

## Application of The Traditional Architecture Concept of Aceh in BSI Facade, Lhokseumawe City

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### ABSTRACT

Traditional architecture is an element of culture that grows and develops in tandem with the growth of a tribe and nation in an area. The BSI building in the city of Lhokseumawe is a public building whose main function is as a center for administrative and financial services for the community in the area. This building was previously known as the Mandiri bank in Lhokseumawe city and was acquired by Bank BSI due to regulations that applied to the Aceh region. The reason behind the appointment of the Lhokseumawe city BSI bank as a case study is because in physical appearance it can be identified that in its application of its form it adopts traditional Acehese architecture, which generally commercial buildings such as banks have modern architectural forms. This study aims to determine the façade forming factors and the application of traditional Aceh architectural concepts to buildings and the adaptations that occur in buildings. This type of research is qualitative with data analysis using descriptive in its presentation. The method of data collection is carried out in stages, using observation and documentation. The results of this study indicate the influence of Acehese traditional architecture or *rumoh Aceh* on the BSI building in Lhokseumawe city as a façade forming factor. Many elements are applied to the building as the application of local culture to the building.

**Keywords:** *adaptation, Acehese traditional architecture, Aceh rumoh, facade forming elements,*

### 1. INTRODUCTION

Tradition and culture is a habit that is already attached to individuals in an area, so that it can make someone apply their habits to everything and every activity they carry out. This can affect all aspects related to one's life, can have regional characteristics or a habit in that area. With so many traditional architectures that have sprung up in every region in the archipelago, various kinds of architectural styles have been created that are spread throughout Indonesia, thus forming the diversity and uniqueness of each. The diversity that is owned is based on the influence of local culture, climate, and technology used in the area. Traditional architecture in each region also has its own philosophy and concept, this can be seen from the cultural values contained in these traditional buildings. In addition to having the values and norms contained therein, there are also rules that must be understood by the local community so that the social values contained are maintained and can be passed on to the next generation.

Traditional architecture is an element of culture that grows and develops in tandem with the growth of a tribe and nation in an area. Therefore, traditional architecture is an identity of a particular culture or region. Traditional architecture contains meaning as an ideal form, social form, and material form of a culture. Because this tradition is practiced and carried out, a sense of pride and love for this traditional architecture is born [1].

The BSI building in the city of Lhokseumawe is a public building whose main function is as a center for administrative and financial services for the community in the area. This building was previously known as the Mandiri bank in Lhokseumawe city and was acquired by Bank BSI due to regulations that applied to the Aceh region. The reason behind the appointment of the BSI bank in Lhokseumawe city as a case study is because in physical appearance it can be identified if in the application of the form Adopting Aceh's traditional architecture, commercial buildings such as banks generally have modern architectural forms. This raises the question whether

the modifications applied to banks using local culture are in accordance with the character of a public or commercial facility and what is more interesting is whether these modifications do not violate regulations owned by a public company. Another objective that underlies Bank BSI Lhokseumawe city as an object of research is as a form of preservation of local culture so that it is not forgotten and it is hoped that the general public will know about architectural developments.

## 2. LITERATURE REVIEW

Traditional architecture is an architectural form that is passed down from generation to generation and traditional houses are manifestations of socio-culture [2]. Traditional buildings have meaning contained in them based on traditions that have been applied from each generation that existed before, these traditions continue to be passed down without any modifications made by their descendants This habit becomes a culture and its authenticity is still maintained. In essence, traditional architecture has become the identity of the local people who still adhere to a collective order of life, namely having synchronization between the universe and the building itself.

Traditional architecture is also a form of cultural language because every part of the building contains a deep meaning that is directly proportional to the understanding of the local community. Customs and culture are inherited from our ancestors and are the core of culture. This is believed to be an inheritance passed down from generation to generation. The existence of differences in the way of interpretation and natural phenomena by the community makes the emergence of many styles in buildings in each region, these differences make local identity in each region.

