The Development of Acehnese Traditional Architecture in Lubuk Sukun Village Based on Local Knowledge

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ABSTRACT

Local wisdom in creating the built environment is a cultural heritage which capable to produce a concept which growth and evolve continuously in the community. Traditional Architecture concept which is currently well-preserved in Lubuk Village, Aceh Besar can become a model of built environment which adaptive to the current needs architecturally as well as structurally. The paper is aimed to examine and explore the form of conserving Architecture of traditional houses via local wisdom that is held and used by the community in Lubuk Village, Aceh Besar. This study utilizes descriptive qualitative methods as an approach. Local wisdom of Aceh traditional houses or “rumoh aceh” is one of traditional architecture will be studied. Thus can described the whole Figure of traditional Acehnese houses in the modern context. The data collection employs observation, documentation, and interviews with related stake holder. The data will be analyzed qualitatively based on data reduction, presentation of data, and drawing conclusion based on data verification. The result of this study shows that the effort to conserve traditional value exercised by the community of Lubuk village is to preserve the form and the use of local material, to transform the form and material of houses, to add and reduce the space. Thus, the community can preserve the existence of Acehnese Traditional houses which are handed down from generation to generation.

Keywords: Architecture Traditional Aceh, Local Wisdom, Conservation, residential

BACKGROUND

Lubuk Sukun Village, Ingin Jaya district, The Aceh Besar Regency is a village which has been granted a prestigious position by Aceh Government as a tourist traditional village in 2012, Lubuk village is very exceptional because it conserves traditional Acehnese culture and settlement pattern. The spatial arrangement of the houses and the neighborhood are based on local cultural values. Most of the houses are traditional Acehnese house which is still the main preference for these villagers. Traditional House of Aceh, is one of Architectural creation that was native from the culture and local wisdom. These houses have shapes, decorations, structures, and how to make are inherited by generations.

The formation of traditional architecture cannot be separated from local knowledge of the local environment. The traditional architecture is influenced by several factors such as material availability, the type of climate and environmental circumstances surrounding the site and the topography, the economic ability, mastery of technology, daily necessities of life, symbolism and meaning (Setyowati, 2008). Traditional communities utilize knowledge and local wisdom that has handed down through the generations to build a traditional building through trials and errors and changes are set in accordance with natural conditions, symbol, technological advances and others. (Soedigdo, 2014).

As one of the buildings located in the earthquake area, Aceh Traditional houses are considered as buildings resistant to earthquakes. Hurgronje (1985) observes that traditional Acehnese house has been adapted to the earthquakes and floods threats. In addition, Lombard (2006) has reviewed that the settlements in Banda Aceh (used to be called Kutaradja) and Aceh Besar, since 1600 the Acehnese have been that the geographical location of the city they are less perfect. Meutia (2006) conducted a study that show each element of Acehnese traditional houses defend themselves in response to the earthquake. The behavior of the element in responding to the earthquake lengthwise and crosswise direction is determined.
by the relationships formed by each system structure on the stable condition and each joint formed structural system of “rumoh aceh” are well tied.

Traditional house building techniques based only on knowledge and intuition which obtained from local natural conditions and experience passed down from generation to generation. Along with social and cultural development of the community in the recent year, there has been a shift in traditional values which influences in the pattern of the built environment. The main factor of the shifting is the development of economic and the cultural values in Aceh. The difficulty to obtain wood with good quality plays significant role for the altering the use of material in building houses. In addition, there is also a shift in terms of culture, where modern community tend to follow practical approach which influences the change of their living pattern. The challenge is how to comprehend “Rumoh Aceh” that retains traditional values but is also adaptive to the community current needs. Thus, “Rumoh Aceh” needs to be conserved as our identity and add the variety of Architecture in the Modern Aceh (Nas,2003). There is a need to study the traditional value that is adaptive to modern Aceh particularly in the customs of Lubuk Sukun community. The study that can bring to the surface the local values that is still exercised in community daily life. This strategy can be implemented by local people to serve as a guidelines for local people to preserve traditional Aceh in the modern context.

