

# PalArch's Journal of Archaeology of Egypt / Egyptology

## THE SYMBOLIC MEANING OF *PURI* (KING'S PALACE) ARCHITECTURE IN BALI, INDONESIA: THROUGH A STUDY ON *PALEBAHAN* AREA ARRANGEMENT

Anak Agung Gde Djaja Bharuna<sup>1</sup>, Ngakan Ketut Acwin Dwijendra<sup>2</sup>

<sup>1,2</sup> Department of Architecture Faculty of Engineering, Udayana University, Bali, Indonesia

E-mail: acwin@unud.ac.id.

Anak Agung Gde Djaja Bharuna, Ngakan Ketut Acwin Dwijendra, THE SYMBOLIC MEANING OF *PURI* (KING'S PALACE) ARCHITECTURE IN BALI, INDONESIA: THROUGH A STUDY ON *PALEBAHAN* AREA ARRANGEMENT- Palarch's Journal of Archaeology of Egypt/Egyptology 17(7) ISSN 1567-214X.

**Keywords:** meaning, symbolic, architecture, *puri*, palace, king, *palebahan*.

### Abstract

The royal palace or the so-called *puri* in Bali is often considered the *Ista Dewa*, namely the kings' residence. In Sanskrit, *puri* means a city, a king's palace, a capital, a kingdom, or a surrounding walled settlement. *Puri* in Bali was built following certain rules, among others, that the castle complex was divided into several *palebahan*. The definition of *palebahan* is an area that is bounded by a fence around which there are several buildings with certain functions or uses, and often the name *palebahan* is also determined based on its use or the name of the main building contained in it. As a study that is a review and comparison, the data collection is based more on literature studies and research that has been done a lot, and efforts are also made to provide a representative field review. This study aims to find out the meaning of *puri* in general through the arrangement of its *palebahan* area. The study concluded that the element that formed the spatial structure of the king's palace complex in Bali was the *palebahan* area. Still, the character and function identification were given by the buildings standing on it. As part of traditional architecture, Hindu religious meanings and symbols often accompany its existence. And the symbolic meaning of *puri* as the king's palace in Bali, can be expressed through the arrangement of the *palebahan* area.

### 1. Introduction

There are only a few of the royal palaces/*puri* still standing on the island of Bali. Most of them have been damaged and not repaired, and some are still well maintained. Some of the remaining castles are currently inhabited by descendants of kings who have faithfully guarded their predecessors' traditions. Some castles have been opened to the public as a tourist attraction.

By the Balinese people, *puri* is defined as the residence of the knights or groups that hold the government, or the noble house respected in an area [4][5]. Bali's most important castles and buildings from the 17-19 century AD [2][3][8].

*Puri* comes from Sanskrit, which is absorbed into Old Javanese, which means 'fortress, fortified palace, city palace or king's place of residence'. The king's palace complex or *puri* is basically a collection of spaces that occur due to architectural works and has specificity in its spaces. The distinctive space in the castle has a meaning that is often associated with certain religious concepts, considering that Hinduism in Bali is deeply rooted in its people's lives (Figure 1).



Figure 1. Lay Out of Puri Ubud Gianyar

—Source: Architecture Udayana University Inventory Team, 2010

There is a connection between the symbolic functions carried out by the Balinese people. That the *puri* is the place of the king's resting place, which is the incarnation or manifestation of the holy light of God's power in the Hindu concept, manifesting in human beings, in this view, the castle complex is a sacred building in a religious context.

Bali's royal palace or *puri* is generally divided into several *palebahan*, namely the area or space where the buildings are located. Each *palebahan* has a different name and function. In the *palebahan* area itself, there are buildings which are sometimes named after the *palebahan*. *Palebahan* area has not changed, although many castle buildings were demolished and replaced with new buildings.

*Palebahan* is an area in the form of a complex of buildings, a garden and a part of the king's residence, which is an interconnected unit. In the past, the buildings in the *Palebahan* area functioned as the residence of the king and his family, as well as the former centre of government, as the former centre of artistic and cultural activities, which were very influential in the royal environment at that time [12].

*Palebahan* in Balinese means the land of the yard where the buildings are [11]. *Palebahan* is referred to from the word *leba*, and the word form is *malba* which

means 'to expand'. The word comes from Old Javanese. *Leba* means, among other things, width, area - satisfaction and freedom; while the word (m) *aleba* means 'to expand' [10]. Based on these definitions, *palebahan* can be defined as an expanded courtyard within the king/*puri* palace, bordered by a surrounding wall, equipped with gaps without doors (*pemedal*) or gates (*candi bentar*, *kori agung*, *angkul-angkul*). Within the fenced area, several buildings are used for specific purposes according to their respective needs. Often the name of the main building is the same as the name of the *palebahan*.



Figure 2. Perspective of *Puri* Ubud – Gianyar

Thus the review of the arrangement of the *palebahan* area in the castle is basically a review of the location, name, use, and symbolic meaning of the *palebahan*. Associated with the meaning of the king's palace in the context of architecture in Bali (Figure 2).