Forming an Architectural style that is Traditional, there are several things that need to be considered as factors that are quite important, among others [3]:

- a. The forming elements of both spatial planning and form planning must be based on traditional values and norms existing from the ancestors.
- b. Physical elements must be completely in sync and blend well.
- c. Objects, colors, and forming materials must dominate and have the right composition.
- d. The continuity of expression is maintained so that it creates a value that is in accordance with the existing beliefs hereditary.

Acehnese Traditional Architecture is a reflection of the characteristics possessed by Acehnese culture The formation of Aceh Traditional Architecture has two things that have become the basis for its formation, namely the physical appearance visually and other things that are tied to local cultural factors which are the background for the formation of this architecture [4].

Aceh's Architectural Culture has its own peculiarities, related to the culture of a religious society and the things that underlie all aspects of social life. The socio-cultural form of the Acehnese people is a cultural application that is carried out and implemented in religious activities and other socio-religious activities, this is directly proportional to the nickname of the Aceh region, namely Veranda of Mecca. The adoption of religious aspects is applied to culture so that it has a strong foundation in the *Rumoh Aceh* section.

*Rumoh Aceh* in the form of a stilt house supported by pillars arranged in parallel, has an orientation facing North to South, so that the house is elongated from East to West, also has ornaments/carvings attached to the sides of the building which are dominated by wood materials and using traditional technology in building construction structures [5].

Facadism is an application of changes in a building. That is, only the outside of the building was changed and then rebuilt with a newer and better physical form. Then the other part is repaired again with a better part. Fasadism cannot be said to be a 'flow' in architecture or a '-ism' because the concept of facadeism is not have a definite theory that can be used as a reference. The building facade has an important element in the building, namely a single element that is composed and functional or narrative in nature. The facade is the part of the building that faces the road, the façade forming factors include [6]:

1. Wall
2. Columns
3. Opening in the wall
4. Entrance
5. Roof
6. Color
7. Ornament

Facades are architectural arrangements created when the organization of space and its parts reveal their relationship to one another and to the overall structure. And if the relationship is based on mutually reinforcing and unique characteristics and is also comprehensive, then a conceptual order is present [7].

### 3. RESEARCH METHOD

The research was conducted at Jln. Merdeka City of Lhokseumawe, Banda Sakti District and the city's BSI bank Lhokseumawe as the object of his research. In carrying out the research "Application of Acehese Traditional Architecture on BSI Building Facades in Lhokseumawe City" using a qualitative descriptive research method, during the process of collecting data interviews were carried out with several communities and research documentation of the object studied. Qualitative descriptive research is a type of research that produces data obtained from verbal and visual observations.

Tabel 1 Research Variables

No	Theory	Variable	Indicator	Research Methods
1.	Rob Krier (2001)	- The physical form of the building	- Doors and windows - Wall - Roof - Entrance - Ornament	Observation and documentation
2.	F.D.K Ching (2008)	- Orientation - Proportions	- Form - Direction	Observation and documentation
3	Rinaldi Mirsa (2013)	- History - Culture	- Ornament - Philosophy	Observation, documentation and literature review

### 4. RESULT AND DISCUSSION

Focal points found in the three locations of the Uleebalang houses included in this observation are classified based on history, typology (geometric/shape, function and style) and colonial architecture (characteristics and elements).

#### 4.1 Description of the Research Object

The BSI Building in Lhokseumawe City is a public facility that is used as a provider of administrative services related to finance in the city of Lhokseumawe. This building was previously named Bank Mandiri and has now changed to BSI due to local government policies that are in line with Aceh Province regulations.

In the BSI Bank building, there are many elements and characteristics of traditional Aceh houses implemented in the facade (figure 4.1), giving rise to an image of locality and authentic value to the building.

