism in Tenganan Pegringsingan. Both the indigenous people of Tenganan Pegringsingan and the immigrants in Banjar Pande experience the impact. Without visitors, the locals cannot sell their handicrafts or trek the three mountains/hills around the village.

Since the colonial era, foreigners from various countries have often come to Tenganan Pegringsingan for research. Also, as Tenganan Pegringsingan becomes a visitor spot, keeping the village clean is essential. The road to the east of the village, which allows people to drive their motorbikes, has positive and negative impacts. On the positive side, the well-made road enables the locals to take a walk and sell something (*ngalu*) in nearby markets. It also makes the trip to the Amlapura, the city capital, faster. However, the road also pushes the locals to switch jobs to the service sector, which may put the agricultural sectors, widely available in the eastern, northern, and western parts of the village, low on the priority list or even abandoned altogether.

Tenganan Pegringsingan has a unique weaving craft, namely the *gringsing* woven cloth. Since a long time ago, the locals often sell the *gringsing* to visitors. The locals also said that visitors love to trek to Bukit Kangin, Bukit Kaja, and Bukit Kauh.



Fig. 3: **a.** The spatial of the village, with megalithic characteristic, **b.** Land for the development of residential areas, **c.** *Teba* that has been converted into a kitchen, **d.** The place to store rice has been turned into storage for household tools.

Some changes that occur recently are the commercialization of parts of the houses. For example, the old kitchen is turned into a *warung* (small shop or restaurant), while the back yard (*teba*) into a kitchen. The front yard (*awangan*), including the one in the public buildings, is also filled with motorbikes. Also, the area for residence is almost full due to the rise in population. In the future, there must be a plan to expand the residential area to the west (Banjar Kauh), the east (Banjar Pande), and the south near the parking lot in Banjar Tengah.

With the increasing number of visitors, Tenganan Pegringsingan, as one of the ecotourism villages in Karangasem Regency, needs more supporting facilities (such as parking lots). This matter has been handled well by the locals. It is evident from the conversion of the land at the southern edge of the village. Previously, the land is a garden or moor and now converted to a parking lot. It is in line with the increasing number of villagers who own vehicles, specifically cars. Cars are unable to enter the house yard, which makes the parking lot essential.

Due to the Bali Province Regional Regulation Number 4 of 2019 concerning Customary Villages in Bali, the customary villages

have become more powerful. However, the regulation also makes customary villages weak, as experienced by Tenganan Pegringsingan. Since a long time ago, Tenganan Pegringsingan has been implementing an organizational structure with strict duties and functions. Despite its status as a tourist spot, Tenganan Pegringsingan does not provide detailed information to visitors about the village. So far, the available information concerning the village's uniqueness is limited to photographs of various sizes displayed at the information building at the entrance at the southern end of the village.

This problem can be the basis for future community service, which may take the form of documentation of Tenganan Pegringsingan. Also, there needs a community service that focuses on the law aspect, primarily concerning the village regulation (*awig-awig*). It may take the form of translation, or reduction or addition of new substance if needed by the village.

In Year 1 (2020), this study is expected to produce mandatory outputs in the form of publication in international journals on the typology of village spatial design and prototypes of the development of the spatial of village settlements that highlight the local wisdom in

Tenganan Pegringsingan Village, Karangasem,
Bali.

IV. CONCLUSION

Tenganan Pegringsingan is a *Bali Aga* village surrounded by three hills with a unique potential, namely the *gringsing* woven cloth. Tenganan Pegringsingan makes an attractive target for ecotourism due to its location. Surrounded by three hills from the east, north, and south, Tenganan Pegringsingan looks like the bottom of a 'hill trench.' The typology of spatial design of the settlement, which forms a linear pattern, with an orientation to the center, is considered the most important. The village spatial is dominated by open space, with several public buildings rise to the north and river stones as the primary pavement material. The usage of natural stones is a heritage of the megalithic era. Concerning the prototype of the development of the spatial of village settlement that highlights the local wisdom, the development for tourism purposes is only possible to the east and south of the village. For residential areas, it is only possible to the back (*teba*).

REFERENCES

- [1]. Korn, V.E., 1932, *Hukum Adat Bali*, translated by Het Adatrecht van Bali, II, 's Gravenhage: G. Naeff.
- [2]. Liefdrinck, F.A., 1890, *Bijdrage tot de Kennis van het Eiland Bali*, XXXIII, TBG.
- [3]. Lincoln, Y.S., Guba, E.G., 1985, *Naturalistic Inquiry*, Sage Publications, Beverly Hills California, London, New Delhi.
- [4]. Parimin, A.P., 1986, *Fundamental Study on Spatial Formation of Island Village: Environmental Hierarchy of Sacred-Profane Concept in Bali*, Unpublished Dissertation, Osaka University, Japan.

I Wayan Runa, et. al. "Residential Spatial Design for the Development of Ecotourism in Tenganan Pegringsingan Village, Karangasem, Bali." *International Journal of Engineering Research and Applications (IJERA)*, vol.11 (2), 2021, pp 01-06.