

Understanding *genius loci* to sustain Ume Bangka's traditional architecture based on intangible material culture

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Abstract. The vernacular architecture used natural materials for its construction, such as wood, clay, stones, leaves, and animal skins. In tropical countries such as Indonesia, most vernacular architecture is made out of wood; this material is versatile, highly accessible, and affordable. Ume Bangka—a plantation house from Bangka—uses wood for its main construction. However, due to deforestation mainly by private sectors, such as major palm oil industries and private tin mining, wood becomes a scarce commodity. These activities also reduce traditional landscape areas and settlements that belongs to local people for centuries. As wood becomes unaffordable and less area to inhabit, people begin to abandon Ume Bangka as their future home and opt for modern housing type. This is very unfortunate because Ume Bangka shares a close relationship with local culture and natural landscape. This paper investigates the issue of the relationship between natural landscape and cultural values around Ume Bangka as a traditional Bangkanese dwelling. The main methodology in this discussion used literature studies on vernacular housing typology, especially in Bangka Island. Finding the *genius loci*—the spirit of a place—from the construction of Ume Bangka is the expected result of this paper that will serve as a preliminary idea in sustaining Ume Bangka's traditional house amidst globalization and proposing Ume Bangka as the cultural identity as well as the inspiration for built-environment sustainability in Bangka Island.

Keywords: Ume Bangka, vernacular architecture, material, *genius loci*

1. Introduction

Before the 19th Century, most native people lived in a dense tropical rainforest in Bangka Islands. Came as part of the Austronesians tribe called *Deutro Melayu* since 1500 BC, the ancestors of today's modern Bangka brought their lifestyle called *berume*—planting and migrating from one land to another [1-2]. Ume Bangka is their traditional stage-house made of wood and located in *dusun* (hamlet) of dense rainforest. Separated into three levels—*kolong*, *induk*, and *atap*—this modest housing unit had fulfilled the needs of people in Bangka Island. As shown in figure 1, *kolong* (base) is mainly used as storage and housing fowl or chicken coop, *induk* (main building) as their living space where daily social interaction between family members took place, and last is *atap* (roof) and space below it known as *loteng* (attic) where people kept their prized possession [3-5].

Ume Bangka has nine, twelve, or sixteen columns made of wood to support its roof and body. The uniqueness of Ume Bangka came from the way it utilized every element of trees: its trunk, bark, and even its leaves. The native people of Bangka made the tree trunk into strong posts and floor panels. The wall of Ume Bangka used the tree bark that was nailed to the wall structure. Finally, *rumbia* (or sago palm tree leaves) were clamped onto the roof structure with smaller wooden slates.



To construct the main structure, the native of Bangka Island erected columns of Ume Bangka by following the natural growth of trees: the root end against the ground, while the tip supporting the roof structure. Based on Gaudenz Domenig's book, this arrangement created strength, because "*the root end of a post is not only heavier but also somewhat thicker than the tip*" [6], thus creating a strong structure to support the entire building (Figure 1). This material knowledge was acquired by not only the indigenous people in Bangka but also various other traditional tribes across Indonesia.