LITERATURE REVIEW

Traditional Architecture vs Local Wisdom

In the beginning architecture was appear to create shelter as a place of protection against the influence of climatic and animal conditions. Izziah (2010) noticed that the construction of the building was made in such a way that seen the effort to be friendly with the environment as well as anticipating from the influences of climate and wild animals. Climate is one of the factors that modify the local building (Ismail,2014). The facts show that in extreme conditions, the climate have contributes in determining the formation. Besides that, Roxana Waterson (1993) also wrote that the influence of nature, location, geography, and human behavior affects traditional house forms. Based on narrative of Mr. Abdullah, called “utoeh” (carpenter) rumoeh Aceh, which describes the construction of traditional Aceh houses in the form of poem :

“na saboe cieceum, di poe u barat, sayep jieh dua, gaki namlah”

This poem has the meaning of Acehnese Traditional House is an analogous to such a bird that flew westward, had two wings and sixteen legs. This knowledge was used by a carpenter (utoeh) to determine the direction of building orientation based on the location of the building which is longitudinal from east to west (to determine the direction of prayer). The building construction has two surface of roof in east and in west (its analogous to wings), and the number of building construction poles amounted to 16 pieces, that describes the basic form of construction of the Acehnese Traditional House, which is has 3 rueng (distance between the poles in the longitudinal direction), where then this form develops into a house 4 rueng, 5 rueng, and 7 rueng. Of course this is related to social, cultural and economy’s home owners.

![Figure 1. Analogous form of traditional house construction of Aceh type 4 rueng.](source: Sari (2015))
The house was built on a number of round pillars that formed under the house. The down house makes the air circulation to flow up more optimally. Part of wall and gable (‘tuelak anggen’) filled with translucent engraving that allows cool air remove the hot air in the room so the room feels cooler (Leigh, 1989). Form longitudinal building towards the East-West with a shorter side making it possible buildings can withstand extreme winds from the West. Root cover material in the form of Rumbia leaf that has low heat transmittance of about 0.93 W/m²K and time lag 1.6 hours, shows the material’s ability to withstand the heat rate and release it more quickly allows for a cool flow in space (Meutia, 2010).

The architecture of the traditional house of Aceh is the result of the creation of the wisdom of the people of Aceh in addressing nature and belief (religious). Tectonically the frame construction of houses aperture on the traditional house of Aceh good on walls, floors, winds and the roof meets the criteria cross ventilation give contribution to forming space, which is divided a the foot of the building, the midde buildings from the body of the building and the top (roof) to form the head.
RESEARCH METHODS

This study is using qualitative descriptive as a research approach. Data collection is done through observation, documentation, and interviews with several resource persons. Data analysis qualitatively based on data reduction, data presentation, and the conclusions based on verification.

The study area is Lubuk Sukun village, Ingin Jaya as a sub-district, Aceh Besar. The village is located about 13.8 km from the city of Banda Aceh. The area covers 112 Ha, this area is passed by the river Krueng Aceh with a width of 30-50 meters which limits the village of Lubuk Sukun with the main road.

RESULT AND DISCUSSION

Local Knowledge of Traditional Settlement

The village place of Lubuk Sukun is crossed by Aceh’s river which is the main of transportation in the beginning became a Lubuk Sukun Village. The important of this river is become useful for community to their field of agriculture while take a place in long of the river. In developing of Aceh government in 1989 Aceh’s river got large to recycle flood that often happen in every year. Based on result of interview that has done for community that they are staying in Lubuk Sukun village hereditary beside of the houses they having are very protecting from blood disaster. The buildings that were staying right now are estates of ancestor has given from generation to the next generation, this building is rumah panggung. (rumoh Aceh faces in two model, rumoh Rambat and rumoh santeut.)

Figure 4. Location Map of Survey Locations and Location Points

The data collection is conducted by observation, documentation, and interviews. Observation and documentation is done by observing directly traditional houses within area of study as sample of traditional houses. Based on an interview with one of stakeholder in Lubuk Sukun village, there are 56 traditional houses. These houses are undergo changes. There are 12 traditional houses selected for this study.

Figure 6. (a) Type of Rambat House, (b) Type of Santeut House
The structuring of the building in Lubuk Sukun Village is based on brotherhood connecting. In 11th of Aceh government (1967-1978) Muzakir Walad who was the first the native people of Lubuk sukun Village. He gave the pointing of structuring to protecting the ideas of their ancestor. At that Time Street of village was built, the roof of that house is built by leaf of sago. Planting of tea as the gate of the house. The planting of rambutan and Bali’s orange in each of the yard houses. Structuring of spread out area with the pebbles. This situation is still maintained by several local societies. Street becomes a restraint between people houses. The entire house that was pointing to east and west direction, so the head of houses faces to the street.

