

Back to Megalith Era as a Concept of Eco-Friendly Megalith Edutourism Design in Bondowoso

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Abstract- Bondowoso is a regions in Indonesia which has the most megalithic sites. Based on the data of the megalithic sites in 2017 had been found around 1123 sites, however about 40% of these site are poorly preserved and some were missing. Therefore, an interesting edutourism design as the megalith information center, protection, research, educational places and tour are needed. The concept back to megaliths era of Megalithic edutourism presents the atmosphere of travel in the megalith era for visitors so that visitors feel a different atmosphere in every of its spatial. The concept back to megaliths era still produces the draft of friendly environment approached by applying the traditional strategy transformation in the design process. Evolutionary traditional transformation of the Meander's river and megalithic site with external , internal and artistic boundaries as well as applying the transformation principles in order the resulting design of megalith edutourism is friendly environment, despite presenting a megalithic atmosphere.

Keywords : Back to megalith era, edutourism , megalithic sites, transformation

I. INTRODUCTION

Indonesia is the country that has the world's oldest agricultural civilization. Civilization in Indonesia in prehistoric times is evidenced by the discovery of several prehistoric relics (megalithic sites) such as Megaliths Basemah, Site Site Gunaung Padang, Trowulan Site and others. The sites were scattered in several different areas and also diffrent characteristic.

One of the areas in Indonesia that there are megalithic sites i.e. Bondowoso. Bondowoso is regions in Indonesia which has the largest megalith site (kayan, 2007). Based on data from Department of educations Bondowoso in 2017, megalithic sites found around 2,123 sites. Historians still searching and researching sites that have not been found. The phenomenon became an attraction for tourist as places of research and tour.

The megalithic site in Bondowoso scattered in some areas. Based on the data registration of cultural heritage in Bondowoso areas there are megalithic sites spread over 10 districts. However, 40% of the sites are less well preserved even some lost (education service, 22 March 2017). The phenomenon was seen departing from the very need for information center, protection, research and tourism combined with education.

Pekauman, Grujagan is an area that has many megalithic sites as well as the potential for a very supportive towards designing megalith edutourism. Importance in maintaining and making history as the lessons outlined in the Quran Surat Yusuf verse 111.

Designing megalith edutourism in Bondowoso combines between outdoor edutourism and indoor edutourism. Indoor edutourism such as Gallery 2 dimension, Gallery 3 dimensions, space research and cinema, while the outdoor edutourism such as stonepark. Stonepark of megaliths era divided between old and young megaliths.

Transformation is the process of changing gradually in ultimate, the changes done by providing a response to the intenal and external (Antoniades, 1990). The criterion of transformation on the building history and artifacts, namely the transformation of the evolution towards the floor plan, looks and atmosphere (Aditya, 2015). Tranformasi strategy consists of 3 strategy i.e. traditional strategy, borrowing strategy and deconstruction. The traditional strategy is a form of progressive evolution through a step-by-step adjustment against the constraints of external, internal and artistic. The strategy of borrowing, borrowing the basic form of painting, sculpture, artifacts and other objects, studying the property two and three dimensions while continuously looking for depth of his interpretation by considering the feasibility of the application and its validity. Deconstruction is a process by which an existing arrangement separated to look for new ways in combination and gives rise to a new unity and new order with structural strategies in different compositions. The strategy that is applied to the design of edutourism is a traditional strategy because to produce eco-friendly megalith edutourism designs which presents megalith atmosphere.

The transformation principles considered in the transformation process. The principle of transformation are a proportional scale changes, unity between sections, consider the natural condition and the problem of semantics (processing of visual language).

Back to megaliths era concept is megalith edutourism concept which ambience for visitors for the pattern of circulation, the times, the experience of space even on its facade. Application transformasion design process of the megalith edutourism is to produce back to megaliths era design concept which friendly environment.

II. METHODS

Educational tours of the megalithic design method by Glass box method. Glass box method is method of designing based on the analysis and synthesis. Therefore, it can be traced to the process of creativity design. Designing megalithic edutourism apply traditional strategy for the transformation approach that is transforming the evolution of river meander and megalithic sites with external, internal and artistic boundaries as well as applying the transformation principles.