## 2. Results and Discussion

### 2.1. The Architecture of the Royal Palaces (*Puri*) in Bali

It needs efforts to explore the symbolic meaning of the architecture of the royal palace (*puri*) in Bali based on research on various written sources and interpretations of these sources. Even though the study of meaning, it is possible to produce incorrect or even wrong interpretations. It is always attempted to rely on written sources relating to the *puri*.

From research by [7] it is found that at least two things become obstacles in the search for the meaning of *puri* as a whole, among others, because, first, the palace of the king of *puri* in Bali currently does not function as the centre of government any longer supported by people who live in the work system. Thus, the general view that has developed is that the castle's physical building is only an architectural work of historical heritage from the past. Second, Balinese people currently do not know the meaning attached to a complex of the former king's palace (*puri*). Thus it is difficult to conduct interviews with the right sources, even though he is still a descendant of the king and still lives in the *puri* environment.

One of the literacy references by [6] states that the palaces of kings or *puri* in Bali seem to have been founded by architectural principles. As a work of

traditional Balinese architecture, the architecture of the castle and other traditional buildings, apart from function, the relationship between the building and its environment must be considered. The environment referred to here is the physical environment, and the cultural environment passed down from one generation to the next.

In the review that the *puri* as the centre of Bali's kingdom, especially regarding the existence of palebahan *puri* related to the centre of government or royal power in the political field, several rules seem to be obeyed. One of the regulations states that housing for people of the main aristocratic caste (*ksatrya*) cannot be in the downstream area (*teben*) of the residential area. If they are violated, they lose their happiness, get sick and eventually die [4].

The interpretation is that the downstream area (a river) must approach the sea. If we refer to the Hindu cosmological concept, it represents the universe's 3 structures (*Tri Loka*). Those that break down from the lowest realm or lowest level (*nista*) designate the lowland area (*bhurloka*), the middle/neutral level (*madya*) designates the plain area between the coast and the mountain (*bhwahloka*). It is the sacred level refers to the mountain area mountains (*shwawhloka*). The downstream area is identical to the lowlands near the coast/sea, which is considered unsuitable for housing development, believed to be the home of spirits and other spirits [1][5].

As a residence for kings who come from the ruling class (*Ksatrya caste*), *Puri* should be located in an area higher than the people's housing. Referring to [7] the layout of the royal palace (*puri*) as the residence of the ruler of a kingdom and the ruler in the political field of government. Thus it must build the place an area higher than the housing of those below orders or people. In fact, in the past, the construction of a king's palace (*puri*) in Bali was always in the north (*Kaja*) of the city/kingdom centre, an area that was close to the mountains located in the middle of the island of Bali. Simultaneously, the people's housing is located in the southern part (*Kelod*) of the royal city's centre, towards the sea area.

The rule closely related to the description above is that the king's palace (*puri*) was established at one corner of a crossroads of two main roads that intersect (*pempatan agung*). The best location for constructing the royal palace (*puri*) is in the northeast direction (private/sacred zone – *utamaning utama*) from the main crossroad. Then in other directions, there are markets in the southwest corner (public zone - *nistaning nista*), a field/square in the southeast (semi-public zone – *nistaning utama*) as an area for ceremonial activities (kingdom and religious/ritual ceremonies) and other community activities, then the building where formal institutional social activities take place (*Bale Banjar* or *Wantilan*) in the northwest corner [1][8], see Figure 3.

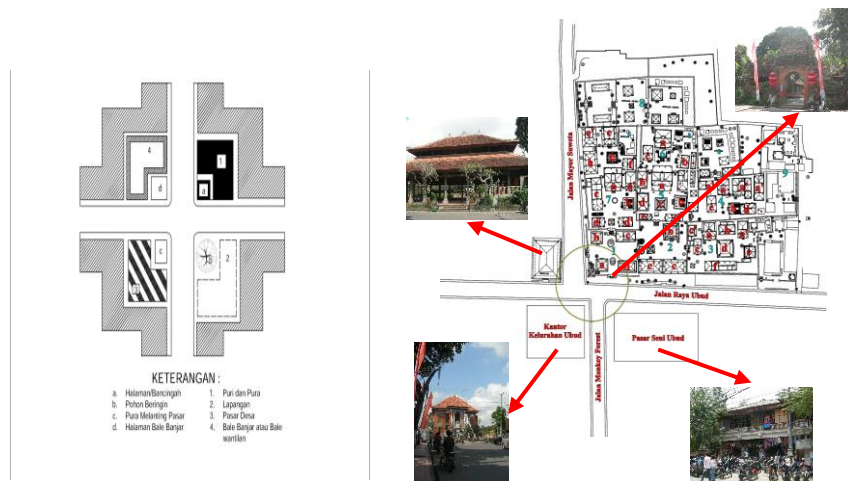


Figure 3. Layout Concept of the Royal Palace (*Puri*) at the Crossing of Main Roads (*Pempatan Agung*) & Physical Attributes of Environmental Centers (*Nyatur Desa/Nyatur Muka*)

According to [21][32][33] the construction of a king's palace or *puri* near a road crossing is a common thing in the initial process of the emergence and growth of the city of kings because the main road crossing is a strategic location where people from various directions meet. Equipped with market facilities, along with the ongoing economic activity in the area, the intersection will gradually transform into a city centre. Thus, the development of simple settlements into cities was due to the government system (kingdom) and thanks to markets' existence in that place. So the existence of the king's palace (*puri*) in that location had indeed been considered and planned because the king's palace (*puri*) was the centre of government. This shows that the royal palace (*puri*) in Bali was built following the space requirements, patterns, and spatial arrangements that support government authority [5][24][26][30]. In this context, the castle is an index of control over the strategic area [7][9][19][20].

