The influence of acehnese traditional architecture on government building (Case study: mayor office architecture, Lhokseumawe)

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Abstract. Traditional architecture is one form of the richness of the Indonesian culture, so its presence makes a symbol of the cultural distinctiveness of the local community in each region. Due to advances in technology made a number of parties to switch to modern architecture. Architecture Regionalism present in an effort to unify the traditional architecture and the modern architecture. Government buildings as a formal building its presence gives significance to the Government of the city, so that this building is present in an effort to express physically-visually in displaying local architecture. This research aims to find the application of Traditional Architecture and Traditional architectural elements the most dominant influence the building of government office buildings in particular the Mayor of Lhokseumawe, which provided the case study at This research. The form of this research is in the form of descriptive qualitative research, the process of collecting data is done by direct observation to the field. The variables studied in this study were forms, physical elements, and expressions of traditional Acehnese architecture in the building of the Mayor's Office in Lhokseumawe. The findings obtained are discussed in accordance with review of the literature. The results showed that the physical elements of the shape of the roof of the building to the Mayor's Office got influences from traditional architecture.

1 Introduction

The diversity of traditional architecture are scattered in every region have different regional characteristics, depending on the local culture, climate and technology. Because it has different characteristics that make traditional architecture a symbol of cultural distinctiveness of the local community. Traditional architecture as a form of culture is very closely related to tradition. Tradition is a rule or agreement that is passed on from one generation to the next which includes a norm and values. One form of traditional Indonesian culture, can be seen in traditional Aceh architecture. Traditional Aceh architecture is a reflection of the culture, lifestyle, and values believed by the people of Aceh, so the formation of traditional architecture can be seen in "Rumoh Aceh" [1]. Rumoh Aceh is a form of expression of confidence in God and adaptation to the environment.

The influence of modernization and globalization as a result of advances in building technology, brought changes in society from the traditional state towards modernity. advances in building technology, with the discovery of new materials and the construction of structures and constructions that make it easier to form traditional architectures in accordance with existing changes. In the efforts
of traditional architecture not eliminated by modernization, regionalism architecture emerged to unite
the old architecture with the new architecture. The concept of regionalism developed around 1960 [2],
as one of the developments in post-modern architecture that had great attention to regional
characteristics. The regional characteristics in question are closely related to local culture, climate, and
technology [3]. The idea of regionalism is a fusion between the old and the new [4]. While postmodern
ideas in architecture try to present the old in a universal form [2]. According to Curtis (1985),
Regionalism is expected to produce a building that is immortal, melting or merging between old and
new, between regional and universal. Traditional architecture has a regional scope while modern
architecture has a universal scope. Thus the main characteristic of regionalism is uniting Traditional
architecture and Modern Architecture.

One way to keep the characteristics of traditional Acehnese architecture in modern times as it is
today is to apply Acehnese cultural values to modern buildings. For this reason, the government building
object, namely the Mayor of Lhokseumawe, was chosen as a case study to see the influence of the
traditional Acehnese architecture and the physical elements of Aceh's traditional architecture which had
the most influence on modern architecture.

1.1 Traditional architecture and its development
Traditional architecture is a form of architecture that is passed down from one generation to the next
[5]. In traditional buildings there is a tradition which implies a habit carried out in the same way by
several generations without or very few changes, in other words habits that have become customary and
entrenched. Basically, the existence of traditional architecture is closely related to the daily lives of the
people who still adhere to the collective life system, which has harmony and harmony between the
macrocosm (universe) and microcosm (building).

Developments and advancements in the field of technology make traditional architecture obsolete
and shift to modern architecture. Furthermore, the saturation of modern architecture makes a number of
parties want to bring back traditional architecture, to the presence of regionalism that tries to merge
Traditional Architecture and Modern Architecture. Regionalism originated with the emergence of
Modern Architecture which tried to leave its past behind, leaving its characteristics and characteristics.
In the following period efforts began to emerge to link the past architecture (AML) and Present
architecture (AMK) due to the existence of an identity crisis in architecture.