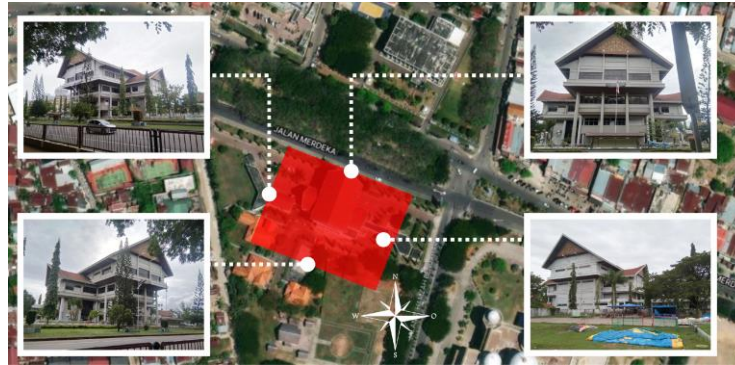


Figure 4.1 The condition of the research location

#### 4.2 The Relationship of Traditional Aceh Architecture to the BSI Building Façade in Lhokseumawe City

##### 4.3.1 Building Forms of Bank BSI Lhokseumawe City

Bank BSI in general has a shape that resembles *Rumoh Aceh* in the form of the building, what makes it different from *Rumoh Aceh* is the spatial arrangement and composition of the building which can be seen that the BSI Bank building itself is formed into 4 (four) parts where in *Rumoh Aceh* only consists of 1 (one) elongated section. In *Rumoh Aceh*, the space is divided based on the needs and needs of the user which functions as a residence and place to live as well as household activities carried out in the building.

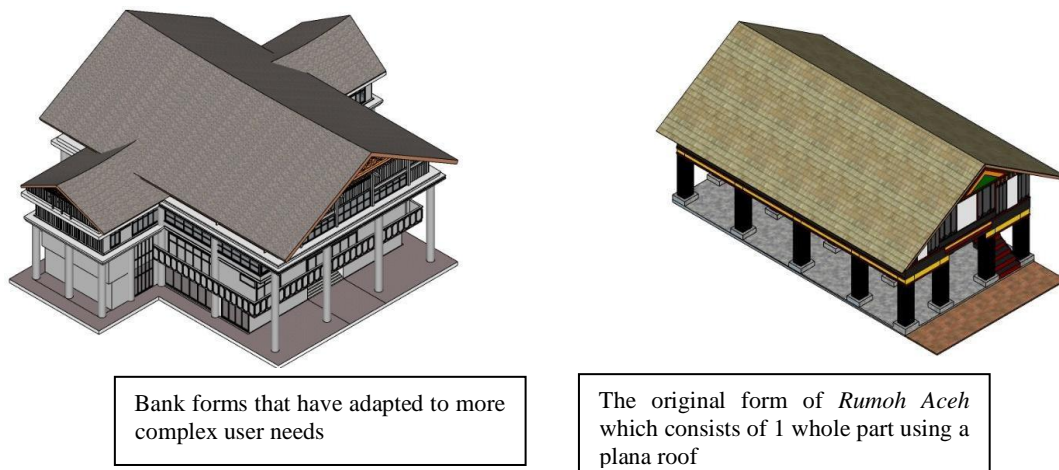


Figure 4.2 The difference in shape between the BSI and the *Rumoh Aceh*

However, at Bank BSI the shape has adapted to the needs in the office aspect so that there is a modification from the formation of *Rumoh Aceh* to the bank building itself so that the use of the building can be used optimally and efficiently.

The process of modifying the form of BSI Bank also does not eliminate the elements of *Rumoh Aceh* because important elements in *Rumoh Aceh* are still applied, such as motifs/ornaments, roof shapes, window positions and the placement of other elements are considered in detail so that these points remain in the bank. On the right and left sides of the BSI Bank, space is also given (figure 4.2) so as to create a new building mass that is different from *Rumoh Aceh* and is shaped like a plus sign (+). The differences that arise as a result of adding mass to the building do not affect the essence of the architecture of *Rumoh Aceh* because the roof still uses the distinctive shape of *Rumoh Aceh* itself, also the elements that are formed still have aceh cultural elements such as motifs, window placement and vertical elements that give rise to the type the facade that resembles *Rumoh Aceh*.