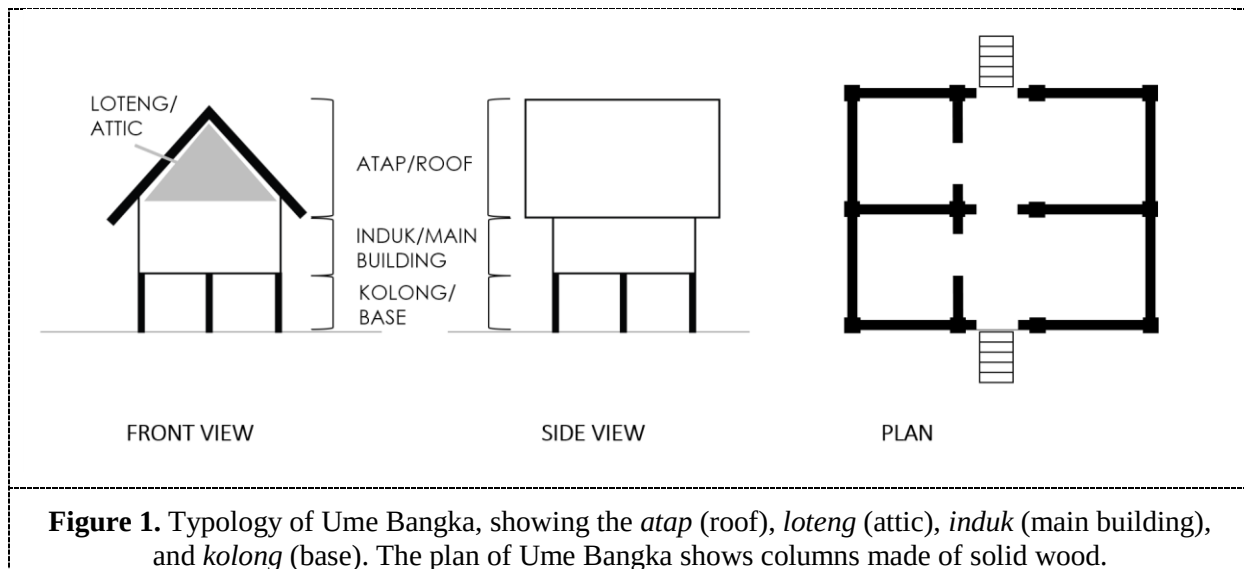


Figure 1. Typology of Ume Bangka, showing the *atap* (roof), *loteng* (attic), *induk* (main building), and *kolong* (base). The plan of Ume Bangka shows columns made of solid wood.

During the colonial and post-colonial periods, tin mining business began to rise in Bangka. Known as one of the largest tin ore producer in the world, the tin mining industry had influenced the development of politic, social, and even cultural orientation in Bangka [1-2]. The tin mining industry, then, gradually changed Bangka from an agricultural society to mining and trading community. One clear impact can be traced through the development of urban landscape and architecture in major cities in Bangka Island [2]. In the mid-19th Century, the Dutch government relocated local settlements from the forest to newer settlements alongside these new roads built to connect major mining cities in Bangka, such as Muntok and Pangkalpinang (Figure 2). The main idea behind this relocation was to win the 50-years-war against Depati Amir in the 19th century by cutting off the rebels' food source and their hidden territories [1]. Finally, in 1851, the colonial government caught and exiled Depati Amir to a south-eastern island of Indonesia known as East Nusa Tenggara, and thus successfully ending the war.

Other than ending the rebellion led by Depati Amir, resettling natives from their natural habitat was another effort made by the colonial government to gain access to tin resources. Without natives out of their woods, the Dutch colonial government was free to exploit their land to mine tin ore. Also, with more people lived closer to the city, it was easier for the Dutch government to hire more workers for their tin smelting and—most importantly—to gain control over the indigenous people [7].

The relocation of indigenous settlements from the forest to the suburban affected Ume Bangka as the local's traditional housing typology. Living far away from the forest means acquiring woods was no longer an easy task and highly expensive. Instead of woods, houses built outside the forest use recycled materials or bricks in order to save money [3,8]. Also, to preserve Bangka's water reservoir, the government limited the felling of trees; a law that forced people to switch from Ume Bangka—a traditional wooden stage house—to smaller, landed, houses [3].

However, the real menace in resettling locals to the city is that this practice made Ume Bangka—the symbol of tradition and custom in Bangka—seemed inferior to modern housing typologies. Ume Bangka is underestimated and representing 'backwardness' and 'under developed,' while the 'new'

housing typology is identified as ‘progressive’ and ‘civilized’ [2]. This mindset, however, gnaws within the majority of people who are skeptical and pessimistic about the future of Bangka [9]. Lost courage to save themselves, Ume Bangka will soon perish just like other vernacular architectures that had disappeared “*to make way for new housing blocks, shopping malls, and office centers*” [10]—Ume Bangka will be gone, crumbling against time.

