Bincar-Bonom:
The Basis of Spatial Arrangements of Singengu Village, Indonesia.

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Abstract

Singengu village is the first tapian (land at the banks of the river) inhabited by the ancient Indonesians when they came down from the mountain ranges. Places in the village show some remarkable spatial arrangements of articulated oppositions. Places for women's activities are in the direction of what is called bincar (sunrise), while places for men's activities are in the direction of bonom (sunset). The locations of the tomb also shows similar oppositions. The ancestral grave is in the direction of bonom whereas ancestral descent tomb is in the direction of bincar.

This paper presents a study of the Singengu village in Mandailing Julu, north Sumatera which is a mountainous riverside settlement. Its dual reality of oppositions is a unique phenomenon. The study employed a phenomenological approach; an appropriate paradigm to explore the meanings behind the two realities. It begins with a grand-tour to explore the phenomenon and continue with a mini-tour to deepen the understanding and derive deep insights. It then employs an inductive analysis to reveal the truth obtained through transcendental reduction.

The results show that the Bincar-Bonom direction is the base of spatial settlement as a form of obedience to the Datu (the Creator/God) because Datu is believed always to give a life by the movement of the sun. Bincar directions is a symbol of the future, direction for the young, junior and something new; while the Bonom direction is a symbol of the past, directions for the elderly, seniors and something old. There are three essential concepts which supported and formed Bincar-Bonom as the basis of spatial arrangement of Singengu Village Settlement, ie. (1) the Mangulaki Pangkal (back to the origin) concept, (2) the Banua (the world) concept, and (3) the Parkouman (fraternity) concept. The paper concludes that Bincar-Bonom is a concept that has guided the mountainous riverside settlements with the socio-symbolic-spiritual spatial relations, which is unique to Indonesian Vernacular Settlements.

Keywords: *Bincar-Bonom, Mangulaki Pangkal, Banua, Parkouman,* Socio-symbolic-spiritual spatial, Singengu Village Settlement

Introduction

Most vernacular settlements have their own character, uniqueness and differences arising from traditions and ways of life of people's beliefs and geo-spatial settings. Settlements built on mountains and valleys in fact are very unique. Research on

settlements in mountains can divulge such specificity and richness of local values and approaches to making them. They can provide deep understanding of these settlements so that others can appreciate their uniqueness and character as well as contribute to their well-being. In fact, many lessons can be learnt from them to prepare planned interventions if and when necessary.

There are serious difficulties in understanding the mountain settlements employing general theories of vernacular settlements. For example, in the absence of specific meanings and values of the communities, analysis and findings can become superficial. The essence of a settlement cannot be discovered by ad-hoc alien approaches. Exploring the uniqueness and richness of mountain settlements require an understanding of the contexts morefully and can offer new theories of vernacular with reference to the contextual forces of their existence.

Mountainous settlements with diverse backgrounds have often been studied based on kinship systems, social and cultural systems, cosmology, beliefs, and also natural elements such as mountains, seas and rivers (Nuraini,2012). They indicate that mountainous settlements are unique and the essence of a settlement must be revealed in order to find the local theory. Other studies on mountain settlements focus on spatial formations (Parimin, 1986) based on sacred-profane dualities and spatial systems (Runa, 2004) as related to the social systems and cultures of societies. Research on mountain settlements are also conducted with a focus on tribal governance and spatial planning (Purbadi, 2010) and the punden-based settlements system as a symbol of pangayoman (Rezeki, 2012) which has four characteristics of papan (place). Another focus often found is on settlement spatial plan structures (Han, 1991) those permanent and those that change However,most researchers have not specifically observed the spatial arrangements of settlements primarily at spatial scales.

In Indonesia, there are many such mountain settlements, which can offer greater insights into the ways in which they have been formed, although not many exist. Some observations and research on Singengu village in Mandailaing Julu has shown that there is an interesting phenomenon that has guided its making. Reference here is to two concepts, often presented as a dual term; bincar-bonom. Simply put, these two terms refer to sunrise and sunset. It has been noted that in the Singengu village, the spatial arrangement has been related to bincar-bonom at three different scales, namely the regional scale, village-environmental scale and house scale.

The research presented in this paper examined the concepts of *bincar-bonom* and how it has become the basis of settlements. It raised the following question: What is the nature/meaning behind *bincar-bonom* direction (sunrise-sunset) in forming Singengu village settlement spatial plan? The study aimed to find a theoretical articulation of the Singengu village settlement spatial plan in Mandailaing Julu. Its benefit is to contribute to enhance the present settlement theories, and to increase the understanding of Mandailaing tribes' living culture. It is expected to serve as guidelines for settlement development actions that may be needed to conserve these settlements and the Nature that surrounds them while respecting the unique values of local culture in Indonesia.

Singengu village

Singengu is a village with a status of huta induk (mother village) that has some huta anak (small village). It is located in Kotanopan sub-district, Mandailing Julu area, North Sumatera Province. In fact, Singengu has developed huta anak to east dan west, with Singengu as axis point. The landscapes of Mandailing Julu also shows the same pattern. There are two mountains, 'Tor Sihite' in the West and 'Tor Kulabu' in the East with Singengu as the axis point. Singengu village is situated between two hills, Tawar

hills in the North and Parkutahan hills in South. Singengu village is also crossed by Aek Batang Gadis river flowing from upstream to downstream from the East to the West. The eastern part of the village is bordered by Aek Singengu river flowing from South to North and empties into Aek Batang Gadis. Aek Singangir river from the North also empties into Aek Batang Gadis river. Administratively, Singengu village area does not have clear boundaries because they still use the customary land system. The overall width of Singengu village land is 1092.95 Ha, with the following usage; paddy land area occupies 10 hectares, dry land area is of 716.5 ha, buildings / yard area is of 3.5 ha and the rest are forest and agriculture. Most of the Singengu people are farmers. (Goverment of Mandailing Natal Regency, 2010)

Before living and building huta (kampong/village) in tapian (plains on riverbank area), the ancestral Singengu people lived in tor (mountain). Singengu village is one of the first mountainous riverside settlements and the first tapian that was inhabited by the oldest ancestors when they came down from the mountain. People of Singengu are comprised of three clans, namely Lubis as kahanggi family, Dalimunthe as mora family and Nasution as anakboru family. Lubis as kahanggi is the clan of King's family or huta founder, Dalimunthe as mora is clan of king's wife family and Nasution as anakboru is clan of king's son-in-law family. The three clans family, namely dalihan natolu (basis of three) must exist and become the main requirement in order to build a huta (kampong/village).

