# DEVELOPMENT OF VERTICAL HOUSING AND THE EFFECT OF BALI PEOPLE'S CULTURE

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**Abstract** - Government programs in controlling the development of housing and settlements have been established through Law No. 1 of 2011 concerning Housing and Settlements, which was then followed by Law No. 20 of 2011 concerning flats, in order to fulfill the community's right to obtain decent housing. However, this has not yet received a response from the Regional Government and the community because it is considered incompatible with living according to the traditions and customs of Balinese culture, the majority of which are Hindu and the concept of Tri Hita Karana with all the values contained therein. On the other hand the need for housing in urban areas is increasing while land prices are also very expensive, so vertical housing is one of the most appropriate and realistic solutions. The purpose of this research is to look for values in Balinese culture that are not yet in accordance with the vertical housing concept so that the government and the public still cannot develop vertical housing, especially in urban areas. This study will use qualitative research methods with observations on existing vertical housing, approaches and interviews with housing residents, customary figures, religious leaders and policy holders in government.

**Keywords** - Vertical Housing, Balinese Culture, Housing Needs.

## I. INTRODUCTION

The Government's National Program in providing housing to address the needs of livable housing for the community has begun in 2011 with its regulations. Urban areas in all regions of Indonesia utilize this program to get self-help assistance in housing development, especially vertical housing.

But this is not the case with Bali Province, especially urban areas that are densely populated by migrants in Denpasar City and Badung Regency. With the number of housing shortages of 27000 units in Bali, namely 7500 in Badung Regency and 8500 units in Denpasar City, the general public and the Government have not responded.

Vertical housing built up to date only exists in the city of Denpasar, which is owned by vertical government institutions that are used for official housing. With the provisions of occupancy and management based on command and official regulations, not general housing management.

Occupational Behavior The Balinese have and believe in the concept of life based on the philosophy of Tri Hita Karana in Vertical Housing that has been built is considered not able to meet the needs of Indigenous activities and their daily culture as Balinese Hindus.
On the other hand, in general housing needs in urban areas continue to increase. If this is not immediately sought a solution will narrow the green open space of the City and cause slums.
Vertical Housing is currently one solution, but why has it not been responded to by the Regional Government and the Balinese Community? What factors influence the life side of the Balinese people? Through this research, we will explore the effects of cultural factors, religious factors and behavioral factors.

## II. LITERATURE REVIEW

### A. Cultural Values in Arranging Balinese Houses

The house for the Balinese people besides accommodating daily living activities as well as accommodating cultural activities (habitual habits/ways of living of a series of symbols, thinking frameworks and ways of adapting to their environment) and Religion (beliefs) in this case are Balinese religious people Hindu.

Hinduism teaches that humans always maintain harmony/balance of the Universe with all its contents including the artificial environment, namely Buana Agung (macrocosmos) with Humans who use nature for their lives, namely Buana Alit (microkosmos).
Humans, one of the contents and Nature as a container, are kept in a state of harmony like a fetus in the mother's stomach (Manik ring Cacupu). With this rationale for the Balinese people, every container of life is created according to the value of the Buana Agung, with the composition of the elements of Tri Hita Karana.

In the way of life of Balinese people everyday based on the teachings of Hinduism based on Tatwa (philosophy), Susila (ethics) and Upakara (ceremony/Yadnya) more on how to achieve a harmonious relationship of humans (Buana Alit) with

Ida Sang Hyang Widhi Waca (Buana Agung) which gave birth to hereditary habits in conceptions, including:

Tri Hita Karana which literally means three causes/sources of prosperity (happy and sustainable) that make good in life. Decomposed in elements 1) Atma (soul/spirit/life force) 2) Prana (energy) and 3) Angga (body/physical) (Assembly of Customary Institutions, 1992).

Tri Hita Karana in the level of housing in the composition of the cosmos can be juxtaposed with humans in everyday life as an arrangement of elements in the cosmos namely human element (Buana Alit) has a soul (Atma), has energy (Prana) and has a body/physical form (Angga). At the household level namely Sanggah (soul/Atma), Occupants of Houses (labor/Prana) and Home Grounds as (physical/Angga). At Housing Level Parahyangan Pura Housing as Atma/soul, Banjar/Pawongan Residents as Prana/energy and housing environment/Palemahan as physical. (Sulistyawati, et al 1985, Adhika, 1994).