##### 4.3.2 Proportion of Bank BSI Buildings in Lhokseumawe City

The proportion at Bank BSI is also related to Aceh Traditional Architecture due to the application of the *Rumoh Aceh* architectural concept in its placement. This can be seen from the condition of the BSI Bank both in size, distance between columns, and position in the layout of the facade forming elements.

The proportion of Bank BSI that implements the Aceh Traditional Architecture concept (figure 4.3) can be seen by the presence of the *Rumoh Aceh* parts that are applied in it, namely the roof (*bubong* or head), the top (*ateuh rumoh*) or the body and the bottom (*yup moh* or feet) . At the bottom it also creates a space like a pit, which is part of the *rumoh Aceh* which functions as a place to raise livestock and also store goods. However, in the BSI Bank building, the underpass functioned as vehicle circulation thereby increasing mobility at the BSI Bank.

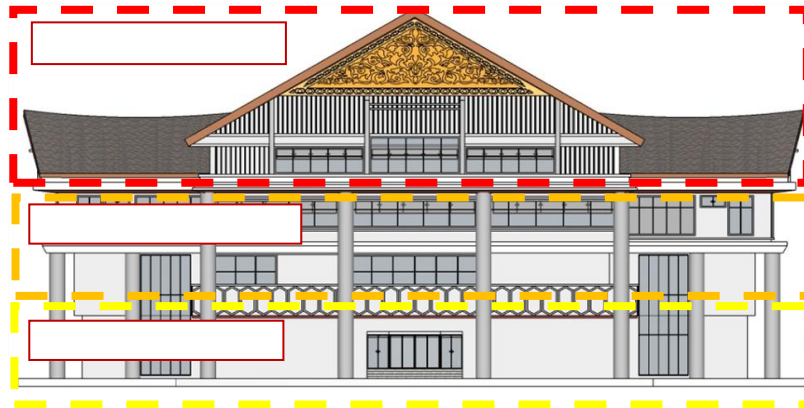


Figure 4.3 Proportion in BSI Building Lhokseumawe City

#### 4.3.3 Elements in the Façade of the BSI Lhokseumawe Building

Building facades are generally formed due to architectural elements that affect from being attached to each side of the building. These physical elements are also clearly visible on the building so that these elements become the characteristics and character of the building. In his book [7] it has been explained that the facade of the building has many forming factors. The following describes the elements of the façade forming factors in the BSI bank building in Lhokseumawe city:

##### 1. The wall on the Façade of the BSI Bank Lhokseumawe City

At the BSI bank in the city of Lhokseumawe it is known that the wall elements in this building have vertical and horizontal elements in its formation, thus giving variations to the wall.