The palace is the king's place of residence and functions as the residence of the king and his family. Physically, the castle is a group of buildings surrounded by walls (*penyengker*). The area/land surrounded by the *pengengker* wall is again partitioned with a dividing wall, called *palebahan* and is equipped with a door gap (*peletasan*, *kori*, etc.), as a link between the existing *palebahan* areas.

The castle which consists of *palebahan* is an area whose sides are bounded by a wall around it or a wall that divides the *palebahan*. According to [7][16][19]. Several benchmarks in the arrangement of *palebahan* and buildings thereon, including:

- (1) *Refers to Absolute Direction.* Arrangement oriented to the cardinal directions, the location of the mountains and the sea. This arrangement seems to have been universally recognized in various parts of the world. The famous megalithic building in England, namely 'Stonehenge' was erected with an orientation towards the rising and setting sun to worship the sun. There are many megalithic buildings whose arrangements are connected to the cardinal directions or oriented to the top of a mountain. In Indonesia, many temples in Java during the Hindu-Buddhist era were also built in certain cardinal directions. Apart from referring to the east or west, many temples are also oriented to the top of a mountain.
- (2) *Arrangement based on Relative position.* This type of arrangement has a character based on space or building or an area that is the centre point.

Other rooms are arranged to move away from the centre point [17][18][22][23] This midpoint area is often thought of as the axis of the universe. To the right or the left of the building, there are intermediate spaces and edge areas. The arrangement of buildings using this relative position, the centre point is not always right in the middle of the others. The 'midpoint' area may have shifted from the centre position of the land. However, it is still considered as the midpoint (world axis).

Still, according to [7][13][27], apart from referring to the absolute direction and relative position, there are two other arrangements based on hierarchical positions and structural positions. These two methods are basically developing an arrangement that refers to the absolute direction and relative position.

As a settlement, the royal palace complex (*puri*) also follows the rules for building a settlement or village passed down from generation to generation by the Balinese. The pattern is based on the Great Placement or is also called *nyatur desa/nyatur muka*. The point is that two main roads cross from East-West and North-South which intersect each other to form an intersection so that it is called the *pempatan agung* the village centre. Thus, if you build the building of the king's palace (*puri*) as the king's place of residence, of course, it is built in the northeast area (*Kaja-Kangin*) from the centre of the main road crossing (*pempatan agung*) located in the Northeast area (*Kaja-Kangin*), *Bale Banjar* or *Wantilan* occupies the Northwest area (*Kaja-Kauh*), the village field/field is located in the Southeast (*Kelod-Kangin*). Markets are held in the Southwest (*Kelod- Kauh*) [5][8][14][15].

By obtaining the four main cardinal directions, then 9 (nine) cardinal directions determine with their respective ruling deities which in Hindu mythology/religion in Bali are called *Nawasanga*. In each region, based on the influence of the God *Nawasanga*, certain buildings were then built [28][29][30].

Furthermore, in arranging palace buildings (*puri*), according to several sources, there is a special concept that must be followed by the planners or builders (*undagi*), the rule is called *Sanga Mandala*. An area designated for the construction of a castle should have a rectangular or square plan. The land is then divided into nine plots of land (*mandala* or *palebahan*) bordered by a wall. Each area is connected by a door gap (*pemedalnya*) or a door equipped with a traditional gate building (*kori/angkul-angkul*) [8][25][31].

## 2.2. The Symbolic Meaning of Palebahan Puri

Referring to [5][21] in the palace complex (*puri*), each area has its own function. In the distribution of the *Sanga Mandala*, the arrangement of the nine *palebahan*, namely:

- (1) *Palebahan Ancak Saji*, also known as *Bencingah* is the front page, its function is to prepare themselves if visitors enter the castle. *Ancak Saji* is located in the southwest corner of the palace complex (*puri*).
- (2) *Palebahan Sumanggen* is *palebahan* to carry out death (*pitra yadnya*) for the royal family who inhabits the castle. In the *palebahan* there is a building called *Bale Sumanggen*. Generally located in the southern area of the palace complex (*puri*).
- (3) *Palebahan Rangki* is *palebahan* and the building's name for examining guests, holding trials, and examining.



