

# From *Boluf* to *Kampung*: Spatial Changes in The Korowai Traditional Settlements

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## Abstract

Korowai is one of the traditional tribes in Papua, Indonesia. For centuries, the lives of Korowai people have been synonymous with the forest. This tribe builds its dwellings on the top of high trees. Its people live separately from the other clans and only gather with families who share the same clan lineage. This circumspect community life and habitat of the Korowai is called the *Boluf*, which are the nuclei of the Korowai traditional settlements.

Unfortunately, during recent decades, the pressure of modernization through government and missionary resettlement programs has pushed the Korowai Tribe to move from their traditional tree house lifestyle in the *Boluf* to new settlements known as *Kampungs* (villages), whose dwellings are located on the ground and are markedly different from traditional tree houses in the *Boluf*. In the *kampung*, they live together not only with their own clan, but also with people from different clans.

This paper discusses the effects of the resettlement of Korowai dwellings through socio-cultural and morphological aspects of space. Two research questions are: Does this modern intervention trigger the transformation of the Korowai tribal livelihood? and What kind of adaptations are being undertaken by the existing community in facing the changing of its settlements and traditions? This paper uses a qualitative approach by intersecting and dissecting spaces and people. It is supported by a literature review, interviews with the local community and some documentation that was obtained during the UI Architecture Student expedition to Korowai in 2015 and field research in 2017. It concludes that resettlement efforts need to consider the identity and cultural roots of the Korowai Tribe, so as the link between their current *Boluf* and resettlement locations in the *kampung* are maintained. There is also a need for sustainable guidance for the Korowai Tribe through community development.

**Keywords:** Adaptation, Change, Dwelling, Intervention, Resettlement, Space.

## Introduction

Papua is the main island in the eastern part of Indonesia, which has a rich cultural diversity and unique geographical conditions that range from coastal to swamp to mountain biomes. The Korowai Tribe (*klufo fyumanop*) originally lived and built their dwellings in the high trees in sago swamps in South Papua. However,

during the last few decades, modern development has caused the Korowai Tribe to experience significant changes in their living and settlement traditions. This paper aims to reveal the external influences of modernization that have impacted the waning identity and settlement traditions of living in treehouses for the Korowai people. The Korowai are seemingly not ready to face these drastic changes. There are indications that government resettlement programs only emphasize the 'progress of development,' focusing on physical aspects without anticipating the negative impacts, especially in relation to social and cultural sustainability issues. In order to identify the changes in the Korowai community, this paper focuses on two Korowai villages, namely the Yaniruma Kampung District and Yafufla Kampung (a village that is geographically closer to the Yaniruma Kampung District, but is administratively located in the Kombai District).

Therefore, in order to observe and investigate these two *kampung*s, two important questions are raised: At first, what changes happened in the Korowai tribe and what factors affect these changes? Secondly, How does the Korowai tribe respond to these changes?

In order to answer these questions, this study uses a qualitative approach that focuses on analyzing the intersection of space, people, and power in relation to the spatial intervention that threatens the sustainability of Korowai culture. This paper states a hypothesis that the Korowai Tribe is not prepared to face the changes in their livelihood and settlement patterns, due to the developmental approaches, which have taken for granted the cultural roots and traditions of the Korowai people.

