

## **Revitalisation of Traditional Settlement Impact on Social and Cultural System Dani Tribe in Jayawijaya District Papua Indonesia**

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### **Abstract**

The processes of buildings and environments arrangement consist of development activities that are technical planning and construction, utilization, conservation, buildings and the environment demolition. Heritage area / building can be defined as the area that has connection with the past life more than 50 years, which may be buildings, settlements or other public facilities that are used collectively. The development progresses that have occurred over two decades ago are often implemented only based on economic considerations and the function of the area. The tendency is to ignore the considerations of tradition and history. The change of social and culture values happen as a global phenomenon which tend to emphasize the value of the economic benefit / financial.

Revitalization undertaken by the Ministry of Public Works through the PIU Building Planning and Environment (PBL) in the Papua Traditional Settlement Region in Kampung Waisaput Distric Wamena, Jayawijaya, Papua in 2009, is an attempt to change the place to be used for a more appropriate function. The meaning of appropriate function here is the uses that do not require drastic changes, or just bring minimal impact.

How the revitalization impact on the Dani socio-cultural systems will be assessed using Malinowski's theory of functionalism to understand the function of culture to human needs. And the use of the theory of traditional houses is to illustrate how the traditional house shape in one region and culture can be different. If the revitalization can increase the social and cultural value of the occupants, then what steps that need to be considered that are applicable in other activities to improve the quality of development in the traditional societies live.

Therefore, this study seeks to give an idea, what the impact of government programs (in this case the traditional neighborhood revitalization by the Ministry of Public Works) to change the culture of the Dani system from the perspective of functionalism and traditional houses theory are. The study of traditional settlements equipped with description and view from architectural theory as a foundation for the theory of residential areas revitalization in architectural research.

**Keywords :** Social and cultural, government programs, study

### **I. Introduction**

The implementation of buildings and environments arrangement consist of development activities that are technical planning and construction, utilization, conservation, and buildings and the environment demolition. Heritage area/building can be defined as the area that has connection with the past life more than 50 years, which may be buildings, settlements or other public facilities that are used collectively. The development progresses

that has occurred over two decades ago are often implemented only based on economic considerations and the function of the area. The tendency is often ignore the considerations of tradition and history. The change of social and culture values happen as a global phenomenon which tends to emphasize the value of the economic benefit/financial. The negative impacts happened, due to the neglection of essential values on the development as described above, namely the declining number of heritage

buildings and areas in most of the cities in Indonesia during the last ten years. The result of the swift development activities that are tend to be oriented on economic growth, will gradually eliminate the traces of history, that form the built environment.

Revitalization programs related to the preservation (conservation) are in harmony with the intention and purpose of the Republic of Indonesia Law No. 5 of 1992 on Cultural Heritage. Conservation is an umbrella term for all preservation activities (The Burra Charter for the conservation of significant cultural place, 198, p2). Conservation is the whole process to manage a place therefor the cultural value could be protected and maintained. Conservation and protection can cover all the activities, such as maintenance, management, utilization, and oversight by a statutory regulations. Implementation of conservation may include preservation, restoration, reconstruction, restoration and management. Implementation of repair, restoration, protection and maintenance of the building and its environment can only be done as long as they do not change the cultural heritage value and/or characters and administratively implemented in an orderly manner, ensuring the airworthiness and environmental functions of the building in accordance with the legislation. Protection and preservation activities include the establishment, utilization, maintenance, restoration, and also the supervisory activities performed by following the preservation rules and utilizing science and technology.

The use of functionalism theory in anthropology studies conducted to understand what the function of culture to the human are. And also, how the functionalism theory and theory of architecture are used to assess the impact of the revitalization program in the traditional settlement areas. The case studies in this paper seek to understand the impact of the traditional neighborhoods (traditional region) revitalization on the Dani socio-cultural and economic systems in Waisaput, Wamena, Jayawijaya, Papua province.

Therefore, this study seeks to give an idea, what the impact of government programs (in this case the traditional neighborhood revitalization by the Ministry of Public Works) to change the culture of the Dani system from the perspective of functionalism and traditional houses theory are. The study of traditional settlements equipped with description and view from architectural theory as a foundation for the theory of residential areas revitalization in architectural research.

