

The Characteristics and Linkages between Traditional Houses: Mandailing's *Bagas Godang* and Minangkabau's *Luhak Agam* in Indonesia

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Abstract

At first glance, the (Batak-) Mandailing traditional house in North Sumatra—*Bagas Godang*—resembled the *Bolon* house of the Toba people and the *Siwaluh Jabu* house of the Karo people in appearance. However, it had a very close form to the *Rumah Gadang* of the Minangkabau people in Luhak Agam, West Sumatra: particularly the roof form. These similarities and differences of house forms are unique and have not been understood well.

In this context, this study investigates the architectural characteristics of the Mandailing traditional house by comparing it to the Minangkabau traditional house in Luhak Agam. The study included the *Bolon* and *Siwaluh Jabu* houses as additional comparisons. The objective was to discover the linkage between the *Bagas Godang* house in Mandailing and the *Rumah Gadang* in Luhak Agam, in terms of space, form, and style.

The study employed qualitative research methods and analyzed and compared them through observations, interviews, and documentation.

The findings reveal that there is also a process of culture and knowledge shared among them.

Keywords: Architectural characteristics, House forms, *Bagas godang*, *Rumah gadang*, Minangkabau, Mandailing, Indonesia.

Introduction

Rumah gadang is one of the cultural heritages and identity of the existence of the Minangkabau people. This house has been an integral part of the life of the Minangkabau people since old times which has experienced a process of continuity and change in its history along with the evolution of Minangkabau culture. There have been many studies on *rumah gadang* for a long time, especially with ethnographic and phenomenological approaches to their typology. The same thing also happened to studies of old houses in Indonesia. However, there are no studies that link typologies that discuss its evolution, history, and cultural connections

with neighboring ethnicities. So that the existing studies only focus on isolating an ethnic group in a static and narrow manner. It is not surprising that historiographical studies on the old houses of each ethnic group in Indonesia do not appear much and are not well developed. Several books on the history of Indonesian architecture which have been published and used as textbooks for Indonesian architectural history courses do not display the deep and scientific aspects of history and its evolution in these ancient houses. They also do not display inter-ethnic cultural connections, which in fact most of them are still classified as one family of Austronesian-speaking culture.

In previous studies of the author, it was found that the houses of the Minangkabau ethnic group have a closeness and characteristic linkage with the houses of the Malay ethnic groups who are directly neighbors to them in Sumatra. This is in line with studies in social science. In linguistics, especially in Austronesian studies and the 'Out of Taiwan' theory, the Minangkabau language belongs to the Malayic group of speakers. This is also supported by anthropological science which shows that Minangkabau is included in the Malay cultural category. In addition to this cultural connection, it turns out that they also have historical connections that are interrelated, especially from the Srivijaya kingdom to the Malay Islamic sultanate. It can be concluded that the similarity of language and cultural groups indicates a closer similarity of house typologies. The similarity of these characteristics along with historical connections can result in architectural historiographical reconstructions which show the evolution of Malayic-speaking houses, especially the *rumah gadang*, and also the cultural influences among them.

However, there are other ethnic groups that are directly neighbors of the Minangkabau but are not from Malayic speakers, namely the Mandailing ethnicity. The Mandailing language belongs to the Sumatran (or Northwest Sumatra–Barrier Islands) language group which is also classified in Austronesian language. Supposedly the Mandailing house (*bagas godang*) and the Minangkabau house indicate more differences than similarities due to distant relatives. However, from the initial observations made by the author, it was found that at first glance the two houses actually have more similarities than differences.

Some interesting findings were also obtained through the initial literature review. *bagas godang* is a Mandailing traditional house. *bagas godang* literally means "big house," and it is typically referred to as the residence of the *raja* (king) or *tunggani huta* (village owner or leader). Common people's houses are usually smaller and called *bagas*; the hip roof may or may not have a curved ridge. *Bagas* means house, and it also literally means inside. Interestingly, the house-styles of Mandailing Julu and Mandailing Godang are similar (Luthan, 2015). The facade and ornamentation, however, are almost identical to the *bolon* in Toba and the *siwaluh jabu* in Karo. However, the shape, scale, and proportion are almost identical to the *rumah gadang* (also means "big house") in Minangkabau, particularly the traditional house in the region of *darek-rantau* Luhak Agam (Agam, Pasaman, and Rokan). The *rumah bapaserek* or *surambi papek* style is prevalent in Luhak Agam (Boestami et al., 1979; Syamsidar, 1991; Couto, 2008; Schefold, 2008).

These similarities and differences have not been well understood but are intriguing in terms of their existence in the context of Indonesia's multi-cultural landscape. In this context, this paper aims to present the architectural characteristics of Mandailing's *bagas godang* and its linkage to Minangkabau's *rumah gadang* of Luhak Agam. This can be achieved by determining the objective of this paper, namely, to analyze the characteristics of the *bagas godang* from multiple case studies in Mandailing and then to verify their similarities and differences with the characteristics of the *rumah gadang* in Luhak Agam by using a comparative method.

Review of Literature

Theoretical Basis and Previous Studies

When we talk about ethnic old houses, we are talking about vernacular architecture and traditional architecture. According to Rapoport (1969), vernacular architecture is a building that

grew from folk tradition. It is also a process based on models and variations, where variations are the development of a model not only in additions but also in the development of the appearance of the building. The vernacular model is influenced by six modifying factors, namely materials, construction, technology, climate, land, and socio-culture. Socio-cultural is the most influential factor. Traditional architecture itself is a tradition of vernacular architecture that is conventional and continued from generation to generation. In line with that, Oliver (1997) revealed that vernacular architecture is dwellings and other buildings that are self-built or by the community together to meet specific needs and accommodate culture (values, economy, and way of life). It has a type of initial building through an unconscious process without the influence of any political power. Its form is influenced by the context of the natural and cultural environment, such as environmental conditions, local resources, knowledge of traditional building systems and technology, patterns of human behavior, social structures, and belief systems. The types of buildings are strongly influenced by functions and meanings. Rapoport and Oliver's statement implies that vernacular and traditional architecture is heavily influenced by the local context (nature and culture). The building will have a specific type and shape in the context of its natural and cultural environment. So that each location may have a different character from the others in the form of variations from the initial model. Especially for traditional architecture, it can also be consciously influenced by political power.

In architecture, when we talk about characteristics, we talk about typology. According to Moneo (1978), typology is a descriptive concept of a set of objects with similar basic traits. By analyzing the typology, we can find the initial idea historically, function knowledge, and the simple form of an architectural object. Habraken (1988) explained that building characteristics or typologies can be analyzed into three components, namely: spatial systems, physical systems and figural configurations, and style systems. The relationship between these components is described in the study of space syntax of a building. It should be noted that space syntax studies are currently not only discussing spatial issues, but also how space has a relationship to form and style. Genotypes (or design syntax or in this case the space systems) are abstract principles of spatial arrangements, whereas phenotype (or design form or physical systems and figural configurations) is the realization of the genotypes (Guney, 2007). The common complex semantics in groups of designs generate style (Gero & Ding, 2001). The spatial system is related to human behavior and is influenced by the role of socio-cultural systems (Habraken, 1988). When one looks at a building this way, one can see that the traditional and vernacular buildings have consistent space genotypes that become 'cultural imprints' (Hanson in Bafna, 2012).