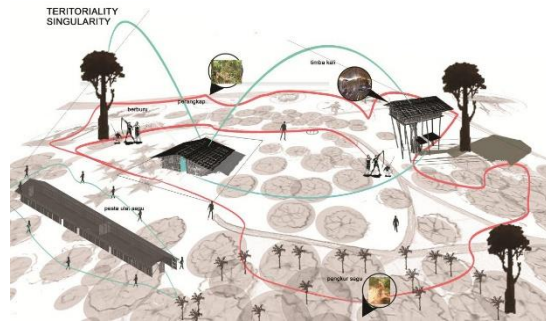
## On Theories

Architecture is present because of human needs. Rapoport defines, "...the folk tradition, on the other hand, as 'the direct and unself-conscious translation into physical form of a culture, its needs and values, as well as the desires, dreams, and passions of a people'" (1969:7). Hence, architecture is present in vernacular society's life, and therefore, it has physical and non-physical values (Oliver, 2006). Furthermore, a traditional community usually lives and connects to Nature. In order to fulfill community needs, architecture also considers the behavioural context and geographical conditions of the region (Fraser, 1968; Glassie, 1999). The diversity of the natural environment influences vernacular architectural forms. Architectural forms for people who live in the mountains are not the same as the ones for people who live in coastal areas because of the natural environmental conditions. The environmental conditions affect how people protect themselves from the climate, obtain food, establish social structure, beliefs, and culture. Moreover, architectural changes that occur basically follow people, space, and power changes (Oliver, 2006; Yuan, 2001; Waterson, 1990).

### *Dusun and Rumah Tinggi*

Based on cosmic views, there are two kinds of Korowai traditional settlements: *Dusun* or *Boluf* (macro) and *Rumah Tinggi* or *House in the Trees* (micro). The Korowai Tribe usually lives and dwells in the forest, especially in the sago swamps. They live in a limited number of groups and define the borders of their regions in a traditional way, by dividing up the area based on clans or blood ties (Stasch, 2013). The local Korowai call their territory either *Dusun* or *Boluf*. Figure 1 shows a spatial mapping of activities carried out in the *Dusun* or *Boluf* that ranges from foraging to hunting to living in a *Rumah Tinggi*, and to participating in a sago caterpillar feast.

*Dusun* or *Boluf* is an original form of the Korowai settlement which became the center of all activities. *Dusun* or *Boluf* have boundaries called *humbons*. The area inside the *humbon* is called *yasim* which means the surrounding grounds as an area for hunting and gathering. The Korowai Tribe has a clear division of labor with the women gathering food, while the men are tasked with guarding the *Boluf* against enemy attacks.



**Fig. 1:** Spatial mapping of *Dusun* activity (*Boluf*)

Source: Researcher, 2017

There are several types of residences that are classified as dwellings, such as *Rumah Tinggi*, treehouses and *bivak*. The Korowai Tribe is very dependent on the forest, in which they are connected to and live in. Materials for houses are sourced from trees and sago that come from the forest. Pigs and sago are food sources that are also available from the forest. Therefore, the Korowai Tribe is very respectful of their forests that represent their local wisdom. For instance, in using the organic materials for making houses, they have an efficient sourcing system in the landscape. Trees that are used for the houses are those trees that have strong and deep roots, such as *wamboon* or Banyan trees (John, 2010). A tree house does not last for a long time. The cyclic age of a tree house will only last for five to seven years on average, but it is long enough to provide proper shelter for the Korowai community in terms of food gathering and livelihood. Trees that are no longer used are left to decay with their houses and be united once again in the natural cycle to the Earth.



**Fig. 2:** *Rumah Tinggi*

Source: Researcher, 2017

Oliver (2006) stated: “

*There are probably no vernacular contexts that are not subject to processes of change, though the rates, degree and nature of such change may vary considerably depending on the agents that occasion them. Change brought about by the slow introduction of alternative materials – corrugated iron instead of thatch, for example – may affect the aesthetic qualities of an indigenous African architecture, and may make it microclimatically less agreeable”*

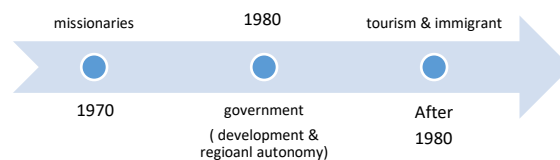
(Oliver, 2006:223).

The same principles are applicable to Korowai architecture in Papua. The transformation process that occurs in vernacular communities, especially in relation to the context they live in could be caused by internal and external factors. Today, modernization and globalization are external factors that pose difficulties for traditional societies, including the Korowai Tribe. This tribe experienced changes in their traditional way of life in the *Boluf*. The government resettlement programs have resulted in the Korowai people living in a new *kampung* which is more modern and much more open to the wider world.