The research presented here and its originality lies on three things, (1) locus of the research, as a rural settlement in the mountains on the edge of the river, (2) its orientation towards sunrise-sunset as a basis for the settlement's spatial plan and (3) location of the Singengu village. There has not been any previous research on Singengu village and thus this research is an authentic discussion on the ways in which bincar-bonom has been articulated in this settlement.
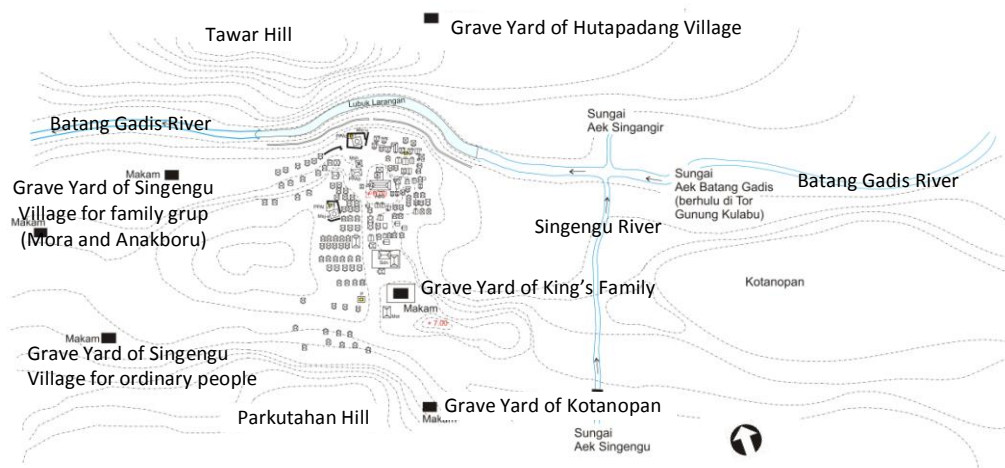

Fig. 1. Landscape of Singengu Village
Source : Minitour, 2012

The grand-tour conducted in the early stages of this research shows that the *huta anak* developed by Singengu, spread across all corners of Mandailaing Julu region. The

interesting fact is that the youngest *huta anak* is located on the most eastern part of Mandailaing Julu (people of Singengu called it as "the direction of *bincar*/ sunrise"), while the oldest *huta anak* is in the most western region ("in direction of *bonom* /sunset"). The decision of Singengu ancestors in the past in choosing the location of Singengu as a place for living, in the landscape that is flanked by two large mountains; in the East (Tor Kulabu) and in the western Mandailaing Julu (Tor Sihite) also shows an awareness of spatial concepts of their settlements.

A Theoretical Orientation

A vernacular settlement is an environment that becomes a space for human life; a living space. Haryadi and Setiawan (1995) point out that the phenomenon of living space should be seen as 'environmental architecture' instead of building architecture. In other words, it is the spaces and environments created by the buildings that matter rather than the buildings themselves. Unfortunately, in most studies of the vernacular settlements, the focus is on the buildings, their character, style, forms and shapes. In this research, the technologies of the material structures have been studied with some observations of space.

The essence of architecture according to Zevi (1957) is space. Zevi proposes that spatial point of view is the most appropriate way to understand the phenomenon of architecture; thus settlements. According to Zevi, architecture rises up to the fourth dimension, i.e. the dimension of time and does not stop at the third dimension. Architecture that is conceived as space is always associated with and is integrated to people. It means to understand architecture is to understand humanity at the same time. The meaning of 'a spatial plan' according to Rapoport (1969) is defined as a physical environment in which the organizational relationships between various kinds of objects and people exist that are separated in certain spaces. Rapoport (1969) also reveals that 'spatial' conceptually emphasizes the interdependence between three important processes, namely (1) the process of activity occuring in an area according to the functional relationship, (2) the providing process of physical facilities that answer the need for space for activities such as form of work place, shelter, transportation and communication, and (3) the process of providing and merging of various parts of the spatial plan as an integrated area.

Hillier (1984) furthers this argument and asserts that space is always associated with people's reality and their lives, which have two structures, namely superficial structure and deep structure. Space as a thing that materializes (tangible) is superficial in nature while the one that does not appear is the deep structure; aspects as its spatial dimension. Architecture according to Hillier (1984) is full of human content in the study of spatial artifacts and evolves towards the concept of spatial culture. People organize the spatial milieu in order to generate a construction called *spatial culture*. *Spatial culture* is a way or a particular space setup that reveals the artifact's relation order based on principle of social order. According to this analysis, there is a very close reciprocal relationship between spatial artifacts as *spatial culture* to the governance or social relations in communities that inhabits or uses artifacts in their life space. At a certain moment, spatial is influenced by the social order and at another moment, social order is influenced by spatial-physical order. Thus, Hillier says that settlements' architecture is a socio-spatial artifact that is very rich in dimension and values.

This shows that the elements forming the physical settlements have physical and non-physical, natural and manufacturing as well as real (visible) characters. Some cultural elements are expressed spatially in the settlement neighborhoods, including beliefs (religious), economic (livelihood), knowledge (formal and informal), kinship systems and

social relations, the system of inheritance / distribution of wealth to the offspring, various arts, engineering (including spatial plan) Nature and natural conditions.

A settlement is always manifested in two forms, i.e. as a container and content. A container refers to the container of social activities, while a content is actualization of spirit (mental thing or mental spirit). Mental space in the form of values, symbols, spirit/soul will realize space as something intangible. In a religious person's mind, a space or place is not homogeneous yet different, thus it forms a space or place that is sacred and profane. Sacred is the conception of a reality considered different from the reality of Nature due to the perception or views regarding the presence of a force. These forces might be derived from Nature, spirit and the Creator. A space or place is profane in nature because they are considered to be homogeneous, neutral and contain no difference in quality. The grant of sacred nature gives rise to the so-called universal pillar (*axis mundi*) which connects three types of the world, namely upward (upper world/world-purified/heavenly), center of the world (middle world, the world is, the real world of human/cosmos/earth) and downward (underworld/death world/other world) (Eliade, 1959).