The evidence of 'systematic intent' can discover a vernacular form. In fact, vernacular buildings can evolve into new designs when there is liberation to innovate and explore. The old design turns into knowledge in 'embryonic forms'; as evidence of 'systematic intent' and 'theoretical intent'. This new design re-expresses the old design by modification. Subsequently, this new design becomes a new-generation vernacular building (Hiller, 1993). The old design could have been carried out through the 'genetic engineering' manipulation process into a new design. The system carries out the selection process, then finds 'common genes' and 'gene structures' in genotypes in individual good designs and become evolved genes in existing gene schemes. Through evaluation, mapping, and encoding at the level of simple semantics and complex semantics, the process of evolved deriving occurs hierarchically. Finally, the system assesses the fitness value of style to evolved style (Gero & Ding, 2001).

From these typology and space syntax studies, it can be concluded that the spatial system in an ethnic vernacular building tends to be consistent, which relates to the behavior of its users and is strongly influenced by the socio-cultural system. This spatial system (genotype) will influence the realization of the physical system and the figural configuration of the building (phenotype). The similarity in meaning of several groups of these buildings creates a style. Old-style designs can evolve into new design styles through a process of innovation and exploration that is fit for the context of the environment. Fox (2006) argued that Austronesian houses have similarities and differences in terms of their cultural traditions.

In previous studies conducted by the author in 2017-2020 regarding the linkage (by borrowing the term in linguistics and genetics) of the characteristics of the *rumah gadang* with the surrounding traditional houses in the Central Sumatra region (Riau, Hulu Jambi, and North Bengkulu), the research resulted in some interesting findings on genotype, phenotype, and style among them. Traditional houses in Kampar, Kuantan, Rokan, Hulu Jambi, and North Bengkulu showed Minangkabau influence from *darek* to *rantau* (upstream to downstream), which occurred during the Pagaruyung Kingdom and the Malayupura Kingdom (Khamdevi, 2020a; Khamdevi, 2020b; Khamdevi, 2021; Khamdevi, 2022). This is in line with Minangkabau history that this area was a *rantau* territory which is an extension of the *darek* in the hinterland. These studies also indicated that there was influence from downstream to upstream before the Minangkabau period, which may have occurred during the Dharmasraya Kingdom and even the Srivijaya *Kedatuan* which was related to Old Malay history. In the Solok and Solok Selatan areas, there are long houses which indicated a linkage presumption with the long houses on the island of Borneo. Malayic (including Iban and other Malayic Dayaks), along with Chamic (including Acehnese), Rejang, and Sundanese, is categorized into the Greater North Borneo (GNB) languages subgroup along with Bidayuh, Kayan, Melanau, Kenyah, Dusun, Murut, and others (Blust, 2010; Smith, 2017). These studies show that when the study of old houses is not isolated and not centric on one particular ethnicity or provincial area, it produces many dynamic and rich new findings.

The analytical method in this study was also used in the research of Faisal and Wihardyanto (2022) in examining the shape and spatial characteristics of ethnic Malay houses in coastal areas and islands in East Sumatra, such as the Akit, Lom, Duano, and Laut tribes. This study shows that the spatial and form components of their houses have an emphasis on functionality but can accept flexibility as needed. The functional space component influences its form using simple and efficient rectangular shapes and forms. Although the authors did not discuss the style of these buildings, they implicitly stated that the type of gable roof used in these houses showed the basic traits of Malayic-speaking houses. Waterson in Schefold *et al.* (2003) stated that rectangular plans and gable roofs are the basic characteristics of Austronesian houses.

It can be concluded that the genotypes in the same group of speakers have strong consistency. This is related to their behavior, habits, and customs which tend to be similar. The phenotype can accept changes that are influenced by the space needs of the householder. Meanwhile, style is easier to change and varied due to innovations that fit the context of the environment and even accept the influence of the the power discourse of the elites as well as the dominant culture from outside.

However, this needs to be tested or verified in the houses of different ethnic groups of speakers from the same language family, especially in ethnically adjacent ethnic groups. The results should have shown different configurations in spatial planning due to the consistency associated with differences in each other's habits and customs. But even so, they still have the same spatial hierarchy of the Austronesian culture. This spatial pattern will of course also influence the shape and form of the building. The style of the building may show dominant cultural influences other than the local environmental context.

Historical Connection

Mandailing-Natal is in the southern region of the North Sumatra Province, close to the northern regions of the West Sumatra Province (Pasaman and Agam) and the Riau Province (Rokan). There are also Padang Lawas (Vajrayana or Tantrayana) Buddhist temples in the middle of these regions, which are assumed to be the remains of the Pannai Kingdom in the 11th to 14th centuries, which eventually became part of the Srivijaya Kingdom. Nevertheless, the Pasaman region itself was one of the vassals (*rantau* of Luhak Agam) of the Minangkabau's Malayupura Kingdom, which was centered in Suruwasa or Saruaso; It was a Vajrayana or Tantrayana Buddhist kingdom in the 14th century (Kozok, 2006). Theording to Nuraini (2004), the Aek Batang Gadis river runs from Gunung Kulabu through the Mandailing-Natal region,

connecting the Mandailing Julu traditional sub-regions (Muara Sipongi and Huta Nopan) to the Mandailing Godang traditional sub-regions (Panyabungan, Siabu and Natal).

Both Mandailing and Minangkabau belong to the Austronesian language-speaking family. However, they are in two different sub-family categories. The Mandailing language is included in the sub-category of Sumatran languages or Northwest Sumatra–Barrier Islands languages along with Toba, Karo, Pakpak-Dairi, Angkola, Simalungun, Gayo, Nias, Mentawai, and others. Meanwhile Minangkabau is included in the sub-category of Malayic languages along with the other Malay languages (Blust, 2010; Smith, 2017).

Mandailing and Minangkabau have historical ties dating back to the Srivijaya Kingdom, Dharmasraya Kingdom, Malayapura Kingdom, and the Pagaruyung Sultanate (Munoz, 2006). The Minangkabau and Mandailing have been mentioned in Mpu Prapanca's 1287 Caka / 1365 AD text - Kakawin Nagarakretagama - as the Malay territory occupied by the Majapahit Kingdom (Lubis, 1986 and Saktiani, 2018). According to the records of Richard Burton and Nathaniel Ward in 1824 AD, Batak people had accepted and obeyed the Minangkabau Sultan (Pagaruyung) as the ruler of their area, even since the era of the previous Minangkabau ruler (Malayapura Kingdom). The Minangkabau king always toured the Sumatra Island and selected the tribal chiefs to look after their respective regions, including the Batak chiefs (Reid, 2014). Marsden (year) reports that in 1811 AD, the Bataks had great regard and obedience for the Minangkabau Sultan. They have attempted not to offend the Sultan to avoid being sentenced (Marsden, 2016). Raffles also reports that the Batak leaders in Tapanuli's interior have explained that Sisingamangaraja was a Minangkabau descendent who had been appointed as the Pagaruyung Kingdom's vassal ruler. Sisingamangaraja's successors have continued to send regular tributes to the Minangkabau kings through the mediation of Tuanku Barus, a ruler in the Barus region, until the beginning of the twentieth century (Hull, 1991). There is also a myth about the naming of Mandailing which is interpreted in the Minangkabau language to be *Mande - Hilang*, or “the missing mother” (Lubis, 1986). The kinship system of the Minangkabau uses a matrilineal system, while the Mandailing uses a patrilineal system.