## **II. Functional and Traditional Houses Theory Approach**

### **A. Overview Functionalism Malinowski**

According Mansoben (Uncen, 2013) The rationale for developing a functional approach begin with an attempt to answer the question : What are the Function of Culture? Malinowski functionalist view: wherever, humans always have needs that are biologically and psychologically, which is divided into three basic needs.

The function of culture according to Malinowski is to meet the basic human needs in biological, instrumental and integrative aspects. Each of these needs will be met by the culture in accordance with the growth experienced by the community at a time. All these aspects are element of the human life cycle from birth to old age that are different according to location, time and rate of knowledge progression.

### **B. Review of Theory of Traditional Houses**

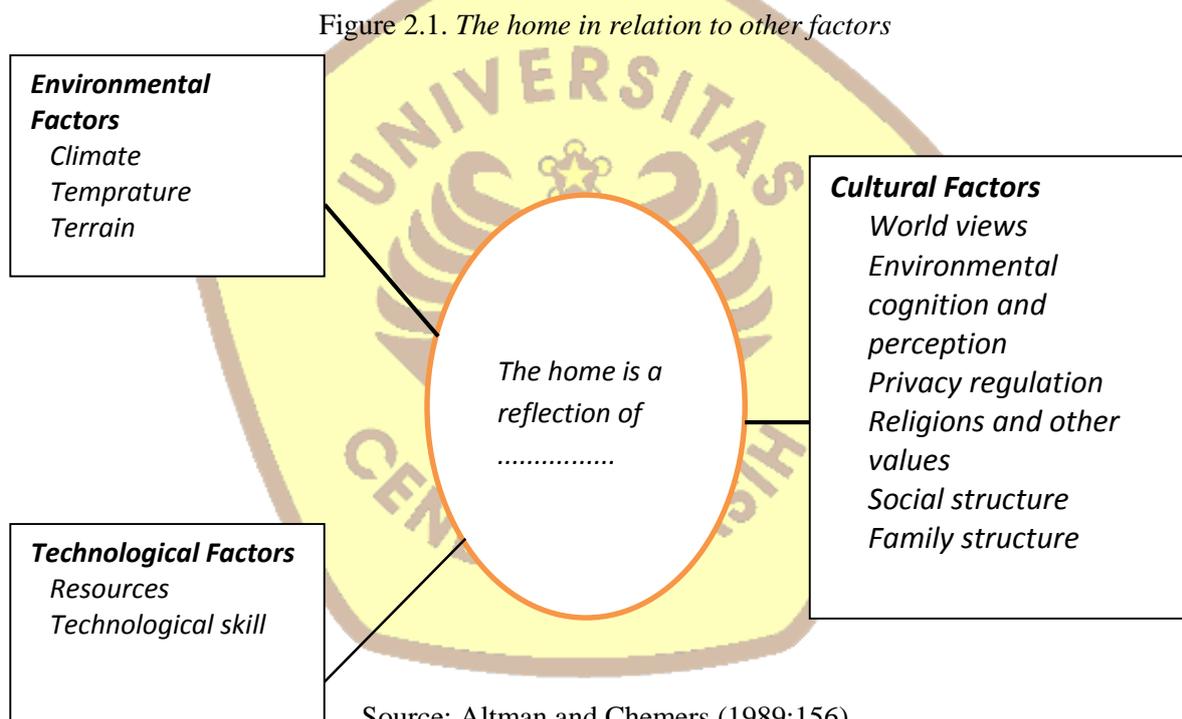
Architecture field has developed rapidly and began to take advantage of other variety disciplines such as cultural studies, anthropology and psychology, the result is the anthropology and psychology's role in giving direction to the study of traditional architecture, vernacular and environment.

According to Edney, 1976 in Altman and Chemers (1989:137), we can emphasize two functions of human territory: (1) set of personal identity and (2) regulate the social system. According to Edney descriptions, we can see that the territory associated with the physical

and non-physical aspects. Territory in the physical aspect is the ownership restrictions could be fences, walls and other physical boundary defining element. Territory in non-physical aspect is the limit that is owned by an individual in an interaction with others either individually or in groups.

