Philosophy and Cosmology Manifestation of Traditional Settlements in Indonesia: Case Studies of Senaru, Saga, and Trunyan

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ABSTRACT: *This research aims to know the factors that influence and value the manifestation of Philosophy and Cosmological raising across the Archipelago. The researchers search to know the composition of site conditions and the surrounding environment, vertical and horizontal space, the shape of buildings, and other things that influence in terms of cosmology and philosophy. The researcher concluded that the theoretical review is about cosmology and philosophy on dwelling or settlement in the archipelago. Cosmology is the science related to cosmology in the concept of relationships between the human world (micro-cosmos) and the universe. Traditional dwellings and settlement have interesting values and characteristics are studied architecturally. Influence of trust the shape, space, and arrangement of traditional dwelling and settlement houses are architecturally identified. This study uses a qualitative method with a description and in the form of observation and literature study. The cosmological and philosophical views of each dwelling and settlement certainly different from one another. The findings of this study are about cosmology and philosophy of Traditional Settlement as the manifestation of value raising across the Archipelago.*

Keywords: Settlement, Dwelling, Archipelago, Cosmology, Philosophy, Value.

INTRODUCTION

Study Background

A dwelling place specifically or a settlement in general, is more than just a place for living. There is always a reason behind something, including the architecture of a living place. Architecture Itself represents the art of planning, designing, building and decorating. Furthermore, it also reflects the culture of a society, their identity, and social realities of whole civilizations, captures and converses with the environment of its inception be it the natural climatic environment or the values, norms and also include belief systems.

The genesis of human settlements can be defined as a continuous approach of manufacturing and layering of space in one-of-a-kind scale stages across ancient periods. The architectural manufacturing in our Archipelago context constantly has an interconnection of the social aspect and belief system due to our inclusive cultural attitude. Our commonplace constructing typologies are made from the present corporations or tribes at that time, the articulation of the multi-layered tangible and intangible traditions, and therefore the direct response to network micro-climate of the particular area. Diversity, acculturation, adaptation, can perhaps superb describe the nature of our architecture and urbanism.

From the earliest traditional settlement, it shows the best and holistic solution towards human needs in their relation with nature, social, and supra-natural environments at that certain moment. It is the medium for human survival in both physical and spiritual worlds, by reconciling the power of nature and the desires of human beings, which shows the correlation with the cosmology of that particular region. Cosmology is generally a discipline to study the history, evolution, origins of the universe as a whole and its occurrence (Fuad Mahbub Siraj 2014; Coles 2001).

The study of the traditional settlement across the Archipelago, which is the focus of this paper, requires an understanding of both the natural and social environment of the

concerned region. The traditional settlement in Indonesia was conceived in a time when traditions and rules believed by the ancestors' precepts had the upper hand.

Study Formulation

A dwelling place specifically or a settlement in general, is more than just a place for living. There is always a reason behind something, including the architecture of a living place. Architecture Itself represents the art of planning, designing, building and decorating. Many aspects are reflected there for instance the culture, identity, and social realities of whole civilizations, and most of it are the philosophical values, norms and also the cosmology of a certain place.

Therefore, The formulation of this problems in this study are as follows:

1. What is meant by the implementation of values in the arrangement of settlement patterns and space patterns?
2. How can a settlement arrangement present the philosophical and cosmological values of the archipelago?

Study Objective

This research aims to know about the Traditional Settlement as the manifestation of Philosophy and Cosmological that will be implementing the value raising across the Archipelago and also the factors that influence requires an understanding of both the natural and social environment of the concerned region. The traditional settlement in Indonesia was conceived in a time when traditions and rules believed by the ancestors' precepts had the upper hand.

The objectives of this research are:

1. The implementation of values in the arrangement of settlement patterns and space patterns.
2. Find how a settlement arrangement presents the philosophical and cosmological values of the archipelago.