According to Wondoamiseno (1991), the possibilities of linking between past Architecture (AML)
and Present Architecture (AMK) are (1) Attaching AML elements to AMK, (2) AML physical elements
integrated into AMK, (3) Physical elements AML is not clearly visible in AMK, (4) AML forms
dominate MCA, (5) Expressions of the AML intent are united in AMK. To be able to say that AML is
integrated into AMK, AML and AMK must be unity visually. The unit in question is unity in
architectural composition. If what is meant to be united is not integrated visually, for example the
abstract quality of the building that is related to human behavior, then the assessment can be by using
direct or indirect observations. To get unity in architectural composition there are three main
requirements, namely the existence of: (1) Domination, (2) Repetition and (3) Continuity in
composition. The relationship between AML and AMK is summarized in 3 aspects, namely the form of
architecture (proportion, color, orientation and material), physical elements of architecture (roof,
entrance, walls, doors, windows, ornament) and expression of Forms that are visible in meaning.

1.2 Traditional acehnese architecture
Traditional Aceh architecture is a reflection of a characteristic of Acehnese culture. There are two things
that form the basis of the formation of traditional Aceh architecture, which is related to the physical
appearance of architecture and matters relating to the cultural factors underlying the formation of the
architecture. According to Hadjad et al (1984), in supporting Acehnese activities, traditional Aceh
architecture is grouped on residential buildings (Rumoh Aceh), places of worship such as meunasah
(suraau/ langgar) and meuseujid (mosques), and rice storage buildings (krong pade).
| Table 1. Characteristics of Traditional Acehnese Architecture |
|-------------------------------------------------------------|
| **Traditional Aceh Architecture**                          |
| Characteristics of Traditional Acehnese Architecture        |
| Rumoh Aceh structured stage prop by pillars and roof gable  |
| The room consists of 3: front room (seuramo keu), central room (tungai or juree) and back room (seuramo likot). |
| The location of Rumoh Aceh faces North and South so that the house stretches from East to West |
| Using ornaments with motifs: religion, flora, fauna, nature applied to: stairs, walls, windows, doors, etc. |
| The proportion of under and roof looks very dominant compared to the body of the house. |
| Rumoh Aceh colors generally use yellow and red, orange, black which are sometimes combined with white. |
| The materials needed include: wood, board, bamboo, binding strap and leaf |
| There are two types: meuseujid (mosque) and meunasah (prayer) |
| - The shape of the meunasah: four square with a porch in front of it. the same as the form of Aceh. The difference is only in the shape of the pole and arrangement in the spaces. |
| - The shape of the meuseujid: square erected on the ground, supported by 4 main pillars, the pole is located right in the middle of the building to support the pyramid-shaped roof. |
| The form of the traditional Aceh mosque roof is in the form of an overlapping roof consisting of two layers, namely the roof of the lower layer and the roof of the upper layer |
| In addition to the same ornaments used in Rumoh Aceh, there are also additional geometric patterns |

1.3 Modern architecture

Modern architecture is an architectural style that was formed in the late 18th century due to the industrial revolution and democracy which spurred the formation of a modern age. The industrial revolution caused material production and pre-fabrication decoration elements so as to facilitate the development process especially in terms of time and price. According to Banham (1978) the development of modern architecture emphasizes the simplicity of a design with a solid platonic formation that is boxy, not decorated and repetitions are monotonous.

The new and very basic concepts of modern architecture include the Form Follows Function developed by Louis Sullivan, with several characteristics as follows: (1) The space designed must be in
accordance with its function, (2) The structure is honest and present do not need to be wrapped in a form of the past (without ornament), (3) The building does not have to consist of parts of the head, body and legs and (4) Functions in line or accompanying the form.

2 Method
The form of this research is descriptive qualitative research. The object observed was a building that would be used as a case study in researching the influence of Acehnese Traditional Architecture on government office buildings, namely the building of the Mayor's Office of Lhokseumawe.

The Mayor's Office is the main administrative office for the city administration where the head of the region performs the duties and authority in leading the administration of the area. The Mayor's Office Building in Lhokseumawe is located on Jalan Merdeka 1 No. 2, Lhokseumawe City (figure 1), located in an office area. To the left and right of the Mayor's Office building next to the Post Office and the State Treasury Service Office. This building is a building specially built for the Mayor's Office after the expansion of this city from North Aceh Regency.

