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The Transcendental Values of Melanesian Vernacular House Elements: Case Study Rumah Malind Aha in Makaling Village, South Papua

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# The Transcendental Values of Melanesian Vernacular House Elements: Case Study Rumah Malind Aha in Makaling Village, South Papua

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## Abstract

Vernacular house was explained by Oliver (2006: 4) can include all types of buildings made by people in tribal communities, rural villagers, and popular communities where an architect (formal designer) is not employed (built by the natives). The Rumah Malind Aha used daily by the Makaling Village Community (the Melanesian), namely the Malind Duh Tribe in Merauke, South Papua. It is built by themselves using hereditary knowledge from their parents. This house has no ornaments but has various variations in appearance, then it could be suspected that its significance had faded. However, this house still life for future generations. The aim of this study is to find out what is the transcendental value behind the layers of variations in the appearance of the architectural elements of the Rumah Malind Aha. Then become a strategic suggestion for stakeholders in the development of houses around Melanesia. The phenomenological transcendental method has an analysis technique by peeling off layers of observed objects with the reduction technique. Husserl's phenomenology that analyses with the perspective of the subject who is the actor of the object being studied in this case the owner of the vernacular house itself, namely the Makaling Village Community. The metaphysical aspect is found in this study as something that is penetrated in the outer layer of variations in the physical appearance of the Rumah Malind Aha: the seplik values as transcendental values.

Keywords: local wisdom; phenomenological transcendental; sustainable settlement; metaphysic.

## Introduction



Journal of Sustainable Architecture and Civil Engineering Vol. 1 / No. 37 / 2025 pp. 62-75 DOI 10.5755/j01.sace.37.1.38492 The sustainable concept is related to the utilization of building materials and building forms (Almusaed, 2010; Sayigh, 2019) that maintain natural sustainability and environmental sustainability for future generations. Other focus on building management from the design phase to construction (Lindsey et al., 2009) and urban scale based on traditional layouts (Jarulaitiene, 2016; Mamani & Bastos, 2017); also sustainable cases with vernacular and traditional buildings (Mamani & Bastos, 2017; Stanimirovic et al., 2023).

Subsequently, the concept of sustainable architecture also began to reach meta-physical aspects: relate to aesthetics, architectural design, cultural factors (Abusafieh: 2019), and also for ecotour-ism purposes in Vietnam (Pham, 2014). (Iranfar & Nia, 2021) raises the urgency of ethics and

aesthetics values in architecture's modern movement (in relation to future design). Likewise, this research enriches the perspective of meta-physical aspects in sustainable development, because it is related to local cultural aspects. Therefore, the objectives for achieve the research aim by write down the community's oral knowledge (the culture) as written knowledge of Rumah Malind Aha.

It can be seen as the outermost layer that Papua has the existence of forests and other settlement elements. The World Bank (2009: 16-19) explains that the area of the Papua plains in the Republic of Indonesia is large, also has the third largest remaining tropical forest in the world after the Amazon watershed and forests in Central Africa. The highly variable natural and climatic conditions create ideal conditions for Papua forest future. Shao, Chen, and Su (2022) then provide recommendations through scientific studies about the importance of increasing the technical perspective of planners and architects to understand local communities and their traditional concepts of the coexistence of natural aspect related to housing/settlements in increasing a sustainable future. Smith (2011) explains that there is potential for sustainable development of Papua's natural wealth.

In other places, Melanesian also has an abstract concept of their people, such as the concept of wantok in Papua New Guinea (PNG). The wantok as common language (wantok = one talk), common kinship group, part of the lifestyle, common geographical area of origin, common social associations or religious groups, binding strong relationships within the family, clan, and tribes, and common belief in the principle of mutual reciprocity in PNG (Arua, Ako & Eka, 2002; Monsell-Davis, 1993; de Renzio, 2000 in Nanau, 2011; Tanda, 2011). Melanesian has the value of wantok as the deepest layer. So does the area around Makaling Village in South Papua which is also included in Melanesian. The term Melanesian is explained by (Muller, 2008) as being related to the term black island by French sailors as a term for a geographical area inhabited by people with black skin and curly hair.