LITERATURE REVIEW

Most of traditional settlement in the Archipelago are the results of adaptation to physical land and waterscapes, building techniques, available materials, local climate, and creative integration of belief system, function, and form to provide physical, functional and spiritual amenities for those who live within the region. There are so many direct responses for instance to the forces of nature, creative innovation in using available resources, and manifestation of belief in supernatural powers by special ornamentations placed on the part of building or settlement are being included into a living place.

Cosmology is generally a discipline to study the history, evolution, origins of the universe as a whole and its occurrence (Fuad Mahbub Siraj 2014; Coles 2001). In modern terms, cosmology is a branch of astronomy concerned with the study of the universe at large (Kragh 2004). In addition, the cosmological word derived from the word cosmos which is specific to the universe. Cosmology is knowledge which examines the origin, structure, space-time relations in the natural universe (Kustedja, et.al, 2012). Cosmology is at the highest level (mentifact-Pangarsa, 2008) which determines ideology and views human life, as well as taking design decisions (Titisari, 2016).

The science of the cosmos is related to the questions: how is the earth (and the world) was created, when, how the position of the earth and heavenly objects, how the system is arranged, how it influences and relationship to one another, and etc. Nelson et.al, said cosmology at the empiric level is realized one of them in the form of calendar the ancient American tribes determine time and space for their activities (Nelson et.al in Titisari, 2016). It is the religious norms that underlie it there are forms for the sake of safety, and also a form of gratitude towards God, especially for related families (Mangunwijaya,

1988). Nature of thought traditionally described nature as an orderly system (Kustedja, et.al, 2012).

One of the results of culture is human efforts in friendship with the natural world where his life is an architectural environment. Architecture as human creation is considered necessary contextualizing the phenomenon of the realm. YB. Mangunwijaya in his book Wastu Citra (1988), in the past, the people had divided the world into three layers, the world above (heaven, heaven), the underworld (world of death) and middle world (world which is inhabited by humans). Architecture can be seen as a manifestation of social, cultural, technical, ritual, and aspects able to express belief or cosmological rules, and able to communicate information that contains the system value (Rapopport in Mashuri, 2012).

Specific cultural systems including cosmovisions emerged, which allowed man to establish and maintain order and rhythm in personal and social life, interacting with given environmental conditions, and to answer the human questions about the whys and wherefores concerning him and the world. Cosmographic concepts of the world edifice can be regarded as holistic, multi-layered models of evolving human ecosystems, which, by using symbolic language, helped man make the world homely and transcend. (Michael A.R, 2012)

Ancient people tried to synchronize human life with the basing ecosystem, including astronomical phenomena. This way of referring to the spatiotemporal structure of the cosmos has been called a living astronomy [Rist, San Martin and Tapia 1999: 149]. It also includes other concepts, which today are allocated to the subjects of geography, meteorology, biology, medicine, sociology, psychology, etc. The idea of a living astronomy is behind the astrological worldview, found in archaic and historic cultures globally.

In addition to discussing cosmology, it also discusses philosophy, architecture always has the meaning behind every work that is called philosophy. Philosophy is thinking about the final and decisive problem, namely about the problem of the meaning of circumstances, God, freedom and eternity (Langeveld). Philosophy is the science that seeks the deepest meaning for the idea of something based on mere thought (IR Poedjawijatna). Philosophy is the collection of all knowledge about God, man and nature being the subject of guidance (Rene Descartes). Philosophy that changes things that become core objects from the point of view in, which remains unchanged, which is also called natural (Notonegoro).