The concept of the sacred-profane is conceived as the relationship of space and time that is subjective in Nature ("upper world" and the "underworld") and objective (middle world) through the world of traditional social experiences (Tuan, 2008). Time can serve as a measure of distance quality so it is known as a spatio temporal world that may have time world character (the objective world) and subjective world that is not measured by distance and time, or as called by Tuan (2008) as timelessness.

Sacred or profane manifests in the conception of circular space (Geertz, 1983). Central figure (center point of the power) is in central / middle area and fizzles out towards the periphery. This can be seen in places or areas in which palace, temple, and shrine and activity center are surrounded by secondary and tertiary activities. On such spot or space, different forces will affect the formation of space hierarchy and social status stratification socially, culturally and politically.

A settlement as a physical phenomenon provides an opportunity to become diverse, as a result of public response with various physical environments, social, cultural and economic background. The influence of setting or the hue of environment both physical and non-physical (socio-cultural) directly influences the activity patterns and the processes of gathering. The social system in the form of clan-based kinship (group identity) on a society with other social systems with the same inhabiting cultural backgrounds (eg in-mountains inhabiting culture) will generate different spatial concepts. Moreover, if a different social and cultural system exists, it will certainly produce a different spatial plan of settlement. The social and cultural system of a community group will form a different and unique spatial plan of settlement in accordance with the understanding of each group on a settlement (Rapoport, 1969).

The mountainous natural conditions that are different from lowland area cause differences in people's creativity in having certain attitude to their settlement environment. Hefner (1999, in Rejeki, 2012) revealed that the mountain community always considers natural potential, spiritual attitude towards the mountain and kinship in shaping their neighborhoods. Sumardjo (2002) described the basic ideology of the mountains community as two-division or three-division ideologies. The two-division ideology is the presence of micro-cosmos and macro cosmos elements, while the three-division ideology reveals self position to the environment. Mountains are considered as part of the macro-cosmos while human as micro-cosmos elements have to address the macro-cosmos well. This understanding leads to particular views for the community who live in the mountains; that is they are not familiar with levels or strata in kinship. Mountainous community always keeps their relationship to the mountain in the form of

traditions, rituals and beliefs to the legends associated with the mountain, including in the form of spatial settlement.

Mountainous settlements that exist in some places in Indonesia emphasize the ideology or primitive classification known as division of the world associated with the concept of Hindu cosmology (Koencaranigrat, 2004). Hindu cosmology emphasizes the natural function/world as macro-cosmos (the great globe) and personal/home as a micro-cosmos (little globe). Macro-cosmos relationship between God and human is expressed in spatial form of settlement, as seen in the pattern of settlement in Java or settlement system in Bali due to the influence of Majapahit, it is also found in mountainous settlements in Lombok, Nusa Tenggara Barat (Mulyadi, 2001).

Research Methodology

The focus of the research presented here is on the spatial arrangement of the Singengu village settlement in Mandailing Julu. In conjunction with *bincar-bonom* (sunrise-sunset) and with its cultural background, it is believed to have the 'real' reality (tangible) to the transcendent (ideas and values). Hence, the most appropriate research approach for this study comes from the phenomenological paradigm with inductive-qualitative methods that can holistically examine the issue of spatial organisation of the Singengu rural settlement in depth.

Phenomenology according to Husserl (Smith, 2007; Crowell, 2001) is an attempt to understand the consciousness as experienced from the first-person perspective. The essence of Husserl's phenomenology according to Smith (2007) is the awareness that is directed or intentionality (consciousness directivity). Intentionality has a deep meaning, i.e. act directivity that aims to an object to know the true essence of a phenomenon. The effort to reach the essence of things is through a process of phenomenon filtering, or the so-called reduction (Husserl, 1970). Reduction according to Husserl (1970) consists of three stages: (1) phenomenology reduction, i.e. filtering some experiences to get the phenomenon in the pure form (real phenomenon), or uncover what is visible, (2) eidetic reduction, i.e. reduction to uncover eidos (truth/essence) or the essence of the phenomenon, and (3) transcendental reduction, i.e.reduction done to get at the meaning or ultimate truth.

The study is conducted through several stages. First, the exploration of theories relevant to the research is done through a literature survey that serves as knowledge background to help the researcher see and interpret the phenomenon. Furthermore,a 'grand-tour' is conducted to see the initial phenomena that can be experienced and followed with a mini-tour to deepen the observations on objects or information that often reveals and keeps repeating, especially the one related to the direction of sunrise-sunset. All information obtained during the grand-tour and mini-tour is collected and compiled in a logbook and then a categorization is made.

The categorization of information units obtained during the grand-tour and the mini-tour is then reduced through phenomenology reduction to obtain appropriate data for the actual situation at the field. The next stage is to reveal the essence of the phenomenon through eidetic level reduction. The eidetic level reduction in this study consists of three phases. The first phase reduction is conducted on 34 groups of information units and produces 13 sub-themes, while the second stage reduction is done on the 13 sub-themes forming seven empirical themes. For the needs of data validity, triangulation is done continuously, until the stage of data saturation. Furthermore, the third stage reduction is done by analyzing the seven empirical themes so it generates the main concepts underlying the formation of Singengu village settlement.

Once the eidetic essence of the phenomena is formed, the next stage is to perform the transcendental reduction of the final concepts to get at the ultimate truth. The result of the transcendental reduction generates the essence/meaning of all phenomena as a finding of a new theory. The abstraction that leads to the finding of *bincar-bonom* actually has been seen since the first stage of the eidetic reduction level is done and produces empirical sub-themes, which consist of places. After an in-depth examination, it is found that spatial direction in the settlement can be seen in every place. This fact further emphasizes the indication that the direction of sunrise-sunset is the basis for the formation of the spatial plan of the Singengu village.