- (4) *Palebahan Pewaregan* is where the king's kitchen (*paon raja*) is where food is ready to be cooked. The castle is generally located in the southeast corner.
- (5) *Palebahan Lumbung* is *palebahan* and the name of the building for storing paddy rice, usually located in the northwest area of the castle complex,
- (6) *Palebahan Saren Kaja* is *palebahan* where buildings are built for the king's wife to stay, generally located in the palace complex's northern area (*puri*).
- (7) *Palebahan Saren Kangin*, also known as *Saren Agung* is the core area of the king's palace (*puri*) because it is in *Palebahan* that the king resides every day.
- (8) *Palebahan Paseban* is *palebahan* as seats for royal officials to wait for the king to come out and be used as a venue for the royal court.
- (9) *Palebahan Pamerajan Agung* is *palebahan* where sacred buildings are built to honour the royal family's ancestors, located in the palace complex's northeast area (*puri*).

In the implementation of the division of the 9 areas (*Sanga Mandala*), it was often adjusted to the conditions of the environment and land to build the king's palace (*puri*). Each ruler/king, with his authority, has his own creations and differences according to the ability of the *undagi* (traditional architect) and the views of the ruler/king who will reside in the palace (*puri*).

Having observed and adjusted to the layout of *palebahan* in a *puri*, it seems that the division of *Sanga Mandala* in the royal palace complex (*puri*), which is based on the concept of *Nawa Sanga*, can be compared or attempted to be associated with other Hinduism concepts that are more 'mythological and religious'. Because in a certain context, there is a connection between the symbolic functions that the palace, as the king's residence, carries out. [7] in his research study states that *puri* is '*Ista (na) Dewa*'. Still referring to [7], who revealed [3] conclusion, the main palace (*puri-agung*) is almost the same as a temple. If '*pura*' is the abode of a god in its abstract form (*Ista Dewata*), *puri* is a place of residence for a king who is 'an incarnation of a god (*Ista Dewa*)' who manifests himself. Thus the castle is a sacred building in a religious concept. [3] conclusion is based on the fact that the king in Bali's royal system is a person who is respected and honoured by all his people, so he should not appear carelessly in public.

Likewise, the castle as the king's residence is considered a building that deserves to be respected or even sanctified following the king's position. This is because the castle is a building where gods and people meet, between rulers and other aristocrats. There is also a meeting location between humans and spirits [3].

In this connection, in Hinduism, there is a belief about the gods with their manifestations and other gods' location adjusted to the eight cardinal directions, which is called *Asta Dikpalaka* [7]. *Asta Dikpalaka* is the gods of the eight cardinal directions, who in Hindu myth surround *Mount Mahameru*. It is on the mountains that life resides, and they protect humans from the attacks of the giants who may come from different directions or directions [7][8].

Still referring to [3][7] the central area of the layout of the gods *Asta Dikpalaka* is *Mount Mahameru*, the centre of the universe. On its lower slopes live humans and animals; while the gods live at the top. The eight gods' concept is very likely also applied to the arrangement of the *palebahan* area of the king's

palace (*puri*) with the *Sanga Mandala* pattern, which literally means nine regions/zones. *Asta Dikpalaka* consists of eight directions guarded by one of the *dikpalaka* with one central area (*Mount Mahameru*), so its transformation into nine zones (*Sanga Mandala*), see Figure 4.

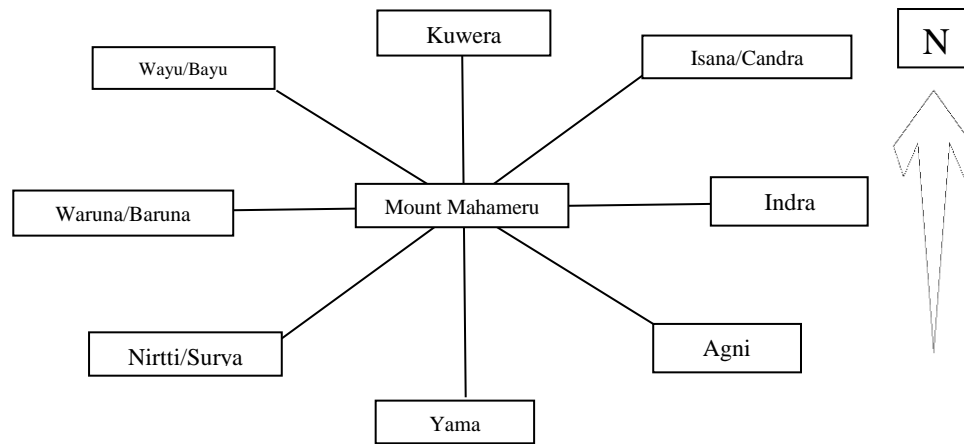


Figure 4. The Position of the Gods *Asta Dikpalaka*  
Sources: [3][5][7].

If the position of *Asta Dikpalaka* is applied to the division of *palebahan* palaces (*puri*) in several nine (the *Sanga Mandala* pattern), then this position seems to be in much agreement with most of the kings' palaces (*puri*) in Bali. Because in almost all former palaces (*puri-puri*), *Palebahan Saren Kangin*'s residence as the residence of the king is in the eastern area of the king's palace complex (*puri*), according to the location of Indra-the king, the god, the ruler in the east. The king was identified with *Dewa Indra* as the king of the gods who also guarded the eastern region of *Mount Mahameru*.