These philosophical values and cosmology really do have an important role in civilization, starting from settlement as a living space. Settlements is a continuous process of production and layering of spaces in different scale levels across historical periods. (Michael A.R, 2012) These settlements often reflect traditions, and response to local micro-climate of the particular region sometime in the built environment in the form of coexistence of house and settlement in an extremely compact setting. There exists a traditional built environment that the entirety of the settlement is perceived as a big single building. The same has been stated by Rapoport as in the following: "… it is sometimes difficult to separate dwelling and settlements. Particularly in the case of communal dwellings, where dwellings and settlement are one." (Rapoport, 1989). The same scholar goes on to state that: "The dwelling and its parts are linked to many other settings in the neighborhood, the settlement and beyond" (Rapoport, 1989)

RESULT AND DISCUSSION

These are how the manifestation of Philosophy and Cosmological value applied in the traditional settlement across the archipelago represented by three case studies which will be Senaru Village in West Nusa Tenggara, Saga Village in East Nusa Tenggara, and Trunyan Village in Bali. The representative villages are chosen with the parameters of the settlement that are using the grid pattern. There will be an explanation of the factors that influence the spatial arrangement which requires an understanding of both the natural and social factors of the concerned region.

Senaru Village, West Nusa Tenggara

The forming of Traditional Sasak mostly begins with the small village and as the time goes it becomes more complete and wider. From the history it can be known that there often inter-tribal and belief clashes happened a long time ago, that makes each tribe look for a safe space that is difficult to reach by the enemy and prevent the attack, and those resulting in many sasak villages are located spread up the hills.

From the two dimensional view of Sasak village in Senaru (Senaru settlement), there can be identified the notion of seniority that is being applied within the arrangement of the village elements. The pattern and spatial structure resulting in this Senaru Village is completely based on the philosophical value of the sun's path, uniform houses line concept, the idea of Mount Rinjani, and the topography and geographical position of the existing site.

In Senaru Village, as the representation of their local wisdom, until now they still hold the institutional structure of Adat that is binding for all of the residents and physical elements of the village.

According to the configuration of building masses, the pattern and shape of the entire building in the settlement has a correlation with nearby cosmology that made its final orientation as what it is now. There is an imaginary cosmic line in Sasak belief that this is manifested by making the elements of the settlement are oriented towards Mount Rinjani which is where ancestral spirits reside. Furthermore, the picture of the interaction between the tribe and their cosmological environment are well represented by their traditional houses.

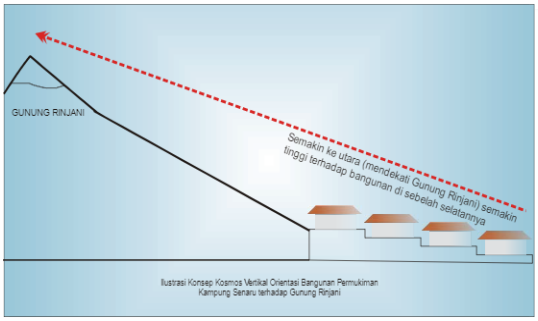


FIGURE 1. Existing Site Plan of PTSDS Villages

The settlement pattern of this Senaru village is typically grid pattern which is similar to a chessboard pattern and is bounded with a kind of fence throughout the village. The orientation of the village layout are going through west with the philosophy of the direction where the Muslim prays, the direction of Qibla. The same thing goes to the spatial arrangement of the traditional houses of Senaru village that are facing mostly to the east and west.

Saga Village

Saga village is one of the traditional villages in Detusoko, Ende district. Every traditional house (Sa'o) is occupied / occupied by a person, mosalaki (traditional leader) in charge, looks after and supervises all families in a traditional house (Sa'o). For the Ende-Lio people, the house not only functions practically as a place to stay but rather reveals cosmological symbols. Home traditional (Sa'o) contained form beliefs and bonds between the divine with human, living harmony society, trust in grandma ancestors and historical origins of the local community.