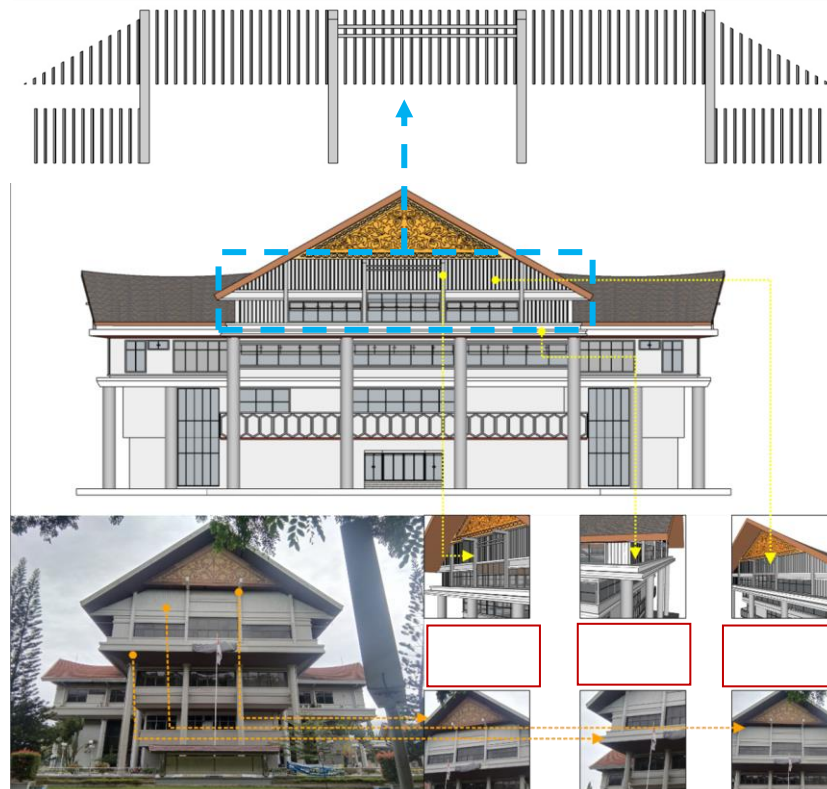


Figure 4. 4 Elements on the wall of the BSI in Lhokseumawe Citu

It can be seen in Figure 4.4 that it is known that the vertical and horizontal elements on the walls have a significant influence on the appearance of the building facade, this is based on the existence of visual variations of the building which give a more varied impression on the building facade.

The vertical and horizontal elements on the facade of the BSI Lhokseumawe bank have variations which are divided into several types of vertical elements formed with different wall thicknesses and those formed from three-dimensional objects, as well as horizontal elements with the same distinguishing factor.

2. Column on the façade of Bank BSI Lhokseumawe City

The column on the BSI bank in Lhokseumawe is a circle (figure 4.5), this shape is a manifestation of the implementation of the *rumoh Aceh* concept in buildings. In addition, the number of columns also follows the traditional Acehnese architecture, namely using 4 pillars placed parallel to the front, this is a form of adoption from the *rumoh Aceh* at BSI bank Lhokseumawe city..

The columns in the BSI bank are also intentionally made to pop out, this makes the column a vertical element which also affects the facade of the BSI bank besides its main function as a building structure.

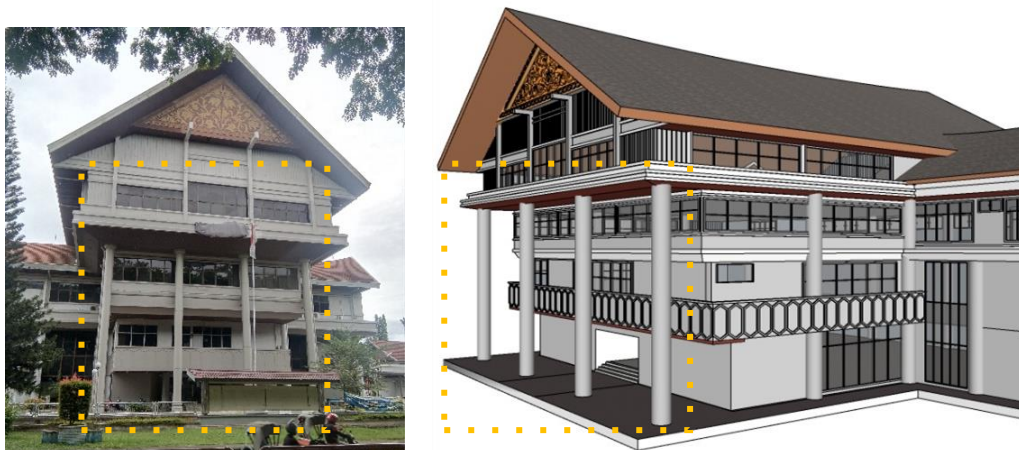


Figure 4. 5 Column at the BSI bank entrance Lhokseumawe City

3. Opening in the façade of the BSI bank in Lhokseumawe City

Openings in buildings have functions such as ventilation and windows to divert air in and out of the building and as a link on the outside of the building which can provide a view of the users inside. The door that functions as user access to reach the building.



Figure 4. 6 Windows opening at the BSI bank Lhokseumawe City

The opening in Figure 4.6 shows that its position is the result of an analysis of the BSI bank footprint, aiming to maximize the potential for maximum utilization of the view. In addition to the differences in each position, there are also differences in the size and number of leaves in each window. This happens because of the classification of windows that function as curtain walls, which have the maximum potential as a link for user visualization on the surrounding environment and also windows that are used in general as air circulation so that there is no excess material in the BSI bank building and does not reduce the efficiency of the facade forming elements in the building. The windows on the BSI bank are also arranged parallel as a form of application of the *rumoh Aceh* architecture to the building.