## Discussion and Analysis

According to Oliver (2006), transformation in vernacular architecture cannot be avoided. Changes, such as new materials and technologies will take place gradually over time. We observed the spatial and non-spatial aspects of various settlement patterns of the Korowai Tribe in order to deduce various changes in the architectonic elements. At the macro level, significant macro-scale changes are replacing the traditional patterns of a modestly-built *Boluf* in the forest. The lifestyle is changed into living in a village (*kampung*) that is an open community, not restricted by the customary boundary of the clan and its traditional culture. The starting point for this kind of change began when the missionaries entered with gospel teaching in the 1970's. Due to the pressure of human needs and with the help of several Kombay-Korowai Tribe members, the missionaries intervened in the traditional living practices and their architectural manifestations.

After the missionaries, the government began to be involved in the transformation of the Korowai society by recording population data in the 1980's for the sake of the state administrative data collection. Our research findings indicate that the people who live in the village already know about the state administrative divisions, such as the village head, and even the district head. With the inclusion of the government intervention into the life of the Kombay-Korowai Tribe, the government began to provide assistance related to regional development. The entry scheme for external intervention can be seen in Figure 3.

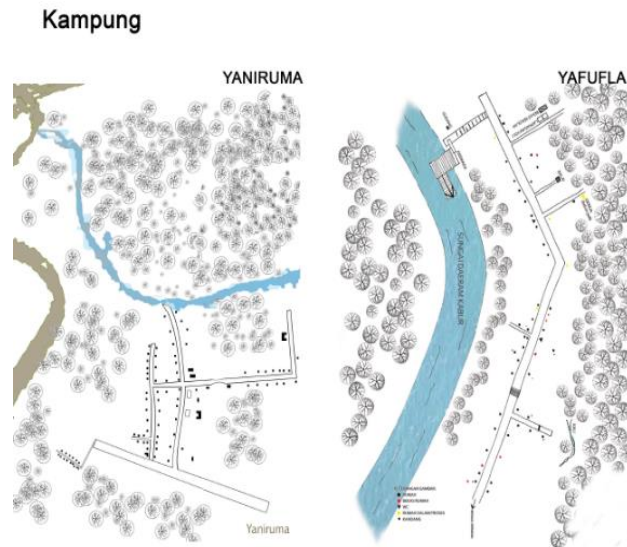


**Fig. 3:** Timeline of external intervention in Korowai Tribe  
Source: Researcher, 2017

### Resettling Traditional Korowai Tribe into the Kampung: Yaniruma and Yafufla

The Yaniruma and Yafufla Kampung are two cases of villages, resulting from missionary and government intervention in the Kombay-Korowai Tribe. The opening of a new village usually meant that the village leaders chose the location that was always close to a river pathway (Figure 4). Unlike the land route that requires a long time for a journey, the river pathway is a faster way to reach each one of the Kombay-Korowai tribal communities. The resettlement program that is being applied to the Kombay-Korowai Tribe has resulted in spatial and non-spatial changes. As a consequence of the increasing economic complexity, including the form of houses and patterns of abandonment, the Kombay-Korowai Tribe is experiencing major cultural and social transformation.

There are political interests involved in the spatial intervention for resettling the Korowai tribes away from their place of origin in the *Boluf*. These political interests include both the vested religious interests of missionaries to establish a center of Protestant Christianity in Papua, and also the political interests of the provincial government to control the territory through the administrative processes and population data collection methods. Furthermore, there are also the interests of the private sector to create the oil and rubber industries, as well as to invite tourism into the Kombay-Korowai tribal areas.