2. Methods

This paper investigates the relationship between the natural environment and cultural values of Ume Bangka as a traditional housing typology in Bangka Island. The importance of Ume Bangka as a cultural identity and heritage for the people in Bangka Island is the primary aim of this paper. The discussion is separated into three topics: (1) house as the *genius loci*; (2) the tension between old versus new—modern versus traditional—as a byproduct of industrialization and modernization in Bangka Island; and finally (3) the importance of finding the cultural identity through Ume Bangka for a sustainable future.

The parameter of this paper is set around Ume Bangka as a traditional housing typology, because, as Rapoport says, “*building a house is a cultural phenomenon*,” the house is “*an institution not just a structure*” that reflects as a sequence of socio-cultural factors around specific community [11]. Therefore, as the oldest housing typology exists in Bangka, Ume Bangka will be a significant parameter in studying the connection between cultural value and natural environment.

Literature research in pragmatic approach is the main methodology used in this paper. Pragmatic approach is important in this paper to allow reflective position on social and political issues following the data. Understanding values in Ume Bangka are crucial in pragmatic approach because it enables people to experience facts [12].

Discussion on Bangka—its people, natural landscape, and history—will set the overall understanding on the issue around Ume Bangka in today’s modern life, emphasizing over the cultural value against social and political factors occurred in the historical timeline. Readings on the architectural history and culture in Bangka are important, as well as *Genius Loci: Towards a Phenomenology of Architecture* by Christian Norberg-Schulz (1979). Understanding *genius loci*—an ancient Roman believe that places have inner spirits that determined their essences and characters [13,14]—will help the discussion on the relationship between natural environment, built environment, and the occupants. *Genius loci* is a rhetorical device which will help people to defend places based on their values, as well as “*culturally or ecologically, against damaging forms of development*” [14]. Knowing *genius loci* will determine ways in preserving Ume Bangka for the future of sustainable heritage conservation in Bangka Island.

3. Discussion

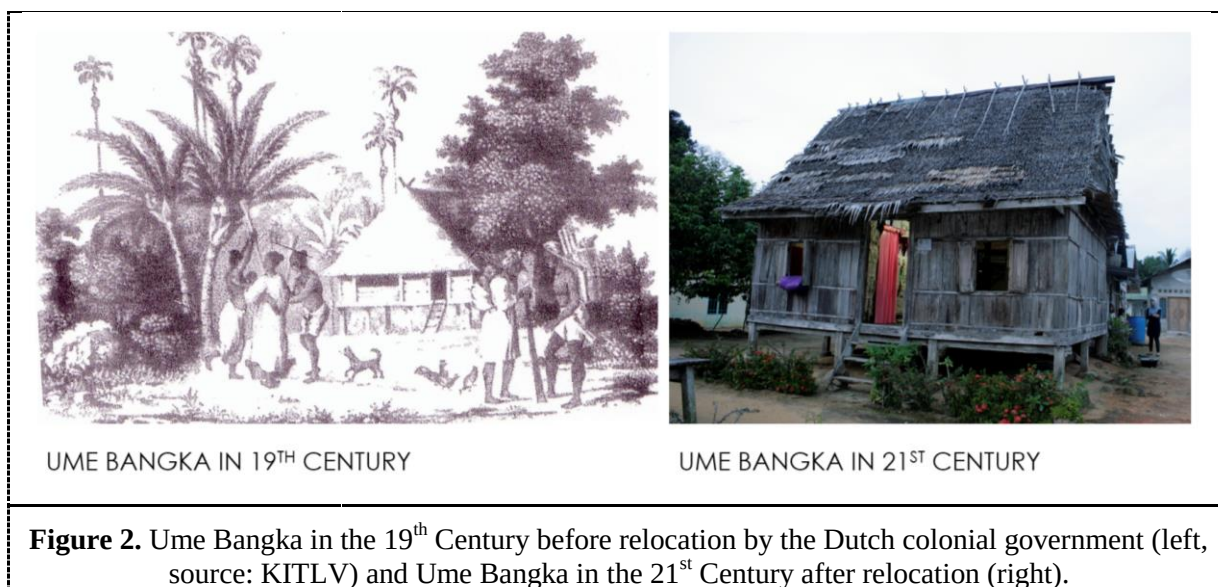
3.1. House as our genius loci: the relationship between our body and the natural environment