The Research Outcome: The Deeper Meanings of Singengu Village

Singengu village Settlement is the result of 'architecture work' (meaning conceptualising space and building) of Mandailing tribal people planned with full awareness and purpose, based on the depth of thought insight and owned since the earlier times until the present. The agreement on *bincar-bonom* awareness set in motion by the ancestors act as a sacred guide for every next generation. *Bincar* (which means sunrise) and *bonom* (which means sunset) are not merely terms to indicate the direction of sunrise and sunset, but have become principal guidelines in arranging living spaces in the residential areas. *Bincar* is identical with youth, junior and new, while *bonom* is identical to the aged, senior and old, as llustrated in Figure 2. *Bincar-Bonom* as the direction of sunrise sunset becomes the base of forming Singengu rural settlement spatial plan which is empirically translated in the form of placement, setting or location of physical elements of settlements in the three spatial scales in such a way, so it is always on the *bincar bonom* axis with an emphasis on three important relations, i.e. the relation between people, present day people to the ancestors, and all people to the Creator.
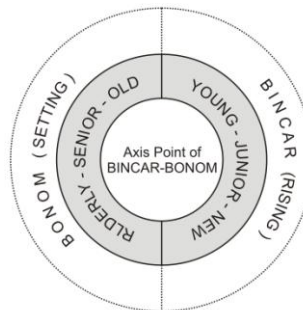

Fig. 2. The local theory of *Bincar-Bonom*
(Source : Analysis, 2014)

What is most commonly found at village scale is the tendency of the direction of sunrise and sunset in forming the Singengu village settlement. Three of them, namely (a) clear separation between sites for men's activities in the direction of *bonom* and women's in *bincar* direction, (b) the inheritance of the parents is always among elder children's homes (*bonom* direction) and the young children's (the direction of *bincar*), and (c) the tomb as a corpse place is in the direction of *bonom* while *poken* (market) as the central gathering place of people who are still alive is in the direction of *bincar*.

At house scale, some interesting facts indicated by the orientation of the house have a tendency to relate to the same orientation, that is *marsiadopan* (facing) with a north-south orientation. There is no east-west-oriented house. Doors and stairs as the access to houses are always placed in the direction of *bincar*. Spaces in the houses are also always developed to *bincar* direction, so former spaces are always in *bonom* direction. Reflective space sketch of each house has put the old space remains on position

in *bonom* direction (such as parent's bedrooms) while the *bincar* direction always becomes a place for developing new spaces (such as the heir child's bedroom who has been married).

The Bincar-Bonom local theory as the basis of Singengu rural settlement spatial plan refers to the empirical reality of 13 places as sub-themes, as follows.

(1) the place of worship	(8) the earlier time place,
(2) the place of direction of motion	(9) the place of units of relatives,
(3) the place of *Huta* founder	(10) the place for a living,
(4) the place of assembly	(11) the present place,
(5) the place for women	(12) the place of *huta induk -huta anak**
(6) the place for men	(13) the place of divider.
(7) the prohibition place,	* main village-small village

The 13 sub-themes form three concepts, namely (1) the concept of *parkouman* (brotherhood), (2) the concept *banua* (world: *Huta* and *Huta ruar*) and the concept *Mangulaki pangkal* (return to home).

1. *Parkouman* Concept

A settlement in Mandailaing, can only be built if there are three clan family groups (*Dalihan Natolu* / the three base) that are mutually *marsambar bulung* (give and accept each other in marriage mutually) and form a *parkouman* (brotherhood). *Parkouman* in the form of three clan family groups arranges its place in the settlement based on the *Bonom Bincar*-axis. Group of *Kahanggi* as a forerunner of the leader (king) and is the senior (the oldest), is placed in the direction of *bonom*. Group of *anakboru* family as the group of son or daughter in law family and is a junior (the youngest) is placed in the direction of *bincar*, while *mora* as a group of most respected families (because of his position as king's "*besan*") and act as advisors are in *tonga* (middle), between *kahanggi* and *anakboru* family. The illustrations can be seen in Figure 3.
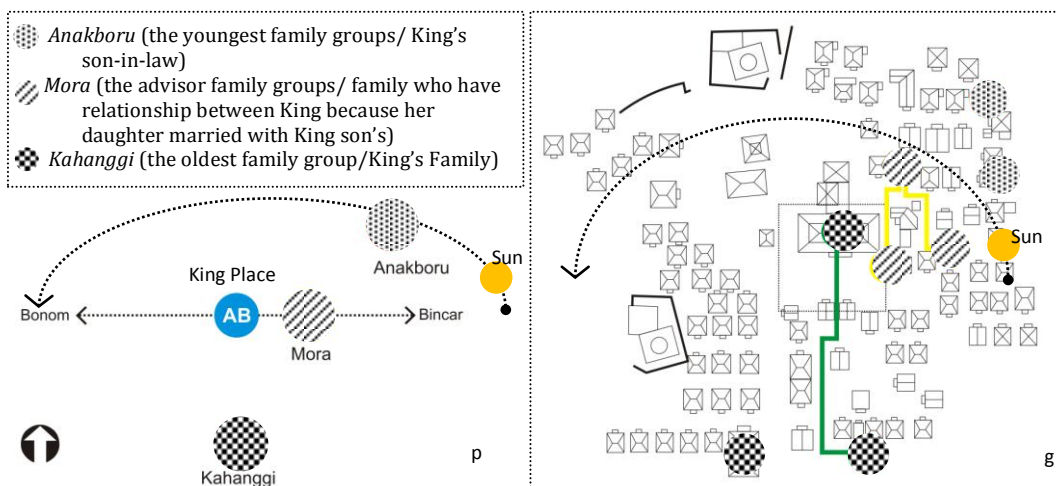

Fig. 3. The spasial arrangement of *Kahanggi*, *mora* and *anakboru* that according to the *Bincar-Bonom* principles
(Source : Analysis, 2014)