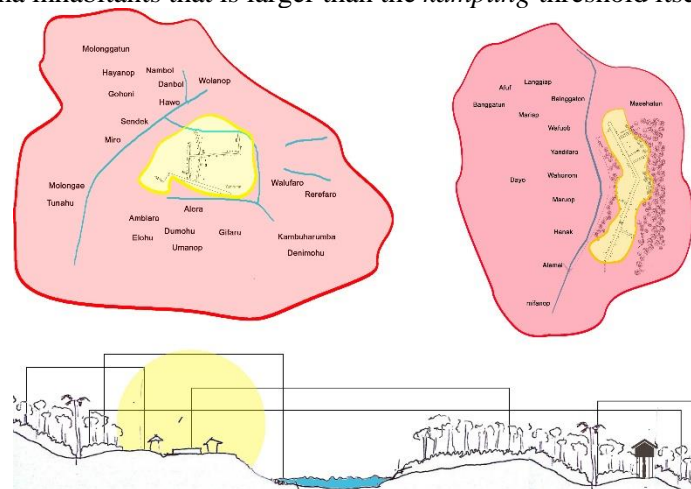


**Fig. 4:** (Left) Yaniruma Kampung (Right) Yafufla Kampung  
Source: Researcher, 2017

#### a. Spatial Transformation

##### 1. Ambiguity of spatiality

The Yaniruma Kampung is geographically bordered by the river, but spatially the settlement pattern is not limited to this boundary. Yaniruma inhabitants came from the *Boluf* that surrounds the *kampung* (Figure 5). The mapping of settlement patterns represents the living space of Yaniruma inhabitants that is larger than the *kampung* threshold itself.



**Fig. 5:** Mapping diagram of family territory in clans of Yaniruma and Yafufla Kampung, and spatial distances between the *Dusun* and the kampung

Source: Researcher, 2018

##### 2. Needs of new patterns for living spaces

These bonds between the *Boluf* and the *kampung* emphasize the function of the *Rumah Tinggi* (Korowai traditional high-house). The *golokhaim* is the traditional part of their living space; the *Boluf* is where they hunt and gather for food. Now, the *golokhaim* is used for a temporary settlement when the inhabitants are gathering food in the *Boluf* and then they go back to their new dwellings in the *kampung*. The other traditional houses, especially *luoptalehaim*, have another new function for tourism, as a pragmatic response to the escalated complexity of the economy.

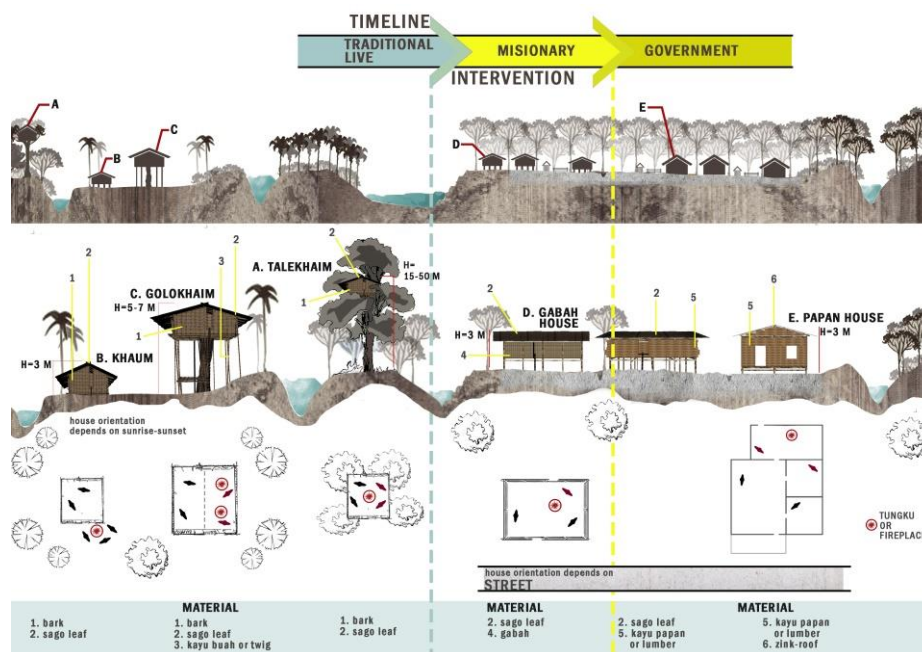
In the context of contemporary settlement patterns, a transformation has happened in Korowai territorial behavior. The traditional living within the clan's border has transformed