The importance of looking at the content is also apart from what appears on the outside, sustainable thinking is also the same, the concept of sustainable architecture also began to reach meta-physical aspects: relate to aesthetics, architectural design, and cultural factors (Abusafieh: 2019). The concept of sustainable development is starting from their physical form and their relationship to the surrounding environment (Adenaike et al., 2024; Ahmed, 2023; Caparros, 2015; Martinovic et al., 2023). In this research, what is observed from the coastal rural residential areas of the Papuan people as Melanesian is more profound and not limited to just the physical aspects of their vernacular houses.

Merauke Regency, the capital of South Papua Province, as a New Autonomous Region (Law of the Republic of Indonesia Number 14 of 2022 concerning the Establishment of South Papua Province, 2022) will require development policies in the future. Local government policies to promote local Malind Anim culture continue to be developed and require additional research studies, including in the field of sustainable settlements. Existing policies are contained in the regional regulations of Merauke Regency Number 5 of 2013 concerning community-based management of natural resources based on Malind Anim customary law (Merauke Regency Regional Regulation Number 5 of 2013 concerning Community-Based Natural Resource Management Malind Anim Customary Law, 2013). However, several studies emphasize that there is still a need for research approaches that explore community-based local values and local Papuan customs (Djojosoekarto et al., 2012; Rumansara, 2015; Yunus & Muddin, 2019).

The next objectives of this study is to creates an urgency to be able to support an inventory for the development of knowledge in a similar context. The current challenge is that the Rumah Malind Aha has not been documented architecturally. The urgency of architectural documentation and local norms/rules as a concept inherited traditionally has been continuously pursued in research studies (Achmad, 2019; Bold, 1993; ICOMOS Nepal, 2015; Rukayah et al., 2021).



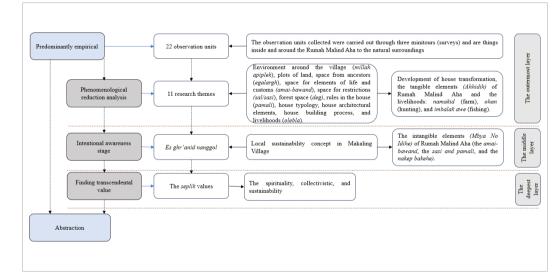
Transcendental phenomenology technique as the main paradigm of this research is applied because it has a technique of stripping layers with reduction. Husserl (1999: 33-34) explains that in looking at phenomena, the process of structural tracing of consciousness in experience as a stage of abstraction in the thinking process of transcendental phenomenological analysis is then linked to the reduction process. The reduction process is explained in the research methods section, namely empirical information from Makaling Village is then categorized into research themes before producing the value of the Rumah Malind Aha in Makaling Village. Then the next research objectives is then to describe scientifically using a phenomenological paradigm which has a technique of peeling layer by layer. On the other hand, various research supports studying architectural elements for the future (related to sustainability) through local architecture in other region (Hosseini et al., 2023; Kohler, 2003; Lefaivre & Tzonis, 2020; Lopez-Besora et al., 2019; Mahmoud, 2016; Sayigh, 2019).

## **Methods**

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The transcendental phenomenological analysis in inductive paradigm is obtained in the process of uncovering phenomena that previously existed for us in direct awareness and were taken exclusively (Husserl, 1960: 95-96). Purwanto (2015) explains that phenomenology as a new umbrella after the development of positivistic deterministic studies, based on a holistic explanation. Understanding the meaning of the Rumah Malind Anim can then become a puzzle of findings that can be connected with other research in the same area.

The analysis was carried out up to the stages of transcendent phenomenological analysis, namely phenomenological reduction analysis, intentional awareness stage, and the final stage is finding transcendental value by Husserl (1970) in Sudaryono (2012: 10). Purwanto (2015) describes the complexity of the relationship between behavior and the environment that can be captured in phenomenology. This research investigates the values of Rumah Malind Aha using observation units not limited to the scope of Rumah Malind Aha but also to other elements of the Kampung Makaling settlement, the 22 observation units create 11 research themes (Fig. 1).

