



Identity on the facade of Roi Et Provincial Hall

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Abstract

Roi Et Provincial Hall has been redeveloped according to the policy of the Government Center System Organization, which designates a provincial hall as the center of the provincial government and shall express its local identity. Roi Et Province, thus, has carried out the redevelopment project of the provincial hall of which design has been adhered to a tetrahedron style (a building with four gable ends), a standard building design provided from the central government, and combined with its local identity derived from architectural elements on the facades to present inherited meaning to people's perception. This study aims to find the architectural elements which provide identity on the facade of Roi Et Provincial Hall. The method used includes an investigation of the architectural elements on the facades which affect perception in 3 aspects: mass-form, ornament and texture. The study consists of three steps: 1) an investigation of the old hall's facade, 2) an investigation of local identity buildings' facade, and 3) an interpretation of identity to a design. Finally, a 3D model of Roi Et Provincial Hall is developed.

Keywords: identity; facades; perception; provincial hall; Roi Et

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1.0 Introduction

Nowadays, the provincial hall is part of the regional government center. (Churstarponsiri, 2001) In the past, the provincial hall was the workplace of the regional government units. After the Government Administration Act was announced in 2534 BE along with the development plan at the provincial level, several new units were set up. The provincial hall cannot handle the expansion of the government units, which makes those units had built the new buildings on the existing royal property. This creates the idea to use the government center management idea to bring all the government units together in the same area and create the administration center to utilize people as a one-stop service. (Churstarponsiri, 2001)

In the past, the architecture of the provincial hall has changed by its role in each period. In the beginning, the provincial hall has a pavilion shape, located in the area where the community leader lives. The provincial hall at that time is the place to announce any news and do community activities. Then, it had developed to be the administration center to be in accordance with changes in the administration system in Thailand. The development of the provincial hall occurs continuously due to the changes in technology and the effect of modern Western architecture. There was a change in the provincial hall to have more Thai architecture and set as a template to be used in every province. In the present, the government center management committee has determined that the government buildings have to represent the regional identity. (The Secretariat of the Cabinet, 2010)

The architecture of the provincial hall in each period determined by reasons and meanings such as the provincial hall has to be the building with the empty yard in front to create importance. (Churstarponsiri, 2001) This can be concluded that the provincial hall can communicate through architectural elements to create recognition of the meaning of the provincial hall. This affects the current context which is more concern about architectural standards. The government has determined that the provincial hall has to represent a regional identity.

Roi Et provincial hall at the present has a standard shape from the central government which is about to renovate the building that is dilapidated and crowded. The provincial hall will continue using Chaturamuk form in the renovation process and also have to include the representation of the regional identity into the building. The architectural elements of the buildings had considered being recognized by people. (Suwatcharapinan et al., 2012, Askari and Dola, 2009) Furthermore, the study about the side image of the building can affect the recognition popularly. (Mehrabian and Russell, 1974; Russell et al, 1981; Herzog et al, 1982; Imamoglu, 2000; Gifford et al, 2000 Marina and Renato, 2006) The result from the study shows the architectural format that represents the historical roots which can be adapted to be one of the renovation ideas.

2.0 Literature Review

2.1 Provincial hall in each period

The provincial hall has different role and importance in a different period which Churstarponsiri (2001) had studied about the political meaning of the government building architecture in the case study of provincial hall. This study divided into 4 periods as follows, the provincial hall in Thai administration before political transformation in 2435 BE. The provincial hall design in this period was depended in the need of the leader and was built by local craftsmen. The provincial hall would be moved by the leader's desire. The beauty of the building will reflect the leader's prosperity.



Figure 1: Nakhonratchasima Govenor's house
(Source: http://ruch-sattahip.blogspot.com/2018/12/blog-post_33.html)

Later, in the period between 2435 – 2474 BE. There was a political transformation trend from the Western that affected the political culture. There was an economic expansion, the creation of several government units that are important to the urban development process; Department of Public Work which turned to be Department of Public Work and Town&County Planning. This unit is responsible for all construction processes and also responsible for design suggestions, budget planning and checking the works of the Department of Public Works. This unit is working under the Ministry of Interior which is responsible for the construction and renovation of the government buildings. The provincial hall design during this period was affected by Western architecture and was missing the regional architecture.