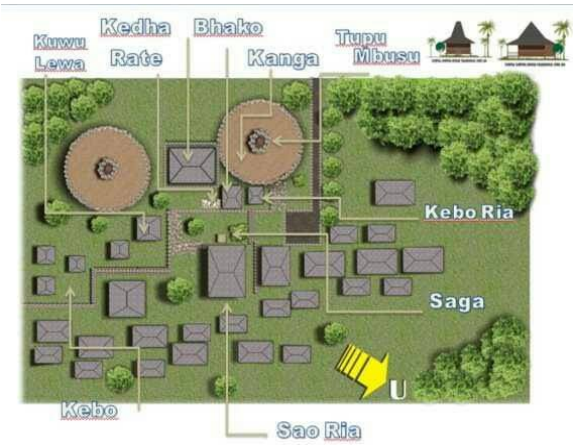
The traditional concept of Ende-Lio, a traditional house only has functional dimension as a place occupancy, but also all at once through certain form elements display cosmological views and profound philosophies. Further again the house is considered a symbol of universe / cosmos, where is the hierarchy the cosmos is displayed in a vertical zone and horizontally.

Saga Indigenous Village is one traditional village residential area traditional architecture of Ende-Lio. The Village Indigenous Saga still holds values from previous cultures as well grandmothers' trust ancestors. Saga Indigenous Village has great potential as a village still maintaining a culture area until now with their existence traditional ceremonial activities are done almost all year long starting from the traditional harvest ceremony which is commonly called the Nggua party usually done in September.

The Saga community believes everything in the world of having lives, including humans already died still considered alive. Saga people know the world into three parts or three layers viz the upper world, the middle world, and the world under. The world above is symbolized as heaven or the highest world, the world is a place of shelter, and activity and the underworld is a world of death or a dirty world.

The house is considered an incarnation from the form of the macrocosm (universe), i.e. the upper, middle, and world world below (Moerdjoko in Mashuri, 2012). Vertical systems are often linked with the divine value on the axis vertical, and more horizontal systems contain human values which leads social relations between humans (Pangarsa, 2006). Traditional architecture in Indonesia says the salient feature is the presence of horizontal and vertical elements formed by columns and beams, symbol of human integrity and nature. both elements and ingredients others are taken directly from nature with a simple process also becomes an important feature of traditional architecture in Indonesia. Based on background then the problem statement is how the concept of cosmology of space vertical and horizontal at home traditional (Sa'o) Saga Indigenous Village, Ende Regency, Flores.

Based on vertical and system analysis horizontal in the Customary Village settlement Saga is influenced by value trust. Cosmology vertically rather the realization of



relationships humans with a divinity address the level of the hierarchy to Sa'o which is divided into three levels viz lewu (foot), one (body) and gara (head). Cosmological view in concept vertical is considered as a form macrocosm of the universe viz the underworld, the world middle (universe), and the world above (sky). The division of vertical concepts too analogous to being a human being. have legs, body and head. The horizontal concept leads to social relations between humans and refers to one central point (cardinal point).

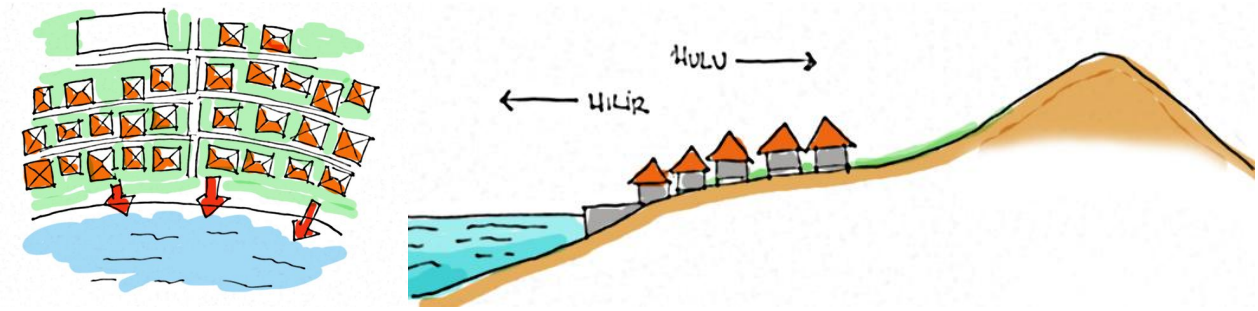
Layout of vertical divisions and horizontally on the Ende Lio Architecture the Saga Indigenous Village resembles wrongly one traditional house in NTT is wrong only in traditional architecture Sumba. Customs and beliefs are held namely "Marapu" i.e. public trust systems that believe in ancestral spirits or deceased ancestors remain alive in their midst and ask for protection and blessings (Typhoon, 2005).