The concept of spatial planning, namely Tri Angga, gives directives for values in a vertical manner covering the main/head, middle/body and Nista/foot. Whereas towards the horizontal there is also the main conception of Tri Mandala (Utamaning Mandala), middle of Madyaning Mandala and lower is (Nistaning Mandala).

The values most often applied in spatial / furniture arrangement, known as qibla, are values based on the earth axis (Kaja/Mount - Kelod/Sea), which gives the main value on the direction of the Mountain and the Nista value in the direction of the Sea, while based on the direction The sun's main value is given in the direction of the rising sun/Kangin, and the Nista value in the direction of sunset kauh.

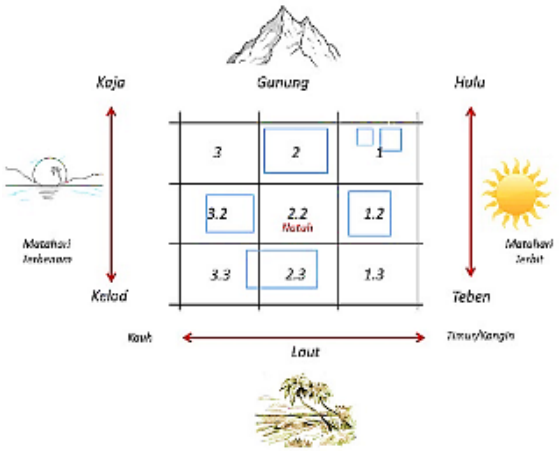



**Fig. 1 Horizontal and Horizontal axis conception Tri Mandala becomes Sanga Mandala.**

In carrying out the life of the Balinese people a cultural obligation is carried out in an effort to relate to all the elements and conception through the Panca Yad activities which consist of: 1) Dewa Yadnya (Offering and Devoting to God along with His creation) 2) Rsi Yadnya (Dedicated to Sulinggih / Purified Religious Leader); 3) Manusa Yadnya (Devotion to the Human Soul); 4) Pitra Yadnya (Devotion to ancestors); 5) Bhuta Yadnya (Offering to other creatures created by God); and Tri Kaya Parisudha (Thinking, doing and saying good).

## B. Vertical Housing and The Development in Bali

In this case study Vertical Housing is defined as:

a) Vertical Housing is a group of houses built as multi-storey buildings in an environment that is functionally arranged horizontally and vertically, equipped with parts to be used together, shared land and shared objects;
b) Vertical Housing referred to in this study is a group of houses inhabited by individuals, and / or nuclear families in each housing unit, arranged horizontally and vertically, equipped with housing facilities and infrastructure in an ownership / ownership lot, and well managed.

Vertical Housing in Bali that has been built and inhabited, especially in the urban areas of Denpasar and Badung Regency, are mostly owned by Institutions and Private Sector, which for the private sector is hidden from licensing tourist accommodations such as apartments and condominium.

## C. Factors Affecting the Development of Housing

The existence of a housing can affect the development of a region and conversely development activities in an area can affect the development of housing. According to Siswono (2013), there are eight aspects that affect the development of housing, in general, namely: 1). Geographic factors; 2) Population factors; 3) Institutional Factors; 4) Factors of role and society; 5) Economic factors and affordability; 6) Infrastructure Factors; 7) Land factors; 8) Factors in Science and Technology.

In addition to these factors that apply to all regions there are special factors that are taken into account in Bali, namely According to Amos Rapoport (1969), in his book House, form and cultural, adding factors that influence other than the eight factors above are:

1) Culture / Culture Factors, will affect housing development, meaning that the shape of the house is influenced by the availability of local materials and the way of life of residents and the climate and environment;
2) Religious Factors or Trusts, these factors are often more dominant than other factors because the community believes that housing is a natural form (microcosmos) of the whole form of the universe (macrocosmos);

3) Behavior Factors influence each other's forms and patterns of space and housing, especially regarding the concepts of private, semi-private and public spaces.

These three factors will be examined for Vertical Housing Development in Bali.