Some older generations in Mandailing (and Tapanuli in general) can still communicate in Minangkabau. Previously, the Minangkabau was a language used between the Batak tribes because one tribe did not comprehend the language of the other tribe. With the passage of time, the Malay language of Deli and, more recently, Bahasa Indonesia have become more widely used among them. Residents of Muaro Sipongi (Ulu People) claimed to be Minangkabau, spoke Minangkabau, and practiced the matrilineal system. Their language, along with the Lubu and Siladang, is still in the same family as the Minangkabau language, though there is influence from the Batak (Toba and Mandailing) and Malay languages as well. Some families from the Mandailing and Pannai tribes, on the other hand, had spread to Minangkabau via the Agam region and assimilated into the Minangkabau population.

This gets even more intriguing when a recent study explored the developments of post-Pallava inscriptions distributed in North Sumatra from Mandailing to Angkola, Toba, and Karo. The impact of these inscriptions appeared to begin from the southern part of Sumatra Island, which is the center of the Srivijaya kingdom (Jambi-Palembang and its surroundings), then moved North through Minangkabau (West Sumatra and Riau), and had finally reached North Sumatra (Kozok, 2006, and Kozok, 2015). This is consistent with the statement in the Batak history book, *Tonggo-tonggo Siboru Deakparujar*, which is based on traditional *Toba Tua* literature. Mandailing is said to be the Toba Batak tribe's ancestral origin. After the birth of the Batak ruler (the 6th Generation of *Siboru Deakparujar* and *Siraja Odap-odap*) in 1305 AD, the tonggo-tonggo is supposed to have come to exist. *Si Raja Batak* is supposed to have lived in Mandailing before moving to Toba (Sangti, 1977).

Research Method

This study examines the characteristic linkage of *bagas godang* in Mandailing and *rumah gadang* in Agam. It employed a qualitative approach to analyze the spaces, structures and forms, and styles which can help determine the characteristics of the houses by employing the theoretical ideas from the literature review to interpret and analyze them. . The case study

method was used to generate data regarding the characteristics of each of the Mandailing houses in the field. Then all of these data were processed using a comparative method to verify the similarities and differences with the characteristics of the *rumah gadang* in Luhak Agam. The findings that have been obtained and analyzed are then formulated to produce hypotheses or theories.

Data were obtained from observations, interviews, and documents. They were triangulated to ensure greater validity of the data. The research was conducted from 2017 to 2022. The objects of field research observed by the authors were selected based on several criterias, namely *bagas godang* which is recommended by the Mandailing customary institution, *bagas godang* which has a *raja* or *tunggani*, *bagas godang* which is classified as traditional architecture even though its vernacular is decreased, and convenience access to the location by motor vehicle. The selected research objects are as follows (Fig.1):

1. Two houses in the Panyabungan region (Mandailing Godang): Pidoli Dolok and Panyabungan Tonga.
2. Four houses in the Huta Nopan region (Mandailing Julu): Singengu Jae, Tamiang, Huta Godang, and Alahan Kae.

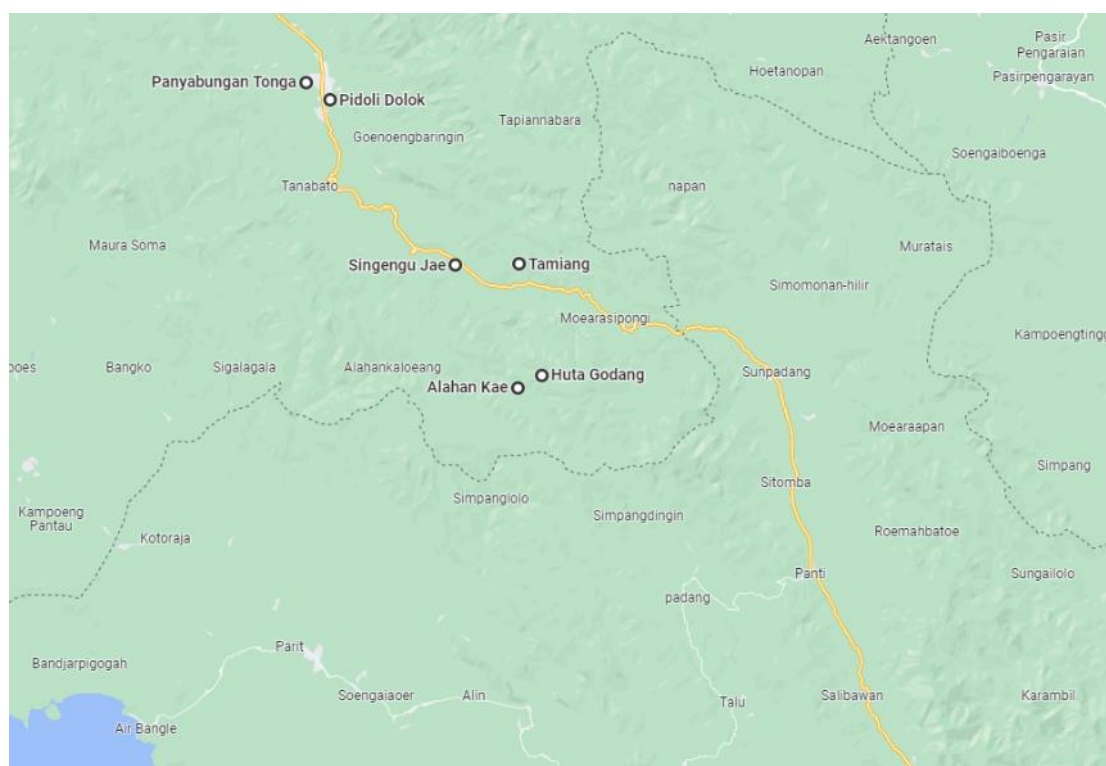


Fig. 1: Research Locations
Source: Googlemaps

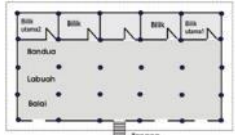


The characteristic components observed are spaces, structures and forms, and styles by employing theoretical ideas from the literature review. The leaders of the customary institutions of Mandailing Godang and Mandailing Julu acted as key informants during the interviews. The *raja* and *tunggani* who inhabit the *bagas godang* are the main informants selected by the customary institution. Meanwhile, several residents who were still close relatives of the *raja* and *tunggani* became additional informants recommended by the *raja* and *tunggani*. Interviews were conducted with a recording aid like voice and video recorder from smartphone and digital camera. The chosen interview type was semi-structured with questions predetermined by the author based on theoretical ideas in the literature review, but it was open to the author's depth exploration of certain themes and further responses from the informants.



Fig. 2: *Rumah Gadang*; Tanah Datar Region Style/ *Gajah Maharam* (left), Agam Region Style/ *Surambi Papek* (center), and Limapuluh Koto Region Style/ *Rajo Babandiang* (right)
Source: Couto, 2008

The main reference for comparing the characteristics linkage of this paper is the *rumah gadang* in Luhak Agam (Fig. 2 and Table 1). Additional comparison references were the *Bolon* in Toba and the *Siwaluh Jabu* in Karo. The data generated from the case studies in Mandailing are verified with these references to interpret the similarities and differences.