Cosmology horizontally more manifested in social relations humanity / society depicted a metaphor of a mother which is lying which divides in four (4) parts, namely lulu (ulu / head), koja ndawa (puse / middle), dhembi (hand lying) and tent (eco / stretched both legs).

Trunyan Village, Kintamangi, Bali

Gambar 1 dan 2. Lokasi Desa Trunyan dan Peta Desa Trunyan
(sumber : Google dan Dwijendra, 2015)

The location of the traditional village of Trunyan is east of Lake Batur, the orientation of the building mass leads to the lake too. Because of the Balinese building philosophy, the building leads to the lowlands, in this case the lake itself, while the rear is the mountains.



The village pattern is the grid because the building is oriented towards the lake, so that along the edge of the lake, the building faces the lake. In addition to the east, now in the west there are already filled with houses also, because along with the increasing population in this village.

The majority of Trunyan people have a livelihood as fishermen on Lake Batur, Trunyan people are very dependent on the results of the lake in their daily lives, therefore the Trunyan community highly respects Lake Batur which has always been a source of livelihood and community livelihood. local residents, thus affecting the orientation of the local residents. Citizens' buildings lead to Lake Batur.

Traditionally, the cosmology of the Trunyan community is divided into two, namely Sibak Muni (etymologically means a group of men) and sibak luh (group of women). In practice this division is not based on the division of the area of residence but based on the distribution of duties and responsibilities when carrying out the ceremony procession ritual and also not based on gender. Each member of the dadia becomes a member of one sibak / group, and married couples become sibak members of their husbands.

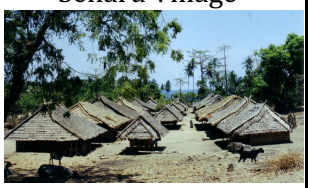
Trunyan Village is located above water level (water belt) so that people's livelihood is farming and rice fields wet is only intended for certain groups of people because of the vast extent limited. With geographical conditions like this, the majority population is cultivators.

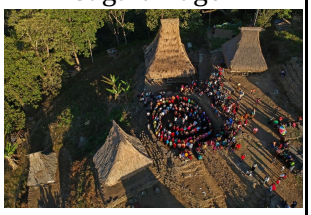
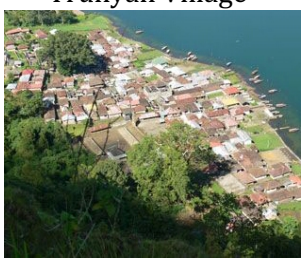
Settlement of Trunyan Village develops the concept of cosmology by setting direction luan or kaja towards Mount Abang and kelod or teben towards Lake Batur. Missing or east direction is to the north and the direction of the kauh or west is to the south. This cosmological concept needed by the community to organize their settlements, arrange the layout functions in settlements. Determination of the concept of cosmology is used for determining spatial hierarchy both at the village level and traditional houses and houses determine the position of luan and teben. Determination of the room or place hierarchy as well taking into account the higher village topographical conditions are usually places which are considered by given more value as a place of worship temple. Pura Pancering The Jagat Bali Temple as the biggest temple in Trunyan Village is located in the kaja luan position and at direction of Mount Batur and there is the main road as the main core plaza and becomes the sacred road at the time of the ceremonial procession and this road is used in the ceremonial process area at the time of the full moon kapat that is at the time of the ngusaba big or ngusaba ceremony performance lanang (Dananjaya 1980).