The king's kitchen area (*Palebahan Pewaregan Raja*) is located in the Southeast corner (*Kelod-Kangin*) of the palace complex (*puri*), its position is following the area guarded by the god of fire (*Agni*). *Palebahan Sumanggen* is generally located in the southern area of the palace complex (*puri*); this *palebahan* is used for funeral ceremonies and a temporary place to rest the body before it is crumbled. The body was buried in a building called *Bale Sumanggen*. The southern zone/region in *Asta Dikpalaka* is controlled by the god of death's realm (*Yama*). And almost all the kings' palaces (*puri*) put *Palebahan Pergajan Agung* in the northeast corner (*Kaja-Kangin*). Northeast. Placed in buildings with overlapping roofs (*meru*) as a symbol of the personification of *Mount Mahameru*. *Meru* is a building that has an odd number of overlapping roofs [6][7].

According to Hindu cosmology, the centre point guarded by the *Dikpalaka* is *Mount Mahameru*, whose peak is believed to reside in the gods' heaven and is the midpoint of the universe. In the castle complex, the centre point is often built *palebahan Saren Agung*. From these two explanations, it is associated that apart from the Great Judgment, and the *palebahan Saren Agung* is considered to be the middle point of the entire palace complex (*puri*) and are the sacred *palebahan*. *Palebahan* is still considered as the middle area (the middle point of the palace/*puri*).

As already described, regarding the relative position of the arrangement, it can be explained that there is a space/building that is determined to be the centre



point. Based on the living room's position, other spaces/buildings are arranged away from the centre point [9][10]. There may be additional spaces or buildings at one, two, or all three sides of the centre point in further developments. As a result, the development exits the midpoint, and the building is not symmetrical. The implied meaning is that there is a parallel between the *macrocosm* (universe) and the castle as a *microcosm* (balance cosmology).

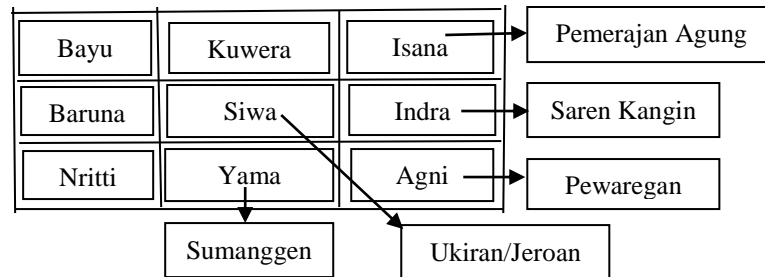


Figure 5. *Asta Dikpalaka* is located in the King's Palace (*puri*) with the *Sanga Mandala* pattern  
Source: [7][9].

Furthermore, in Hindu belief in Bali, the philosophy/concept of three elements of the cause of goodness is known (*Tri Hita Karana*), namely the elements of space/place of human occupation/community (*pawongan*), land/natural environment (*palemahan*), and sacred places/buildings/offerings. (*parhyangan*). Based on this concept, it is then implemented into architectural works through the concept of 3 values of the proportion of the human body association (*Tri Angga*), both from the time of selecting land for buildings, planning and designing plans, to dividing the building structure vertically, in a three-part/area arrangement, namely low, base, foot, and impure (insult); middle, neutral, body (*madya*); and high, holy, head (main) [1][7]. If this concept is applied to the arrangement of palebahan palaces (*puri*), which are divided into nine regions, then the division of the implementation of this concept will be presented on Figure 6.

The layout as mentioned above has a consequence on the creation of the Southwest-Northeast axis which is known until now in every housing development in Bali [1][3], namely the concept of less holy areas (*nistaning nista*) in the corner of the Southwest and the holiest (*utamaning utama*) in the Northeast corner.