Table 1: The architectural characteristics of *Rumah Gadang* in Luhak Agam
Source: Couto, 2008 and Schefold, 2008

Traditional House	Architectural Characteristics		
Rumah Gadang in Luhak Agam	Spatial System	Exterior Space	Batang/ Aie/ Sei > Tapian > Tabek > Rumah > Halaman > Labuah
		Space Pattern	Balai > Labuah > Bandua > Bilik
		Orientation	River and Qibla
	Hierarchy	Public > Semi Public > Semi Privat > Privat	
	Physical System & Figural Quality	Physical form	Rectangular that extends sideways
		Materials	Stone, Wood, Bamboo, and Palm Fiber
		Space Barrier	Wood Wall Roof Structure Separated from Bottom Structure
	Stylistic System	Building Type	Stilt House
		Roof	Gable and Hip Roof Combination and Roof Slopes called Gonjong like Lancang/ Lanchara boat or Buffalo Horn
		Column	Minimum 3-5 rows backward (odd number) and 4-6 rows to the side (even number), 1 Main Post on the middle right, Pentagonal or Octagonal Cross Section
		Openings	Doors and Windows
		Stairs	Odd Number Steps (7-11 Steps)

Findings and the Discussion

Case Study 1: Panyabungan Tonga

Bagas godang in Panyabungan Tonga is owned by the *Nasution* clan. The Nasution clan is descended from Si Baroar Nan Sakti, son of Batara Payung from the Sultanate of Kota Pinang and also a descendant from Pagaruyung. This house is the palace of the king of Mandailing Tonga. We would enter the *barando* (veranda) after ascending the entrance stair of 7 steps. There were *pantar bilik* (guest bedrooms) on the left and right of this area. The *pantar*

jolo (front room) would be found after entering through the front door. Behind it, there was *pantar tonga* (living room). There were bedrooms on the left, right, and back right sides of this building. There was a back verandah behind this big room, with a *dapur* (kitchen) on the left (Fig. 3 and Table 2). This description showed that the pattern of spaces and circulation of this house is arranged linearly. This arrangement followed a hierarchy from spaces that are for public use to spaces that are for private or sacred use.



Fig. 3: *Bagas Godang* in Panyabungan Tonga
Source: author

The building's front facade faced the road and had its back to the river of Aek Mata. An *alaman* (frontyard) is situated in front of the house, where on the right, there was a community hall building called *sopo godang*. There was a *pamispisan* (sideyard) on both sides where rainwater dropped from the roof. Behind it was a *parik* (backyard). The building was built in such a way that it followed the flow of the river and the Qibla direction. The placement of the house and the arrangement of outdoor spaces adapted to the physical conditions of the location towards the river and also to the conditions of the culture.

The genotype of the spatial system above determined the realization of the phenotype of the building as seen in the physical system and its figural quality. As a result, the house had a simple rectangular plan that extended sideways (Fig. 3 and Table 2). The building's frontage was on the long side. The main entrance was in the middle. Furthermore, there was a back door. Inside walls and dividing walls were made of wooden boards, while the roof cover was made of corrugated zincalume iron. Previously, the roof cover had been constructed of palm fibers.

The roof of the stilt house has two steep inclined ridges, which used to have a curved shape in the past (Fig. 3 and Table 2). This change was due to financial capabilities, limited local materials, and also fading construction knowledge. The name of the roof is called *tarup silengkung dolok* (literally means the curved roof of a mountain) or *tarup padati* (literally means the roof of a cart), which is culturally agreed to be used in Mandailing. The common everyday word in the Mandailing language for the word "curved" is "*bungkung*", but in the literary language of Mandailing the word "*lengkung*" is more commonly used. The *alo angin* or *bolang* (gable cover) was decorated with local ornaments with a prominent image of a buffalo head. The gable cover, which has a triangular shape which is interpreted as a symbol of *pusuk ni robung*, is a symbol of the traditional system of *dalian na tolu* (three basic social systems) in Mandailing. The decoration is called *gorga*, a local art carvings, which symbolize the condition of the people. The columns are positioned 5 rows back and 9 rows sideways. Its cross-sectioned octagonal columns rested on a stone pedestal. This style system is determined based on cultural agreements that are controlled by custom that generally apply in Mandailing.

Table 2: The architectural characteristics of *Bagas Godang* in Panyabungan Tonga

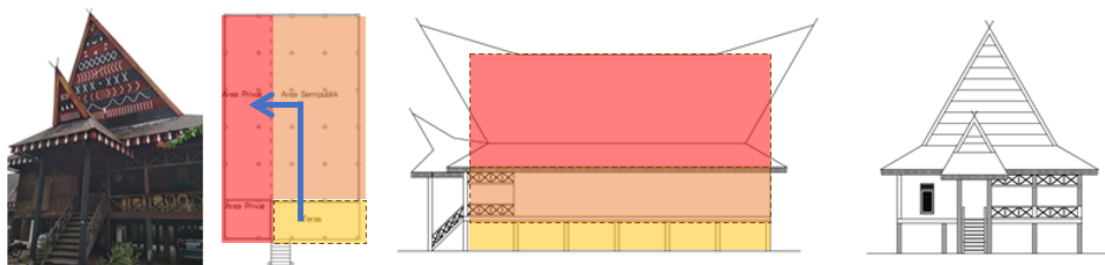
Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalam (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur
		Orientation Hierarchy	River and Qibla Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends sideways
		Materials	Stone, Wood, Bamboo, and Corrugated Zinalume Iron
		Space Barrier Structure	Wood Wall Roof Structure Separated from Bottom Structure
		Stylistic System	Building Type
	Roof		Gable and Hip Roof Combination Two Steep Inclined Ridge
	Column		5 rows on the building's short side and 9 rows on the building's long side Octagonal Cross Section
		Openings	Doors and Windows
	Stairs	7 Steps	

Case Study 2: Pidoli Dolok

The *Nasution* clan owned the *bagas godang* in Pidoli Dolok. This house is the building of the village head. After stepping up the 9 steps of stairs, we would enter the *barando* (veranda). One *pantar bilik* (guest bedroom) was located to the left of this space. You would enter through the front door and then be in the *pantar jolo* (front room). There was a *pantar tonga* (living room) behind it. On the left side of this building were bedrooms. Behind the living room was a *dapur* (kitchen) (Fig. 4 and Table 3). Although the shape of the floor plan is different, in principle the pattern of space and circulation of this house is still arranged in a linear manner following a hierarchy of spaces from public to private or sacred.

With the building's back to the Aek Pohon River, its front facade faced the street. In general, the exterior spatial arrangement and orientation of the building are not much different from the previous house. Building placement and outdoor area arrangement adapted to the physical conditions of the river's location as well as the cultural conditions.

**Fig. 4:** *Bagas Godang* in Pidoli Dolok

Source: author

This genotype defined the phenotype of the house's physical system and figural quality. So, the house had a rectangular plan with a backward extension (Fig. 4 and Table 3). The frontage of the building was on the short side. The main entrance was in the middle. The roof

was covered with shingles. Palm fibers were previously used to make the roof cover. Interior walls and dividing walls were constructed from wooden boards.