## III. RESEARCH METHODS

In this study, research methods were used with several types of methods including observing Vertical Housing sites inhabited by Balinese (Hindus), and quisioner distribution methods for residents to determine occupational satisfaction / dissatisfaction levels and methods of mapping occupants' behavior and Balinese behavior. who lives in his home. The method of interviewing was also carried out to community leaders, religious leaders, regional leaders, and communities providing housing.

The location of this study was conducted in Denpasar City on inhabited vertical housing and Badung Regency in an occupied apartment.

## IV. RESULT AND DISCUSSION

### Vertical Housing Development Factors in Bali

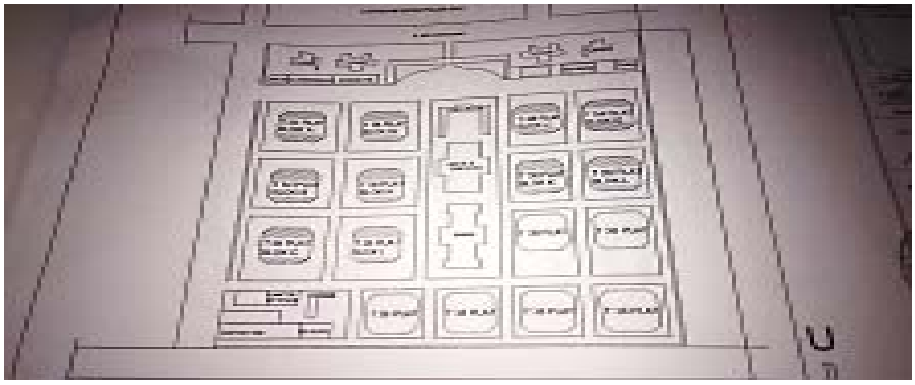
### 4.1 Cultural and Religious Factors

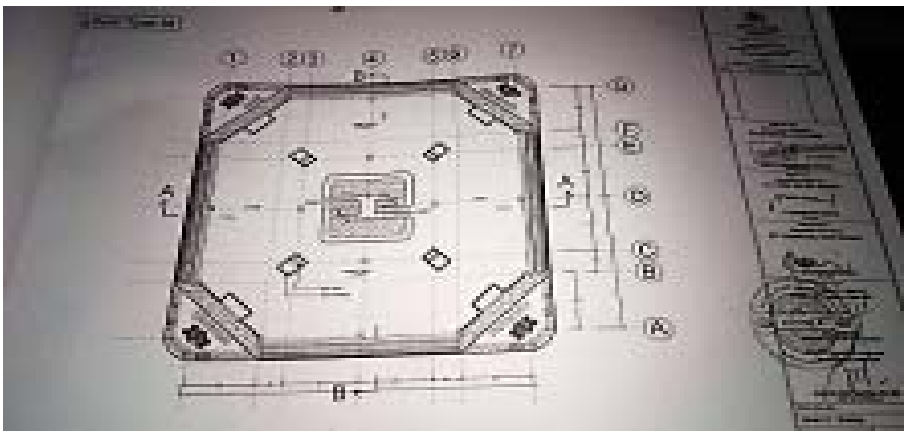
In their lives, humans as cultured beings have a tendency to orient their lives to cultural values. Balinese society is a society that is strong in showing characteristics that are religious. In this form of society, the elements of trust in religious and traditional ceremonies have a place and meaning that is very important in various aspects of life. That a house is a living element and the basis of this belief is reflected in the attitudes and behavior of people towards that element. It can be seen from the existence of a number of ritual activities, which are manifested in the form of traditional ceremonies. On a household scale, the ritual that must be carried out is the Panca Yadnya, which is five sacrifices that must be carried out in the lifetime. In the procedure for inhabiting Vertical Housing in built housing, as occupants in a room type 36 and type 45, with two bedroom units, one living room unit which also functions as a family room as well as a dining room, one kitchen unit and one unit bathroom and clothes drying room. There is no Special room for them to carry out religious and cultural activities in accordance with the beliefs of the Balinese. Of the twelve existing towers, there are 354 housing units which are 80% inhabited by civil servants and Indonesian police who are married and Hindu. The results of the interview and questionnaire stated that during the stay in this housing facilities for religious and cultural activities had not been provided, they were only tied to official service, so that if they would carry out cultural activities they would return to their Home of Origin. As for the implementation of the daily worship activities they installed Pelangkiran in the corridor area and / or in the multipurpose room / living room / family room which happened to be the position of the Utamaning Utama concept in the Kaje Kangin area.