The position of the grave when viewed from the concept of local cosmology is located on the kangin (north side) in the Bali Aga community in general do not use the axis kangin-kauh for determine the hierarchy of the room, and only use the kaja-kelod axis or luan teben. The eastern position is rarely considered to have a higher value in the traditions of the Bali Aga community and tends to be ignored. The Balinese Aga / Ancient Balinese are more inclined to use right-left position to determine the higher hierarchy. The right position is considered more height from the left position (Siwalatri, 2015) Limited land area is one of the factors that influence layout patterns of traditional houses of society apart from kinship. Houses are built close together among group members or dadia and in the luan position it becomes a more sacred zone for the place of worship of dadia (sanggah dadia). Dadia group houses one with others are usually separated by a path for circulation. Houses built facing towards the lake so that the orientation of the real home is towards the mountain Big brother (kaja), and the group of houses have sanggah dadia which are placed in the direction of kaja.

Settlement across the archipelago case study review

Conditions traditional settlements that exist in Indonesia explored the values and the principles of excellence and compliance with the local culture and belief. In order to know more about the settlement across the archipelago, this table are made to see the differences and similarities between each of the settlements that provide an information consisting the effect of several factor toward the present element of these settlement which are becoming the philosophical and cosmological value manifested in the form of the physical thing; The Settlement.

Settlement	Orientation	Sun Direction	Belief System
Senaru Village 	According to the configuration of building masses, the pattern and shape of the entire building in the settlement has a correlation with nearby cosmology that made its final orientation as what it is now. There is an imaginary cosmic line in Sasak belief that this is manifested by making the elements of the settlement are oriented towards Mount	The pattern and spatial structure resulting in this Senaru Village is completely based on the philosophical value of the sun's path, uniform houses line concept, the idea of Mount Rinjani, and the topography and geographical position of the existing site.	The orientation of the village layout are going through west with the philosophy of the direction where the Muslim prays, the direction of Qibla. The same thing goes to the spatial arrangement of the traditional houses of Senaru village that are facing mostly to the east and west.

	Rinjani which is where ancestral spirits reside.		
Saga Village 	The entire traditional house building surrounds and faces or is oriented to the natar as the center. Natar is a courtyard in the middle of several traditional houses / uma's building groups.	There seems likely no element of the village in general nor the houses inside it have particular correlation with the sun as its consideration factor when establishing the settlement.	The Saga community believes everything in the world of having lives, including humans already dead, is still considered alive. Saga people know the world into three parts or three layers viz the upper world, the middle world, and the world under. The world above is symbolized as heaven or the highest world, the world is a place of shelter, and activity and the underworld is a world of death or a dirty world. The house is considered an incarnation from the form of the macrocosm (universe).
Trunyan Village 	The buildings in Trunyan village are Lake oriented. The majority of Trunyan people have a livelihood as fishermen on Lake Batur, Trunyan people are very dependent on the results of the lake in their daily lives, therefore the Trunyan community highly respects Lake Batur.	The orientation of the village in general and the houses inside it did not have correlation with the sun. Since Lake Batur which has always been a source of livelihood of local residents became the factor that affects the orientation of the local residents. Citizens' buildings are facing toward Lake Batur.	In Trunyan Village, the spiritual lives of people there are quite different from the common Balinese. They divided the grave into three, which are for people who die commonly, people who die uncommonly, and grave for children. Therefore in that settlement, they allocated several parts of the settlement for the grave. There are corpses left to rot and some others are buried.

CONCLUSION AND RECOMMENDATION

From the above explanation, there can be seen that the manifestation of philosophy and cosmological value associated with the community within the region are manifested as the physical appearance that influence the spatial arrangement and design of the settlements. The pattern and spatial structure resulting in traditional settlement particularly the above case studies is mostly based on the philosophical value of the sun's path, the idea of mount or river, the belief system of the live and the death, and also the topography and geographical position of the existing site.

By creating this paper, the researcher would like to know the manifestation of philosophy and cosmological value in traditional settlement in Indonesia and would like to raise the awareness to be more on appreciating the value held by traditional settlement that is still maintained until now. The researcher hopes that there will be more in- depth research regarding this topic for the future research.

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