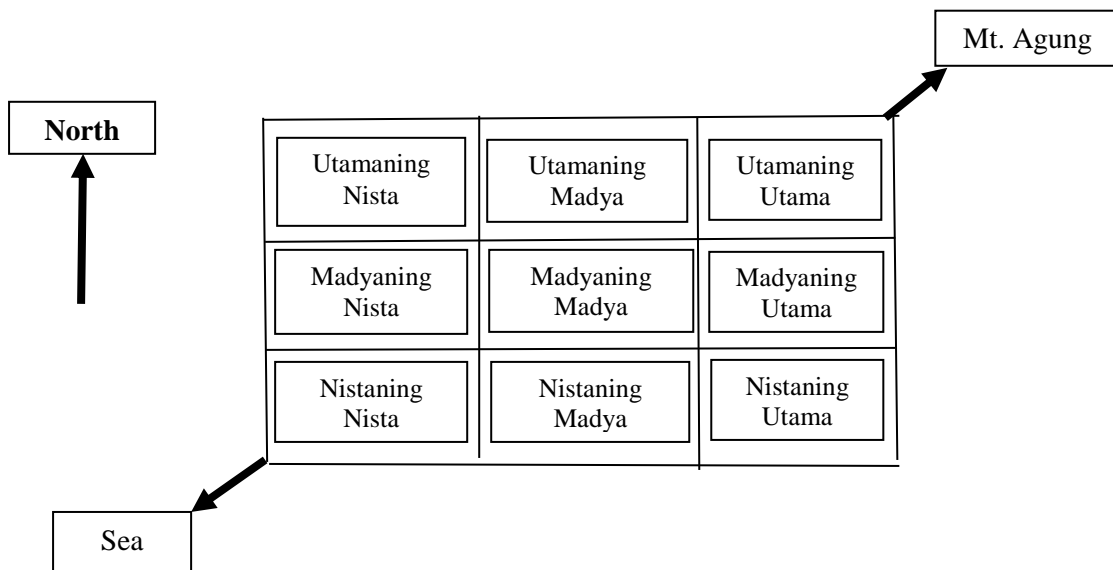


Figure 6. The Concept of *Tri Loka/Tri Angga* with the Division of the *Sanga Mandala* Pattern in the Arrangement of *Palebahan* Palaces (*Puri*) in Bali.

Thus, if it is related to the arrangement of the *palebahan* palace of the king (*puri*), it can be understood why the *Ancak Saji palebahan* is located in the southwest corner, because it is a *palebahan* which functions as a gathering place for the people, when facing the king, or when they are going to hold activities in the palace complex (castle). *Palebahan* is open to the people, so the space's nature is public zone. And so on, up to the private zone, there will be the *palebahan* of the Great Judgment in an area that is considered the most sacred in the Northeast corner, generally extending from the Northside to the Southwest corner.

### 3. Conclusion

The royal palace (*puri*) in Bali was established and built following certain rules, among others, the palace complex is generally divided into several *palebahan*. *Palebahan* is a courtyard area within the king's palace complex (*puri*) bordered by a perimeter fence (*penyengker*). Within the area, several buildings have specific functions and purposes to be erected. Often the name *palebahan* is determined based on its use or the name of the main building contained in it. It concluded that what forms the complex spatial structure of a king's palace (*puri*) in Bali is basically the *palebahan*. Still, the buildings in it give the character and function identification. The combination of the various *palebahan* finally formed the architectural complex of the king's palace (*puri*). Basically, *palebahan* in the royal palace (*puri*) in Bali can be grouped into five zonings, namely (1) the *palebahan* area which is sacred, (2) the general *palebahan* area zone, (3) the *palebahan* area which complements the core of the castle, (4) the *palebahan* core *puri* area zone, and (5) the *palebahan* area zone where the king and his family lived.

The royal palace (*puri*) in Bali provides various meeting places between humans, gods and mythological creatures in Hinduism. There is a meeting between humans and gods in the core area zone (main *palebahan*) given sacred values /symbols. In the general area zone with profane symbols, there is a meeting between the ruler/king and his people and the semi-general area zone

in special rooms where the rulers meet. And the private area zone with the main symbols also exists in the living quarters, because of the interaction between relatives and the royal family, wife, nephews, parents, children, and other relatives who are not yet married.

The presence of *palebahan* in the castle complex is necessary because there is always a division of land for various *palebahan*. Whereas each *palebahan* is based on a nine-area division pattern called the *Sanga Mandala* Concept, essentially referring to the Hindu mythological concept, regarding the seat of the eight gods who guard/control in the eight directions/points of the compass (*Dewa Asta Dikpalaka*).

The arrangement pattern with the concept of *Sanga Mandala*, is intended to divide nine regions/zoning (*palebahan*), namely (1) *Ancak Saji* (2) *Sumanggen*, (3) *Rangki*, (4) *Pewaregan*, (5) *Gelebeg/Lumbung*, (6) *Saren Kaja*, (7) *Saren Kangin*, (8) *Paseban*, (9) *Pemerajan Agung*. The nine *palebahan* can still be found in most former kings' palaces (*puri*) in Bali.

And the association with the concept of the gods *Asta Dikpalaka*, is that in the *palebahan*, is a symbolic transformation from the seat of the gods ruling the 8 cardinal directions. According to the cardinal directions, the mythological concept of the God *Asta Dikpalaka* in the palace of the king (*puri*) is reflected in the *palebahan* system. Therefore *palebahan* is a fundamental element in the king's palace complex (*puri*).

In this regard, the conclusion that can be parsed is, that the royal palace (*puri*) in Bali as a whole is a sacred building, because in that place resides the king who is actually the incarnation of a God and the palace of kings (*puri*) is considered the central point of the kingdom (*jagad*) in its time.