III. RESULT AND DISCUSSION

The design result based on traditional strategy transformation approach is the evolution of the River meanders through the megalithic sites and adjustment based on the constraints of external, internal and artistic. The traditional transformation approach capable producing edutourism concept which brought visitors to travel the megalithic edutourism with ancient atmosphere. Therefore, visitors feel the difference of its spatial atmosphere. In addition, in the process of the blessed transformation does not override the principles of transformation. As for the principles of transformation deployment that is already integrated with Q. S Yusuf 111 as follows:

1. Changes to scale proportionally

The presence of the addition or subtraction of the scale part of something that has a purpose and the purpose of supporting the design result. The scale of the change was applied on a road vehicle, pedestrian, ventilation in buildings.

2. The unity between the part that shows the linkages between space and shape

Change the scale to support the design result must also be fused from one part to the other. Unity of scale changes on the building stay balanced despite the change of abstract scale.

3. Consider the natural conditions in transformation process

Conditions observed in nature is the process of transformation to produce environmental friendly design.

4. The problem of semantics (visual language) which is able to explain the purpose and the process of transformation

The third principle of previous deployment also produce visual language for visitors so that it becomes a character design.

A. The Results Of The Design Area

Designing megalithic edutourism in Bondowoso is using pattern transformation results and evolutionary of river meanders and megalithic sites. Location mass of the building is front of the tread and stonepark is in the northern part of tread (sites area). Building arrangement, stonepark circulation and parking area design are merge as well as deployment-related merges the principles of transformation.



Pattern zoning in stonepark also presents nuances of megalithic sites with evolutionary transformation of River meanders and megalithic sites. Stonepark also has an artificial river which passed the visitor randomly. Beside it, visitors can see the road and the River has passed in fourth plaza stonepark.



Aksesibilitas on the tread is divided into 3 main access for visitors and the provider, loading dock access research and access for service cafeteria loading dock and maintenance service. The main access to buses and cars into one. however, for motorcycle access there is an open green areas and pedestrian. The main access is at the southern portion of the tread. Service access are on the Street neighborhood residents who are on the East side of the tread. In addition, parking for visitors and Manager in separate to be aware of the security level of the tours.



Ease of access and circulation in design result is maximized with the icon in the middle of the Garden Gate and the front of the main building that directs visitors towards dropoff and parking on the main building. In addition it is also supported by some of the vegetation and the imitation sites drive visitors.



Circulation at stonepark supported by vegetation and sones which identified the stone megalith era (young megaliths era and old megaliths era). In addition, there are also a few breezeway that identifies as a mistery that add classic impression for visitors.



Pedestrian from the motor parking toward the main building are equipped with stones and vegetation which identifies the megalith site tours, it also changes the scale of the pedestrian circulation flow shows visitors.



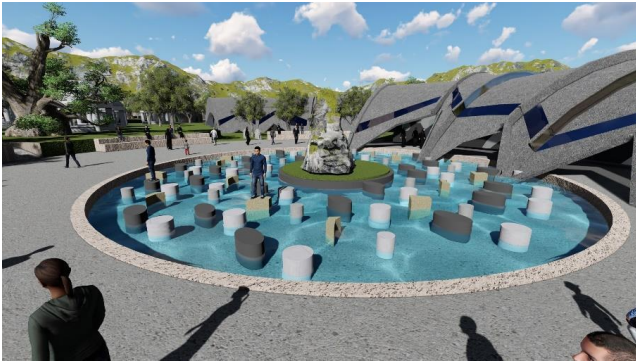
After the main building of the Park is providing a megalith site photo spot. It is the beginning tour of megalithic edutourism to introduce the vehicle rides megalithic sites. Mini garden stone and a few installation introduction site which also serves as a photo spot for visitors.



Rest areas after 2 dimensional edutainment serves also as the transition area before entering the Gallery 3 dimensions. The atmosphere is presented at the rest area with large rocks and high surrounded the plant vines that presents the feel of old megaliths.



Plaza is a vehicle of transition after carrying out educational tours indoor mean that visitors are not bored and can rest after doing tours indoor. Plaza is also means that visitors are more active, such as puzzle solving on plaza water and stone.



Every vehicle entering the megalith tourism there are entrance young and old rock garden tour as the pointer mood megalith to be visited.

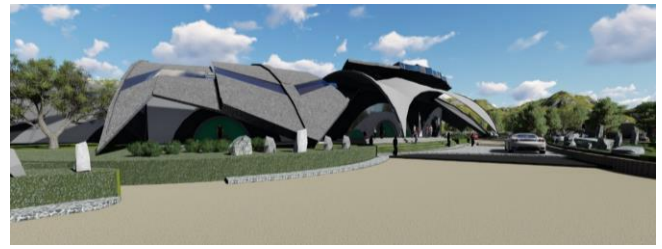


B. The Results Design of Building

Megalithic edutainment design based on the needs of users activity namely is divided into 5 main building and supported several buildings such as bathrooms and supporting small mosque as well as a gazebo and rest areas. The fifth building differentiated based on function and the flow behaviour of the user. As for the five main buildings, the main building, the Gallery of 2D, 3D Gallery, Space Research and cinema.