Forms of traditional homes are reflection of environmental factors, technology and culture as described by Altman and Chemers (1989:155-

156), namely: Environ-mental influences (climate, soil and air temperature), technology (material and technology expertise) and cultural (the view, perception and awareness of the environment, personal rules, religion and values, social structure, family structure). Home as a reflection of a number of factors can be seen in the scheme Altman and Chemers (1989:155-156) as follows :



Different opinion expressed by Amos Rapoport 1969 in Bustari (2000 : II - 6) : ..... that what is produced by human is highly dependent on the socio-cultural background or social condition of man himself, so that build a house is a phenomenon where the shape and organization culture is heavily influenced by the culture in which it is located. The shape of the house influenced by: The main factor is the social and cultural factors, the second factor is environmental factors, construction methods, materials and technology.

Based on the opinion of Altman and Chemers and Rapoport, traditional houses

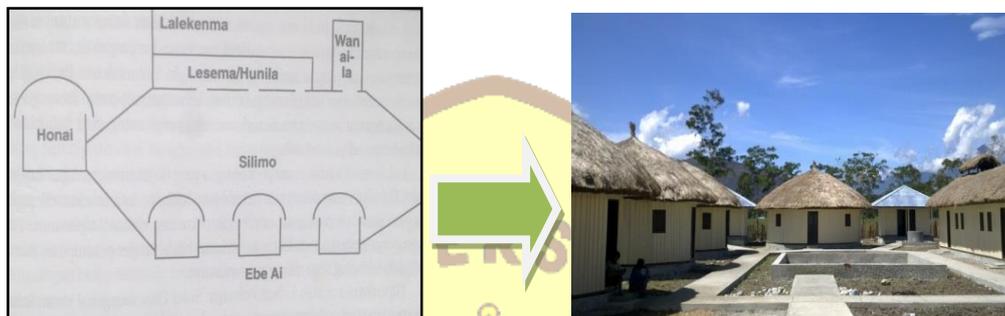
influenced by cultural factors, environment, technology, materials, methods of construction. In one case, the most dominant factor is cultural factors, in other cases the dominant factor might be environmental or technology factor.

### C. Traditional house concept Dani

Traditional house concept in a small residential neighborhood in Wamena Dani called a family environment, that consist of a father, wife, children and families who dwelt together in one complex ( Silimo). Examples of Silimo residential units can be seen in the layout arrangement and traditional house shape of the

Dani people Jayawijaya Wamena, Papua province. Which can be described as follows :

Figure 2.2  
Figure Silimo (Village) Traditional People Dani  
in the Baliem Valley, Wamena, Jayawijaya, Papua



Traditional House Plan Honai in Silimo  
(source Agus A. Alua, 2006:105)

Results revitalization of traditional settlements in  
Waisaput, Wamena, Papua (2010)

**information :**

- Honai* : Male house (round roof equipped with furnace)
- Ebe ai* : Female house (smaller rounded roof with furnace)
- Lesema/ Hunila* : Kitchen, family home (having doors and kitchen as much amount as chieftain's wife).
- Silimo* : The court (the middle grounds for Fuel rock ceremony/ traditional ceremonies)
- Wam aila* : Pigs cage
- Lalekenma* : Court in which the pigs cage located
- Hipirikanma* : Gardens (located outside the Silimo fence).

According to Aulia ( 2006:104 ), to obtain a general idea of their living culture, first we should review the daily life of Dani women and men. The world of *Dani* women in their daily activities include : *ebe ai*, *lesema/ hunila*, *lalekenma*, *hipirakama*.

This means that women live and sleep in *Ebe ai*, in the morning prepare breakfast for the family in *lesema/ hunila*, after that the woman feeding the pigs at *lalekenma* and *wam aila*, later went to the garden (*hipirikama*) for growing potatoes or vegetables and harvest some of them in the daytime for cooking for the family, and partly separated to feed the animals (pigs) that are located behind the kitchen. That is how *Dani* women's lives everyday which is a cycle in the daily culture. If there is a traditional ceremony, the daily cycle can be changed

according to the event that is done with the family.

In the afternoon and evening the men in living in *honai*. They are having chat while waiting to eat dish from women. Sometimes they visit mothers and children in *hunila/ lesema* that serves as a kitchen and a meeting place for the whole *Silimo* family. After a meal, they immediately went to *honai* to sleep. It is women who process and prepare family meals in *hunila*.

After the breakfast (but not always) that also prepared by women, men prepare to work. If in an atmosphere of war they must be vigilant in combat gear to protect themselves, defend his territory boundaries, and protect the women in the garden.