Other openings in the form of doors are also adjusted to user needs so that there is adaptation that occurs in the application process, this occurs because user needs are very concerned about buildings so that buildings become systematic and orderly. This can be seen from the opening of the door in the middle of the building as the entrance when visitors enter the building.



Figure 4. 7 The main door an its position at the BSI bank in Lhokseumawe city

In figure 4.7 the door at the BSI bank has 2 doors and is positioned in the middle, in contrast to the *rumoh Aceh* where the dominant entrance is on the side of the building. But there are some who also use a door that is located in the middle, such as the *Rumoh Aceh* Museum in Lhokseumawe which has 2 doors with different positions in the middle for the front and for the right side the position is on the right, the application of the door on the right side is also applied to bank BSI Lhokseumawe city which functions as an access point for users such as staff and employees at the bank.



Figure 4. 8 The right door at the BSI bank in Lhokseumawe city

The door on the right side of the building (figure 4.8) is a single glass door unlike the main door which has 2 doors, because the side doors are not used as much as the main door.

#### 4. Entrance on the façade of bank BSI Lhokseumawe City

Entrance is the first entrance to a building. Its main function is as a circulation into the building which is a liaison between the spaces inside and outside the building and requires a clear and exposed distinction from the surrounding fields and objects so as to emphasize the existence of the entrance.

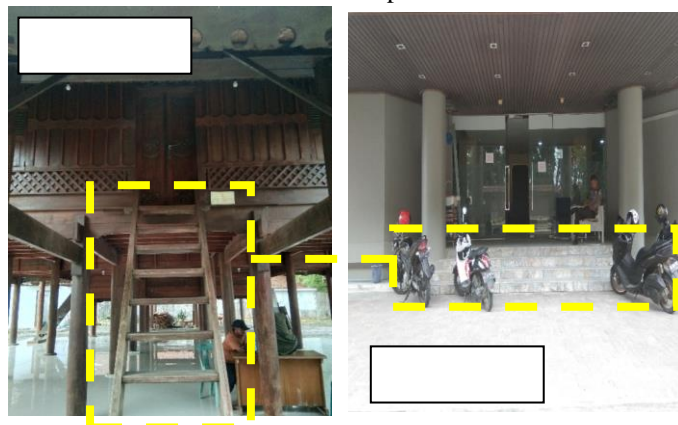


Figure 4. 9 Entrance at BSI bank Lhokseumawe city

The entrance to the BSI bank in the city of Lhokseumawe is a type of entrance that protrudes inwards, giving rise to a space that functions as a terrace and also a place of guard by the bank's security guard. The entrance to the BSI bank is also supported by 4 parallel pillars on the front like *rumoh Aceh*. The entrance that is applied to the BSI bank (figure 4.9) is also a modified form of traditional Acehnese architecture that does not necessarily imitate the *rumoh Aceh* so that the concepts applied to the bank merge into a new unit and provide more value to the traditional architecture itself.

The entrance also includes other things from the *rumoh Aceh* which are quite important and have meaning in the physical aspect, namely the stairs. The number of stairs in the *rumoh Aceh* is generally odd, the meaning is as luck and hope that with an odd number of steps, the situation in the *rumoh Aceh* will always be peaceful and comfortable. An even number of stairs in the *rumoh Aceh* has the opposite meaning to an odd number, this means that if you use an even number of stairs, the situation in the house will be disharmonious and symbolizes the chaos that will occur in family relationships and is also a sign of disaster that will approach the family inside. even house.

Figure 4. 10 Differences in the number of steps at the BSI bank Lhokseumawe City





The ladder at the BSI bank in Lhokseumawe has an amount that is contrary to the *rumoh Aceh* belief, namely an odd number (figure 4.10). However, at the BSI bank the number of stairs used at the entrance is an even number, namely 4 (four) pieces, this indicates that the number of stairs does not apply the concept of traditional Acehese architecture..

