

ARCHAEOLOGICAL REVIEW OF THE ROOFS OF BANTAENG COLONIAL BUILDINGS: ITS SHAPE AND TYPOLOGI

¹Hasrianti
hasriantiss21@gmail.com

²Akin Duli
akinduli@yahoo.co.id

³Khadijah Tahir Muda
khadijah@unhas.ac.id

⁴Rosmawati
rosmawati_57@yahoo.co.id

⁵Hasanuddin
udin.balar@gmail.com

⁶Muhammad Nur
nur110970@gmail.com

^{1,5}Pusat Riset Arkeologi Prasejarah dan Sejarah, BRIN, Indonesia
^{2,3,4,6}Departemen Arkeologi, Universitas Hasanuddin, Makassar, Indonesia

Abstract

The roof is one of the elements that can mark a colonial building. Colonial buildings in Indonesia usually use pyramid and saddle shapes. Besides that, there are also decor elements such as gable, dormer, *nok acroterie*, iron console, and so on. Related to this, there is an interest to studying the roofs on colonial buildings in Bantaeng, from the archaeological perspective, specifically the shape and type of roof used and its supporting elements. The benefit and purpose of this study are to provide additional information that is expected to enrich knowledge about the shape and typology of building roofs during the Dutch colonial period in South Sulawesi particularly and Indonesia generally. This study was carried out using a qualitative approach and an inductive reasoning model. The final result is a descriptive-interpretative of information regarding archaeological reviews of the Bantaeng colonial buildings roof. The data collection method is carried out by the desk research, through examination of data and pieces of information analysis using secondary data. The secondary data refers to the buildings in the Bantaeng colonial period, which are sourced from the results of previous research, both from archaeological research reports, thesis, books, and journal articles. The results of the study show a rich variety of roof shapes and typologies, with decorative elements including dormer, gable, gablevent, roof trim, *geveltoppen*, *nok acroterie*, *windwijzer*, *schoor*, and tower.

Keywords: Archaeology, roofs, Bantaeng, colonial buildings

INTRODUCTION

Bantaeng is one of the regencies on south coast of South Sulawesi Province, that once controlled by the Dutch. Since the 17th century to the end of the 19th century, Bantaeng was controlled by the VOC (Nayati 2005:276). Then until the 20th

century, Bantaeng was controlled by the Dutch East Indies government (Laely 2018:4). During this period, the Dutch government built some buildings for residence and supporting facilities for its government. These buildings are still there that can be found today. Apart from buildings were built by the Dutch, there can

also find the Chinese shophouses, as well as local rulers palace and indigenous houses from the same period. All of these buildings are categorized as entirely colonial buildings.

Colonial buildings can be recognized from the roof shape. Colonial buildings in Indonesia generally used pyramidal as well as saddle roofs, and there were elements such as gable, dormer, tower, and console to support the deltils (Samsudi et al. 2020:168). Related to this, there is an interest to studying the roofs on colonial buildings in Bantaeng, from the archaeological perspective, specifically the shape and type of roof used and its supporting elements. In archaeological studies related to architecture, it is important to recognize the typology and shape of buildings. The architectural typology is an attempt to sort, classify, so that diversity and similarities can be revealed in architectural products or colonial building features from one another (Tjahjono 1992; Antariksa 2016:22).

Based on a literature review of previous studies, it can be seen that colonial archaeological research in Bantaeng Regency is not something new and there have been a number of studies conducted before. This research was started in 2005 in Widya Nayati's dissertation research and started quite intensively since 2020. However, the research related to the colonial period of Bantaeng Regency is still lacking. The research that has been conducted from 2005 to 2021 focuses on 1) Study of the spatial form of the Dutch colonial city in Bantaeng; 2) Study of the influence of European architectural elements on the Taqwa Tompong Ancient Mosque building in Bantaeng Regency; 3) Descriptive accounts of colonial buildings in Bantaeng Regency; 4) Historiographical study of the Dutch East Indies government in Bantaeng during the colonial period; 5) Explanation of the archaeological traces of

the Dutch colonial government in Bantaeng Regency; 6) Study of the architecture of a colonial-era residential building on Raya Lanto Street; and, 7) Data collection on colonial buildings in the old town area of Bantaeng Regency for the purpose of preserving and saving cultural heritage (Nayati 2005; Afsari 2013; Sofyan 2015; Balar Sulsel 2017; Laely 2018; Hasrianti and Mansyur 2020; Karti 2020; BPCB Sulsel 2021). From a number of this research focuses, no one has specifically studied the issue of the shape and typology of the roofs of colonial buildings in Bantaeng Regency. Therefore, this study needs to be carried out.

The benefit and purpose of this study are to provide additional information that is expected to enrich knowledge about the shape and typology of building roofs during the Dutch colonial period in South Sulawesi particularly and Indonesia generally. In addition, the results of this study are also expected to be a source of reference for subsequent related studies. Practically, the results of this study are expected to become a reference in sustainable development and urban planning in Bantaeng Regency, as well as efforts to build and reconstruct the local and national cultural identities.