The process of collecting primary data is done by the method of field observation. Observations were made by the researchers conducting observations directly to the location of the object of the research, namely the Office of the Mayor of Lhokseumawe. Secondary data contains things that can support and have a relationship with primary data including; Traditional Aceh Architecture, Modern Architecture and Regionalism Architecture. The results of the analysis of this study can find the application of Traditional Architecture to government office buildings and the most dominant factors affecting Traditional Aceh Architecture in government offices. This is done by examining the characteristics of Traditional Aceh Architecture and the characteristics of modern architecture which are then associated with Regionalism Architecture.

![Figure 1. Location of the Mayor's Office of Lhokseumawe. Source: Google Maps](image-url)
3 Results and discussion

3.1 Form of traditional aceh architecture in the mayor's office building in Lhokseumawe

3.1.1 Building orientation. The Mayor's Office building in Lhokseumawe has a building orientation towards the main road in front of the building. This condition makes the orientation of the Mayor's Office to the south. The front direction of the Mayor's Office building in Lhokseumawe is facing South so that this building stretches from East to West. The orientation of a building like this is the same as the orientation of a Traditional Aceh House with a long section of the building facing North or South. Orientation of Traditional Aceh Architecture lies longitudinal from east to west. This is believed by the position like this that the building will always face westward which is the direction of prayer worship.

3.1.2 Proportion of buildings. The proportion of the entrance used in the Mayor's Office building in general almost looks the same as the Traditional Aceh house. In the front part of the Aceh Traditional House, the building is supported by a pole with 4 equals to the one used at the Mayor's Office, only if it is observed in terms of size, the difference will be seen. The distance between poles at the Mayor's Office is within meters of the same module in almost all buildings. While in the Aceh Traditional House the distance between the poles is different according to figure 3. By using the Width and Height Comparison Ratio (L: T) it will be seen that the ratio of the proportion of Traditional Houses in Aceh produces a ratio of Building Width and Building Height 8: 6.7 meters, while the proportion ratio of Mayor's Office building is 9: 12 meters.

![Figure 2](image)

Figure 2. Proportion of the Mayor's Office Building in Lhokseumawe.

3.1.3 Building colors. In general, the use of colors in buildings in the Mayor's Office building uses a combination of cream on all parts of the building and brown in the ornamental section under the roof. The use of this color, seems monotonous without the use of other color elements as seen in the Aceh Traditional House which uses black, red, green, yellow and white that decorate the overall appearance of the building (figure 4). The same color impression is almost the same as its use in most buildings that are so modern Modern architecture uses one color that dominates the entire building. The use of color is also intended to adjust to the function of the building as a formal government office.
3.1.4 Building materials. The building material used in the Mayor's Office building uses concrete wall material, the roof is made of metal roof tiles and glass windows. All of these materials use fabricated and modern materials. It is very different from the building materials used in Traditional Aceh Architecture which still uses materials found in nature such as wood and bamboo which are used to build walls, under and roofs of buildings. Roofing material in Traditional Aceh Architecture still uses sago palm leaves. The building materials used in traditional Acehnese architecture were not adopted due to the ease of maintenance of the material now and also the material that was now difficult to obtain in today's world.

![Figure 3. Use of the building color of the Mayor's Office in Lhokseumawe.](image)

3.2 Physical elements of traditional aceh architecture in the mayor's office building in Lhokseumawe

3.2.1 Entrance buildings. Entrance of the Mayor's Office of Lhokseumawe is in the form of a form that is owned by a Traditional Aceh House. The pond is used to support the building above it. The underside form used in the Mayor's Office building is only the front of the Aceh Traditional House with 4 pillars. So that the form under the Aceh Traditional House also affects the underside of the Mayor's Office.

![Figure 4. Building Material of the Mayor's Office in Lhokseumawe.](image)
3.2.2 Roof of buildings. The roof of the Mayor's Office building has a roof-like characteristic in Aceh Traditional Houses (figure 6). The roof form of the Mayor's Office building also uses a type of saddle-shaped roof. Pelanan roof forms such as the Aceh Traditional House were not applied or just duplicated at the Mayor's Office but there were variations in the form of gable with two forms of roofs of the same shape.