into communal living in one place without the customary boundary. Territoriality in the *Boluf* means owner-clan name is a person who is responsible to maintain the availability of food in the *Boluf*. However, in the *kampung* settlement pattern, the *Boluf* is no longer becoming the main living place but a place for hunting and gathering.

There are also changes in the hunting and gathering patterns. Hunting habits carried out by the community spatially differ in distance necessary to undertake this kind of activity. In the past, when the tribesmen lived in the *Boluf*, they were within easy reach of hunting grounds. Now that they are living in the *kampung*, the men have to walk up to their clan's land to hunt the local game. The same thing is applied to gathering sago for the fulfillment of major food needs. This change spatially creates an inseparable connection between *kampung* village life and *Boluf* life for the Kombay-Korowai Tribe. On the other hand, the *kampung* inhabitants have a wider range of other choices for their sustenance and livelihood, such as raising pigs and chickens, looking for fragrant *aloeswood* (*Papua Aquilaria Malaccensis*).

However, almost all of these new activities are still extracting from the existing natural resources. In some cases, we could also find some attempts by outsiders to offer other options for the Korowai society to augment their livelihoods, such as giving instructions on how to cultivate other products like peppers, oranges, and natural rubber sap. However, these conditions indicate that the Korowai tribe's hunting and gathering patterns are also transformed to other choices for their livelihood but there is still a strong connection to their old ways.

### 3. House Transformation



**Fig. 6:** Korowai's house transformation  
Source: Researcher, 2018

The transformation of settlement patterns in the Korowai society and the technological interventions also affect the physical form of the house. The Korowai house features experiencing transformation are: the elevations, the shape of the house, the orientation of the spatial programming, and the materials being used.

#### Elevations

The missionaries and the government interventions transformed the pattern of communal dwellings. New houses located in the *kampung* village are no longer built in the trees, rather directly on the ground at an obviously lower height, thus impacting the house elevations. Hence, the communal pattern of dwelling also inadvertently reduces the number of local conflicts. In a comparatively peaceful situation in the *kampung*, the obvious advantage of a high-house response can be eliminated as an architectural type.

### House Form

A strong orientation towards the sun as in the original house is no longer valid along with the village pattern that follows the river path's orientation. The shape of the traditional treehouse was originally simple and tended to be square. The new *kampung* house type is more complex and is no longer square. This typology is coupled with the more formal division of the interior, resulting in an elongated house form.

### Fireplace Orientation

In a traditional Korowai house, the fireplace is the most important element in the *Rumah Tinggi*. The fireplace's presence can also be found in a village house. However, there is something different about laying a fireplace in the village house. The fireplace in the *Rumah Tinggi* is present at the center of the house and is close to the activities inside the house, such as cooking, sleeping and talking. However, the village house interior, with the original spatial program derived from the missionary housing model, does not support the existence of the fireplace. Consequently, the people in the village have to add another place to put the fireplace, and it is usually in the backyard.

### Materials

The materials used in the *Rumah Tinggi* originated from the forest in Korowai land, but with the existence of technological interventions such as the chainsaw along with government assistance, the building materials of the house also changed. For example, the roof of a traditional high-house uses sago leaves, while the roof design in the village house recommends using zinc-alum sheets.

Therefore, the most visible change from the intervention that enters the Korowai Tribe is the livelihood and settlement transformation. These changes occur directly and indirectly. This effect can be seen directly from the village development for the sake of the spread of religion and continued with government administration. Indirectly is the house form adaptation brought by the Korowai community to the village house, such as the lower elevation and fireplace. Therefore, the core of the Korowai tribal house is still present even though in a different form.