METHOD

This study examines colonial buildings scattered in Bantaeng District, Bantaeng Regency, South Sulawesi Province, as research objects. Colonial buildings are artifacts or cultural products from the culture of the Dutch colonial period in the archipelago, which were designed and built by humans, so that they can be studied archaeologically (Zarankin 2005:237). In the aspect of archeology, colonial buildings are one object of historical archaeological study. This field of study examines the sites and remains left by the VOC and the Dutch government, as well as the settlements of

Europeans, Chinese, and other cultural groups (NSW Heritage Office 2004).

The research was conducted using a qualitative approach and inductive reasoning. Data collection methods or techniques in qualitative research are basically tentative, because their use is determined by the context of the problem and the description of the data to be obtained (Maryaeni 2008:66).

This type of research is the desk study. In accordance with the type of research, this study will use the secondary data. It is referred to the results of previous research related to colonial buildings in Bantaeng Regency, both in the form of archival texts, photographs, maps, scientific articles, books, and reports. Data collection techniques are carried out through secondary surveys, among others 1) visit and collect data from related agencies such as the Archaeological Office of South Sulawesi Center, the Cultural Heritage Preservation Office of South Sulawesi, and so on. The data collected consists of reports, photos, maps, archives, articles and books; 2) internet searches to collect digital data such as digital books, articles, maps, photos, and so on.

In this study, roofs were used as the main variables to be observed. The sub variables are material and decor elements. Data analysis was carried out using several methods, including shape and typology analysis. The shape analysis was carried out through indepth observation of the morphology of the main variables and its sub variables. While the typology analysis is the categorization or classification of the main variables and its sub variables by looking at the similarities in their types.

RESULTS AND DISCUSSION

The number of colonial buildings in Bantaeng based on the previous studies and old Dutch maps is 31 buildings, spread over

Pallantikang Village, Tappajang Village, and Letta Village, which are included in the Bantaeng District area in downtown Bantaeng Regency, South Sulawesi Province, Indonesia. These buildings were estimated to built in the late 19th to early 20th centuries. Some of these buildings can be traced and found, both with the condition of the building intact, still in its original condition, partially or completely renovated, or only a former location (locus), and some cannot be traced and found at all. Taking this into account, this study will only focus on 28 buildings, they are the House at Raya Lanto Street, Residential House of Military District Commander (Dandim), Office of District Military Command (Kodim), Public Elementary School 1 of Lembang Cina, State Junior High School 1 of Bantaeng Kindergarten of Yustika Rani and Residence of State Prosecutor, Old Post Office, Guest House, Residence of Military District Command Staff Chief (Kasdim), Prison Level 2B, Old Hospital of Prof. Dr. Anwar Makkatutu, Protestant Church, Office of Bappeda and Public Works Residence of Police Resort Chief (Kapolres), Colonial Building 1, Colonial Building 2, Sector Police Station (Polsek), Dormitory of Resort Police (Polres), Residence of the Doctor 1, Residence of the Doctor 2, Chinese Shop House 1, Chinese Shop House 2, *Balla Temboka*, *Balla Bassia*, *Balla Lompoa*, *Balla Lompoa* of Lantebung, Old House of Tangnga-tangnga, and Great Mosque of Taqwa Tompong.

Based on their function, these buildings can be categorized as shown in the following table.

Table 1. Categorization of Bantaeng colonial buildings based on their function

No. Colonial Buildings	
<i>Residence of Dutch Official</i>	
1	House of Raya Lanto Street

2	Residential House of Military District Commander (Dandim)
3	Residence of Military District Command Staff Chief (Kasdim)
4	Residence of Police Resort Chief (Kapolres)
5	Dormitory of Resort Police (Polres)
6	Residence of the Doctor 1
7	Residence of the Doctor 2
Office of Dutch Government	
8	Office of District Military Command (Kodim)
9	Kindergarten of Yustika Rani and Residence of State Prosecutor
10	Old Post Office
11	Office of Bappeda and Public Works
12	Sector Police Station (Polsek)
School	
13	Public Elementary School 1 of Lembang Cina
14	State Junior High School 1 of Bantaeng
Gevangenis	
15	Prison Level 2B
Hospital of Dutch Military	
16	Old Hospital of Prof. Dr. Anwar Makkatutu
Dormitory	
17	Guest House
Worship building	
18	Protestant Church
19	Great Mosque of Taqwa Tompong
Unknown	
20	Colonial Building 1
21	Colonial Building 2
Chinese Shophouse	
22	Chinese Shophouse 1
23	Chinese Shophouse 2
Local Rulers Palace and Indigenous houses	
24	<i>Balla Temboka</i>
25	<i>Balla Bassia</i>
26	<i>Balla Lompoa</i>
27	<i>Balla Lompoa</i> at Lantebung
28	Old House at Tangnga-tangnga

Source: Afsari, 2013; Balar Sulsel, 2017; BPCB Sulsel, 2021.