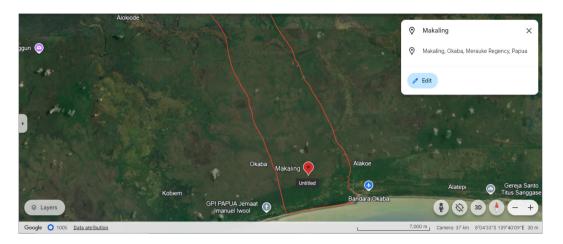


### The Location and Collection of Research Information

In Makaling Village, there are three millah (hamlets), namely: Weme Millah, Noh Millah, and Pale Millah were the research locations. Makaling is one of the administrative areas of Okaba District in Merauke Regency. Okaba District is bordering several districts and the ocean (Badan Pusat Statistik Kab. Merauke, 2022) in Merauke Regency, South of Papua Province, Indonesia. Makaling Village is located at coordinates 8°04'33"S 139°40'09"E.

## Fig. 1

The stages of the phenomenological research process on the values of the Rumah Malind Aha. Source: authors, 2024



### Fig. 2

Makaling village map. Source: https://earth. google.com/web/search/ Makaling,+Merauke+Regency,+Papua/ accessed on September 27, 2024

The sampling process in this research was carried out using a snowball system. The informants were residents of Makaling Village who had settled there, both in the category of Malind Anim (residents of the Malind Duh tribe) and pu anim (migrants who had become residents of Makaling Village by being given the release of their customary land through customary confirmation) totaling 34 informants.

Purwanto (2007:78) explains that the observation unit was determined because of the breadth of existing phenomena, each of which contains units of information, with characteristics to make it easier for researchers to explore unique and distinctive empirical themes. Several units of observation (Figure 1) collected were carried out through three minitours (surveys) which took place from July to November 2023.

Research data was observed using the direct observation method by going directly into the field by researchers so that the data obtained becomes self-evident data. Then, empirical data obtained in the field is approached with inductive reasoning in the process of building concept abstractions. As explained by (Ibrahim, 2017; Sudradjat, 2020), theory construction in a qualitative inductive approach moves from a collection of specifically observed facts and phenomena until finally a general conclusion is drawn.

### The Research Analysis

Each member of the research team abandoned their basic knowledge and prioritized honest data findings from respondents using bracketing techniques. Husserl (1999) describes this process as the act of seeing the pure, just as it is. Madjid (2014) explains that in phenomenology, reality is seen as it is first before being analyzed thematically by science. Information was collected from 34 informants (residents of Makaling Village), conclusions were not drawn directly using the researcher's deductive theory, but was reduced and linked comprehensively to other observational facts experienced by the informants and researchers (participating researchers). Apart from that, information is processed into abstraction findings using dialectical techniques (two-way) so that a bracketing technique is carried out which delays linear conclusions. This two-way process involves a confirmation process from two informant figures (confirmators), namely: the head of Makaling village in 2024 and cultural observer Malind Anim (employee of the Merauke cultural service).

This analysis process is carried out in a reductional manner, so that the essence of a lot of information (comprehensive) is distilled to become more specific and essential then linked to the reduction process. Manurung, Sastrosasmito and Pramitasari (2022: 27) also researched to find the meaning of architectural space by reducing through eliminating irrelevant information, while what is relevant and meaningful will be grouped into units to be used to build themes (thematizing). The analysis begins with the data writing stage, namely textual and visual descriptive as well as the data analysis Creswell (2015: 94-95).



### The Research Ethics

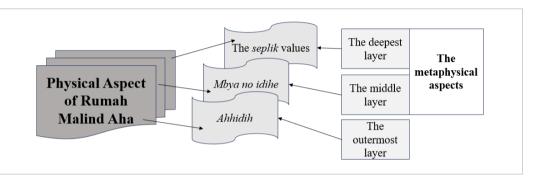
The involvement of researchers respects the customs and regulatory norms that apply in Makaling Village as a form of maintaining research ethics. There is a limitation in the realm of searching for research data, namely following the wishes of the informants who have customary rules within their customary group which constitutes confidential data. This research prioritizes research ethics following appropriate ethics in data tracking, namely based on the customs of the Makaling Village community.

# Results and Discussion

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### Fig. 3

Peeling back the physical layers of the Rumah Malind Aha. Source: authors, 2024 Makaling Village has one of its constituent elements, namely the Rumah Malind Aha which has layers of elements (**Fig. 3**). The outermost layer is called the tangible element namely ahhidih and the element inside is the intangible element is called mbya no idihe. This layer is structured and the deeper it gets, the more reduced the layers where the data comes from observation units.