Form and facade of the building is the result of evolutionary transformation of the River meanders and the megalithic site with the principles of the transformation by

applying the limitation of traditional strategy (ekstrenal, internal and artistic). Therefore, it generate the object identifies the facade design.



The main building on the megalithic tourism is an area that serves as a registration area as well as a work area managers. Besite it, also a classroom as the beginning of the trip educational tours. Registration area adjacent to the place of purchase of the ticket. The waiting room there are panels that show education megalith site. In addition, there is an artificial river basin on the wall.

The main building is the first access before performing educational tours. It is also be a point of view when the visitor enters the area. Fasade of the main building is the result of evolutionary transformation of the River meanders and the megalithic site, but accentuate the lobby area with the addition of scale and proportion. The roof structure is used with the shell thin concrete material to bolster the impression of a megalith site on building.

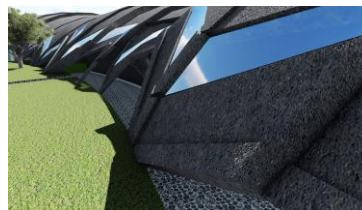


Tampak A



Tampak B

Openings of main building are on each side of the building and adjusted with its spatial activity so that the air flows on the building properly. In addition, natural lighting with a difference in height and material use tempered glass on the side part of the elevated section of the roof and the front and back so that the spaces have biased the dramatic sunlight in its spatial.



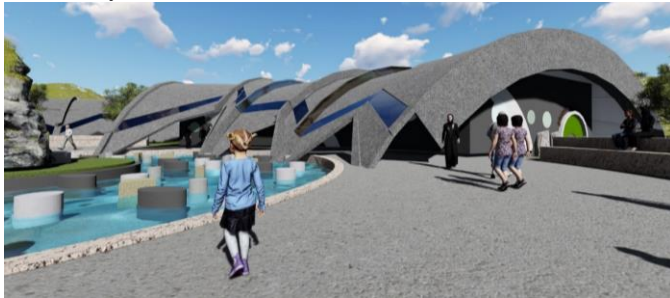
The 2 dimensions gallery on megalith edutainment is an area that served as a learning area for megalith site with 2 dimensional that are randomly placed as well asa flow of

circulation like a maze that has different atmosphere between old and young megalithic area. The display of the megalith sites placed varied, in the ceiling, upper walls, dinging down even on the floor. Therefore, visitors feel the adventure in every part of the tour.

A three-dimensional Gallery on educational tours is the megalithic area that served as a learning area against the megalith site with 3-dimensional medium is mapped on a regular basis as well as the flow of the circulation of the atmosphere has the distinction between areas megaliths old and young.

The megalithic site object in the 3d Gallery is a small websites and some miniature of large sites that aren't biased move. Gallery 3d area on Division is divided in two zones namely atmosphere megaliths old and young megaliths zone. Gallery 3-dimensional shape of the building a little like aspects, character and pattern as in the building of the Gallery 2 dimensional, but circulation and access to it is different. 3-dimensional form of the Gallery is the result of evolutionary transformation of the River meanders and megalithic sites. The roof structure is used with the shell thin concrete material to bolster the impression the megalith sites in buildings.

Space research has two access points to ease the moment require tools or research materials to take to space research. The research of the megalith site consists of two types i.e. research literacy and research in chemistry. Based on the method of space research second megalith site has two literacy research room and one room for research are chemically.



The openings in the building of the Gallery 2 dimensional, three-dimensional and space research are located at each side of the building and the height is adjusted with its spatial activity so that the air flows on the building properly. In addition, natural lighting with a difference in height and material use tempered glass on the side part of the elevated section of the roof and the front and back so that the spaces have biased the dramatic sunlight in its spatial..