Figure 2 : Previous Chiang Mai provincial hall
(Source:<https://www.chiangmainews.co.th/page/archives/867260>)



Figure 3 : First Chiang Rai provincial hall
(Source: <https://www.chiangmainews.co.th/page/archives/521636>)

After that, there was a political transformation between 2475 – 2522 BE. This process was a transformation from the Absolute Monarchy system to the Democracy system. The provincial hall during this period aims to be the provincial administration office. The building

has a standard design like other buildings. The provincial hall was continue developed from Western-style pavilion which has 1 – 2 story to Thai style pavilion which has 2-5 story. (Argsakorn, 1985 as cited in Churstarponsiri, 2001) The architecture of the Provincial hall was changed from Western-style to be more Thai style. The difference between two types of model come from materials used in the construction process, method, architectural knowledge, and engineering during that time.

The standard model of the provincial hall was designed by the Department of Public Works which determined the building's size by the importance of each province. This model is the one currently using until 2523 BE. which is the time that national administration plan focused on income distribution and economic recovery (National Economic and Social Development Plan. No.4 2520-2524 BE.) This has increased numbers of government units and government officers which make the provincial hall overpopulated.

2.2 Roi Et province identity

The meaning of the word “Identity” in the Thai language, according to the Royal office, is the combination of the word ego and personal character. In the architectural meaning usually mention about the interpretation of context, origin or culture related to the architecture. Suwatharapinan et al (2012) has stated that architectural language that the architects used in the design process which represents the cultural context usually be more complex than the language using in everyday life because it has to communicate with two different levels. In the first level, there has to be communication about the source of cultural content using as inspiration. The second level has to communicate with the users of the building. This makes the study of regional identity used in the design process was the result of the cultural context of each region and uses any method of communication to link the meaning of cultural content to the architecture.

By consider about Roi Et province location, it is located in the North-Eastern area in Korat civilization around the Chi-Moon river. This area has cultural confirmation with the provinces in the South Isan area which affected by Khmer art. Around the 15th Buddhist century, Khmer civilizations expanded into the Roi Et area. There was several Khmer style stone castle around the area. (Wongthes, 2012) During the 17th- 18th Buddhist century, there was an expansion of Khmer territory from Southern Isan to Middle Isan and Northern Isan. Some parts of Roi Et province during that time became the center of the sub-region. (Sutthitham, 2001) This makes the Khmer art affected the area together with the worship in Khmer gods in the Hindu religion and several stone castles were built within the area. The society had changed from ghost worship society. After that, in the 20th Buddhist century, there was a change in trade lines, religions and political systems in the society. There was a migration of the people to another area which makes the people lived in the area are Laos instead of local people. This makes most of the civilizations changed to be Laos style. (Wongthes, 2012) The character of Roi Et province has the shape of the bottom of the pan which makes no races live in the area permanently, but on the side of the area which has two races lived in. In the north of the area, there has a Phra That Phanom which is the Lanhang civilization as the center of the area. In the south, there has Wat Phu

Champa Sak which is the Khmer civilization as the center of the area. (Wongthes, 2012) These create cultural changes in Roi Et province from the races occupying the area at that time.