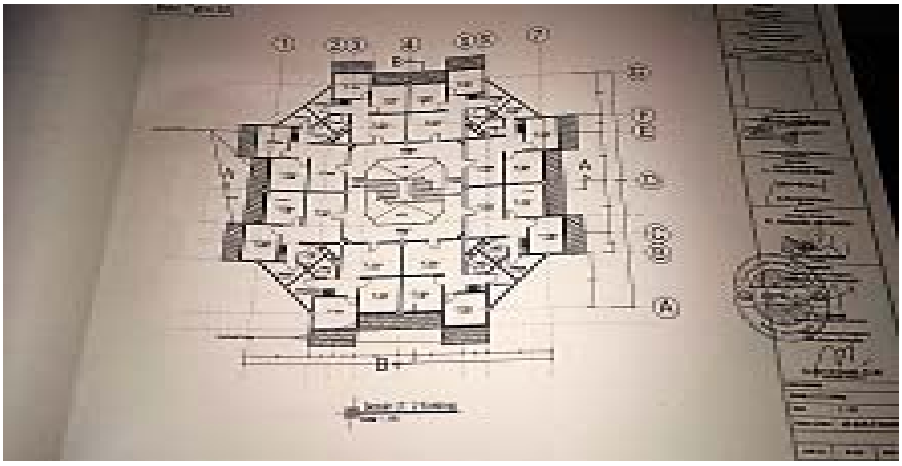
For other Cultural Activities such as the relationship between residents and communication is also not available Bale Banjar as in the culture of inhabiting landed housing and houses in the Village area. All are controlled on the basis of service. With the unavailability of facilities for religious and cultural activities in Vertical Housing, the needs or conditions of occupancy for the people of Bali have not been fulfilled in the POLDA Flat in Bali.