Parkouman on the environment scale also shows a trend in the same direction in translating *bincar-bonom*. Parents' house is always at the direction of *bonom*, while children's houses are at the direction of *bincar*. If there are several children, then the youngest child's house is placed at the direction of *bincar*, while the elder children's houses are at the direction of *bonom*. The youngest child as the heir remains to live in parents' heirloom house, see figure 4.
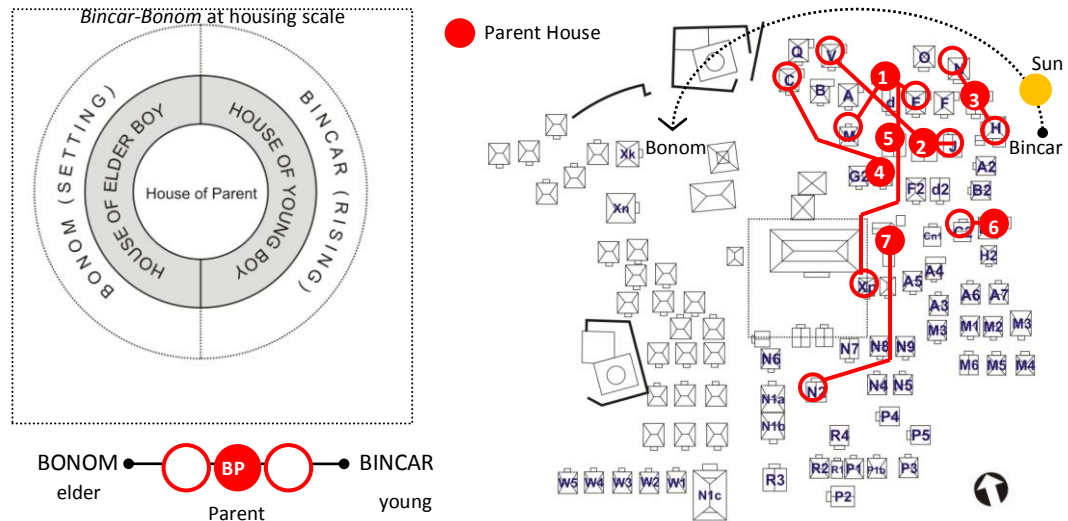

Fig. 4. House spatial arrangement for young-elder according to *Bonom Bincar* principles
(Source : Analysis, 2014)

At the house scale, spaces for the young and the old are also set in accordance to *bonom-bincar* axis. The parents' bedroom is at the direction of *bonom* while the child's bedroom is at the direction *bincar*. Houses that are built with the concept of *marsiadopan* (facing towards) are also representing forms of *bincar-bonom* axis consciousness that always place the parents' bedroom at the direction of *bonom*, as seen in figure 5.
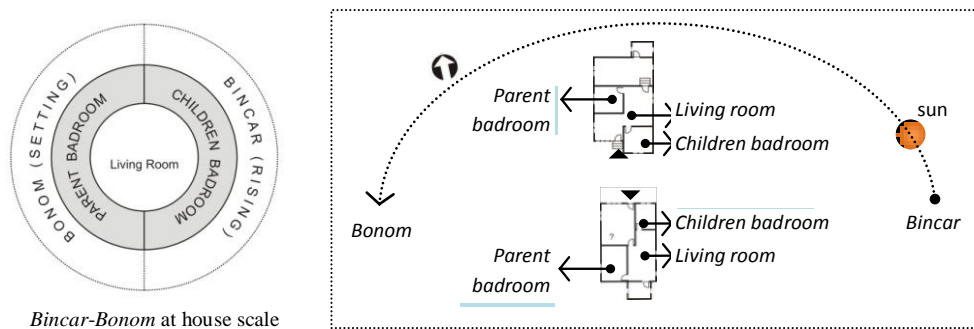

Fig. 5. Bedroom arrangement for parents and son according to *Bonom Bincar* principles
(Source : Analysis, 2014)

A settlement which has been formed by *parkouman* of three clan groups is considered to have custom completeness. The settlements will continue to develop. To expand the area of power and to grow offspring, the king will send three groups of clan family from the settlements of origin to open new settlements. This process of

development of new settlements then forms the parent *Huta* (hometown/parent village) and child *Huta* (hometown/child village). Huta means that the village is interpreted as *banua* (world). Banua means that the world consists of two places, namely Huta as the village of birthplace and *huta ruar* as the village to live after getting married. Thus, *parkouman* as the first concept which forms Singengu rural settlement at the next stage will form *banua* (world).

2. *Banua* (world) Concept

Banua means the world and for recent generations, *banua* consists of two forms, *Huta* (village) and *Huta ruar* (outside village). *Huta* is *tano inganan sorang* (land of birth) while *huta ruar* is a place to live after getting married. *Singengi* as *parent Huta* has some *Huta ruar* which are developed to the direction of *bincar-bonom*. Huta ruar development by young child is made toward *bincar* direction, while the older children develop *huta ruar* to *bonom* direction, as illustrated in Figure 6.
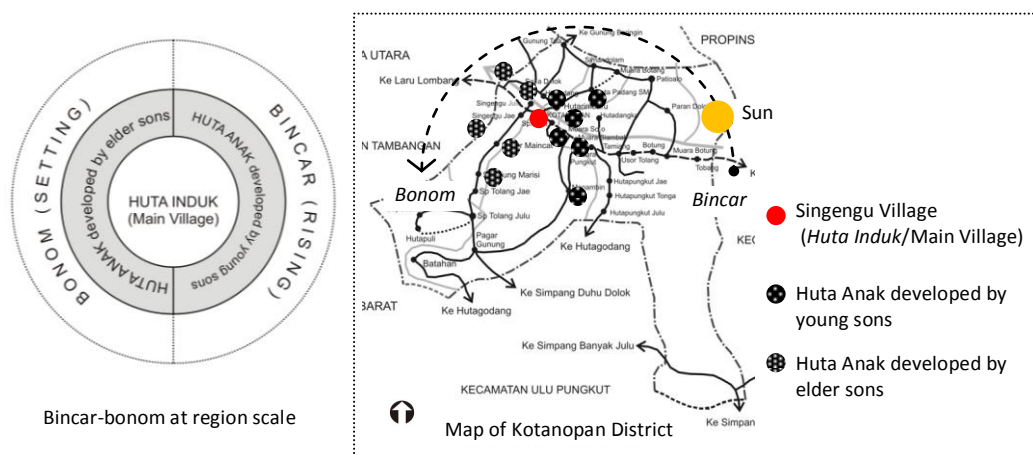

Bincar-bonom at region scale

Map of Kotanopan District

Fig. 6. Spatial arrangement of *Huta* scattered according to *Bincar-Bonom* principles
(Source : Analysis, 2014)

The analysis that has been carried out on the concept of banua demonstrates that *Huta* and *Huta ruar* as two forms of banua in *tapian* at the macro scale, is developed to direction of *bincar* (sunrise) and direction of *bonom* (sunset). At *huta*/village meso scale, the Singengu village's spatial plan also follows *bincar-bonom* principle. At the micro scale, *bagas* (the house) as the smallest form of banua also always develops new spaces towards *bincar* direction (sunrise) so new spaces at *bonom* direction are never found. This forms a conclusion that concept of banua as the second concept (after *parkouman*) underlying the formation of Singengu rural settlement also uses the principle of *bincar-bonom*.