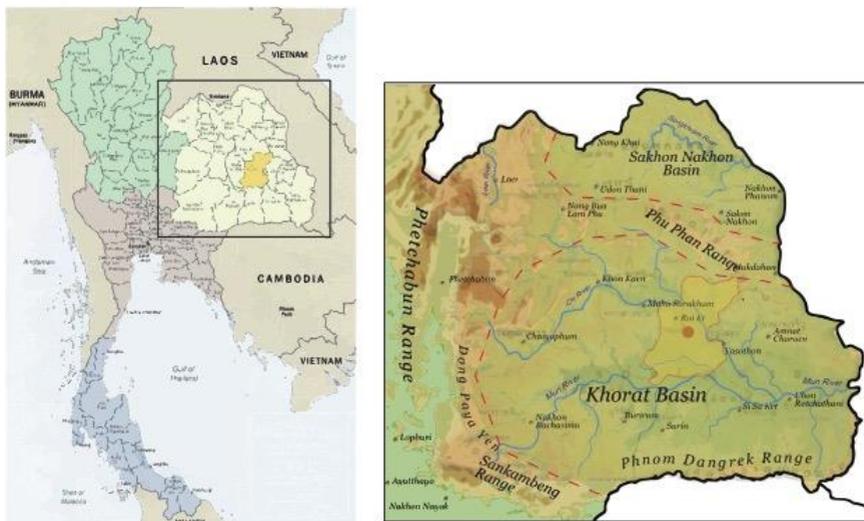


Figure 4 : Map shows Roi Et province location
(Source: <https://deacademic.com/dic.nsf/dewiki/668527>)

2.3 Influence of Building facade affecting the perception

The building facade is like the face of the building. TzeLing Ti (2007) has stated the importance of the building facade that it could reflect the cultural reception and show the identity of the community. The building facade represents various experiences of the observance. (Moughtin et al, 1995 as cited in Askari and Dola, 2009) Askari and Dola (2009) have studied the effect of architectural elements shown on the facade of historical building in Kuala Lumpur, Malaysia. The result shows that there was a connection between the meaning and communication process through architectural elements and the observance of the building facade. The process that connecting this connection is perception. The perception process starts when there has a stimulus such as events, situations or environments affect the sensory system. The brain will recognize the sensory and saved it as the situation happened from the sensory then translate and operate it with the memory. This creates the study and leads to a decision making process. (Waranusantikul, 2004, as cited in Saiseng, 2017) The perception process includes sensation, perception, and cognition. These processes run continuously and cannot be separated. (Phetsuriya, 2013) Furthermore, Wonglaksanaphan (2014) had described more about the perception that it is the process happened from the study of human behavior and the environment. The Gestalt group had stated that human can recognize the environment in the overall level more than

recognizing the minority details. These all affect the perception and human behavior directly. (Horayangkura, 1998 as cite in Wonglaksanaphan, 2014)

The perception through visibility relates to the perception of the building facade the most. The perception organization makes humans tend to recognize clear and simple shapes more than the complex one. The depth perception is a part of the length perception (Wonglaksanaphan, 2014) which affects the understanding of the size of the object in different distances. Other than that, the method of building consideration, separation, and description of the elements to conform to human perception. Part of the theory of Van der Laan mentioned the practical definition of similar shapes which will depend on the perception reference from the idea that not all the different shapes can be perceived. (Stamps, 1999) This creates the study about elements in the different levels that affect the perception which can be divided into 3 groups; Partition Part, Ornament, Trim Detail, and Texture. (Stamps, 2000) sorting from the biggest elements to the smallest by human perception theory.

3.0 Methodology

By studying about Architectural elements shown on the facade of Roi Et provincial hall which represents the historical roots, the study method can be divided to 3 parts; 3.1 the study about architectural elements on the facade of previous provincial hall 3.2 the prototype choosing to study about the identity on the building facade, by studying about history and origin of Roi Et province then analyze the elements from the prototype together with the consideration about architectural elements on the new building at the same time. This leads to the design process of the new provincial hall and 3.3 the identification in the design process.

3.1 The study about architectural elements on the facade of previous provincial hall

At the present, Roi Et provincial hall has the shape of an ordinary government building which currently in a process of government center management. The renovating process goes through the government center management committees at the provincial level and keeping the same format. The provincial hall will be renovated to have Chaturamuk style. The previous building design has the building placing horizontally and has an empty yard in front of the building for state ceremonies. This can be said that the point of view of the previous building is perpendicular to the space in front and the view from the yard will show the building facade. From perception theory and theory related to the consideration mentioned previously, leads to segmentation consideration about the building plan which determines the point of view from the ceremony yard into 4 levels; Mass-form, Ornament, and Texture.