In the evening the men returned to the house with a load firewood for the family needs. (That wood is used for firewood to keep warm in the women home (*ebe ai*), the men home (*honai*) and for cooking in the kitchen (*hunila*).

*Ebe ai* is the core of the house, the house reserved for women. One or more women together have one *ebe ai* as a bedroom, store the family treasures, and run all the personal activities. At night the woman lit a bonfire of wood that has been prepared and then sleep with girls and boys are still young. In particular evening she must prepare herself and the place to receive conjugal visit, while other women and children who live at home should evacuate to another house (the space in *Ebe ai* has no borders so the privacy can only be achieved in one single space, therefore the function related to the privacy need a rule that is mutually agreed). **Lalekenma** is a courtyard in which there is a pigsty. The old pigs and especially the new received pigs, before it is released to the outside looking for their own food, supplementary food is given in *lalekenma*. Generally, the work around *lalekenma* are the duties of women, but there are some men who faithfully took care the cattle.

**Hipirikama** is a family garden . *Dani* knows nomadic cultivation system, in a certain area. When the soil fertility decrease, it will be left in certain time in order to grow shrubs so that soil fertility can be restored. The task of creating the garden is the duty of men. While the woman in charge of planting, especially sweet potato as a staple food crop and other interludes (spinach, cucumber, taro, corn, cabbage, etc.). **Silomo** is the location of the yard in a village or a unit of a **Dani** family home court in the Baliem Wamena, Papua.

#### **D. Policy on Traditional Village Revitalization Waisaput, Wamena, Papua**

The basic principle of the revitalizing the traditional settlement areas with community-based development approach, include: 1). Comprehensive development. The arrangement

of the traditional settlement areas should be viewed as a process environment development by minimizing the loss of cultural values that characterizes the area, repairing infrastructure and healthy environment, in order to reach the quality of the built environment livable, safe, comfortable, healthy, harmonious, attractive and sustainable. 2). Without Eviction. The revitalization process is not expected to displace the the community, either directly (displacement) nor indirect/ stages (gentrification process). When the resident should be evicted, there must be a clear policy regarding the handling of the prescribed forms based on the aspirations of the population. 3). Socio-economic management. Socio-economic management are intended to assist people in exploring and recognizing the talent, potential, capabilities, advantages, skills that have been or may not have been clearly seen, and accommodate it into the forms of community effort supported by the settlement environment in an optimal way, comprising: a). Implementation of buildings and environments arrangement, including development activities that are technical planning and construction, as well as the utilization, conservation, and demolition of buildings and the environment. b). Efficiency and redistribution of land. The traditional settlement arrangement meet a number of criteria which allow it to be rejuvenated with rearrangement and development that could create efficiency of land use. Thus the arrangement of the area could be a mechanism of land redistribution for the benefit of extracting source of development financing. c). Sustainability (Sustainable). Revitalization of the traditional settlement areas should be sustainable. To ensure the sustainability of traditional settlement areas revitalization, the investment level should be identified at the local traditional settlement areas to ensure the imple-menttation of development activities.

After the revitalization principles have been filled, then the development stages that involves the community in the process are done. The goal is to give the experience in build

a traditional house with a concept that has been agreed to improve the user health with manipulation of the current air ventilation systems that remove smoke from campfire burning in the room. Besides that, the use of secondary space for family economic activity so that there is an increase in socio-cultural values that were previously not included in the consideration of creating the traditional house. This is done because according to Jayawijaya district health office records in 2008, the number of ISPA patients coming dominantly from the traditional house (honai and ebe ai). The data is then delivered to the dwellers to make changes of the house shape that can reduce the smoke in the room.

After going through the construction process for 4 ( four ) months, the Silimo

complex that consist of honai Silimo, ebe ai, hunila/ lasema, lalekenma, and perimeter fence, can be built. The development process can completed well with the agreement between the land owners and the local government with the Planning and Environment Building units from the Public Works Ministry, including the private sector. The goal of submitting this asset to the land owner is so that the building can be use well, some of the buildings can be rented out to the tourists, with the intention that there are occupant income from the tourism activities so that the goal of revitalization program can be achieved, as an effort to preserve cultural values as well as a place to conduct social, culture and economy activities.