![Figure 7](image1.png)

Figure 7. (a). House using Rumbia’s Roof, (b). Rambutan plants in the yard, (c). Tea plants as a guardrail

The changing of situation that occurred in that village from farmer to civil servant it influence the community which appears of modern house to change Aceh House. The first came modern house in 1980, although there were several traditional houses was maintain, it to facilitated activity of their daily activity for adding building concrete which has position in behind, beside of Aceh traditional house.

Planting of the plans in the house yard was the most important element, which was, maintain by Lubuk Sukun Village community. Connecting with the nature was very good keeping in this village. The orientation of building to east and west was the local wisdom that was still maintaining by community because they realize the condition of west wind is very extreme in Aceh. Using of pebble material in the yard of the house is still defended by community whereas this thing has done by ancestor to know the guest of other people that come to the house when they coming to the yard. The using of sogo roof has chance to zinc roof. The societies ability in keeping and cost that was needed the first factor in changing roof material. In order to get impact comfortable thermal in building.

**Local knowledge of Acehnese traditional house**

Traditionally the house for Aceh community was called Inong house, it courses the house made for women. In order making room division of Rumoh Aceh there are:

1. Seramoe keu was place which mastered by man to do the activity to accept the guest, discussion, reciting room for man and for sleeping room.
2. Seramoe Tengeh was made for parent and daughter that with had a new family. This room is private. In this place there was a room in the west. When the daughter use this room, the parent makes the other room that called was yup moh. This place is called Rumoh inong whereas the man out of mahram was for bidden to enter this room.
3. Seramoe likot was made for woman in doing daily activity such as cocking and guiding children.

![Figure 8](image2.png)

Figure 8. Division of Space in Rumoh Aceh
Source: Issana (2008)
Some traditional model of Aceh house in Lubuk Sukun was 3 rooms and 4 rooms, so the seramoe tenghe room was 1 room only. Seramoe keu still use as place for accepting the guest either man and woman and the function of seramoe likot has been change as studying room for children and there was some adding room that beside of Inong house. Traditionally kitchen has position in seramoe likot, that why the soecity of Lubuk Sukun village made kitchen in modern building which take place behind traditional Aceh house. In this new building accept the kitchen room there was also bath room and dining room are made for people that getting hard in doing activity up and down of ladder.

![Figure 9. Type of Acehnese house in Lubuk Sukun](image)

![Figure 10. (a) Seuramoe Likot that has change function (b) Seuramoe Keu as a place to receive guests](image)

Traditionally all of community still maintains that Seramoe keu as place for accepting the guest and discussion. Inong house or seramoe tengoh was also maintain as the characteristic of dividing room in Aceh traditional house, it cause in tradition the house brotherhood was for women.

![Figure 11. The lower part of the house turns into a room and receives guests](image)

The other parts of traditional Aceh house usually called Yub moeh was opening place, this part usually use for collecting of rice barn and as the livestock. In this case has change function from this room that was till now as a meeting room, garage and adding of room. Although seramoe keu still maintain the faction as for accepting guest, the other part of this house use as place for accepting the guest.
Some elements in this face of building likes door, window and gable (tulak angen) still need to comfort thermal. Kinds of window have change, which wood window to glass. It important to needed lightning and dwellers. The last material of roof in traditional Aceh house in Lubuk has change very significant, some traditional house in Lubuk use zinc material. This factor is uncomfortable thermal for dwellers; Aceh traditional house is not use for place at noon.

CONCLUSION

Traditional architecture become from local wisdom of community and it related to environment it self. Traditional community to build of traditional building the community use knowledge within generation to generation and it has been correcting (trial and error) and changing with suitable of nature condition, symbol and technology. The cause that occurred in traditional value it gets changing of people in their place it becomes development of economic factor and Aceh culture. Nowadays local community in this era has choose partially life that impact to happening of changing people until become Aceh traditional house in village of Lubuk faces need of modern community.

The result of this research point to community of Lubuk that maintain traditional as the ancestor heritages that must defend. Some of them do this thing to adding knowledge from generation to generation in using of sogo leaf, planting of local plants and pebble spreading in the yard of the house. The orientation of this building point to the east and west, so some part of the house faces to north of Aceh, to faces Aceh as place for them. In this case the community of lubuk village all of them still maintain Aceh traditional house as place for them to stay. Because of that to facilitate their activity they adding theirs house which concrete. In traditional Aceh house has change roof material and room faction, the knowledge local tradition in the place traditionally has develop until the architecture got variation in modern of Aceh house.

REFERENCE

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