Table 3: The architectural characteristics of *Bagas Godang* in Pidoli Dolok

Source: author

Traditional House	Architectural Characteristics			
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalam (road)	
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur	
		Orientation	River and Qibla	
		Hierarchy	Public > Semi Public > Privat	
		Physical System & Figural Quality	Physical form	Rectangular that extends backward
		Materials	Stone, Wood, Bamboo, and Shingle	
		Space Barrier Structure	Wood Wall Roof Structure Separated from Bottom Structure	
		Stylistic System	Building Type	Stilt House
			Roof	Gable and Hip Roof Combination Two Steep Inclined Ridge
			Column	5 rows on the building's short side and 7 rows on the building's long side Octagonal Cross Section
		Openings	Doors and Windows	
		Stairs	9 Steps	

The roof of the stilt house has two steep inclined ridges with cross ornaments on each peak (Fig. 4 and Table 3), depicting buffalo horns (*tanduk ni horbo*). The roof style used *tarup silengkung dolok*, which is a cultural characteristic of the Mandailing house. The roof ridge was supposed to be curved, but changed due to financial constraints, locally available materials and construction knowledge. Local ornaments were used to decorate the *alo angin* or *bolang* (gable cover), which featured a prominent buffalo head. The roof is also decorated with typical Malay fascia ornaments. 7 rows back and 5 rows to the side are where the columns are placed. Its cross-sectioned octagonal columns were supported by a stone pedestal. This style systems are formed by cultural agreements that are determined by customary law in Mandailing.

Case Study 3: Singengu Jae

In Singengu Jae, a *bagas godang* is owned by the *Lubis* clan. The *Lubis* clan is descended from *Si Baitang* and *Si Langkitang* who are still descendants of *Namora Pandebosi* who, according to folk legend, came from *Bugis*. This house is the palace of the king of Mandailing Julu. We would enter the *barando* (veranda) after climbing the 7 steps of stairs. Immediately to the right of this area was one *pantar bilik* (guest bedroom). The *pantar jolo* (front room) was where you would go after entering through the front door. Behind it was a *pantar tonga* (living room). There were bedrooms on the back, right, and left sides of the building. One of the bedrooms at the back became a connecting room to the building behind it which functioned as a *dapur* (kitchen) (Fig. 5 and Table 4). The upper floor served as a storage area for heritage belongings. This description demonstrated that the layout of spaces and circulation in this house is linearly organized. This structure followed a hierarchy, beginning with public spaces and progressing to private or sacred spaces.

The building faced the street and had its back to the *Aek Singengu River*. In comparison to the previous house, the building's exterior spatial configuration and orientation are generally

similar. The positioning of the house and the design of outdoor areas fitted to the physical requirements of the location near the river as well as the cultural conditions.

The phenotype of the physical system and figural quality of the house were decided by this genotype. Therefore, the house had a rectangular plan with a sideways extension (Fig. 5 and Table 4). Two floors make up the home. The building's frontage was on the long side. In a way, the main entrance was in the middle. Corrugated zincalume iron was used to cover the roof. The roof cover was previously made of palm fibers. Wooden boards have been used to build the interior and dividing walls.

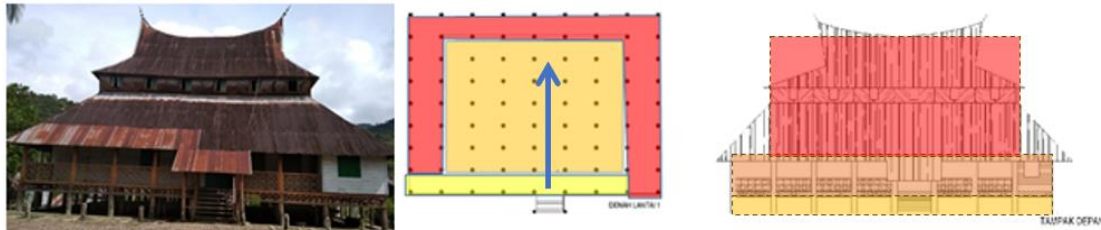


Fig. 5: *Bagas Godang* in Singengu Jae
Source: author

Minangkabau *Bagonjong*-like ornaments are found on each peak of the curved ridge that decorated the Mandailing's *tarup silengkung dolok* roof of the stilt house (Fig. 5 and Table 4). This ornament is called *jongjong* as a symbol of the *dalihan na tolu* custom upholding. Corrugated zincalume iron The *alo angin* or *bolang* (gable cover), which had a prominent buffalo head, was embellished with regional ornaments. The columns are set 9 rows back (5 main columns and 4 supporting columns for the floor) and 9 rows to the side. A stone pedestal served as support for its octagonal cross-sectional columns. These style systems followed Mandailing's customary law.

Table 4: The architectural characteristics of *Bagas Godang* in Singengu Jae
Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalan (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur
		Orientation	River and Qibla
		Hierarchy	Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends sideways
		Materials	Stone, Wood, Bamboo, and Corrugated Zincalume Iron
		Space Barrier Structure	Wood Wall Roof Structure Separated from Bottom Structure
		Stylistic System	Building Type
	Roof		Gable and Hip Roof Combination Curved Ridge
	Column		5 rows on the building's short side and 9 rows on the building's long Octagonal Cross Section
Openings Stairs	Doors and Windows 7 Steps		

Case Study 4: Tamiang

Compared to the previous houses, this one is more recent. Tamiang's *bagas godang* belonged to the *Lubis* clan. This house is the building of the village head. We would ascend the 9 steps from the stairs and then enter the *barando* (veranda). We would find the *pantar jolo* (front room) if we entered the building through the front door. The *pantar tonga*, or living room, was behind it. On the right side of the building were bedrooms. The *dapur* (kitchen), which was behind the living room, was located (Fig. 6 and Table 5). The sequence of linear spatial patterns and circulation of this house followed the same spatial hierarchy as the previous house.

The front of the building faced both the Batang Gadis River and the street. The *Sopo Godang* was situated right on the left side of the *alaman*. The orientation and spatial arrangement of the building are generally similar to those of the previous house from the outside. The placement of buildings and arrangement of outdoor spaces adapted to the physical conditions of the site in relation to rivers and roads as well as to the cultural conditions and the current needs of its people.

This genotype influenced the phenotype of the house. The house had a backward-extending rectangular plan (Fig. 6 and Table 5). Nevertheless, the roof's direction extended to the side. The frontage of the building was on the short side. A little bit in the middle was the main entrance. For the roofing material, clay tiles were used. The interior walls and partitions were constructed out of wooden boards.

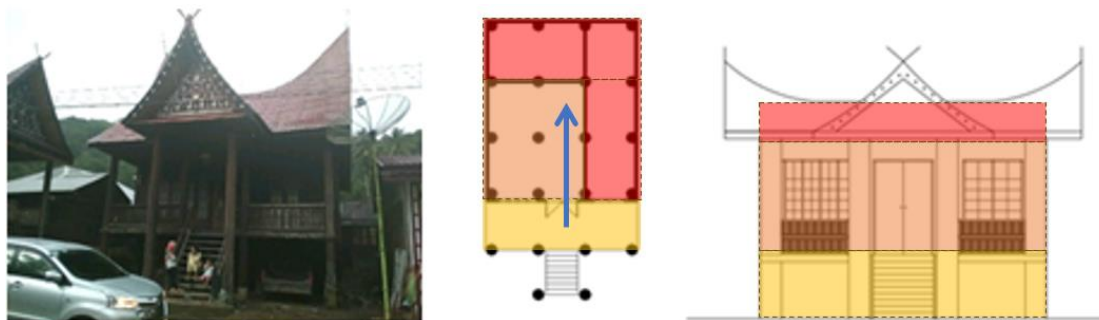


Fig. 6: *Bagas Godang* in Tamiang

Source: author

The style of the house is controlled by customary law. The stilt house has curved ridges on its Mandailing's *tarup silengkung dolok* roof (Fig. 6 and Table 5). A cross that resembled a buffalo horn (*tanduk ni horbo*) was affixed to each of its peaks. Regional ornaments were used to adorn the *alo angin* or *bolang* (gable cover), which featured a buffalo head. 4 rows to the side (3 main columns and 1 supporting columns for the floor) and 5 rows back are where the columns are placed. The octagonal cross-sections of the columns rested on a stone pedestal.