1. Roof Shapes

Roof is part of a building that functions as a cover for all the rooms underneath. It is also a crown that has a function to add beauty and protect the building from heat and rain (Furqan 2016). As a crown, roof is

supported by the legs and body of the building, and is a manifestation of the pride and dignity of the building itself (Antariksa 2020:30). In Bantaeng colonial buildings, there are basically two types of roof shapes, namely saddles and pyramid, which are varied into various shapes. These shapes can be categorized into six types.

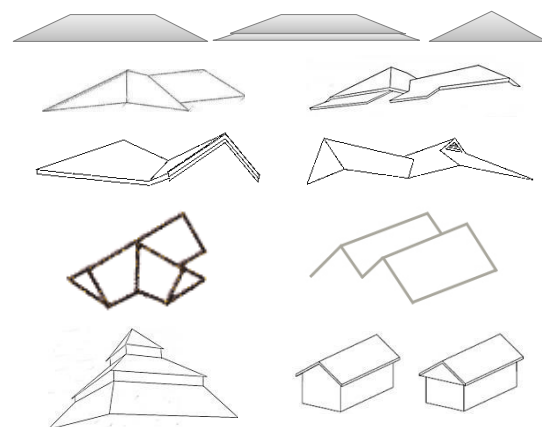


Figure 1. Variations shape of the roof of Bantaeng Colonial Buildings. Source: Hasrianti, 2022.

The first is single pyramid roof, including 1) A single pyramid with a trapezoidal front view, while the two sides are triangular in shape. This type can be seen in the additional building of the Military District Command (Kodim) Office; 2) A single pyramid with a trapezoidal shape, but in two layers. This type is found used in Public Junior High School 1 of Bantaeng; and 3) A single pyramid with a triangular front view, while the two sides are trapezoidal. This type can be seen in the Residential Houses on Raya Lanto Street and Residence of the Doctor 2.

The second is combined pyramids roof, including 1) A combination of pyramids with a triangular roof front view. This type is found used on the Office of Bappeda and Public Works; and 2) A combination of pyramids with a trapezoidal roof front view. This type can be seen on the Residential House of Military District Commander (Dandim), Residence of Military District

Command Staff Chief (Kasdim), and Public Elementary School 1 of Lembang Cina.

The third is single saddle roof, including 1) A single saddle with a box gable roof. This roof type can be seen in the Indigenous houses, Protestant Church, the additional building of Dormitory of Resort Police (Polres), Sector Police Station (Polsek), and Colonial Building 2; 2) A single saddle in open gable roof with stone wall on the side of the building and a pseudo chimney ornaments above the three corners of the gable. This type of roof is found in Chinese Shophouses; and 3) A single saddle in the open gable roof shape with dormer elements on top of the roof. This roof type is only found in the additional building of the Police Resort Chief (Kapolres) Residence.

The fourth is combined pyramid and saddle roof, including 1) Combination of a triangular pyramid and a saddle roof. This roof type was used at the Police Resort Chief (Kapolres) Residence; and 2) Combination of a Dutch gable roof and a saddle roof. This roof type was used at Colonial Building 1.

The fifth is combined saddle roof, including 1) a combination of saddle roofs in "T" shaped pattern. This type is found used at the Sector Police Station (Polsek); and 2) a combination of saddle roofs in "M" shaped pattern or coupling of the saddle roof. This type was used at the *Balla Lompoa*.

The sixth is multilevel pyramids roof. This is a type of pyramid roof that is arranged into three levels. This type of roof is only used at the Taqwa Tompong Great Mosque. This roof shape originates from pre Islamic traditions in Java as can be seen in the reliefs at Surawana, Jawi, and Jago temples. There are also an opinion that this roof shape is a continuation of the *meru* building tradition (Mahmud et al. 2007:167). *Meru* can be defined as a

building in a temple or *pura* in Bali, a place for offerings, where the roof is terraced and more smaller in top (KBBI Online).

The use of a saddle roof type on the houses of the indigenous people and the local ruler during the Dutch government in Bantaeng was understandable because it commonly used in traditional houses in South Sulawesi including Bantaeng at that time and even today. This may also influence the roof style of several Dutch government buildings which had saddle roofs. It can also be an effort to adjust to the local weather. The open gable roof type used in Chinese shophouses was indeed one of the five basic forms of Chinese building roofs according to Kohl (1994: 26; Idrus, 2004: 437) which in the Chinese term is called *ngang shan*. It is the type of Chinese building roof most often found in Indonesia (Pane, Fachrudin, and Pane 2021:3). European influence can be seen from the existence of elements such as pseudo chimneys at the top of the gables.