### Non-Spatial Transformations: The emergence of a modern economic system

As a result of exposure to the outside world, there is a new habit in the traditional life of the Kombay-Korowai Tribe, namely the desire of the Korowai people to come out of the forest and earn money. Even though in the traditional *Boluf*, the traditional activities are maintained, now in the village there are stalls that sell everyday items, such as cigarettes, soap, nylon, salt, etc. Of course, to buy these items, a new currency is needed because there is no barter system. To be able to get money, the tribal members first have to work first and then later be paid in cash. Whereas, if they just work in the *Boluf*, they will not be able to make any money, so the choice is most often taken by the Korowai community, especially the youth, is to leave the traditional Korowai land and then to look for paid work. However, due to educational standards that are usually only up to the elementary school level, often youth who are hungry for this new experience will only become construction workers or manual laborers.

The influx of tourists also influences the monetary exchange system using hard currency. Being a guide for the local and international tourists, the Korowai people (usually the youth) earn at a rate of IDR 50,000 / day (based on interviews with one of the Korowai residents). Moreover, the mindset of Korowai people about the standard level of their welfare becomes more complex. Now, their purpose in life is not only to be able to collect and fulfill basic needs, but also to meet additional needs and aspirations arising from the commercial world.

### Cultural transformations: Reduced clans' warfare

By living communally, the people, who were once limited by the bonds of blood, have changed by living side-by-side with each other. Initially, staying close to each other was

difficult. But now this has begun to change. Its positive effect on the interaction between tribes is now starting to reduce the frequency of warfare and potential strife between the clans.

#### Knowledge and slack attitudes in society towards nature and traditional culture

Interventions and knowledge of the outside world are defining a level of social status and identity in the Korowai people. Youth are now embarrassed to wear traditional clothes because they do not want to be considered naked or not wearing clothes in a civilized sense (interviews with Budi). However, from the perspective of the Korowai ethnic culture, we see that in terms of sustainability itself, the lack of traditional knowledge amongst the youth signifies the erosion of the cultural values to preserve their own traditional culture and the environment.

### Conclusion

Dwelling and settling traditions of the Korowai Tribe are gradually changing, along with the influence of modernity. These conditions cannot be avoided with interventions into the Korowai tribal life. Changes that occur in the Korowai Tribe include the way of life and modes of settlement. By opening the village, the traditional settlement of the *Boluf* is stabilized and any changes or transformations occurs into modern landed houses with new shapes/patterns, materials and orientation. Following these spatial changes, transformations also are happening in the socio-economic field, for instance modern buying and selling transactions using hard currency have replaced the traditional barter system in the Korowai community. The triad of interests that influence these changes include the political interest of missionaries in relation to the spread of Protestant Christian teachings, also the government interest to control the territory by applying standard administration procedures through population data collection, and the last is the private sector interest to gain benefit from the oil and rubber industries, as well as from the tourism sector.

The Korowai people were initially willing to accept change. However, they prefer to continue the tradition of settling in the *Boluf* because the interventions did not consider the cultural roots of the Korowai community. The new places did not provide enough space for the Korowai Tribe to continue their previous traditions. This causes problems in the process of adaptation of the Korowai Tribe who still depend on Nature for their livelihood. Hence, the changes that are taking place are not accompanied by continuous and periodic community development and interpersonal communications. As a result, the traditions are slowly beginning to erode and their identity is threatened. This condition shows that the Korowai Tribe are not ready in facing the subsequent changes currently underway.

This study recommends that resettlement efforts need to consider the identity and cultural roots of the Korowai Tribe, such as the link between their current *Boluf* and resettlement locations in the *kampung*. Furthermore, there is a need for sustainable guidance for the Korowai Tribe through community development. Accordingly, the community can be more independent and be ready to face the various societal changes in the future, especially in relation to architecture, space and power.

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