Table 5: The architectural characteristics of *Bagas Godang* in Tamiang

Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalam (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur
		Orientation	River and Qibla
		Hierarchy	Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends backward
		Materials	Stone, Wood, Bamboo, and Clay Tiles
		Space Barrier	Wood Wall

	Structure	Roof Structure 503eparated from Bottom Structure
Stylistic System	Building Type	Stilt House
	Roof	Gable and Hip Roof Combination Curved Ridge
	Column	4 rows on the building's short side and 5 rows on the building's long side Octagonal Cross Section
	Openings Stairs	Doors and Windows 9 Steps

Case Study 5: Huta Godang

Bagas godang in Huta Godang is owned by the *Lubis* clan. This house is the building of the village head. Climbing the 7 steps of stairs, we would then enter the *barando* (veranda). One *pantar bilik* (guest bedroom) was located directly to the right of this space. If you entered the building through the front door, the *pantar jolo* (front room) was to your left. There was a *pantar tonga*, or living room, behind it. On the right side of the building, there were bedrooms. One of the bedrooms became a connecting room to the *dapur* (kitchen) (Fig. 7 and Table 6). This house has a linear pattern of space and circulation and follows a spatial hierarchy from the public to the private or sacred.

The left side of the building faced the road, while the right side faced the Batang Pungkut River. The *Sopo Godang* was located right in front of the *alaman*. The building's exterior spatial arrangement and orientation are generally like those of the previous home. The physical condition of the location to the river and the cultural conditions affected the adaptation of the placement of house and the arrangement of outer space.

The phenotype realization of this house is based on genotype determinations above. So that, the house's rectangular plan extended backward (Fig. 7 and Table 6). The building's frontage was on the short side. The main entrance could be said to be in the middle. The roofing cover material was palm fibers. Interior and dividing walls were constructed using wooden boards.

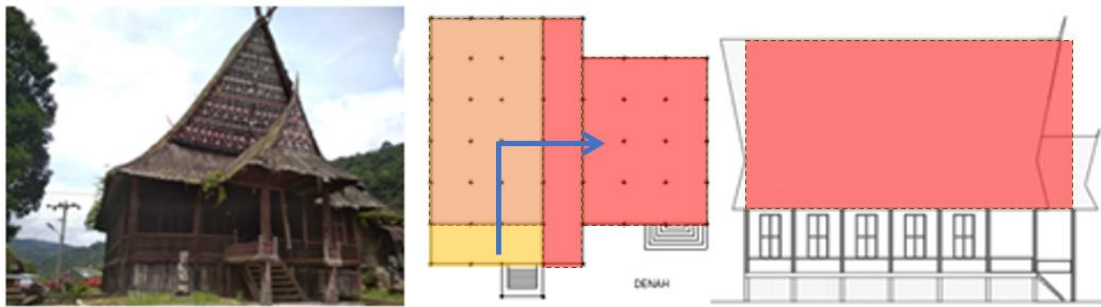


Fig. 7: *Bagas Godang* in Huta Godang
Source: author

The Mandailing's *tarup silengkung dolok* roof of the stilt house has flat ridges, which used to have a curved shape (Fig. 7 and Table 6). Due to limited local construction knowledge and native materials available, the design was changed. Both ends of the gable remain slanted and each peak had a cross ornament depicting a horn from a buffalo (*tanduk ni horbo*). Regional ornaments were added to the *alo angin* or *bolang* (gable cover), which featured a buffalo head. 5 rows to the side and 7 rows back are where the columns are arranged. The columns' octagonal cross-sections were supported by a stone pedestal. These style systems are culturally agreed by customary law of Mandailing.

Table 6: The architectural characteristics of *Bagas Godang* in Huta Godang

Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalan (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur
		Orientation Hierarchy	River and Qibla Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends backward
		Materials	Stone, Wood, Bamboo, and Palm Fiber
		Space Barrier Structure	Wood Wall Roof Structure separated from Bottom Structure
	Stylistic System	Building Type	Stilt House Gable and Hip Roof Combination Flat Ridge
		Roof	5 rows on the building's short side and 7 rows on the building's long side
		Column	Octagonal Cross Section Doors and Windows 7 Steps
		Openings Stairs	

Case Study 6: Alahan Kae

Alahan Kae's *bagas godang*, that is owned by *Batubara* clan. This house is owned by the village head. We would enter the *barando* (veranda) after going up the 9 steps from the stairs. To the right of this area, on *pantar bilik* (bedroom) for guest, was situated. The *pantar jolo* (front room), if you entered the building through the front door, was on your left. Behind it, there was a *pantar tonga*, or living room. There were bedrooms on the right side of the building. Located behind the living room was the *dapur* (kitchen) (Fig. 8 and Table 7). This house also follows a linear pattern of space and circulation and a spatial hierarchy based on the level of spatial properties from public to private or sacred.

The Batang Pungkut River and the road were on the building's front side. The *Sopo Godang* was located right on the left side of the *alaman*. On the outside, the building's orientation and spatial configuration resemble those of the previous residence in most ways. The adaption of the placement of the house and the arrangement of outer space were determined by the physical condition of the location to the river and the roads as well as the cultural conditions.

The house phenotype is realized as a result of the genotype of the spatial system determined above. It had a rectangular plan that extended backward (Fig. 8 and Table 7). The building's frontage was on the short side. The main entrance was in the middle. Palm fibers were used for the roofing cover. Boards of wood were used to build the interior and dividing walls.

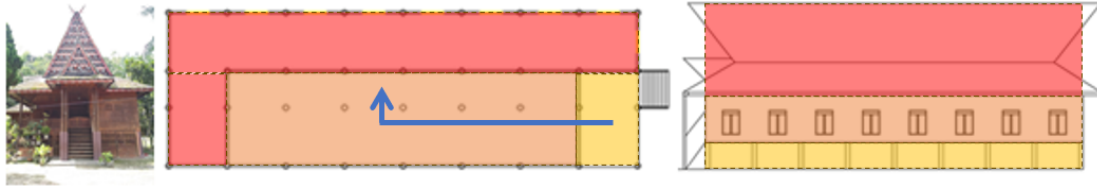


Fig. 8: *Bagas Godang* in Alahan Kae

Source: author

The Mandailing's *tarup silengkung dolok* roof of the stilt house was flat (Fig. 8 and Table 7). The gable's two ends, however, were still slanted, and each of its peaks was ornamented with a cross that looked like a buffalo horn (*tanduk ni horbo*). The *alo angin* or *bolang* (gable cover), which featured a buffalo head, was embellished with regional ornaments. The columns are positioned 4 rows to the side (3 main columns and 1 supporting columns for the floor) and 7 rows back. A stone pedestal supported the columns' octagonal cross-sections. Overall, the style of this house follows the Mandailing custom.