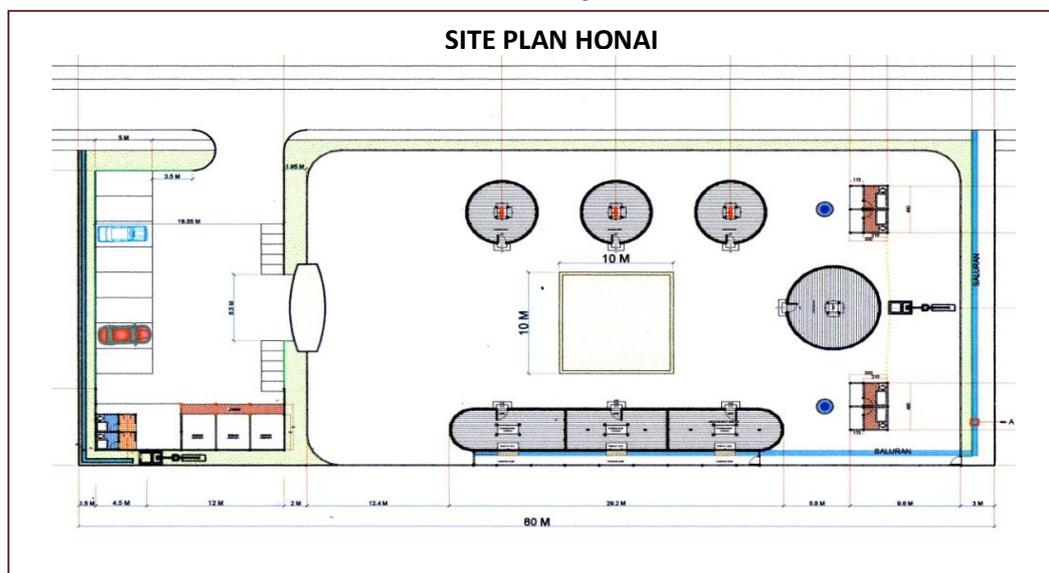


Rumah Honai  
(Sumber: fighterstreet66.blogspot.com)



Sumber : Baliem Valley Resort ★★★

Some images results of the Revitalization of Traditional Settlement in Jayawijaya, 2009 can be seen in the image below :



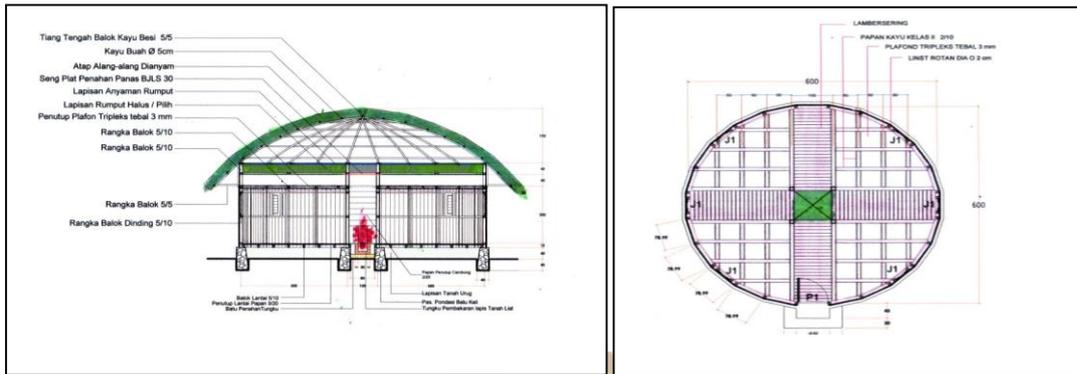


Photo documentation



### III. Impact Analysis of Traditional Houses Revitalisation

#### Functional Theory Study Malinowski and the Theory of Traditional Houses

Malinowski view about the functional of culture to meet the cultural function is to fulfill three basic human needs :

A. Biological needs, that are needs of food and procreation Basic needs and cultural responses are :

1. Metabolism (metabolic) ; can be satisfied with the garden (*hipirikama*), livestock rearing ( *wan aila* and *laleknema* ), and kitchen (*hunila*) to cook and where to the family eat (*lesema*). With the revitalization program, the fulfillment of this need will increase the tourist visits to the *Dani* settlements to stay in one of the traditional houses. In addition, a great tourist potential in *Wamena* can be boosted by living activity in traditional area that are available in the form of a traditional home stay.