In contrast, the pyramid roof is not the roof type commonly used in South Sulawesi traditional houses generally and in Bantaeng particularly. This roof type was usually used in the palaces of the nobles in the Java region (Hermawan and Prihatmaji 2019:392). According to (Furqan 2016), pyramid roofs have more value as shade and protection from the hot sun and rain evenly on each side of the building, as well as giving a majestic appearance, especially if using a tall formation. So maybe, apart from being an adaptation effort to tropical nature, the use of a pyramid roof has a political side, for example to show the highest social status and power.

Generally there is an oversteaks and in some buildings have the additional roof or overhang above the windows. The use of oversteaks and awnings is an effort to adapt to the tropical climate. Besides being able to withstand the glare of the sun, they are also

reduce the heat especially during the dry season, and protect the walls from exposure to rainwater during the rainy season (Juhana 2001:61; Handinoto 2008:49; Hasrianti 2016:103).



Figure 2. The various of roof materials, above: clay roof tiles, and bottom: shingle. Source: Hasrianti, 2017.

Roof covering materials consist of clay roof tiles and shingles, but currently most of them have been replaced with the modern materials such as metal roof tiles, asbestos roof tiles, or zinc. The clay roof tiles and shingles are two materials suitable for use in tropical climates. According to (Furqan 2016), clay roof tiles are resistant to hot and cold weather. They are durable and do not require much maintenance. Samples of clay roof tiles in colonial buildings of Bantaeng can be seen at the Raya Lanto Street House. The branded was *Stoom Pannen Fabriek*

van Echt measuring 22 x 29 cm which produced in the 19th to early 20th centuries. Meanwhile, shingles are made of hardwood sheets, for example teak. The use of singles have the advantage because of the light and the heat resistant. They can still be found at the Residence of State Prosecutor, but only left on the back roof.

2. The Decorative Elements

The decorative elements on the roofs of the Bantaeng colonial buildings are include the *dormer*, gable, gablevent, roof trim, geveltoppen, *nok acroterie*, *windwijzer*, *schoor*, and tower. They were mostly used in the Dutch colonial architecture between the 1900s to 1920s (Soekiman 2000; Antariksa 2016: 41-47). According to H. Jessup, during this period the buildings were build in the modern style that more Dutch oriented (Abbas 2006: 229-230).

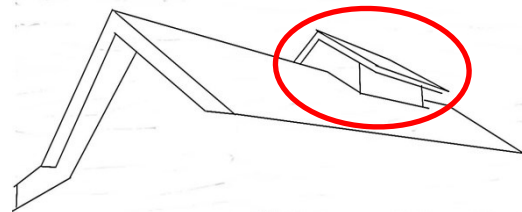


Figure 3. The dormer sketch on the addbuilding of the Police Resort Chief Residence. Source: Hasrianti, 2022.

a. Dormer

Dormer is a kind of skylight as a component of lighting and air circulation. Dormer is only found on the roof top of the additional building of the Police Resort Chief Residence. The shape and type of this dormer is simple with a saddle roof and walls made entirely of wooden *krapyak*. Dormer as an element of European culture commonly found in Dutch colonial buildings looks unique because it is combined with *krapyak* as a typical Malay cultural element.

b. Gable

Gable is a triangular shaped part on the side wall under the roof slope (Antariksa

2016:45). It is an element that was usually found in the traditional Dutch houses (Handinoto 1993:4), then applied to buildings in the colonial areas.



Figure 4. The Dutch gable on Guest House (top-left), the jerkinhead gable on the Residence of Police Resort Chief (top-right), the open gable in Colonial Building 1 (bottom-left) and Chinese shophouses (bottom-right). Source: Hasrianti, 2017.

In Bantaeng colonial buildings there are four types of gable.

First, the Dutch gable. The shape is a small triangle under the top of the ridge, making the upper side of the roof look like a saddle roof. The material includes wood *krappyak* and glass. These types of gables can be seen in the Office of Bappeda and Public Works, Office of District Military Command (Kodim), Guest House, and Colonial Building 2.

Second, the jerkinhead gable. This gable adorns the ridge on the saddle roof. The material is usually wood. This type of gable can only be found at the Residence of Police Resort Chief (Kapolres).

Third, the open gable that can be seen in Colonial Building 1 and the Chinese Shophouses. The open gable is actually the top part of the wall structure in the saddle roof. In Chinese shophouses, the each corner of the gable is decorated with pseudo chimney elements. It looks different with Colonial Building 1 where the gables are composed of vertical wooden planks.

Fourth, the box gable. It was found in the palace of the local ruler and the house of the indigenous people. This type of gable was called the *timpa' siring* in local language. It decorates the ridge of the saddle roof with some wooden planks that have a number of different levels depending on the social class of the house owner. *Balla Lompoa* as a palace of the local ruler has four levels indicating the owner is a *Karaeng* or the first nobility. *Balla Lompoa* in Lantebung has three levels indicating the owner is a *Daeng* or the second nobility. *Balla Temboka* and *Balla Bassia* have two levels indicating the owner are *To Maradeka* or free people. Last, the house with only has one level indicating the owner is *Ata* or common people.