Roi Et provincial hall can be primarily analyzed with details as follows,

1. The building was located horizontally with a clear edge which makes the building not part of other buildings. The mass of the building has a ratio between height and length at 1:3 and the minor section was parted such as the porch in the middle used as entrance

and exit of the building and at the side of the building used as an office area.

2. The building elements have symmetry on both sides and the building structure was reduced from the Thai style architecture.

3. The surface made from materials using currently, concrete surfaces.



Figure 5 : Bird-eye view of current Roi Et provincial hall

(Source: https://ewt.prd.go.th/ewt/radioroi/ewt_news.php?nid=743&filename=index)

3.2 Prototype choosing for studying the identity of the building plan

Tok, Kaplan, and Taneli (2010) used photographs as a tool to study architecture and evaluate the social point of view of the environment created. They said that photographs can arouse analytical thinking which is well-known and variously used in anthropological, psychological study and also used for architectural study for a long time including the architecture which focuses on visibility. It mainly used for a presentation about the building as well as be information that can be stored directly from the environment. Photographs are beneficial for the study that need an analytical process which provides more information than favoritism. The analytical process from photographs is the unfolding of the meaning in different levels from the evaluators about the material, social, behavior and culture. (Elkins, 2003 as cited in Tok, Kaplan&Taneli, 2010)

By studying the identity perception in the Southern Isan area would consider the perception of the building facade by choosing the building with the element that represents southern Isan identity. When considering the previous Roi Et provincial hall, the two photographs chosen are the ones that contain both factors. (Figure 6) These photos are the architecture that similar to Kopura architecture or the archway of the stone castle which is one of the main architecture in the Southern Isan area. These styles have to be reduced and adapted to fit with the current context

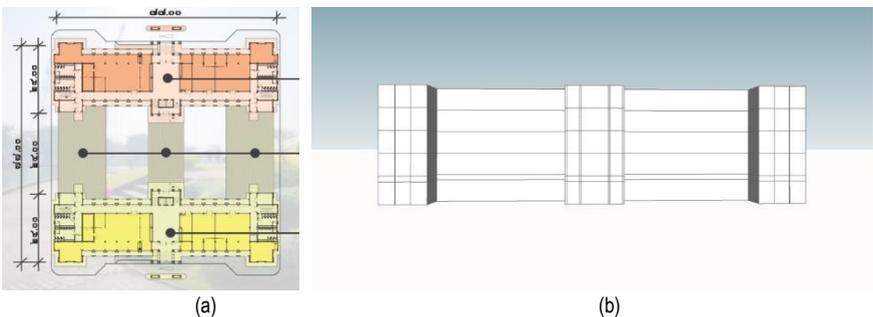


(a) (b)
Figure 6 : (a) Detudom Provincial Court, Ubon Ratchathani ; (b) Wat Ban Pluai Yai, Roi Et.
(Source: <https://dudc.coj.go.th/th/page/item/index/id/1>; <https://www.facebook.com/swp.pr/>)

3.3 Identity identification for design process

Starting the identification process by considering architectural elements of the prototype in a step of visibility perception. The steps start from the perception of the Mass-form, Ornament, and Texture, combine with the analysis and the 3D model creating. Details as follows,

The consideration in a Mass- Form level shows that the creation of a form of the provincial hall is framed with the standard model of the provincial hall. The context of the design of the provincial hall is to design the provincial hall to be the symbol of the administration and justification. These create the symmetrical building and make the renovation process of the previous building to be in Chaturamuk form. The consideration of the building is about building laying horizontally and have a clear border which makes the building not combine with other buildings nearby. This character is similar to the prototype chosen for the study.