Table 7: The architectural characteristics of *Bagas Godang* in Alahan Kae

Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalan (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik & Dapur
		Orientation	River and Qibla
		Hierarchy	Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends backward
		Materials	Stone, Wood, Bamboo, and Palm Fiber
		Space Barrier	Wood Wall
		Structure	Roof Structure Separated from Bottom Structure
	Stylistic System	Building Type	Stilt House
		Roof	Gable and Hip Roof Combination Curved or Flat Ridge
Column		Minimum 4 rows on the building's short side and 7 rows on the building's long side Octagonal Cross Section	
Openings		Doors and Windows	
Stairs		9 Steps	

Architectural Characteristics of *Bagas Godang* in Mandailing

From the case studies presented above, it is clear that *Bagas godang* in the Mandailing region is varied. However, there are still consistent characteristics among them (Table 8). It should also be noted that the style of houses in Mandailing Godang and Mandailing Julu do not have significant differences. In general, the type of house occupied by the king and the head of the village is different. The king has a house that extends to the side, while the village head's house extends to the back.

The outdoor spatial arrangement is the same but they are adapted to the context of the location, especially to rivers and roads. This also affects the orientation of the facade of the building which is adjusted to the location of the river and the Qibla direction. The pattern and

hierarchy of the spaces are the same. What is different are adjustments and compromises due to the need for additional space, such as the verandah, bedroom, and kitchen.

The verandah only appeared during the Dutch colonial period around the 1900s, which was adopted from the colonial buildings. Previously, there were only *pantil* (balustrades) after the stairs and before entering the house. This verandah is used as a public space to accommodate visitors who participate in carrying out traditional and religious activities, such as the inauguration of *raja* or *tunggani*, ceremonial activities, and recitation of the Al-Quran. In addition, this verandah was also used to receive guests from the Dutch colonial government, so that they would not enter the house.

The floor plan of this building is of at least two types, namely a rectangular that extends backward and a rectangular that extends to the sides. Building materials that are often used are wood, especially for wall elements, roof trusses, columns, doors, and windows. Flattened bamboo (*gogat*) is used as a covering for roof ceilings. For roof coverings, buildings have traditionally used palm fiber. However, now, some use modern materials such as corrugated zincalume iron roof, clay tile, and shingles. The pedestal stone is used as the foundation of the building. These houses also have the same structural system, where the roof structure is separate from the structure below.

The building type of these houses is classified as a stilt house. The roofs use a combination of the hip roof below and the gable roof above. The current roof ridges on these houses have interesting variations. However, the roof style called *tarup silengkung dolok* should have had a curved ridge in the past. All houses use local ornaments on their gable covers. Buffalo horn decorations are also consistently used on both ends of the ridge of the houses, except for the house at Singengu Jae which uses a decoration similar to that used in Minangkabau houses. The number of columns in this house is commonly odd, except for the houses in Tamiang and Alahan Kae where the number of columns on the shortest side is even. The cross-section of the columns has an octagonal shape. The stairs in these houses have always an odd number of steps.

It can be formulated that the genotype of the spatial system of the house, which is efficient and adaptable to the environmental context, determines the embodiment of the phenotype of the physical system and figural quality in the form of a simple and functional rectangular house according to the needs of its inhabitants. The style is determined by the Mandailing custom which is a cultural agreement in sharing the same meaning.

Table 8: The architectural characteristics of *Bagas Godang* in Mandailing

Source: author

Traditional House	Architectural Characteristics		
Bagas Godang in Mandailing	Spatial System	Exterior Space	Batang/ Aek > Lombang > Parik > Bagas > Alaman > Dalam (road)
		Space Pattern	Pantar Jolo > Pantar Tonga > Pantar Bilik
		Orientation	River and Qibla
		Hierarchy	Public > Semi Public > Privat
	Physical System & Figural Quality	Physical form	Rectangular that extends sideways or backward
		Materials	Stone, Wood, Bamboo, and Palm Fiber
		Space Barrier Structure	Wood Wall Roof Structure Separated from Bottom Structure
	Stylistic System	Building Type	Stilt House
		Roof	Gable and Hip Roof Combination
		Column	Curved or Flat Ridge Minimum 3-5 rows on the building's short side and 5-9

Openings
Stairs

rows on the building's long side
(odd number), Octagonal Cross
Section
Doors and Windows
Odd Number Steps (7-9 Steps)

Comparison of *Bagas Godang* in Mandailing on *Rumah Gadang* in Luhak Agam

Characteristics of *Bagas godang* in Mandailing and *rumah gadang* in Luhak Agam have a significant linkage but also have differences (Table 9). Exterior spatial planning and building orientation have similar principles. When viewed from the arrangement and hierarchy of the rooms, the *Bagas godang* houses are closer to the arrangement of houses of Malayic speakers (including Minangkabau), especially where the bedrooms are only on the backside. This is different from houses in Northwest Sumatra–Barrier Islands speakers, especially in Toba and Karo, where the bedrooms tend to be front to front. If we still take the plans in Toba and Karo as a reference, the plans of *Bagas godang* seem to be half of the plans of the houses in those areas. But this is a bit naive. Thus, the results of the analysis from this study show that the plans of *Bagas godang* are influenced by the houses of Malayic speakers.

Tabel 9: The Architectural Characteristic comparison of *Rumah Bagas Godang* in Mandailing to Minangkabau's *Rumah Gadang* in Luhak Agam

Source: author

Architectural Characteristics		Panyabung an Tonga	Pidoli Dolok	Singeng u Jae	Huta Godang	Alahan Kae	Tamiang
Spatial System	Exterior Space	✓	✓	✓	✓	✓	✓
	Space	✓	✓	✓	✓	✓	✓
	Space Pattern	✓	✓	✓	✓	✓	✓
	Orientation	✓	✓	✓	✓	✓	✓
	Hierarchy						
Physical System & Figural Quality	Physical form	✓	✓*	✓	✓*	✓*	✓
	Materials	✓	✓	✓	✓	✓	✓
	Space Barrier Structure	✓	✓	✓	✓	✓	✓
	Structure	✓	✓	✓	✓	✓	✓
Stylistic System	Building Type	✓	✓	✓	✓	✓	✓
	Roof	✓	✓	✓	✓	✓	✓
	Column	X	X	X	X	X	X
	Openings	✓	✓	✓	✓	✓	✓
	Stairs	✓	✓	✓	✓	✓	✓
	Ornaments	✓	✓	✓	✓	✓	✓
		X	X	bagonjong-like	X	X	X

✓: strong linkage

✓*: less strong linkage

X: weak or no linkage

Bagas godang houses that have a rectangular plan that extends to the sideway are very common in houses that speak Malayic languages (including Minangkabau), usually called *perabung panjang*. Meanwhile, houses that have a rectangular plan that extends backward, *perabung melintang*, are very common in Malay houses on the coast of Sumatra and the Riau Islands (Hoseini & Dahlan, 2012; Faisal & Wihardyanto, 2020). If we juxtapose the two types of house shapes in Mandailing, by rotating 90 degrees the house which building extends backward, then we will find the spatial pattern and hierarchy of the houses have a consistent resemblance to one another. Therefore, this tends to show the influence of the house culture of Malayic speakers on *Bagas godang*. Discourse from the dominant cultural power of the Malay-Minangkabau influenced the characteristics of the genotype of houses in Mandailing.

The use of types of building materials is also relatively the same between *bagas godang* and Luhak Agam's *rumah gadang*, which is dominated by using wood for the body and roof of the building. Both are stilt houses standing on stone foundations. Structurally, both are the same where the roof structure is separated from the structure below it (superstructure and substructure), commonly used in traditional Malay houses. This is different from what is commonly used in Toba and Karo, where the substructure is separate from the superstructure-roof structure. This again showed the discourse of dominant cultural power from Malay-Minangkabau influencing the phenotype characteristics of houses in Mandailing.