The difference in the number of steps between odd and even is a form of modification that adapts to the needs of the BSI bank in Lhokseumawe city and the form of architectural development that is applied in addition to traditional Aceh architecture at the BSI bank in Lhokseumawe city.

#### 5. The shape of the Roof on the Façade on the BSI bank Lhokseumawe city

The roof on the building is the crown and head so that it becomes a characteristic, determining the appearance of a building object. Roofs have various variations based on the slope, color, material and shape used. Choosing the right roof will give character to the building and create images and symbols on the appearance of the building. In traditional Aceh architecture the roof has a saddle shape with a slope of 30 degrees, the material used is generally thatch leaves and uses natural dyes in its finishing..



Figure 4. 11 The shape of the roof on the BSI bank in Lhokseumawe

The roof on the BSI bank in Lhokseumawe city in Figure 4.11 has the same shape and characteristics as the *rumoh Aceh* by using a gable roof with modifications to the shape of the roof on the left and right and different levels of elevation, this is a variation that was created so that it does not necessarily imitate the shape of the roof so that bring out more interesting and diverse styles. At the BSI bank, the city of Lhokseumawe, the difference between the *rumoh Aceh* is the material used because of the different functions, so the safety and comfort of users in the building must be considered. The roof game is used to avoid monotonous forms so that the building has no characteristics and lacks value to the building.

#### 6. Colors and materials on the Façade of the BSI bank Lhokseumawe City

Color is a very important factor in buildings, especially buildings that generally apply regional and locality concepts. With the use of color has a philosophy and values contained in the building. Besides having a meaning, the use of color will also enhance the visual aesthetics of a building and can have a psychological effect on users and people who see a building. Colors can also be combined with one another to make the impression more attractive.

The majority of the use of color in the BSI bank in Lhokseumawe (figure 4.12) has similarities with the *rumoh Aceh*, the main difference being the use of color on the walls.



Figure 4. 12 Colors on the BSI bank in Lhokseumawe City

The walls of *Rumoh Aceh* are generally given a dark color between black and brown, but at the BSI bank in Lhokseumawe city the dominant color is gray, this is due to modifications that have occurred in the building of the BSI bank in Lhokseumawe city and also the BSI bank which was previously a bank. Mandiri still uses the old color because it is based on the regulations of the company that manages the building.

Apart from color, material also plays an important role which is the basis of the difference between the BSI bank in Lhokseumawe and *Rumoh Aceh*. Material will play a very important role according to the needs of a building. In traditional buildings, the majority of materials use natural materials such as rumbia leaves, wood, rattan, boards and bamboo. However, in commercial buildings and functioning as public facilities, the use of materials will be more calculated based on strength, durability and safety.



Figure 4. 13 Use of materials at the BSI bank Lhokseumawe City

In Figure 4.13, a very significant material difference occurs because the BSI bank uses materials that are currently developing, so that it does not give the influence of traditional Acehese architecture in it as well as forms following the times that are happening now.

### 7. Ornament on the Façade of the BSI bank in Lhokseumawe

Ornament is a decorative variety that is applied to the sides of the building. Its main function is to add aesthetic value to the building which also contains a certain meaning from the customs that develop in an area and the local community. Ornaments have many varieties and variations according to the culture that develops in society, the motifs usually adjust to the theme raised in that area and are differentiated based on their meanings. The motifs can be taken from the themes of flora and fauna, nature, biometric, teeth and also not infrequently the existing motifs are the result of modifications from other cultures. Its application can also be in various places, depending on the shape and motifs that exist.