2. Descendants (reproduction) ; Done in *Ebe ai* with special rules so that privacy is maintained, the other occupants should should evacuate for a certain time. Revitalization activities remained accommo-date residential function as a continuing healthy descendants with the setting of ventilation system to remove smoke from the dwelling in *Ebe ai* and *Honai* .

3. Leisure body (bodily comfort) : *Honai* and *Ebe ai* equipped with furnace to keep warm in cold temperatures at night, with the principle of clean air circulation from outside heated inside the building to increase the comfort of occupants to rest at night. Revitalization program improves the comfort.

4. Security (safety) : Protection as *Silimo* border fence and the preparedness of men in protecting the family at a crucial time such as tribal wars and other events. Revitalization program remains to accommodate protection from outside

- dangers such as the built of fences with traditional concepts, in addition to the security of the building was reinforced with material that is resistant to the arrival of an uninvited guest.
5. Movement (movement) ; The activities of *Dani* woman in his daily life include : *ebe ai, lesema/hunila, lalekenma, hipirakama*. And the movement of men is to keep the family safe and preparing heavy needs such as creating gardens and tribal warfare. Revitalization program give a movement
  6. opportunity that is more flexible for women, because there are additional options in routine activities that can be done at home such as making crafts that can be sold to the tourists.
  7. Growth (growth) ; Through the lifestyle of hunting and gardening as an exercise area for earning a living for the family's survival. Revitalization programs allow healthier room as a place to grow for families, especially for children who are vulnerable to disease, with setting of air circulation within residential, so that the smoke can be removed quickly from the home.
  8. Health (health) ; Lit fire in the fireplace to keep warm at night (but the negative impact is indoor smoke inhaled by the occupants causing a very large number of people in the Dani community that live in *Honai & Ebei ai* suffer from Acute respiratory tract infections (ARTI). Revitalization program gives emphasis on smoke and air circulation, so that the health could increase especially to reduce respiratory disease suffered by many traditional residents in *Wamena*.
- B. The need of instrumental :
1. Legal Requirements: Set up procedures for war and ceremonies as a way to reconcile and continue the life. Revitalization program aims to provide legal certainty for residents with the provision of adequate housing and the right of use by the land owners. As well as providing a field for traditional ceremonial activities such as rock burn area as a tradition of peace and celebrate the happy day.
  2. The Needs of Education: Informal education about the techniques for gardening, cattle farming and arrow for children as learning efforts. Revitalization program through the provision of productive business education by learning to make crafts that fit the needs of the tourist, is a pattern of entrepreneurship education to support the residential function and function of *Wamena* city as the cultural attractions city.
- C. The needs for integrative:
- a. The need for religion (religion: to solve problems that can not be solved by human reason in life through a religious ceremony in the form of burning the stone to solve problems in Dani conflict and feast of thanksgiving for the gift of God. Revitalization program still provides space for traditional ceremonies (burning stone) to prepare the place for the ceremony, so that the social and cultural life can still be done with the reinforcement so that the value of religion in the traditional sense is still given space.
  - b. The need for the arts : through the creation of a traditional house form as an artistic expression of Dani society. On the other hand the creation of daily objects such as bows and arrows (not only for the war but for garnish) and Nokens (a place to store items, such as crops and other goods). Revitalization program gives attention to this artwork by giving space to develop the skills of occupants that can be sold to tourists that will be passed down from generation to generation, so that the culture can develop art in a sustainable manner.

The impact of the revitalization of traditional settlements can give a positive value to the residents, for regional and Jayawijaya local governments as one of city's cultural attractions in Papua. According to Altman and Chemers : traditional home is a reflection of : (1) Environmental influences (tropical climate with plenty of rainfall characteristics addressed by the roof shape that has a large slope to drain the rain water, the cold temperatures mitigated by the placement of the fireplace at ebe ai and Honai to keep warm at night and the fertile valleys soil correspond to life gardening and raising livestock), (2) Effect of technology (materials from nature such as wood for roof and wall construction from the strength of materials, the reeds material are arranged to cover the building so it can avoid the rainwater and keep the warmth of the fire. The skill of building technology is a simple way so that the house can be built independently and taught for generations and, (3) Effect of culture ( the form of Silimo to the using rules and the use of semi-circular shape of the roof reflects the cultural values of tribal Dani society view about the world that is round) .