In vernacular architecture, house means more than shelter. House is not a structure, but an institution of a complex set of purposes. Unlike the modern architecture, which placed innovation, physical appeal, and intellectual ideas as their main focus, the functional aspect of a house is far more important than its physical or concept in vernacular architecture [11,15]. House, therefore, from the vernacular architecture standpoint, “*is a human fact*” that relating “*man’s way of life to the environment*” [11].

Moreover, the house is part of a larger system around its context. For example, when the forefathers lived inside Ume Bangka, living as a nomadic tribe and as gatherers, their lives were rotated around Ume Bangka. As a closed community with 10-40 houses in the woods [1,3], this indigenous people of Bangka once were capable of providing themselves without outside intervention. The indigenous people of Bangka fed their livestock under their house (*kolong*) then continued to collect edible plants

in the nearby forest. When harvesting their goods, some were stored in granary while some—for the family—stored under their houses.

Socializing also took place around Ume Bangka: the *induk* part of Ume Bangka represents the idea of community gathering and social value of living *berume*. And last, the attic served as the most sacred part of Ume Bangka. The closest part to heaven, people used it to store their family heirlooms and valuables. Often used as well as a weaving station. For local people in Bangka, weaving is a tradition rich in rituals and spiritual symbols. The attic of Ume Bangka shared identity on how houses was seen as part of cosmos in vernacular architecture, where the highest part of the house is intended ‘to get closer to gods’ [11]. These close connection between people and nature creates Ume Bangka. Deserting Ume Bangka, therefore, similar with disconnecting from the nature that had been nurtured Bangka’s ancestors for centuries old, spiritually and culturally. This “concrete phenomena of our everyday life” [13] is what determined Ume Bangka’s character—the spirit of place: *genius loci*.



To understand Ume Bangka as the *genius loci* of Bangka’s local identity, we must agree that Ume Bangka should not be described as a noun. Instead, it should stand “as a system of relations” [13]: the relation between the physical boundaries, natural environment, and the people who lived in it. In other words, Ume Bangka shall be the complex associations between landscape, family, and community [16]; a sacred circle that linked forever, strengthening their identity. Therefore, when the Dutch colonial government removed one aspect that made Ume Bangka the living breathing cultural identity—the landscape—it disrupted the balance and alienated people in Bangka from their own identity.

“Environment affects us,” says Christopher Day, “it affects both social and personal health; body, soul, and spirit” [17]. Day continues that different frames—or perhaps ‘the relation of the built environment and the natural environment’—influence the way we think, feel, and behave. In another word, displacement will change the way we are [17]. In the case of Ume Bangka, being removed from the forest was disrupting the local custom and tradition. Once it was common for people in Bangka to work with woods, but nowadays, once abundant and commonly used as building material, becomes a burden: an expensive material only the riches can afford [3].

With less and less Ume Bangka preserved, even fewer people know how to build it. No architects nor blueprints used to construct Ume Bangka, making it difficult to recreate this particular typology in the modern day. The material knowledge, therefore, representing the character of Ume Bangka itself as mentioned by Christian Norberg-Schulz, “character depends upon how things are made” [13]. Thus,

Ume Bangka “*might be inherited and represent ties of kinship*” [15], further cemented the strong connection between landscape-community-family in describing the cultural identity in Bangka Island.

3.2. Modernity in Bangka: old versus new

Displacement—as discussed before—is the main issue that threatens Ume Bangka’s cultural values. Even worst, the displacement disrupted the tradition and custom of the indigenous people in Bangka, slowly replacing local identity with something more Western-centric. Instead of living in harmony with nature, the connection between modern urban man and their natural environment is reduced to fragmentary relations, often ends up with excessively exploiting the soil [11,13].