## References

- [1] Budihardjo, Eko, 1991. *Architectural Conservation in Bali*. Yogyakarta: Gadjah Mada University Press.
- [2] Covarrubias, Miguel, 1972. *Island of Bali*. Kuala Lumpur, Singapore, Djakarta: Oxford University Press/PT. Indira.
- [3] Gerttz, Clifford, 1981. *Negara: The Theatre State in Nineteenth-Century Bali*. Princeton, New Jersey: Princeton University Press.
- [4] Gelebet, Nyoman, 1970. *Asta Kosali (L.04,T) dan Asta Kosali (L.05,T)*, Naskah Terjemahan untuk Pusat Informasi Teknik Pembangunan (Building Information Centre/BIC), Direktorat Jenderal Tjipta Karja, Departemen Pekerjaan Umum dan tenaga Listrik, Sanur, Bali.
- [5] Gelebet, Nyoman, 1986, *Arsitektur Tradisional Daerah Bali*. Departemen Pendidikan dan Kebudayaan, Proyek Inventarisasi dan Dokumentasi Kebudayaan Daerah.
- [6] Gorris, R, 1986. *Sekte-sekte di Bali*. Jakarta: Bharata Karya Aksara.
- [7] Munandar, Agus Aris, 2005. *Istana Dewa Pulau Dewata; Makna Puri Bali Abad ke-14-19 M*. Editor: Edi Sudarjat, dkk. Komunitas Bambu: Depok.
- [8] Putra Agung, Anak Agung Gde Agung, 1985. "Kebudayaan Istana Amlapura", dalam *Peranan Kebudayaan Daerah Dalam Proses Pembentukan Kebudayaan Nasional*. Proyek Penelitian dan Pengkajian Kebudayaan Nusantara (*Javanologi*), Dirjen Kebudayaan, Depdikbud, Jakarta, Hlmn.3-21.
- [9] Rapoport, Amos, 1989. "Tentang Asal-Usul Kebudayaan Permukiman", dalam Aris K. Onggodiputro (Penyunting), *Pengantar Sejarah*

*Perencanaan Perkotaan: Sebuah Kumpulan Karangan*. Bandung: Intermedia. Hlmn.21-44.

[10] Van Der Tuuk, H.N, 1901. *Kawi-Balineesch Nederlandsch Woordenboek, Deel I-IV*. Batavia: Landsdrukkerij.

[11] Warna, I Wayan (Ketua Tim Penterjemah), 1986. *Usana Bali Usana Jawa: Teks dan Terjemahan*. Dinas Pendidikan dan Kebudayaan Propinsi Daerah Tingkat I Bali.

[12] Wirjomartono, A. Bagoes P, 1995. *Seni Bangunan dan Seni Binakota di Indonesia*. Jakarta: Gramedia Pustaka Utama.

[13] Ida Bagus Idedhyana, Ngakan Putu Sueca, Ngakan Ketut Acwin Dwijendra and Ida Bagus Wirawibawa, (2020). *Architecture of Padmasana Tiga in Besakih Temple, Bali Indonesia: Interpreted from the Concept of Shiva Siddhanta*. International Journal of Advanced Science and Technology, 2020.

[14] N. P. S. Nurjani, N. K. A. Dwijendra, How Traditional Balinese Houses Can Adjust and Cater for International Tourist in the Canggu Area, Bali Indonesia? In: *International Journal of Psychosocial Rehabilitation*, Vol. 24, No. 03, DOI: 10.37200/IJPR/V24I3/PR201901, 2020.

[15] M. V. Yogantari, N. K. A. Dwijendra, Visual Exploration Using Acrylic Paint on Used Fashion Items for Sustainable Use. In: *International Journal of Psychosocial Rehabilitation*, Vol. 24, No. 03, DOI: 10.37200/IJPR/V24I3/PR201902, 2020.

[16] Ngakan Ketut Acwin Dwijendra. (2020). From Tradition to Modernization in Morphological Process of Indigenous Settlement Patterns in Bali, Indonesia. *International Journal of Advanced Science and Technology*, 29(8s), 172 - 184. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/1043>.

[17] Ni Luh Putu Dessy Dharmayanty, Syamsul Alam Paturusi, Ngakan Ketut Acwin Dwijendra, Ni Ketut Agusinta Dewi, The Meaning of Vertical Housing for Balinese People, the Debate between Cultural Demands and the Need for Urban Housing in Bali, Indonesia. In: *International Journal of Psychosocial Rehabilitation*, Vol. 24, No. 7, DOI: 10.37200/IJPR/V24I3/PR201902, 2020.

[18] Ngakan Ketut Acwin Dwijendra, I Made Adhika, I Dewa Gede Agung Diasana Putra I Gusti Putu Bagus Sastrawan Mananda, Ida Bagus Putu Adnyana. (2020). Design Model Innovations for Tourism Villages In Bangli, Bali Indonesia: Debate Between Environmental And Cultural Protection Versus Community Economic Development. *International Journal of Advanced Science and Technology*, 29(7), 1428 - 1443. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/15556>.