Meanwhile, according to Amos Rapoport home form is influenced by : (1) The main socio-cultural factor is the concept of Dani tribe residing in maintaining the cultural values and social relations, (2) The second factor is the environmental factors (cold and rain protection), construction method (simply by tying system without spikes), materials (natural materials from the surrounding wood, twigs and reeds) and technology (with an ax, a machete and a crowbar to make the house, so that the appropriate technologies are applied properly and the energy used efficiently).

In Edney views, the function of the human territory in the case of *Dani* traditional neighborhood revitalization as a regulator of personal identity can be seen in the ornamentation and additional forms provided by the occupants in the house that has been built with the emphasis on the meaning of personal identity, especially at the gate as territorial boundaries gives formation which is a symbol

that can give meaning to the family identity. While the second function of the territory is to set the social systems in a good environment of *Silimo*, *ebe ai*, and *hunila* which each of them have a social system on how the behavior of individuals, including the relationship between harmony family. Territories also set out the social system, on how the relationship between the occupants and the outside environment, impose limits and freedom that is understood by social and cultural relations.

#### IV. Conclusion

A. Malinowski cultural functions according to human needs can be described as follows : Biological Needs; as a basic human need to explain how the *Dani* tribe traditional home in *Wamena* Jayawijaya Papua province, illustrates the basic human needs in a rural village (*Silimo*). Instrumental needs ; Legal Requirement : Set up war and ceremonies procedures for the continuation of life in Dani culture through the peace process in the form of the stone burning traditional ceremony in the *Silimo* village; Education Needs : Informal education on procedures for gardening, cattle farming and arrows for children as learning process in the family so that local knowledge possessed by older people can be taught to the whole family as life provision.

Integrative needs: Needs of religion (religion): to solve problems that can not be solved by human reason in life through a religious ceremony in the form of burning stone, to solve problems in Dani conflict and feast of thanksgiving for the achievements. Art needs: through the creation of a traditional house forms as an artistic expression of Dani society. On the other hand, the creation of daily objects such as bows and arrows (not only for the war but for garnish) and Nokens (a place to store items for the garden tub and other items). Currently *Noken* gained recognition by Unesco world cultural object categories.

B. Form of traditional houses by Altman and Chemers can explain the influence of:

environmental factors (tropical climate, cold temperatures, the soil in the valley region) to the form of the *Honai* shape with the semicircle roof and equipment in *honai* and *ebe ai* in anticipation of environmental factors; technologies factors (Natural materials such as wood for the roof and wall construction, reed material to cover the building). Technological skill to build a simple self-built house (taught from generation to generation) and; cultural factors (the form of *Silimo* to the using rules and the use of semi-circular shape of the roof reflects the cultural values of tribal Dani society view about the world that is round).

Environmental awareness to preserve nature by using readily available materials and easily renew such as wood in a medium-size, twigs and reeds. Privacy rules in the house guarded by separating the male and female, and also for reproductive needs, there are rules to maintain the privacy of the family head. Religion and values held by the community can be maintained with the behavior and the ceremonies performed. The social structure is built with a clear separation through family home in *Silimo* surrounded by a fence and in the *Silimo* environment. There also exist the social structure for the interaction among families that's manage with family structure in the relationship with the work responsibilities as well as the pattern of traditional residential houses.

- C. According to Amos Rapoport the shape of the house are influenced by: The main socio-cultural factor is the concept of Dani tribe residing in maintaining the cultural values and the social relations in the form of cultural values which is own in built the home: The second factor is the environmental factors (rain water and cold protection), the method of construction (simply with tying system without spikes), materials (natural materials from the surrounding,

such as wood, twigs and reeds) and technology (with an ax, a machete and a crowbar so that the appropriate technologies are applied properly and the energy used efficiently).

- D. The impact of the *Dani* traditional settlements revitalization in Papua, can give a positive value to improve the health quality of the occupants, also to maintain and bring traditional environment amenities as one of additional value to the residents as well as for traditional regional and *Waisaput Jayawijaya* local governments as a tourist city culture in *Papua*.

#### V. Recommendation

- A. Results revitalization Honai house can be used as a reference in building healthy honai house, in Wamena and Kabuapaten Jayawijaya.
- B. Involving the community in building a house is an important aspect that Honai cultural values which are the foundation for making the house can be maintained in accordance with the public trust.
- C. Healthy homes program launched by the government of Papua Province may consider the results of revitalization Honai healthy, so healthy home construction in accordance with the social and cultural values that will inhabit.

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