### The Outermost Layer: Rumah Malind Aha and Its Transformation

The houses of the Malind Anim tribe have differences between coastal and inland areas. Muller (2011: 69) explains in the inland, their houses are not shaped like stilts, are made from sago leaves, and are covered with eucalyptus bark. The Malind Anim group who live on the coast have their houses standing on a platform that is upright on the ground. The walls are made of sago leaf stalks stuck into the ground between flat poles of wood or bamboo. In Makaling Village, the house named Rumah Malind Aha has wall material in the form of sago trunks which are not dominated by stilts, but are dominated directly on the sand.

In general, the architectural form of the Malind Anim Tribe's houses is rectangular in shape with the house facing north. The house only has one room, no windows, and two doors on the west and east (Djubiantono et al., 2005: 7). Baal (1968) explains that no source can provide an estimate of the average length and width of a Malin tribe's coastal house. The width of which is around 5-6 meters and the length of 6-7 meters.

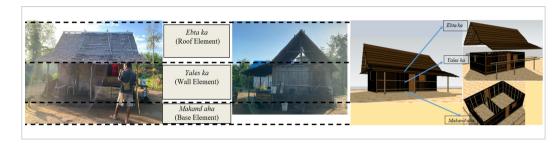
Djubiantono et al. (2005: 8) explains that after 1920, the Dutch government as a nation that came to Merauke abolished the pattern of living without a nuclear family. This abolition occurred at the suggestion of Catholic missionaries so since then the pattern of residence has been that there are houses with nuclear families (no longer separated between men and women). The house with a nuclear family system then called the aha, was built on the beach sand, namely under coconut trees (onggat) (Pongantung, 2019: 31-32).

Aha as vernacular residential houses in Makaling Village are divided into two types, namely Rumah Pu Aha and Rumah Malind Aha. Rumah Pu Aha which are referred to as houses belonging to people who have predominantly received influence from outside Makaling Village. This external influence includes house materials that come from outside the village which are not original materials from the Makaling forest or land and also includes craftsmen and sources of funds for building houses that come from outside. The second type of house, namely the Rumah Malind Aha

is the focus of observation in this study. The Rumah Malind Aha is a house that still predominantly uses original natural materials as natural resources from Makaling's forests and land. The materials that make it up predominantly come from within Makaling Village itself.

### The Outermost Layer: Architectural Elements of Rumah Malind Aha

The people of Makaling Village occupy the Rumah Malind Aha in three main elements, including: the base which they call makand aha, the walls which they call yales ka and the roof at the top which they call ebta ka. Ching and Eckler (2013: 167) explain that the basic architectural elements of a building include: roof, ceiling, room, wall, window, door, floor, mechanical system, structure, foundation, and building site. As for the Rumah Malind Aha in Makaling Village, the architectural elements have three basic elements, namely the base, walls, and roof (Fig. 4).



Makand aha is divided into three typologies, namely sa ka (sand), omos (mat), cement floor, and lahwalah aha (house on stilts). The wall section, namely yales ka, has several types including yales (sago leaves midribs), sago leaves, boards, and factory materials. The roof of the house or ebta ka is divided into ebta as roof covering layer and tin roof.

Forest is the main and dominant producer of materials for the Rumah Malind Aha, composed of original materials from Makaling Village itself. Parts of the forest such as: Deg Yah, Da Yah, and Untayas each supply housing materials. Deg Yah produces wood from the large trees found there, Da Yah produces all materials from sago plants, and Untayas produces coconut trees which are used as poles and sewing thread (connecting) house materials. Therefore, the architectural elements of the Rumah Malind Aha are directly related to the need to preserve the forest and they maintain forest sustainability as a form of sustainable space protection for Makaling's future.