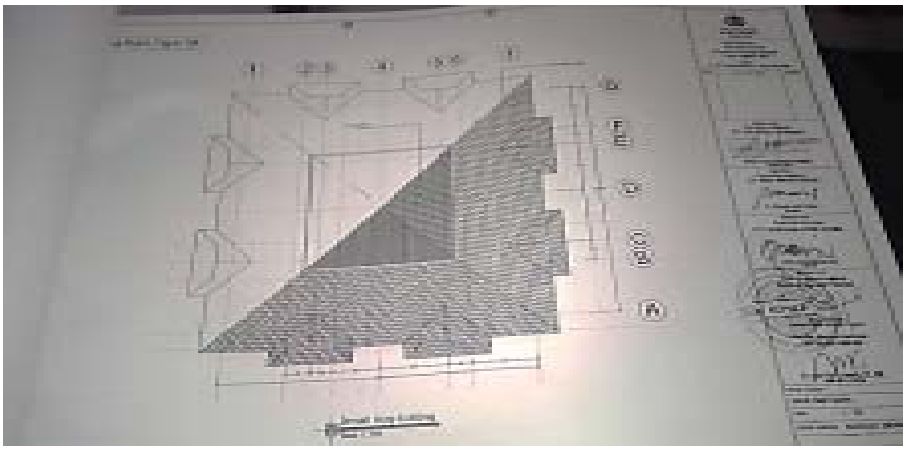


**Fig. 2 The Plangkiran place to look for space connects with nature universe.**









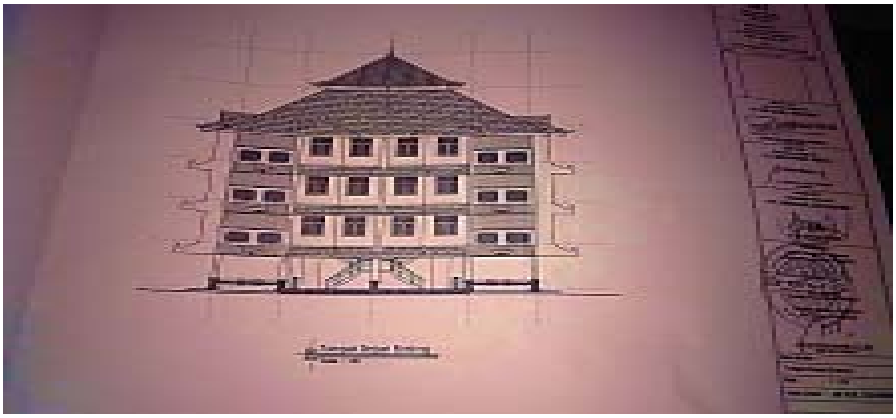


**Fig. 3 Plan and look at Bali Provincial Police Flat.**

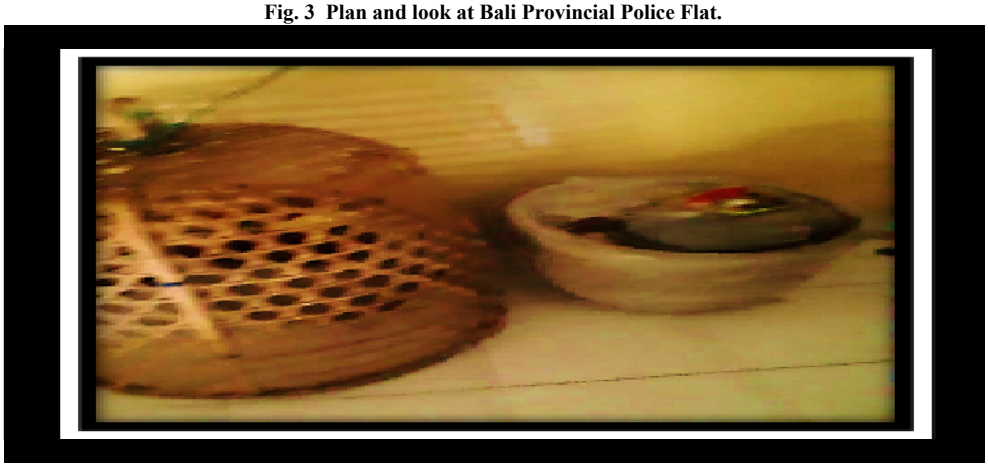


**Fig. 4 In one unit, where the family living on the second floor plant the placenta using a flower pot.**

For religious ritual facilities only the General Temple in the form of Padmasana is provided. In carrying out other socio-cultural activities such as Banjar and Kahyangan Tiga because there are automatically family ties to their home home, they will try to be able to return to their original home. Of the five Yadnya that must be carried out by Hindus, in Vertical Housing of Bali Police, Housing of Bali Province, Immigration Housing, which can be implemented in Housing only the Manusa Yadnya ceremony and routine Otonan for children, carried out on their own such as doing daily worship in Plangkiran without religious leaders, the rest is not available. Religious Orientation, Utama-Madya, Nista-Hulu, Tengah–Teben are not fully implemented in the layout of the building, space layout and function, resulting in the implementation of rituals with compromises on oneself and his belief that God/Hyang Widhi Meraga Angin, that is worshiped everywhere. Here there is an element of compulsion due to limited availability of space.



**Fig. 5 Core, connecting sky**



**Fig. 6 Immigration Housing Denpasar**

### 4.2 Behavior Factors

The establishment of a residential environment is possible because of the formation of residential processes as a functional container based on patterns of human activity and the influence of setting/hue of the environment both physical and non-physical which directly affects the pattern of activities and process of its process (Rapoport, 1969).The following is a comparison of inhabiting behavior that affects the activities in Vertical Housing and landed houses.

**Table 1. Comparison table of the effect of activities on Vertical Housing and Landed Houses.**

| No. | Elements | Landed House | Vertical Housing |
|---|---|---|---|
| 1 | Own | Ownership as long as it is not transferred. | Ownership for the life of the building is around 50 years (strata title). |
| 2 | Area and Building Area | Minimum of 100 m2, with type 36.45 buildings. | Is a multi-storey tower building with type 18,24,36. |
| 3 | Residential Planning. | Candidates for Residents decide on their own space planning according to their needs | Prospective Occupants are not involved in planning. Receive existing settings. |
| 4 | Space orientation and pattern. | Can be designed to meet the ATB conditions. | More concerned with the efficiency of utilization of space, structure and utility of buildings. |
| 5 | Facilities Supporting cultural and religious activities | Can be built and designed by yourself according to the needs of carrying out cultural and religious activities. | It is a shared facility, used jointly and publicly, can only carry out routine Otonan activities and daily prayers. |
| 6 | Management | Independent | Managed by the manager, and residents are bound by the management provisions. |