Huta that is developed at *bincar* (sunrise) and *bonom* (sunset) direction always leads to places of *tor* (mountain). It is done because of the understanding of tor (mountain) as the place of origin. The place of origin always becomes a place of "return" as the place of origin is always identical with the source of life, namely water. Hence, in order to survive in *banua* (world) then *Huta* and *Huta ruar* should always refer to the where the *tor* (mountain) is. This is called *mangulaki pangkal* (back to the origin) as the third concept that forms Singengu rural settlements. Huta always *mangulaki pangkal*, ie back to the places where the *tor* (mountain) is. The explanation of *mangulaki pangkal* concept is outlined in the following description.

3. The concept of *Mangulaki Pangkal* (back to the origin)

Mangulaki pangkal in the true sense is an effort to strengthen the bonding of kinship therefore it will not be broken up. *Mangulaki pangkal* is basically one of the traditional principles used as a tool to continue the clans, so the lineage of the clan will not be broken. *Mangulaki Pangkal* as a tool to continue the clan also is a tool to establish a continuous relationship with the ancestors through the development of *Hutas* to the direction of places of tor (mountain) and *dolok* (hills) as the ancestral's place of origin. At the time the ancestors come down the mountain and live in *tapian*, the ancestors have chosen Singengu village as a place that is right in the middle Mandailing Julu landscape. The position is characterized by the presence of two hills that flank Singengu, those are Parkutahan hills in the south and Tawar hills in the north and also two large mountains that flank in two directions. They are mountains *tor* Sihite in the northwest and mountain *tor* Kulabu in the southeast (Figure 7).
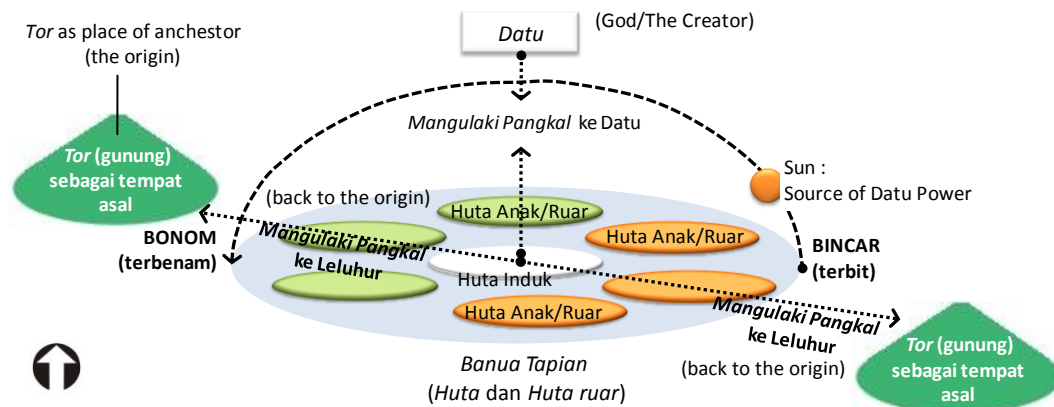

Fig. 7. *Huta Anak/Ruar* (small villages) always *mangulaki pangkal* to *Tor* (Mountain) and *Datu* (The Creator) through *bincar-bonom* axis
(Source : Analysis, 2014)

The concept of *mangulaki pangkal* on regional scale can be described as follows:

a. The bodies of *mangulaki pangkal* (back to the origin) ancestors, i.e. to the place of origin, a first stop over on the way down the mountain and the origin / first place of staying in *tapian*. Senior ancestors are buried in Tor Sihite, at the direction of *bonom* while junior ancestors are buried in Tor Tatinggi, at the direction of *bincar*.

b. *Huta ruar* (outside village as smallest) is always *mangulaki pangkal* (back to the origin), to the origin/first place the ancestor inhabited, ie *tor* (mountain). *Huta ruar* develops to the direction of *tor* (mountains) since *tor* is considered as the place of origin and the place to return. *Huta ruar* by the younger children is developed toward the *tor* at the direction of *bincar*, while *Huta ruar* by older children is expanded toward the *tor* at the direction of *bonom*. The youngest son as the heir remains to live in the *Huta* (village of origin).

The concept of *mangulaki pangkal* at the environment/village scale can be explained that people of Singengu do *mangulaki pangkal* to Kotanopan in *bincar* (as the initial/first place of the ancestor settled after coming down the mountain) by placing Kotanopan as *poken* (traditional market) center of Mandailing Julu villages. *Poken* in *bincar* becomes a gathering place for all Mandailing people in the tradition of *mardomu*

daro (meet with blood relatives) on every Saturday. An area at bonom direction is the place for the bodies of those who have died that is pakkuburan (tomb).