Figure 5. The box gable on *Balla Bassia*. Source: Hasrianti, 2017

The lower edge of each level of the *timpa' siring* is decorated with wooden planks carved with semicircles and bamboo shoots repeating pattern. At both ends, there are the dangling decorations in the stacked banana heart shape called *Uso Massusuang*. The rectangular shape contains the meaning of the philosophy of *Sulapa Eppa*. The use of this decoration is interpreted as a symbol of prosperity and fortune that comes nonstop like a banana tree even though the new shoots have been cut down (Yunus 2012:278–279).

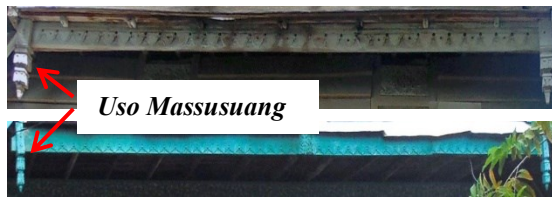


Figure 6. The wooden planks carved with semicircles repeating pattern (top) and bamboo shoots repeating pattern (bottom). Source: Hasrianti, 2017.

The wooden planks carved with semicircles repeating pattern were found at *Balla Temboka*, whereas the bamboo shoots repeating pattern were found at *Balla Bassia*. According to Yunus, bamboo shoots pattern comes from a geometric decoration in the *tumpal* shape as a symbolizes power. For the Bugis-Makassar people, a bamboo shoot pattern called *cobocobo* means fertility and happiness (Yunus 2012:275-276).



Figure 7. Various of the gablevents shape. Source: Hasrianti, 2017.

c. Gablevent

The gablevent can be defined as the window on the gable. It only found in the gable of the local rule palace and the indigenous people houses. There are usually

2-3 gablevents on the gables. They have a square shape were filled with some wooden gratings. There are two types of gablevent. The first is the gablevent which has a shutter and above it is decorated with the tendrils, as seen in *Balla Temboka*. The second is the gablevent without a shutter and no decoration there, as seen in *Balla Lompoa* and *Balla Bassia*.

d. Roof Trim

In some buildings, there are the wooden roof trim that adorns the lower edge of the roof. The shape is basically similar to *Moringa* leaves with a horizontally repeating pattern. It is a kind of the complementary decoration, that can be removed without changing the shape of the buildings (Kusmiati 2004; Antariksa 2020:32). These are two types of roof trim were found at the House on Raya Lanto Street and the Great Mosque of Taqwa Tompong.

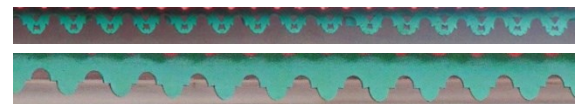


Figure 8. The various shape of a roof trim. Source: Hasrianti, 2017.

e. Geveltoppen

Geveltoppen is the decoration at the top of the gable (Antariksa 2020:44). It was also known as the crown of the buildings (Soekiman 2000). Typologically, it can be categorized into three types of shapes.

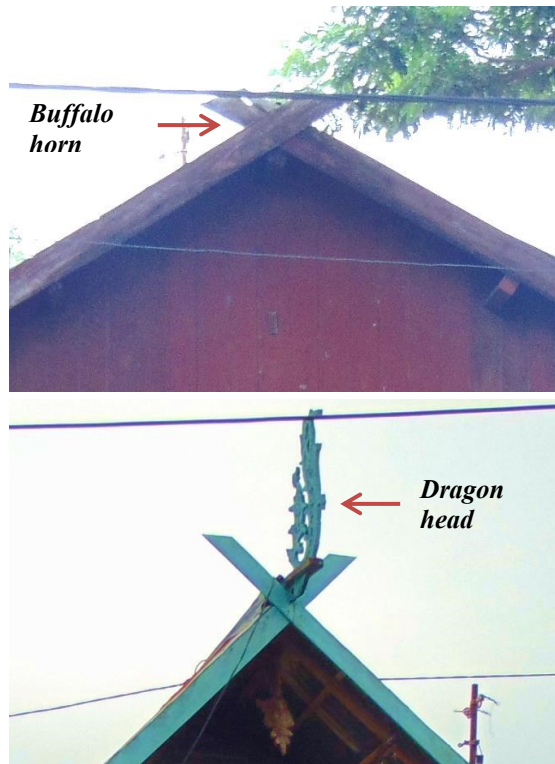


Figure 9. The geveltoppen at the Sector Police Station (top) and *Balla Bassia* (bottom). Source: Hasrianti, 2017.