From these differences, the behavior of inhabiting a Vertical Housing is required to be able to adjust, that the territory of each occupant is only in units of apartments that are occupied with all activities. Some Vertical Housing is equipped with shared facilities, minimum reception space (public lobby), occupational circulation corridors and shared meeting rooms in one building tower.

In the Vertical Housing of the Bali Regional Police, Immigration Province of Bali, only public facilities available for parking, corridors and shared space of one residential unit. Judging from these conditions, the occupants are required to inhabit according to the existing space with the existing orientation.

For Balinese (Hindus) this is very disturbing in carrying out cultural and religious activities that are needed according to their beliefs as Balinese people. Different cultural behaviors must be lived in Vertikal Housing (Hulu/Teben orientation) oriented towards the corridor for those who receive units not in accordance with traditional/ritual orientation.

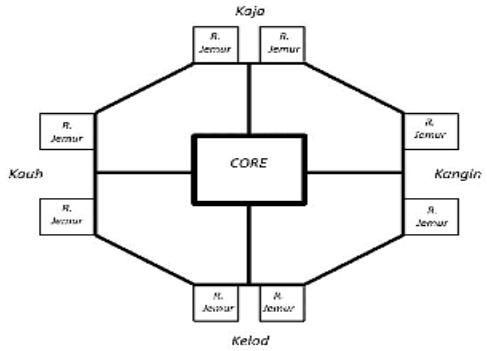



**Fig. 7 Horizontal orientation in the Bali Regional Police.**

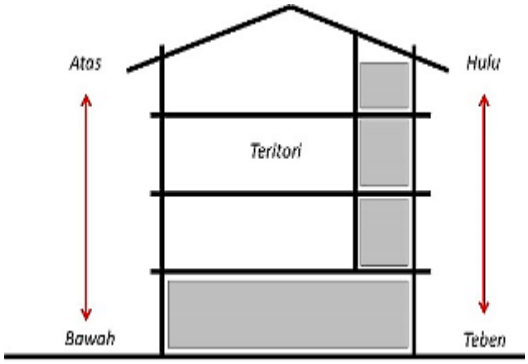



**Fig. 8 Horizontal vertical housing orientation.**

## CONCLUSION

From the discussion above, it can be concluded that Vertical Housing Development, is attempted to meet the needs of inhabiting activities according to the Balinese (Hindu) lifestyle based on the Tri Hita Karana philosophy, especially the application of Tri Mandala and Tri Angga conception and Earth Axis, so that it can attract unit on Vertical Housing with respect to factors:

### 1. Cultural and Religious Factors

The attachment to the Ancestors which is believed to only be able to be staged on the Hyang Pertiwi is only in a large family home with a minimum of four generations of residents.

Thus, when family members who are not living/living together in a large family's home are obliged to make "Penyawangan" (means of ritual liaison) to their ancestors wherever they live.

If Vertical Housing is built in Bali, it must take into account cultural factors, especially the orientation and layout of the private space (Hulu Teben values), provide Padmasana religious facilities with their facilities, Bale Gede to carry out religious ceremonies led by Pemangku/Sulinggih according to procedures the beliefs of Hindu Balinese people, which are built within the area that can accommodate religious cultural activities and multipurpose rooms (Bale Banjar) which accommodate community social activities in vertical housing environments as regional social facilities.

### 2. Behavior Factors

The behavior of Hindu Balinese people when living outside their homes will try to carry out activities that are appropriate in their original home even in different groups. In the behavior of individuals in a vertical residential unit, they will carry out connections with large families and their ancestors with facilities believed to be able to deliver ritual communication.
In this case, it is used for immersion and Padmasana even though the layout and orientation use the universe.
In utilizing the space inhabited by Balinese people rearranging the furniture layout to optimally get the upstream/Kaje-Kangin orientation for the bed even though it is not in accordance with the position of the door and others in the initial planning.

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