The concept of *mangulaki pangkal* at the building scale can be seen that the new spaces in *bagas* (house) is *mangulaki pangkal* (back to the origin) towards the beginning/origin of life that is *bincar* (sunrise), so the development is always at the direction of *bincar* (sunrise). The old spaces remain in *bonom*. The parents' bedroom is always at the direction of bonom, while the children's bedroom is at the direction of *bincar*.
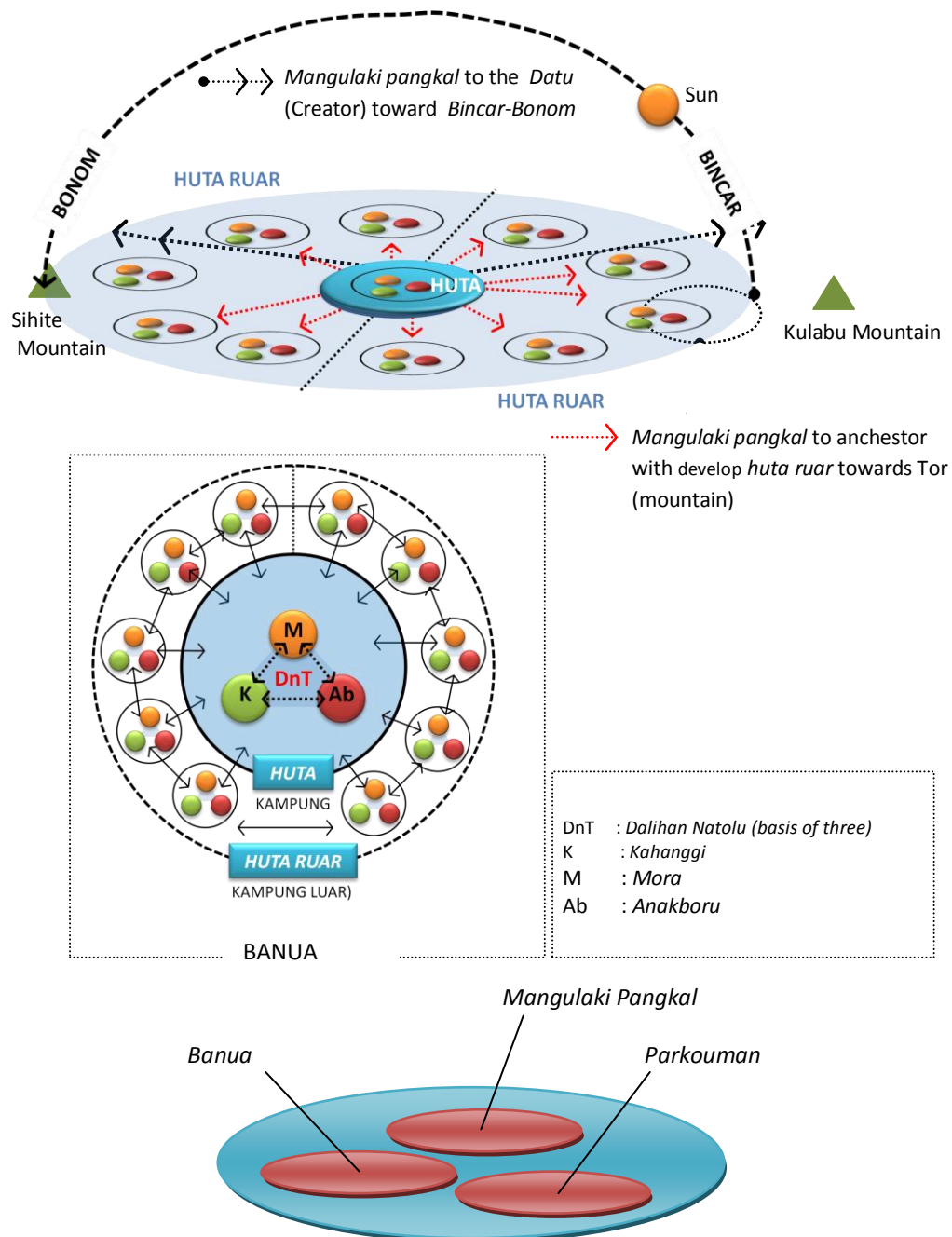

Fig. 8. Three concepts of Singengu village settlements
(Source : Analisis, 2013)

Bincar-bonom sets the hierarchical relationship at all spatial scales. At the macro spatial scale of village and region, *bincar-bonom* organizes the hierarchical relationship between the parent *Huta* and the child *Huta* by placing Singengu village in the middle as the *bonom-bincar* axis point. Singengu as a parent develops child *huta* toward *bincar* direction done by the younger child while the older child develops *huta* towards *bonom* direction. A child *huta* may progress to be a parent *huta*. To become a parent *huta*, a child *huta* must develop new other *Hutas*. In the process of *mamungka huta* (open village) of a new *huta*, *bincar-bonom* formation is re-done. That is a new huta at the *bonom* direction that is developed by older children while younger children develop *huta* at *bincar* direction. The process has been kept being done since the ancestors of the Mandailing people who first established a settlement, as illustrated in Figure 8.

Singengu rural settlement basically has hierarchically and transcendent inter-human relations that continues all the time. The relationship contains ideas about the structure of the three dimensional spaces that are transcendent in nature. *Bincar-bonom* which at first is as if merely sets the hierarchical and transcendent relationships among humans, the clan group and *huta* later turns into a basic foundation or way of thinking that is always used in everyday life of Singengu village people. The local idea containing substance of *bincar-bonom* axis turns into indigenous knowledge that is stored in community cognitions thus affect the mind continuously and is materialized in the form of behavior that always creates *bonom-bincar* spatial plan.

The purpose of life for the Singengu village people is to retain a continuous relationship with the ancestors and the Creator for *tondi* (zest, soul, spirit) that is in every human being to be maintained. The effort to establish a continuous relationship with the Creator is carried out through an attitude of constructing a spatial plan that always refers to *bincar-bonom* axis as the direction of sunrise-sunset, due to the thought of the sun as the source of *Datu*'s strength. *Datu* as the owner of *tondi* gives life to human beings through the direction of sunrise-sunset. So by always referring to the direction of sunrise-and sunset, human beings may continue to live.

Tondi existing in every human being must always be protected, preserved and maintained continuously in order to live a life in the world by achieving meaningful glory (*hamoraon*) in spiritual wealth. *Hamoraon* before the Creator (*Datu* / God) can be achieved if the spiritual wealth is maintained continuously by complying with all *patik*, *uhum dohot ugari*. *Patik* is ethical behavior while *uhum* is binding norms, rules, regulations that are used as a guide to behave. *Uhum* has forced power, meaning that, if it is broken then there will be a penalty. *Ugari* is a rule that has been set by the ancestors that must be respected, obeyed and executed from the past to now, which always refers to the direction of *bincar-bonom* in all respects.

Theoretical Diologue

Theories related to the concept of settlements have asserted that space is always related to the reality of human being and their lives. A settlement as a work of architecture always places human beings as the main aspect called human content and creates relationships with artifacts which in the long run lead to socio culture (Hillier, 1984). The environmental design or settlement architecture is a socio-spatial artefact. Thus, the core of Hillier's (1984) theory lies in the relation between "people" to "people".

Waterson's (1990) concept on the social and symbolic space also states that space becomes a determinant of human behavior that will specifically show the social relations of its inhabitants. The emphasis of Waterson (1990) also lies in the element of people therefore a settlement on the basis of social-symbolic space is established. Han (1991) also emphasizes the human aspects through cognition to understand a settlement that is categorized into two fundamental relationships, namely the global space and elements

space. The global space is based on human cognition, while the element space is the relation of objects as settlements elements filler. Thus, the emphasis of Han (1991) also lies in the aspect of people.