The first is buffalo horn or *tanru tedong* in local term. It was a gable peak decoration shaped like the letter “V” or crossing each other and usually made of wood. According to (Yunus 2012:272), this decoration is one of the typical decorative patterns that were usually placed on the top of the *anjong* (local term for the ridge) of the Bugis-Makassar tribe roof house. For the Bugis-Makassar people, the buffalo is a symbol of wealth, prosperity, and high social status. The use purpose is an encouragement to obtain fortune so that it can prosper the family and raise its social status in society. The buffalo horn decoration is a form of stylization, simplification, and symbolization of a realistic buffalo head shape. This type of geveltoppen can be seen in the Sector Police Station and *Balla Bassia*.

The second is the head and tail of the dragon. This is a type of geveltoppen that

was usually found at the top of the Bugis-Makassar tribe’s traditional house gable. Basically, the dragon decorative patterns are found in various regions of the archipelago, both as symbols and decorations, have long been known, and are definitely older than the Hindu periods in Indonesia (Hoop 1949:206; Yunus 2012:272–273). The symbolization and stylization of the dragon snake for the Bugis-Makassar people is a symbol of strength and protection for the occupants of the house (Yunus 2012:273). This type of geveltoppen can be seen in *Balla Bassia*, *Balla Lompoa*, and *Balla Lompoa* at Lantebung.



Figure 10. The geveltoppen in Chinese Shophouses. Source: Hasrianti, 2017.

The third is pseudo chimney. This type of decoration is located at the top corners of the Chinese Shophouses gable. The shape is a prototype roof decoration of a farmhouse in the Netherlands which is made of reed grass. The chimneys that were originally towering in their origin country were replaced with the short pseudo chimneys or the stone decorations carved with flower ornaments (Soekiman 2000:293; Antariksa 2020:42-43). The use of this decoration shows the influence of European culture on Chinese buildings during the Dutch Indies government.

f. Noc Acroterie

The *noc acroterie* is a decoration element on the roof top. There are some types of the *noc acroterie* in Bantaeng colonial buildings, among others pseudo chimney, *mustaka*, and *windwijzer*.



Figure 11. Various types of the *noc acroterie*. Chinese ceramics *mustaka* (left-top), *windwijzer* (right-top), and lotus *mustaka* (bottom). Source: S. Mansyur, 2017 (top-left); Hasrianti, 2017 (top-right and bottom).

First, pseudo chimney. Apart from being a *geveltoppen*, there are also pseudo chimneys that were used as roof top decorations. This decoration can be seen in the roof top of the *Guest House* (now is Mandiri Bank Office).

Second, *mustaka*. This is a roof top decoration commonly found in Java mosques (Soekiman 2000:266). There are two type of *mustaka*, among others the Chinese ceramics *mustaka* on the roof top of the main building and the minaret of the Great Mosque of Taqwa Tompong and the lotus *mustaka* on the roof top of Colonial Building 1. The Chinese ceramics *mustaka* have a crock shape, that was produced at the Ming period in the end of the 16th century (Mahmud et al. 2007:167).

Third, *windwijzer*. It is a stick with a rooster (*gallus*) ornament on the top. This type of *noc acroterie* can be seen in the roof top of the Bantaeng Protestant Church tower. It began to be used since the Gothic

period was ended, as a symbol of pointing to the highest place above or the God. The rooster that fills the stick has been used by old churches in the Netherlands since the 14th century. It was believed to be an exorcist of the darkness, as well as a protector from evil spirits and lightning strikes (Soekiman 2000:267-268).

g. Schoor

Schoor or iron *kerbil* is a support for the roof overhang which is usually found in front, side, or back of the house. This was commonly used in *Indis* style houses from the beginning of the 19th century to the end of the 20th century in Java (Soekiman 2000:272-273). The schoors were also used in the Residential Houses of Military District Commander (Dandim) and the Residence of Military District Command Staff Chief (Kasdim). The squiggly shape of the schoors shows the influence of the *Art Nouveau* architectural style.



Figure 12. Various types of the schoors. Type 1 in the Residential Houses of Military District Commander (left), and type 2 in the Residence of Military District Command Staff Chief (right). Source: Hasrianti, 2017.

h. Tower

Tower are only used in buildings that function as places of worship, including the Protestant Church and the Great Mosque of Taqwa Tompong. But tower as a part of the roof is only in Protestant churches. It is rectangular in shape with a pyramid roof and there are a *noc acroterie* in top of the roof.

The church tower is located on the front wall on the left side of the door and is one

with the body of the building. Towers like this have been used in European churches since medieval times. The existence of the tower physically adds to the aesthetics or beauty of the building. Functionally, the existence of a tower is useful for flowing hot air from the bottom to the top of the room (Samsudi 2000:73), and as the main entrance to public facility buildings (Hartono and Handinoto 2006:88).