	Ebta ka	Yales ka	Makand aha	Visual Data
The Typologies	(1A) Malind Ebta: original roof made of stitching sago leaves, pierced with sago sticks and the center pole (bengkawan) was made of split sago leaves midribs	(2A) Yales ka: are installed horizontally, made of sago leaves midribs and split bamboo.	(3A) Sa ka: sand beach.	(1A) (2A) (3A)

## Fig. 4

The main elements of Rumah Malind Aha in Makaling. Source: authors, 2023

### Table 1

The elements of Rumah Malind Aha in Makaling. Source: authors, 2023

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	Ebta ka	Yales ka	Makand aha	Visual Data
The Typologies	(1B) Pu Ebta: knowl- edge of the roof cov- ering stitching sys- tem from immigrant, sewing use laoleba & the bengkawan	(2B) Yales ka: are installed vertically, made of sago leaves midribs and split bamboo.	(3B) Omos ka: mat made of split bamboo.	(3B)
	(1C) Ebta ka: tin roofs have been influenced by the immigrants, but the majority roof is sago leaves.	(2C) Yales ka: sago leaves.	(3C) Lahwalah aha: made of wood & bam- boo. Received influence from the immigrants.	
		(2D) Yales ka: wood board.	(3D) Cement floor: has been influ- enced by the immigrants.	(2D) (3D)
		(2E) Yales ka: factory materials.		

## The Outermost Layer: The Namakid (Farm), Ohan (Hunting), and Imbalak Awe (Fishing)

Drying copra coconuts or what is known as mes sasarghi apart from being done in a roughing place, namely in a mes isala (copra coconut smoking installation) can also be done on a tarpaulin on the ground, but it is also often done on the roof (ebta ka) of the kimbakai (terrace) of their house. So, the height of the roof in the kimbakai area is always as high as a standing person and must be within arm's reach when drying copra. Yales ka and the roof frame (ebta ka) they use as a place to store ohan and imbalak awe equipment such as bows, arrows, fish spears, and also hang fishing nets. They store meat from the hunt and fish from netting in the sea or in fresh water ponds in the form of preserved meat which is hung on the roof frame of the house or they dry it on the roof of the kimbakai. In their daily lives, especially to support their food needs, they keep pets called namakid including pigs, dogs and chickens. Their chicken coop is a kamboti and a rorok, both of which are on the yales ka wall of Rumah Malind Aha.

No	Livelihood activities	Rumah Malind Aha architectural elements used
1.	Drying of copra coconuts or what is known as mes sasarghi	Ebta ka
2.	Storage place for hunting equipment (bows, arrows, spears and fishing equipment (nets and fish spears).	Ebta ka and Yales ka
3.	A place to store preserved hunting meat and salted fish.	Ebta ka
4.	Chicken farming coops are called rorok and kamboti.	Yales ka

### Table 2

The use of architectural elements of The Rumah Malind Aha for livelihood purposes. Source: authors, 2023

## The Middle Layer: The Amai-Bawand; Sasi and Pamali; and Nakep Bakehe of Rumah Malind Aha

There is an amai-bawand system which is tasked with maintaining the continuity of the supply of native Makaling forest materials, such as amai from sago plants, namely the Mahuse clan, while amai from coconut trees namely Gebse clan. They have secret rituals in each clan in each traditional group there (imo and mayo ndaman). Their belief in the amai bawand system and inherited ancestral advice related to the architectural elements of the Rumah Malind Aha has become the tradition and culture of the people of Makaling Village. So, there is another pillar, namely the cultural dimension, which can also enrich the pillars of sustainable development. The theoretical proposition comes from the general observation of many cultural phenomena that can be presented in a sustainable conceptual framework (Bervar, 2019; Parameswara, 2020; Soini & Dessein, 2016). The amai-bawand system is related to the dema-totem system, namely natural objects, flora, fauna, and other natural materials. The totem is the symbol of the Malind Anim clan and is considered sacred because it correlates with the ancestors of a clan within their tribe (Muller, 2011: 66). Dema is believed to be a spirit being who has power over humans as well as being the creator of nature and bearer of customs to humans (Djubiantono et al., 2005: 26-27). At this time, the power of dema then shifts into the form of creatures such as flora, fauna, objects in nature, and also humans to form the unity of society (Boelaars, 1986: 5-6). Each dema figure that turns to another object in nature then represents a totem.