This study of the Singengu village indicates that a settlement is not only related to the socio-spatial course/aspect, which emphasizes human relations with repository objects; or is not merely related to the socio-symbolic spatial, which also emphasizes human relations with objects; or is not also just global-element space that emphasizes human relationships with objects. It is deeper, that is associated with socio-symbolic-spiritual triology with the spatial. Indeed, the relations between socio-symbolic-spiritual-spatial become the basis of forming the settlements. The site plan not only refers to the relationship between people and objects or objects with objects, or artifacts with people, or artifacts with objects but refers to the highest substance, namely God. The relation of socio-symbolic-spiritual-spatial is generated from the phenomenon of the Singengu rural settlement proved to be a local theory that can be used to understand the phenomenon of river bank mountainous settlements in Mandailaing Julu, North Sumatra. Bincar-bonom is a settlement theory with socio-symbolic-spiritual-spatial relations as its main characterisic. The position of Bonom-bincar theory to other settlement theories can be seen in Figure 11.
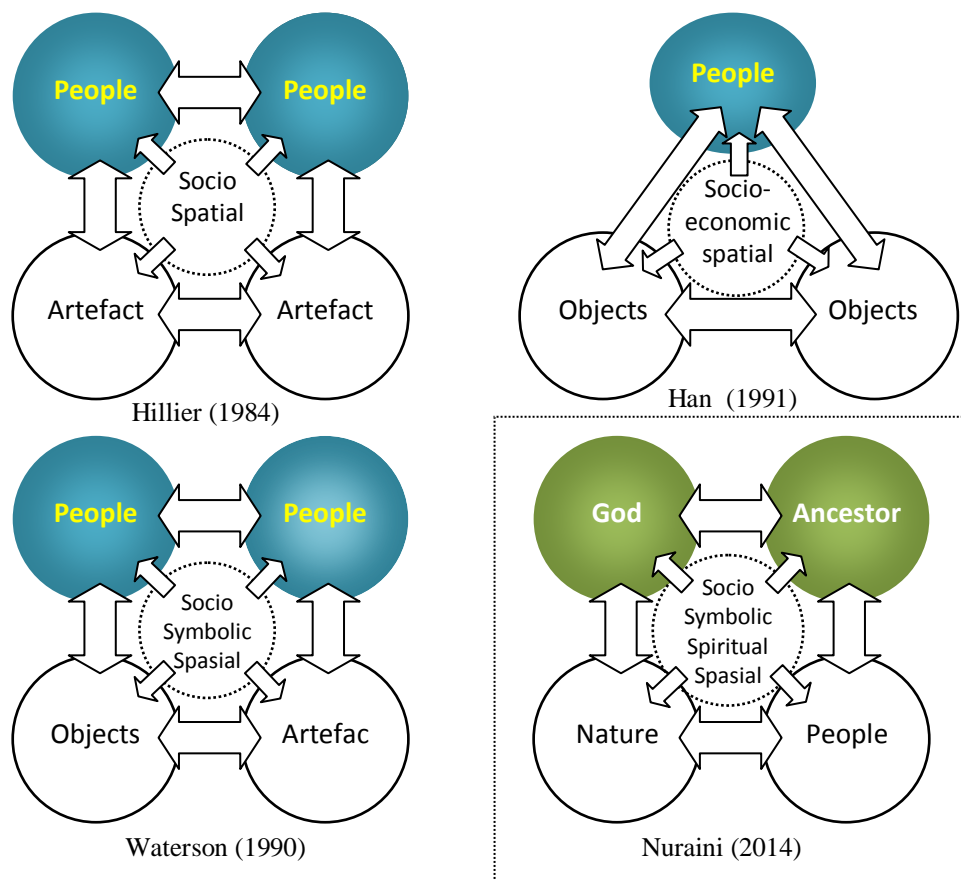

Fig. 11. The position of *Bonom-bincar* theory with other settlement theories
(Source: Analysis, 2014)

Conclusion

This reserach revealed that the Bincar-Bonom as the basis of Singengu rural settlement spatial plan has been translated into all scales of space with the highest philosophical foundations that refer to the existence of Datu (the Creator). The people of Mandailing in Singengu village believe that every place and every human being was awarded tondi (zest, soul, spirit) by the Creator, so that in carrying out life, people must always keep tondi in order to reach hamoraon (glory) of life. An effort that should continuosly be made to maintain tondi is through a continuous rapport with the Creator through the philosophy of Bincar-Bonom axis. Making uninterrupted relationships with Datu as the Creator also means that there are efforts among the Singengu people to live in timelessness, just like the cycle of sunrise-sunset that always happens and is 'timeless', since after the sunset, it always rises again.

The nature of the existence of Singengu village spatially is formed by the symbolic pattern of Bincar-bonom axis that regulates the relationship between the older and the younger, the seniors and juniors, the old and the new. This symbolic pattern has been a guide and at the same time has been a guide to the development of Singengu village up until now. Thus the existence of Singengu village from the past to present shows a 'woven-continuity' and binding at the same time among "transcendental existence consciousness", "intentional existing consciousness" and "existential existence consciousness". The essence of Singengu village existence is maintained since the village existence core is consciously preserved. The core existence of Singengu village is an extending space landscape from the direction of Bonom to the direction of Bincar and it is flanked by two hills and exceeded by rivers. The core existence of Mandailing Julu settlements is an extending space landscape from Tor Kulabu in the direction of Bincar to Tor Sihite in direction of Bonom with Singengu village positioned as the axis point.

The results of this theoretical dialogue shows that Singengu village as a central point for the formation of 'spots' is arranged and marked by objective spaces in the form of Huta ruar and parginjang-partoru subjective spaces that is arranged with a transcendental consciousness of its inhabitants, so it is always on bincar-bonom axis. Bincar-bonom has uncovered all the layers of architecture "blanket" of Singengu rural settlement and finds the essence or meaning of Singengu rural settlement spatial plan. Singengu rural settlement spatial plan that is built by a transcendental consciousness of its occupants puts Datu (Creator) by means of the relations between the human beings and the Creator. It is not simply a socio-symbolic spatial relation but also a socio-symbolic-spiritual-spatial relation which is articulated by the bincar-bonom as the basis.

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