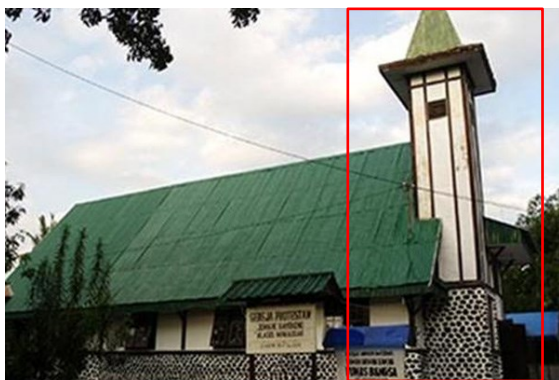


Figure 13. The tower on Protestan church (Source: Mangotting, 2013)

CONCLUSION

Colonial buildings can be identified from their architectural elements which have distinctive characteristics, one of them being the roof shape. There are basically only two types of Bantaeng colonial building roofs, namely saddles and pyramids. These two types of roofs are divided into several types, among others single pyramid roof, combined pyramid roof, single saddle roof, combined saddle roof, and combined saddle and pyramid roof. The single pyramid roof, combined pyramid roof, combined saddle roof, combined saddle and pyramid roof were seen used in Dutch government buildings. The single saddle roof tends to be used in additional buildings of Dutch government buildings and worship building (Protestan church), houses of the indigenous people, and the

Chinese shophouses. The combined saddle roof was used in the palace of the local ruler. The multilevel pyramid roof was used in the worship building (mosque). Almost all types of roofs have oversteeks and in some buildings there is an additional roof (overhang) above the windows. Roof covering materials consist of clay roof tiles and shingles. All of it indicates an effort to adapt to the tropical climate and may also have political purposes such as showing differences in social class.

There are several decorative elements of Bantaeng colonial buildings among others *dormer*, gable, gablevent, roof trim, *geveltoppen*, *nok acroterie*, *schoor*, and tower. Each element is consist of some type except dormer and tower. Gable is consist of four type, they are the Dutch gable, jerkinhead gable, open gable, and box gable. Gablevent is consist of two types. One had the trim and shutters, and the other had none. These decorative elements generally have functions related to aesthetic aspects. Roof trim is consist of two types, but the both shape is basically similar to Moringa leaves with a horizontally repeating pattern. *Geveltoppen* is consist of three types, they are buffalo horn, head and tail of the dragon, and pseudo chimney. *Nok acroterie* is consist of three types too, they are pseudo chimney, *mustaka*, and *windwijzer*. *Schoor* is consist which are basically curly patterns influenced by the Art Nouveau style. The shape of the dormer is simple with a saddle roof and walls made entirely of *krapyak*. The tower of church is rectangular in shape with a pyramid roof.

This study is too far from perfect. The deepening really needs to be done and maybe need to see from another perspective. But hopefully the results of this study can enrich knowledge about the shape and typology of building roofs during the Dutch rule in South Sulawesi and Indonesia.

REFERENCES

- Abbas, Novida. (2006). "Warna Eropa dalam Wajah Kota." In Rr Triwurjani et.al *Permukiman di Indonesia: Perspektif Arkeologi*. Jakarta: Departemen Kebudayaan dan Pariwisata, 225-232.
- Afsari, Hafsa. (2013). "Kota Kolonial Belanda di Bantaeng." *Skripsi Sarjana*. Makassar: Hasanuddin University.
- Antariksa. (2020). *Teori dan Metode Pelestarian Kawasan Pecinan*. Yogyakarta: Cahaya Atma Pustaka.
- Balar Sulsel. (2017). Jejak Peradaban Islam dan Kolonial di Kabupaten Bantaeng. *Laporan Penelitian*. Makassar: Balai Arkeologi Sulawesi Selatan.
- BPCB Sulsel. (2021). Laporan Survei Penyelamatan Terhadap Bangunan-Bangunan Kolonial di Kabupaten Bantaeng. *Laporan Penelitian*. Makassar: Balai Pelestarian Cagar Budaya Sulawesi Selatan.
- Furqan. (2016). *Bab III, Landasan Teori*. <https://dspace.uui.ac.id/bitstream/handle/123456789/1435/05.3%20bab%2003.pdf?sequence=9&isAllowed=y> (accessed 8 August 2022)
- Handinoto. (1993). "Arsitek G . C . Citroen dan Perkembangan Arsitektur Kolonial Belanda di Surabaya (1915-1940)." *Dimensi Teknik Arsitektur* 19: 1-16.
- Handinoto. (2008). "Daendels dan Perkembangan Arsitektur di Hindia Belanda Abad 19." *Dimensi Teknik Arsitektur* 36(1):43-53.
- Hartono, Samuel and Handinoto. (2006). Arsitektur Transisi di Nusantara dari Akhir Abad 19 ke Awal Abad 20 (Studi Kasus Kompleks Bangunan Militer di Jawa pada Peralihan Abad 19 ke 20). *Dimensi Teknik Arsitektur*, 34(2): 81-92.
- Hasrianti. (2016). "Villa Yuliana: Bangunan Berarsitektur Indis di Kabupaten Soppeng, Sulawesi Selatan." *Jurnal Walennae* 14(2): 93-104.
- Hasrianti and Syahrudin Mansyur. (2020). "The Dutch Colonial Trail Northeast of Bonthain Bay." *Jurnal Walennae* 18(1):13-26.
- Hermawan, Bayu and Yulianto P. Prihatmaji. (2019). "Perkembangan Bentuk Atap Rumah Tradisional Jawa." *Prosiding Seminar Nasional Desain dan Arsitektur (SENADA) 2*, 387-93.
- Hoop, ANJ Th a Th van der. (1949). *Indonesische Sier Motieven*. Bandung: S' Gravenhage, NV Uitgeverij W van Hoeve.
- Idrus, Rinawati. (2004). "Budaya Etnis Tionghoa di Makassar (Studi Kasus Ornamenasi pada Klenteng Ibu Agung Bahari)." In Iwan Sumantri, *Kepingan Mozaik Sejarah Budaya Sulawesi Selatan*. Makassar: Ininnawa, 397-447.
- Juhana. (2001). *Arsitektur dalam Masyarakat: Pengaruh Bentuk Arsitektur dan Iklim Terhadap Kenyamanan Thermal Rumah Tinggal Suku Bajo di Wilayah Pesisir Bajoe Kabupaten Bone Sulawesi Selatan*. Semarang: Bendera.
- Karti, Sitti Fatimah. (2020). "Arsitektur Kolonial Rumah Tinggal No. 3 Raya Lanto (Afdeeling Bonthain) di Kabupaten Bantaeng." *Skripsi Sarjana*. Makassar: Universitas Hasanuddin.
- KBBI Online. <https://kbbi.web.id>. (Accessed 21 August 2022).
- Kohl, DGMA. (1984). *Chinese Architecture in the Straits Settlement and Western Malaya: Temple, Kongsis, and Houses*. Kuala Lumpur: Heinemen Educational Book.
- Laely, Nur. (2018). "Sistem Pemerintahan Kolonial Hindia Belanda di