[19] Agus Kurniawan, Putu Rumawan Salain, Ngakan Ketut Acwin Dwijendra, and I Gusti Ngurah Anom Rajendra. (2020). Revealing the Meaning Behind Mandala Of Agung Karangasem Palace, Bali Indonesia: Investigating Through Semiotics For Preservation Of Historic Value. *International Journal of Advanced Science and Technology*, 29(7), 1417 - 1427. Retrieved from <http://serisc.org/journals/index.php/IJAST/article/view/15555>.

[20] Ngakan Ketut Acwin Dwijendra. I Putu Gede Suyoga (2020). Analyze of Symbolic Violence Practices in Balinese Vernacular Architecture, Bali Indonesia. *International Journal of Innovation, Creativity and Change*, Vol. 13, Issue 5, 18 June 2020. Retrieved from [https://www.ijicc.net/images/vol\\_13/Iss\\_5/13543\\_Dwijendra\\_2020\\_E\\_R.pdf](https://www.ijicc.net/images/vol_13/Iss_5/13543_Dwijendra_2020_E_R.pdf).

[21] Ngakan Ketut Acwin Dwijendra, Frysa Wiriantari, Desak Made Sukma Widiyani, Anak Agung Ayu Sri Ratih Yulianasari, Arya Bagus Mahadwijati Wijatmaja, Transformation of Catuspatha (Crossroad) In Bali

Indonesia: Alteration Ideas From Empty Space To Aesthetic Element Of City, *Solid State Technology* Volume: 63 Issue: 6 Publication Year: 2020.

[22] N. K. A. Dwijendra, Identity Struggle Perspective in Car-Shaped Shrine in Paluang Temple, Nusa Penida Bali, Indonesia, *International Journal of Psychosocial Rehabilitation*, Vol. 24, No. 4, DOI: 10.37200/IJPR/V24I4/PR201653, 2020.

[23] Ngakan Ketut Acwin Dwijendra (2020). Meru as a Hindu Sacred Building Architecture with a High Roof and Resistant to Earthquakes in Bali, Indonesia. *Civil Engineering and Architecture*, Vol. 8 (3), pp. 350 - 358. DOI: 10.13189/cea.2020.080319. Retrieved from [http://www.hrpub.org/journals/article\\_info.php?aid=9473](http://www.hrpub.org/journals/article_info.php?aid=9473).

[24] I Nyoman Widya Paramadhyaksa, Ngakan Ketut Acwin Dwijendra, Ni Ketut Pande Dewi Jayanti, I Kadek Merta Wijaya (2020), Orientation on Spatial Planning in Pinggan Village, Kintamani District, Bangli Regency, Bali, Indonesia. *Solid State Technology* Volume: 63 Issue: 6 Publication Year: 2020.

[25] Dwijendra, Ngakan Ketut Acwin (2019) 'Transformation of Traditional Housing in Bungaya Village, Karangasem Bali, Indonesia', *International Journal of Current Advanced Research*, 08(01), pp.16793-16798. DOI: <http://dx.doi.org/10.24327/ijcar.2019.16798.3118>.

[26] Dwijendra. Ngakan Ketut Acwin. (2003). Perumahan dan Permukiman Tradisional Bali. Bali: Jurnal Permukiman "Natah. *Asian Journal of Environment, History and Heritage* 1(1)

[27] Dwijendra. Ngakan Ketut Acwin. (2016). *Revitalisasi Arsitektur Kawasan Pusaka di Bali*. Bali: Penerbit STD Bali Press.

[28] Dwijendra, NKA (2003). Bali Traditional Housing and Settlements. *Journal of Settlement Natah*, Vol. 1 No. February 1, 2003: 8 - 24.

[29] Dwijendra, NKA (2008) *Arsitektur Rumah Tradisional Bali, Berdasarkan Asta Kosala Kosali*, Denpasar: Udayana University Press.

[30] Dwijendra, NKA (2009) *Arsitektur Kebudayaan Bali Kuno*, Denpasar: Udayana University Press.

[31] Adhika, I Made and Dwijendra, Ngakan Ketut Acwin. (2020). Selfie Photos Area and Its Implication to Water Availability and Social Culture in Wanagiri Village, Bali Indonesia. In: *International Journal of Psychosocial Rehabilitation*, Vol. 24, No. 4, DOI: 10.37200/IJPR/V24I4/PR201652.

[32] Made Agus Mahendra, Syamsul Alam Paturusi, Ngakan Ketut Acwin Dwijendra, Dewa Gede Agung Diasana Putra. (2020). The Meaning Of Local Culture Elements And Urban Elements As Forming The Identity Of The Klungkung Urban Area, Bali, Indonesia. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), 11563 - 11580. Retrieved from <https://archives.palarch.nl/index.php/jae/article/view/4539>.

[33] Frysa Wiriantari, Syamsul Alam Paturusi, Ngakan Ketut Acwin Dwijendra, Dewa Gede Agung Diasana Putra. (2020). The Value of Catuspatha As A Public Space For The Balinese Community In The Klungkung City, Bali Indonesia: The Struggle For Activities Between Politics, Economics And Socio-Culture. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), 11581 - 11593. Retrieved from <https://archives.palarch.nl/index.php/jae/article/view/4541>.