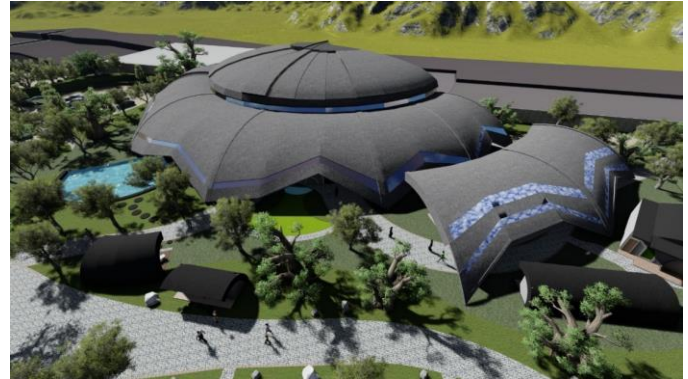
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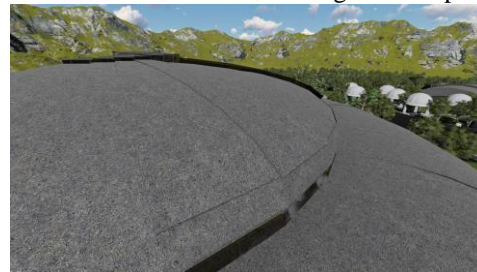
Tampak B

Cinemas on megalith edutainment is last on the tour rides so it has a waiting room and rest. In addition, on a tour of the megalithic cinema featuring stories of ancient times in 3 dimensions, there is a short film as entertainment for visitors.

Cinema and canteen buildings form a slightly different pattern, circulation and access any different but aspects and characters as in other buildings. Canteen memorable semi-open while more cinema closed. Building forms of cinema and cafeteria are the result of evolutionary transformation of the River meanders and megalithic sites. The roof structure is used with the shell thin concrete material to bolster the impression of a megalith site on building.



The openings in the building of cinema and cafeteria are located at each side of the building and adjusted with its spatial activity so that the air flows on the building properly. In addition, natural lighting with a difference in height and material use tempered glass on the side part of the elevated section of the roof and the front and back so that the spaces have biased the dramatic sunlight in its spatial.

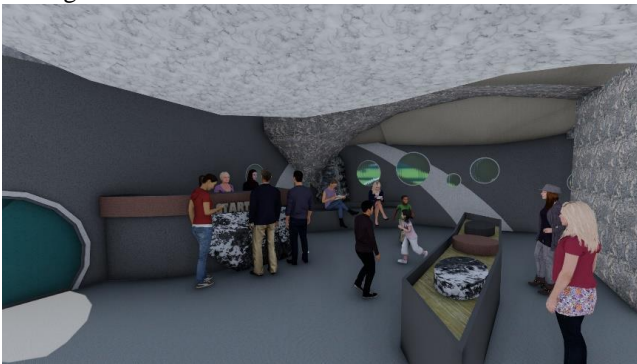


C. The Results of The Design Space

Lobby on educational tours of the megalithic use some colors so impressively massive megalithic sites. In addition, the furniture used is also more massive and memorable like a stone, but there are also some sections that use different materials to highlight the artificial water flow on the wall.



The atmosphere of the space on the Gallery also confirms the megalith, but there is a difference between the old and the young megaliths era. Its circulation patterns also continuously so that visitors like doing time in the exploration of megalith.



The openings in the waiting room a little wider than the other. The waiting room at the cinema made more generous and open because it is the last zone in tourist process so impressive that visitors will soon get out of the megalith, but the material used is still massive and effective cause of the rock.



The cinema has a slightly different nuance with the cinema in General. Cinema use massive and dark material, as well as the use of the game is as impressive as the ceiling inside the cave.



IV. CONCLUSION

Based on the exposure before it can be concluded that the traditional transformation Approaches with the constraints of external, internal and artistic as well as consider to four principles in the process of transformation of the evolution of the River meanders and sites the megalith on design result of megalithic edutainment produce design concept back to megaliths era the megalith either from the facade, the circulation pattern, landscape and its spatial atmosphere resulting in megalithic educational tours the ambience a megalith remains environmentally friendly so that visitors can learn and travel with different shades of each of its parts

REFERENCES

- [1] Kayan, "Situs Megalitikum di Bondowoso," Retrived from kotabondowoso.blogspot.co.id, Juli 2007.
- [2] Dinas Pendidikan. (2017,march 22). Data situs Megalitikum
- [3] Aditya, septian. "Transformasi dalam arsitektur-document," Retived april 3, 2017. <http://dokumen.tips/documents/transformasidalam-arsitektur.html>
- [4] Antoniades, Antony C. "Poethic of Architecture," Van Nostrand Reinhold, Newyork.