The floor elements of Rumah Malind Aha that they maintain are sa ka (sand) related to their traditions. Their habit is to sit together in groups when discussing something important directly on the sa (sand) which is also an amai (totem) for the bawand (clan) gebse in Makaling. For this reason, the sand is something natural and commonplace for them and become their original habit. They also need sand inside the Rumah Malind Aha for the burial location of the kaka itahyom (placenta) after the mother gives birth to a baby. Therefore, they also still maintain sand floors to find a place to bury their baby's kaka itahyom. This situation is in line with the traditional soso<sup>1</sup> activities stated by Baal (1968) and Pongantung (2019: 31).

The amai-bawand system also applies to the layout of the distribution of Rumah Malind Aha to be maintained and resilient only on the coast. In fact, they are essentially a coastal tribe who are responsible for the coast called duh atih. They believe that if the house system begins to spread to land, then water (as one of the amai-bawand of the Malind Duh Tribe) will increasingly chase people to land. Sea water runs after people who are getting further away from it, and it is believed that natural disasters can occur, such as coastal erosion.



<sup>&</sup>lt;sup>1</sup> Baal (1968) explains that soso is the local language for activities when villagers go and sit in a shady place on a hot day.

They have a sasi system, namely restrictions on things marked with mud streaks. When sasi of the forest territory, they cannot take all-natural products from the sasi area including materials for building the Rumah Malind Aha. Thus, when they want to build their house, they have to take the materials in a place that is free from sasi that is respected and obeyed by all residents.

Pamali is a belief and oral knowledge that has become the advice of elders that the people in Makaling Village try to avoid because if not will bring disaster. Various pamali developed in the memories and oral knowledge of the people of Makaling Village, is related to preparing the materials when carrying out the construction process, especially those related to the process of sewing the roof of the Rumah Malind Aha. Pamali has rules on taking Rumah Malind Aha materials (sago leaves and sago midribs), that it is prohibited for people outside the Malind Tribe to collect their house materials from the forest, but must be native Malind Tribe. There are secret activities that are closed and special for them when preparing house materials which they call ingredients for building a house. The sago leaf material taken from da yah (sago forest) in one day must be used in its entirety, it cannot be left over or if the amount is still insufficient then you cannot immediately take more ingredients from the forest. However, they have to wait to return home at another time after making an appointment with their parents. So, the ebta (roof) that they have finished working on will be stored little by little around the house up to around 200-500 pieces to be able to start building the house. They also reuse materials from the demolition of the old house.

It is believed that each part of the forest and its natural resources have their own guardians and humans must regulate their behavior and not be careless, the same goes for taking potions or household materials. So that the sacred nature of the forest remains and they believe this secret and ritualistic form of guarding the sacredness of the forest is a condition for preserving the forest as the main material supplier for their house. Djojosoekarto et al. (2012: 160) explain that in the basic values of the Papuan, land has the meaning of living existence and very sacred, both as a source of food and shelter, and either as profanity for present and future generations.

### Fig. 5

The architectural element, namely ebta ka, was prepared for the nakep bakehe process in Makaling Village. Source: Authors, 2023

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Nakep bakehe is a process of building a house in the form of cooperation and mutual cooperation among the residents of Makaling Village. The young people helped each other lift the roof construction of Rumah Malind Aha to be moved to the main pillar of the house which had previously been prepared. Prijotomo (2018: 134-135) explains that people in Ubud since 1949 have also implemented a mutual cooperation system in transporting statues and in the process of building temples which involves almost the entire village population.

## The deepest layer / seplik values: spirituality value, collectivistic values, and sustainability values

The appearance of the house changes and there are variations in the typology of Rumah Malind Aha, there is consistency in the parts inside, namely the inner layer values (middle layer and deepest layer). They named the deepest layer as seplik values, which means the original values possessed by the Malind Duh Tribe in Makaling Village. Seplik are not to disturb other people, namely the values of bringing peace and prosperity to others. Seplik values as transcendental values are manifested in: spirituality values, collectivistic values, and sustainability values.

The collectivistic values include togetherness, cooperation, unity in society, as well as exclusive ownership which is regulated in the clan system in Makaling Village. Thus, collectivistic values are also related to their bawand (clan). The social aspect of nakep bakehe is reflected in the communality of the construction of the Rumah Malind Aha which involves many people, not just the individual responsibility of the homeowner himself.