- Onderafdeling Bonthain 1905-1942.” *Jurnal Pendidikan* (3): 1–20.
- Mahmud, M. Irfan, Akin Duli, Muhammad Nur, Anwar Thosibo, and Budianto Hakim. (2007). *Bantaeng: Masa Prasejarah Ke Masa Islam*. Pertama. Edited by A. M. Akhmar. Makassar: Masagena Press Kerjasama Kantor Budpar Kab. Bantaeng.
- Maryaeni. (2008). *Metode Penelitian Kebudayaan, Cetakan Ke-2*. Jakarta: PT. Bumi Aksara.
- Manggotting, A. (2013). Peresmian Gedung Gereja Protestan Bantaeng. Retrieved from Media Online website: <http://www.satuharapan.com/read-detail/read/peresmian-gedung-gereja-protestan-bantaeng> (Accessed 6 April 2017).
- Nayati, Widya. (2005). “Social Dynamics and Local Trading Pattern in The Bantaeng Region, South Sulawesi (Indonesia) Circa 17 Th Century.” Disertasi. Singapura: National University of Singapore.
- NSW Heritage Office. (2004). *An Introduction to Historical Archaeology: Revealing the Past*. Paramatta: NSW Heritage Office.
- Pane, I. F., H. T. Fachrudin, and P. S. Pane. (2021). “The Influence of Chinese Architecture on the Development of Architecture in Medan City.” *IOP Conference Series: Materials Science and Engineering* 1122(1).
- Samsudi. (2000). “Aspek-Aspek Arsitektur Kolonial Belanda pada Bangunan Puri Mangkunegaran.” Tesis Magister. Semarang: Universitas Diponegoro.
- Samsudi, S., Agung Kumoro W, Dyah Susilowati Pradnya Paramita, and Anita Dianingrum. (2020). “Aspek-Aspek Arsitektur Kolonial Belanda pada Bangunan Pendopo Puri Mangkunegaran Surakarta.” *Arsitektura* 18(1).
- Soekiman, Djoko. (2000). *Kebudayaan Indis dan Gaya Hidup Masyarakat Pendukungnya di Jawa (Abad XVIII–Medio Abad XX)*. Yogyakarta: Yayasan Bentang Budaya.
- Sofyan. (2015). “Arsitektur Masjid Taqwa Sebagai Hasil Akulturasi di Tompong, Bantaeng, Sulawesi-Selatan.” UIN Sunan Kalijaga.
- Yunus, Pangeran Paita. (2012). “Makna Simbol Bentuk dan Seni Hias pada Rumah Bugis Sulawesi Selatan.” *Jurnal Panggung* 22(3): 267–82.
- Zarankin, Andrés. (2005). “Walls of Domestication-Archaeology of the Architecture of Capitalist Elementary Public Schools: The Case of Buenos Aires.” In *Global Archaeological Theory: Contextual Voices and Contemporary Thoughts*. Newyork: Kluwer Academic.
- Tjahyono, G (ed.). (2002). *Indonesian Heritage Arsitektur*. Jakarta: Grolier International.