The BSI Bank in Lhokseumawe City has ornaments applied to its buildings. The ornaments on the BSI bank building are the result of the adoption of *rumoh Aceh* which is the culture and local community. In *rumoh Aceh* the placement of ornaments almost fills every side of the building, such as on the roof grilles, windows, walls, pillars, doors and many other places.

a. Ornament on *tulak angen* (foof grille)

*Tulak angen* or what is commonly known by the public as roof grilles generally functions as the placement of air vents so that circulation occurs on the roof above the ceiling so as to reduce heat in the building. In *rumoh Aceh*, the roof lattice generally uses an ornament which is located at the end of the gable which is in the east and west. The types of ornamental motifs applied to *tulak angen* are usually in the form of plant motifs, leaves, flowers, calligraphy as well as elements found in the universe.

On the roof of the BSI bank in Lhokseumawe, the latticework of the roof is influenced by *rumoh Aceh* so that it has a motif in that part. The placement of the *tulak angen* motif is at each end of the gable roof owned by the BSI city bank.



Figure 4. 14 Motif in the Tulak Angin section of the BSI Lhokseumawe City

The motif on the *tulak angen* (picture 4.14) has given BSI bank a traditional Acehnese architectural identity, although other parts do not use many Acehnese ornaments. But with the *tulak angen* on the roof of the BSI bank, the main symbol of the *rumoh Aceh* can be seen clearly in the application of traditional Acehnese architectural concepts.

b. Ornamen on the *kindang*

The *kindang* is part of the outer wall that forms a barrier between the pit and the first floor of the Acehnese house. In this section, geometric motifs are usually used and usually have protruding parts. Ornaments on the *kindang* generally have a color similar to that used on the walls, so it very rarely creates an impression on the building. Even so, the use of *kindang* plays an important role as a barrier so that users and guests know the difference in elevation between one floor and another.

In Figure 4.15 it can be seen that the *kindang* uses a modified geometric motif, but geometric differences also often occur between *rumoh Aceh* and commercial buildings that apply traditional Acehnese architectural concepts. In the case of the BSI bank, the geometric motif used is the *binteih* motif found in the *rumoh Aceh*. This happened because of the modifications that were created without the aim of changing the philosophy and meaning that existed in Aceh's traditional architecture.



Figure 4. 15 Ornaments in the *kindang* section of the BSI bank Lhokseumawe City

#### 4.3 The Influence of Traditional Aceh Architecture on the Façade of BSI Building Lhokseumawe City

In its application and application, it is widely known that the traditional Aceh architecture and the *rumoh Aceh* as its basis have a connection with the facade of the BSI bank in Lhokseumawe. This is known based on the analysis and observations that have been made for several days in obtaining research results. The shift in the function of the building resulted in the new building having to adapt to the existing culture and events. This has become a phenomenon and a momentum for new buildings to adapt without having to lose their cultural basis. As a result of the transition of functions, there are elements that must be modified because if there is no adaptation, these elements will not function optimally in the building and their function will be neglected and reduce the image and quality of the building.

### 5. CONCLUSION

In the research that has been conducted at the BSI bank in Lhokseumawe, it can be seen that the building is heavily influenced by traditional Aceh architecture. The façade-forming elements of the BSI bank are the result of the façade-forming elements of the *rumoh Aceh* with the addition of modifications given to it. From the analysis that has been carried out, the conclusion found is that the shape of the building of the BSI city Lhokseumawe bank adopts the form of traditional Aceh architecture, namely the *rumoh Aceh*. The connection and relationship between the BSI bank in Lhokseumawe city and Aceh's traditional architecture can be seen from the proportion of buildings and other elements in the parts of the BSI bank in Lhokseumawe city that absorb the shape of the Aceh house. Apart from the traditional Aceh architecture, the BSI city bank of Lhokseumawe also applies architectural elements that are developing at this time which can be seen from the modifications given therein. Façade-forming elements at the BSI bank in Lhokseumawe starting from the use of vertical and horizontal elements, laying columns, under buildings, roof shapes, materials, colors and ornaments in the BSI bank in Lhokseumawe are influenced by traditional Aceh architecture. So, it can be concluded that the application of traditional Aceh architectural concepts to the facade of the BSI bank building in Lhokseumawe city can be categorized as successful because just by looking at the building it can be immediately identified that there are *rumoh Aceh* elements applied to the building

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