The value of spirituality is a basic and important belief for the Malind Duh Tribe in Makaling Village to be able to live their lives. Their spiritual values are centred on their belief in ancestral advice contained in the management of nature (forests and beaches) and in their bawand (clan) as descendants of their ancestors. They follow traditional and cultural rules which are manifested through various systems (makand ehon, amai-bawand, pamali, or sasi) inherited from their ancestors. Forests are sacred places and are a location for inheriting ancestral advice. Thus, in providing the raw materials for the Rumah Malind Aha, the Makaling Village Community treats the cultural rules/norms they adhere to in empowering their forest as a form of respect for their ancestors.

(Hematang et al., 2021; Hematang & Kurniawan, 2024) explained that local people in Merauke use parts of the sago plant to make materials for the walls of houses, but the material construction technique and the knowledge to build it was brought since the Dutch rule at the beginning of the 20th century in Merauke. So the walls made of sago midrib material, but it is necessary to look more closely at the origin or style. Whether internal factors dominate or are they influenced by external factors. Because

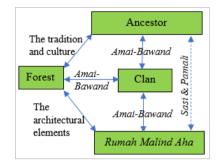


Fig. 6

The relationship between Rumah Malind Aha, ancestral advice (eglargh), and forest for spirituality value. Source: authors, 2023

Rumah Malind Aha in Makaling Village have bamboo clamps on the body of the walls of the house which are then called hipa (clamp construction), while the Rumah Gaba-Gaba found in the city (Hematang, Alahudin, and Susanti, 2021) explained are different. They do not have hipa (clamp construction) but are 2/2 size pieces of wood that clamp at the end of the wall.

They believe that as long as the internal factors are still alive, surviving and dominant in every line of their settlement space then their settlement space and continuity as the Malind Duh Tribe can always be maintained. On the other hand, if influence from outside or external factors dominates, it results in an accumulation style leading to unsustainable. The value of sustainability is also related to their thoughts on maintaining their internal values related to livelihoods. There is an effort to fulfil their well-being in order to survive is contained in peeling back the layers of elements of the Rumah Malind Aha (Table 2). Even though various appearance designs are presented in various typologies of physical elements of the house, the economic function supports the welfare of the residents, which is unique and has the character of the coastal rural communities of Papua.

The comprehensive and complex relationship between the Malind Aha House and the surrounding elements is a phenomenon that contains transcendental meaning in the life experience of the Malind Duh tribe, the residents of Makaling Village. Apart from the outermost layer called ahhidih, there are layers within it which are essence, continuous, and influence the sustainability of Rumah Malind Aha. The outer layers are ahhidih such as the architectural elements of Rumah Malind Aha including the transformation of the shape of the house and the use of each element of the house for livelihood activities. The inner layers are mbya no idihe such as: the sasi, the pamali, ancestral advice, the amai-bawand system, the nakep bakehe, the namakid, the mes sasarghi, the ohan, and the imbalak awe. The deepest layers are the values which are called seplik values, such as: spirituality values, sustainability values, and collectivity values.

The collectivistic values include the collaboration process for building the Rumah Malind Aha (in the process of nakep bakehe). Apart from that, this value is stored in the phenomenon of using elements of the Rumah Malind Aha to advance the economy on a household scale, also the house ownership system is in clan units (exclusive groups) rather than individually per head of family. The value of spirituality is also manifested from the outer and inner layers of human relations

## Conclusions

(within the clan), ancestors, and the natural surroundings of the Rumah Malind Aha. There are rules/norms that have been passed down traditionally from generation to generation until now which contain sacred content (public and secret). Sustainability values are connected with main-taining and limiting the natural materials and re-using materials from forests, as well as their response in facing external things that come in.

Further research can be developed, such as on the mezzo scale (settlements) even to the macro scale (urban), which aims to scientifically increase the level and value of Melanesian which develop research that looks for aspects other than the physical. Because this research has the limitation that the phenomenon observed only belongs to the Malind Duh Tribe (which occupies the coast), it is necessary to continue the research with the observed phenomenon (the Malind Deg Tribe which occupies the inland part). Further research methods can also be developed, such as: narrative methods, case study methods, as well as quantitative methods that use deductions from theories/concepts resulting from this research.

## Acnowledgment

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