(a) (b)
Figure 7 : (a) Standard building plan
(Source: Department of Public Works and Town & Country Planning, Roi Et province)



Figure 8 : Mass-form of previous Roi Et provincial hall and the prototype

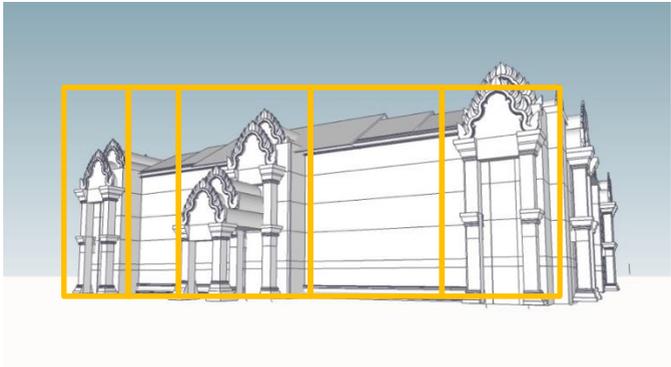


Figure 9 : Mass-form

Furthermore, when mentioned about the mass of the building which is sectioned, (Figure 8) the layout of the building elements are symmetrical between the left and right

side. The center of the building is used for being the entrance and exit which is the emphasis of the axis of the building to be clearer. For the design process that has to include local identity, the elements are added by considering the element which is a similar character to replace the previous one. (Figure 9) For example, the roof shape of the porch chooses the one similar to the gable of the Kopura style castle to replace the applied Thai style roof. The scale of the roof is adapted to be in accordance with the size of the building which has the ratio between height and length at 1:3. The process chosen is to stack the roof in layers that are similar to the gable of the Kopura style castle. This process is to reduce the height of the building which previously a five-story high to be two-story high building as same as the prototype. Other than that, another important mass-form of the building is a roof, this element is inspired by the roof of the stone castle which stacked in layers and being adapted to fit with the building style.

The Ornament, using the shape of Mahuad and the base element in a nearby area and adjust the proportion to accordingly fit with the five-story building. This process can be done by using the vertical line of the Mahuad as the element of the building which is reduced the ratio between the gable and the height of the building.

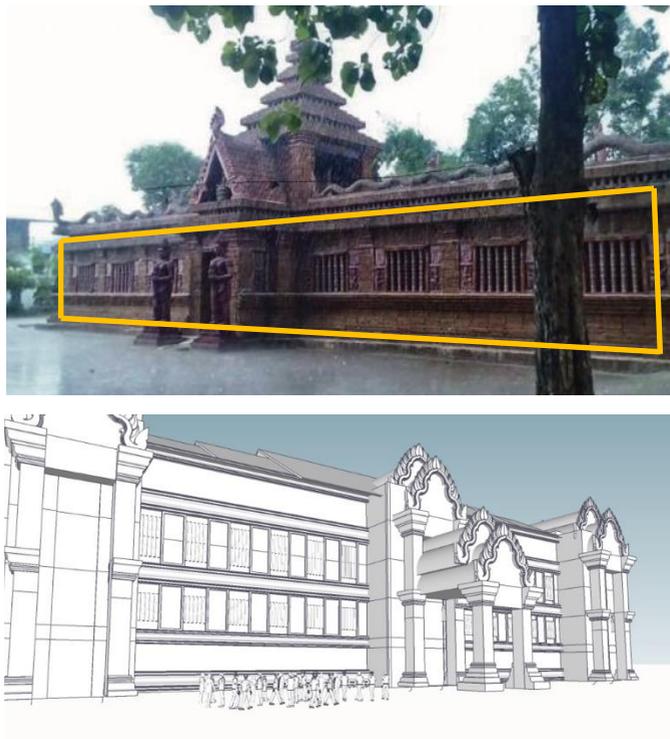


Figure 10 : Ornament

Texture, by considering the perception of the state ceremony area, it is found that the perception of the building texture is less than other methods. In this case, there choose to create the model from constructive materials using at the present period which is concrete texture because there was a comment about the budget of the government building construction included. The comment about using texture elements in the design process for testing the identity perception of the building should happen after the perception test in a mass-form and ornament level. In case the local identity has been perceived, it should save the cost in the building decoration process.

4.0 Results

By analyzing the architectural elements that affect the perception process, it can be divided into 3 levels which are mass-form, ornament and texture. Together with the consideration of the prototype which already goes true the historical study of Roi Et province leads to the architectural analysis shown in the building plan and 3D model respectively. This lead to the creation of the 3D model of the of Roi Et provincial hall. Detail as follows,



Figure 11 : Study result in 3D model

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