Similar condition happened in Bangka Island, especially during the 19th Century as the colonial government exploited the tin resources, creating conflict between agriculture and tin mining in Bangka [3]. Illegal mining and forest cutting, as well as lack of supervision by the colonial government, had caused huge environmental damage, prompting heavy floods in traditional settlements that forced locals to move from forest to kampungs on the outskirts of the city [5].

When forced to resettle alongside the major roads in Bangka Island, the indigenous people of Bangka were exposed to the marvel of modern industrial technology. With tin mining business thrived and prospered, the urban settlement in Bangka also expanded. More roads were built, more cars were strolling on the street, and more building was connected as an object of a unified thing [18]. “*Industrialization relocated work away from homes that would, instead, turn into units of consumption, education and clean domesticity*” [16], meaning that technology had separated work, social, and home which once related to each other in the ideology of living *berume*. The issue now relies on not only being displaced from the source material but also being stripped off from their lifestyle completely.

Ignorance towards other cultures was the main problem during this relocation, especially when the idea of home between Western and native culture is completely different. In the western conception of dwelling, home is based on the notions of stability, permanency, sense of belonging, and—most importantly—being rooted in a place [19]. Unlike the indigenous people of Bangka and their Ume Bangka, dwelling means moving from one place to another [1-3]; there is no permanent location, always moving from places and continually searching for a better location to find food. Nomadic life in the industrialized society, therefore, regarded as an outdated or dysfunctional activity by Western society, and thus preventing progress and development in the future [10].

Tin mining exploitation, roads construction across Bangka, and the relocation of Bangka’s native people had promoted some social changes, which then associated with rising capitalist classes—in this case the foreigners: the Dutch colonial official, Chinese and Arabs migrants who came to Bangka Island as miners or merchants, respectively [1,16]. The Dutch colonial government divided settlements in most major cities in Bangka Island based on their races and ethnicities, in the sake of gaining control over the population [1-2]. Urban segregation in Bangka Island made the locals grew jealous of others’ prosperous lives and nice houses. Furthermore, Chinese in Bangka had a strong impression on the locals. While locals buried their wealth, “*the Chinese spent money on feasts*” as well as lavish weddings and funerals parties [20]. It did not help that the colonial government assumed those who lived in Ume Bangka were “*not part of the civilized society*” and therefore are not capable of handling their own laws [3]. In a sense, the local people of Bangka were ignored from the urban society.

The inferiority of the indigenous people of Bangka carried on even until post-colonial era during Sukarno’s reign. As the first Indonesian president, Sukarno envisioned Indonesia as a modern country that will gain international influence. Soekarno’s idea was manifested through massive infrastructures projects being constructed in Jakarta, the capital city. Bangka Island, on the other hand, was neglected. Ironically, the regional development plan for Bangka Island was crudely based on the colonial legacy during the tin mining industry. The development had been understood as a homogenous idea, instead as unique social, cultural, and historical characteristics. Just like the colonial official, traditional housing typology such as Ume Bangka is seen by Indonesian government as a symbol of ‘under

developed society', 'untamed' and 'old' [2,5], clearly not representing the national spirit as a modern and thriving country in the 20th century with skyscrapers that reach the sky. Woods as Ume Bangka's main material is also seen as inferior and cheap-looking material compares to stone and steel architecture which more representing the technological wonders of mankind [21].

3.3. Ume Bangka for a happier future

For centuries, Ume Bangka is the symbol that unites landscape, community, and family. As a traditional housing typology, Ume Bangka is the identity of indigenous people in Bangka Island—their culture, heritage, and tradition. Ume Bangka, therefore, is not "*a thing of the past*" [22]. However, we cannot deny that the world had changes and therefore we should not copy the past. "*It won't work*", says Christopher Day [17]. Recreating Ume Bangka as if in 1500 BC, will not work in the 21st century because modern man now seeks stability. They want to settle down and gain access to other facilities provided by their government. It is not about feeling inferior towards foreign culture, no, because culture absorbs "*'foreign' elements, made developments within the particular culture, and 'modernized' their worldviews*" [22]. If the indigenous people in Bangka Island understand their origin and their representation from Ume Bangka, adapting to modern world should not be a hard task.