Both *bagas godang* in Mandailing and *rumah gadang* in Luhak Agam have this type of roof by combining the hip roof below and the gable roof above. In the past, the curved ridges on *bagas godang* are very similar to those used on the Minangkabau and Toba. However, one of the peaks of the *Bolon* house is higher than the other peak. This type of roof is very distinctive in Luhak Agam when compared to those in Luhak Limapuluh Koto and Tanah Datar. Most likely the influence of this hip-gable combination roof came from Mandailing (even Angkola, Pakpak-Dairi, or Karo) through the borrowing process, but it is not possible to determine the knowledge about this process, whether it is an adaptation to the environmental context or just an appropriation. Meanwhile, the influence of the gable roof which has a curved ridge came from Malay-Minangkabau.

Generally, at the end of the ridge of *bagas godang* there is *tanduk ni horbo* ornament, but the house at Singengu Jae has a *bagonjong*-like decoration which is commonly used in the interior of Minangkabau. In Pidoli Dolok, the house has a typical Malay ornament on the roof fascia.

The buffalo horn ornament is also generally found in Malay houses in Sumatra, both on the coast and in the Riau Islands. Some of them are houses from the old *rantau* region of interior Minangkabau (*darek*) in the east and south which are currently outside the territory of West Sumatra (Khamdevi, 2020a). In addition, the *bagonjong* decoration, which has a crescent moon symbol on the top, is sometimes also associated with the buffalo head symbol.

In *bagas godang* there is no main post like the one in *rumah gadang*. The columns are usually an odd number, both on the long and short sides. This distinguishes it from *rumah gadang*. An odd number of steps is very common and is part of the customs and culture of Austronesian houses, at least in Indonesia, where if you start with your right foot, you will end with your right foot as well.

It can be formulated that there is a linkage between the Mandailing's *bagas godang* and the Minangkabau's *rumah gadang* in Luhak Agam. The influence of Malay-Minangkabau cultural power is very significant to *bagas godang*, which was previously thought to be only in its style system, but now also in the physical system and figural quality and the spatial system. Meanwhile, Batak-Mandailing contributed cultural borrowing in the form of a hip roof type to *rumah gadang* in Luhak Agam. However, it is not clear whether this is a process of adaptation (fitness) to the environmental context or just an appropriation to create new variations. In genetics, there is a term called 'adaptive introgression', which is the incorporation of foreign variations through several flow traits so that they are able to fit in their environment. As we know, a gable roof has the use of draining rainwater on two sloping sides, however, it has the advantage of reducing heat due to its large volume of space. However, the hip roof is unique in a weather environment with strong winds and high rainfall because it has four sides. In addition, this roof provides more optimal shading than a gable roof.

This linkage can be explained on a cladogram using lines that branch off in different directions (Fig. 9). This diagramming method is borrowed from the taxonomy of the family tree system from the theory of historical linguistics and the phylogenetic tree from the theory of evolution in biology. This diagram shows the common ancestor genealogy and traits flow between adjacent and distant subfamilies. This is very helpful in reconstructing the architectural historiography of ethnic houses in Indonesia for future research.

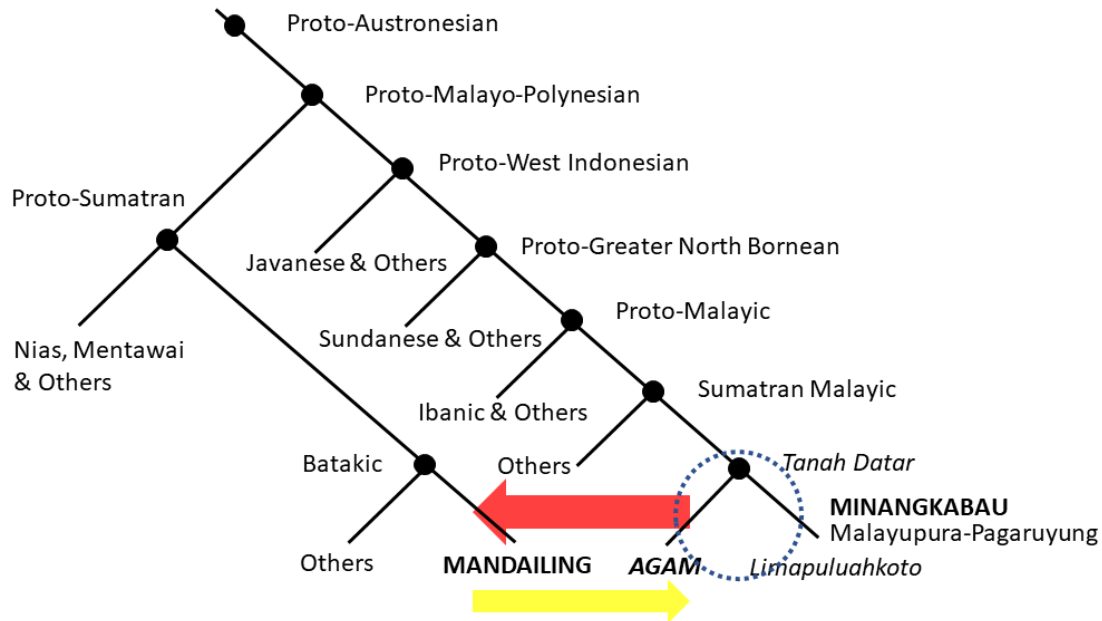


Fig. 9: The Cladogram of Traits Flow among *Bagas Godang* in Mandailing and Minangkabau's *Rumah Gadang* in Luhak Agam
Source: author

Conclusions

On its characteristics, *bagas godang* has a predetermined genotype based on the similarity of needs, habits, and customs of the Mandailing people. This genotype formed the basis for the embodiment of the phenotype and produced two types that distinguish the king's house from the village head's house. The style is determined by cultural agreements in the form of Mandailing's customary laws which collected the similarity of meaning.

The architectural characteristics of *bagas godang* in Mandailing and *rumah gadang* in Luhak Agam showed similarities in spatial systems in spatial patterns and hierarchies. They also have similarities in the orientation and placement of buildings. In terms of physical systems and figural qualities, they have similarities in physical form, especially in the king's house. In the use of materials, space barriers, and structure, they are also similar. In the stylistic system, they are both stage houses. They also have in common the use of a combined gable and hip roof type with curved ridges. In the type of openings and stairs they are also the same. The striking difference between the two is in the stylistic system in the form of column types and types of ornaments.

They also showed linkage which displayed cultural knowledge interaction and sharing in the past. The Malay-Minangkabau cultural power discourse influenced the design determination of *bagas godang*, not only in its style but also in the genotype and phenotype of the house. Meanwhile, Batak-Mandailing influenced the use of hip roof type to *rumah gadang* in Luhak Agam through the process of cultural borrowing.

This paper succeeded in verifying the characteristic linkage between two distant subfamilies of Austronesian-speaking but geographically close. It could also explain the role of discourse from the dominant cultural power influencing other culture house typologies. However, this paper has not been able to explain the aim of the process of trait borrowing, whether for fitness or appropriation. So, in the future, a multidimensional interpretation is needed, especially from sociology (anthropology, geography, etc.) to read and dig deeper into the knowledge of the event.

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