3.2.3 Building walls. The Mayor's Office building in Lhokseumawe is rectangular, which is the addition of length or width of a square shape. The symmetry patterned composition puts the focus in the middle, and puts the elements in the left and right balanced. The symmetry patterned composition gives a neat and formal impression, according to the function of the building as a government office. The outside appearance of the Mayor's Office of Lhokseumawe presents the characteristics of Acehnese Traditional House architecture. On each side of the building looks outside. Traditional Aceh Houses have a rectangular shape, stretching from East to West, the saddle-shaped roof has ornaments and is supported by stage-shaped pillars.

3.2.4 Building doors and windows. A window is one part of a building that has several functions. Not only the function of air ventilation, the window also functions as a link to the view outside the building. The presence of windows will enhance the beauty of the building, especially with the selection of window shapes. Various window shapes will enhance the visual image of a building. Window on the
Mayor's Office building Lhokseumawe has a variety of shapes, sizes and designs. There are several types of window shape designs in the Mayor's Office building (figure 7). Basically, the overall shape of the window is almost the same, but the variety of shapes makes this window look different. The entire window is square and rectangular with variations in the use of arches on the top of the window. The shape of the window at the Mayor's Office is not influenced by the shape of the window on Traditional Aceh Architecture.

The door is an important element in the building that becomes access to the building. The selection of the right door shape makes the building aesthetically valuable. The shape of the door in the Mayor's Office building in Lhokseumawe has the shape and size of the door as in other office buildings, there is no architectural detail that is characteristic of Aceh Architecture.

![Figure 7. Window on the Mayor's Office building.](image)

3.2.5 Building ornaments. The Mayor's Office of Lhokseumawe also has ornaments on the building. Ornaments on the Mayor's Office building adopted from the cultural ornaments of the local community, namely Acehnese culture. At the Aceh Traditional House, the application of Acehnese ornaments is almost all elements of the building. As in the section of the roof, stairs, walls, windows, doors, and also the columns / columns in the building, the influence of Aceh ornaments on the Mayor's Office building in Lhokseumawe, can be seen in the roof, wall, window and also kindang gratings.

![Figure 8. Ornaments on the Roof of the Mayor's Office in Lhokseumawe.](image)

3.3 Expression of Traditional Aceh Architecture in the Mayor's Office Building in Lhokseumawe

The expression of the Mayor's Office of Lhokseumawe building can be seen in his appearance. The facade of the Mayor's Office building which has many openings like windows will give an open / transparent impression. Open impression of a building can be obtained by using glass material that can emit an open impression. The dominance of the facade walls with space openings will give the impression of an extrovert from the building. Buildings that are dominated by transparent buildings will
give the impression of being friendly and friendly to the environment. However, in the Mayor's Office buildings not all walls are covered by glass, as in modern buildings.

The appearance and image of a building are strongly influenced by various building blocks of character, because of the composition and configuration of the building elements of the building a certain image will be produced. The application of the dominant concrete facade material gives the impression of being formal, hard, stiff. The impression of wanting to present the Acehnese Culture is also visible from the appearance of the building that uses several physical elements from traditional Aceh houses. The meaning of the odd number of steps in the Aceh traditional house building was also displayed in the Mayor's Office building.

4 Conclusions
Overall, the research entitled The Effect of Traditional Architecture on government office buildings, with a case study of the Mayor's Office building in Lhokseumawe illustrates that the formation that occurred was a union between Traditional Architecture and Modern Architecture. From this study it was found that there were physical elements of Aceh Architecture that influenced the shape of the Mayor's Office building. The influence of the Acehnese Traditional House architecture on the Mayor's Office building can be seen in: the shape of the roof of the building, the shape of the pond, the entrance area to the building, and the use of building ornaments such as the roof grating.

In terms of the form of Aceh Traditional Architecture in the form of: material, proportions, orientation and color did not affect the building of the Office of Mayor of Lhokseumawe. Using manufacturing materials, matching colors, all of which have the influence of modern architecture.

Acknowledgments
The authors gratefully acknowledgment the research is supported by the Department of Master Architecture, University of North Sumatra. I would like to pay my special thank to my lecturers, Mr. Nelson M Siahaan and Mr. Firman Eddy, for their vital support and guidance in helping me to accomplish the research. All the faculty and staff members of Architecture Department, as well as my own extended family who have given their support.

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