Even before the Dutch came and monopolized the tin mining industry, the native people in Bangka Island had lived side-by-side with foreigners for hundreds of years. Chinese and Arabs came first as merchants and traders. Once, there were no boundaries between the locals, Chinese, and Arabs settlements; they were free to interact with each other, resulting in a rich cultural hybridity [1,3,5]. The problem in relocating the native people from their natural settlement to the city was that the colonial government did not predict the disruption they caused towards the relationship between human and their surrounding—whether towards the community or the natural environment—for the sake of having power over their subjects.

"*The identity of place is determined by location*" [13]. Some places get their identity because the location is interesting, while the man-made components might be insignificant. It could also happen the other way around: the landscape might be dull and boring but it possesses a well-defined configuration [13]. In the case of Ume Bangka, its character and identity were influenced by the natural environment. When it was removed from its natural environment by the colonial government, Ume Bangka was thrown into an unfamiliar terrain of man-made construction with strict regulation. Ume Bangka was not allowed to improve and adjust; it merely just existed, torn out of its root. Without identity, all qualities are lost and thus promotes an environmental crisis which, if ignored, will imply to human crisis [13].

Continuing to preserve Ume Bangka will eventually preserve the identity and character of native people in Bangka. It does not mean that Ume Bangka must be rebuilt in the forest. It is no use because people no longer live in the woods and Ume Bangka will once again be forgotten. Accepting the local heritage, tradition, and legacy will be the first step in achieving the sustainable happiness—the balance between our natural desire with the well-being of other and the natural environment—will foster sustainable behavior [23]. Sustainable behavior will lead people to understand that fixes in social conduct cannot be solved with technology, cost-benefit appraisals and taxes [17]—resolving social, economic, and political problems will take more than resettling people from the rain forest to the city, denying their tradition altogether.

4. Conclusion

For centuries, the people in Bangka Island had lived feeling inferior. They were segregated, ostracized, and alienated from their own land. First by the colonial government where the natives of Bangka Island were forcibly removed from their natural habitat. The idea of *berume* was abandoned: people were forced to change their agricultural tradition to working in tin smelting companies. Then, after independency, same ideology—new is better than old—was carried on by Indonesian government. Traditional houses such as Ume Bangka were viewed as 'underdeveloped' and 'backwardness'. In fact, vernacular architecture is more modern because it connects people, community, and landscape for

a sustainable future. The interaction and connection between these three aspects make Ume Bangka suitable as a symbol of cultural identity in Bangka, also corresponding to the future of Bangka in general.

To make Ume Bangka thriving once more, we must not see Ume Bangka as a noun. Instead, we must see Ume Bangka as a living being that connects people, community, and landscape. Therefore, Ume Bangka is flexible to changes and adjustment in the future. The ideology of Ume Bangka—a nurturing system of people-community-natural environment—will be preserved, while other components might be change accordingly. First of all, Ume Bangka should adjust itself to its current location: the city. For example, revitalizing and preserving existed Ume Bangka will alert locals and government attentions regarding traditional houses. Then, reconstructing Ume Bangka are another solution to learn and pass down the traditional material knowledge and craftsmanship to the younger generation in Bangka Island. In the end, people will live in Ume Bangka with pride.

This paper serves as a preliminary research and thus requires more data on how the locals live today to prove hypothesis expressed within this paper. However, current research and readings are focusing on the previous live of Bangka's ancestors and their Ume Bangka or focusing on the physical attributes of Ume Bangka. Therefore, an anthropological approach might be needed to capture the core of Ume Bangka, current habits and tradition in Bangka, and relates it to the modern world. Then, a prosperous future Ume Bangka and people of Bangka will be achieved.

5. Acknowledgments

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6. References

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