

The Concept of Historical Landscape Design at Watugong Archaeological Site Area in Malang City

I Setyabudi¹, R Alfian², W R Hastutiningtyas³

¹Lecturer of Architectural Design, Tribhuwana Tungga Dewi University, Malang, Indonesia

²Lecturer of Architectural Planning, Tribhuwana Tungga Dewi University, Malang, Indonesia

³Junior Lecturer, Tribhuwana Tungga Dewi University, Malang, Indonesia

E-mail: isetyabudi.st@gmail.com

Abstract. Malang city has the high historical value. It showed by many archaeological sites found, such as: The Dutch Colonial Building until kingdom era on classical history period. Generally, it could be seen at urban affairs like government building even the ancient house. But the last kingdom archaeological site only found at the village. The oldest archaeological site in Malang city was found on Kanjuruhan Kingdom, which is concentrated in Tlogomas. The Watu Gong Hamlet that was located in Tlogomas Political District had an archaeological site. It was a big stone in which the stone looked like a traditional music instrument, it was called Gong. As the archaeological site in megalithicum, before the Hindu and Budha came in from India, that stone was predicted as the foundation structure of the big building. The Watu Gong Hamlet was located in Tlogomas archeological site area, also Merjosari and Karang Besuki. Three of them are the archeological sites for Kanjuruhan Kingdom at eighth century, until Kahuripan Kingdom around the eleventh century, as the heir of the Ancient Mataram Kingdom. The urban government has a program to improve the village required to their region potential and it was possible to revitalize the Tlogomas village, so that the historical character can be seen well. The modernity of a hamlet has impact on the local identity blurred. In which, they did not think about economic only and it can be minimized, also the hamlet will be a characterized tourism object. The revitalization purposed to continuing the past, then it's connected to present. It's performed as corridor garden planning. The landscape development appropriated to promote about the characters of Kacapiring flower, Rose, Jasmine and Puring. They are the special plants from Kanjuruhan Kingdom, beside the other furniture street model. This research was descriptive explorative and discussed about the concept with architecture design approach, started from data collecting, precedent study, programming until the developing concept of the historical landscape. The historical landscape concept for Tlogomas at present is recommended to Watu Gong as the village tourism object.

1. Introduction

Historical sites in architecture context provides evidence there is a settlement that has been developed culture and its values beneficial to society lessons for decades afterward. Long time before the Dutch colonial period are still largely intact, many historical relics that exponentially degraded. The basic difference of this problem is technology. Relics of the colonial era has a younger age and they are created in the needs of the user's physical (tangible), while the kingdom era are already old and had a philosophical function, generally places of worship (intangible), and material from wood or stone.



Many relics of history that has been razed to the ground which should be protected by law cultural heritage.

Great nation was born because of their history, culture and civilization. The culture and civilization is marked by the presence of the site. Malang is inseparable from the history although the city is growing rapidly in the Dutch colonial era, starting from Kanjuruhan kingdom history. There are many sites spread across the city and district of Malang that is still preserved. No exception to the existing site in Tlogomas.

RW 03 (citizen association 03) in Tlogomas, there Kanjuruhan kingdom heritage sites in the 7th century in the form of stone resembling the shape of a gong. Originally the stone relics of a foundational structure base with a sacred building where the brahmins meditate, study and train their inner power. The stone looks a music instrument has about 80 cm diameter, 40 cm height and a protrusion with 15 cm diameter and 20 cm high. This stone was known as a foundation of wooden structures perforated at the bottom, so if an earthquake occurs only vibration without damaging the structures thereon. The number of 13 pieces and stones collected at the pavilion site. The foundation structure supported a very large building on it by stone pedestals, serves as a religious and government place. In addition to the stone, the stone also found that perforated for dispensing medicine and gathering food and a place to get cleaned up. There is also a red-brick thick under the courtyard houses, with a lengthened position pattern forming ground floor.

Tlogomas was originally a part of the Kanjuruhan kingdom, the area covers Dinoyo, Merjosari and Tlogomas. Watugong hamlet is a region located in Tlogomas since 1987 and entered Dau subdistrict, Malang district, but at Dutch period, Watugong include in section Dau Malang district in accordance with the Staatblad No. 19 of 1819. Tlogomas name was found after 1930, originally place on there were Ngelo, Karuman, Guyangan, Pelandungan/Kelandungan, Merjoyo, Merjosari, Dinoyo and Ketawanggede, so they need to call in one name. Tlogomas formed when people often find objects of gold (emas/mas: in bahasa) near the water source (telaga/tlogo: in bahasa). (Source: Tlogomas village profile).

According to interviews with village elders Mr. Bambang, the research team so Malang in 1984 estimated that a relic of megalithic sites Watugong that when cultured cobblestone community as a means of worship prior to the entry of Hindu-Buddhist religion of India. Watugong sites located among a row of neighborhood Dinoyo archaeological sites, Tlogomas, Merjosari and Karang Besuki. The fourth area is a legacy of the Kanjuruhan Kingdom at 8th century until Kahuripan at 11th century as the heir of the Ancient Mataram kingdom who moved to East Java. The distance between Candi Badut and Karang Besuki temple with Watugong site not far away, there are also Dinoyo inscriptions which tells purposes of the king for granting brahmin with a big house. It can be concluded that the Watugong area is an existing hostel building sacred pastors to glorify resi Agastya.

From the brief history described Watugong, so it region is very important in Malang city development. As for now Watugong condition is more advanced, but not all segments of society understand the importance of history then someday their potential condition will be degraded. Based on the cooperation with city government and villages, the village will be developed which indicate the existence of their identity which manifested in village planning based on local wisdom. Their local potential in the form of historical sites make public RW 03 as the hometown of the matter of history and be an icon of 'past in present' in a tourist village planning. Main criteria for the development of the region, among others refers to: improvement of environmental quality, public service, service to the tourists who visit, the preservation of Watugong heritage sites, the development of talent and creativity of the citizens to realize RW.03 Tlogomas as ' Watugong Tourism Village ' and became new destinations in Malang, and turning the wheels of the economy.

The planning is not only related to the architectural form of the building (hardscape) but also the landscape (softscape) which refers to the history. Plant as the local nature of the Kanjuruhan kingdom are kacapiring (*Gardenia* sp), rose, jasmine and puring (*Codiaeum* sp.) planned as 'dresscode' of Watugong region. Urgency of these activities is to increase public awareness through history and provide a venue to accommodate community activities. Village tourism can serve as a means of

education, culinary, and outbound, so main problem in this article is 'how is design concept of landscape history of Watugong archaeological site?' In order to create friendly environmental for rural tourism.

2. Methodology

The method of analysis in this research use descriptive-qualitative with explorative approach and architectural design method according Hakim [1] and Setyabudi [2] theory the context of landscape architecture. Hakim and Setyabudi, explains that the method of designing the architecture starts from the determination of the project, the object of study, inventory footprint, programing, concept, pre-design, and design development. In this article only discussed the results of the research that comes from the results of programing to design development. The tools used for data analysis using computer graphics software that SketchUp, AutoCAD, and Lumion.

Data is divided into primary and secondary data. The primary data of the physical data location (photo, measuring results and sketches), data from interviews with officers and supervising field space, and location mapping. The data obtained from field observations with camera tools, stationery, recorder and GPS. The usefulness of data for qualitative analysis in the form of the potential and constraints of the site, analysis functions and needs, as well as analysis of the object. Secondary data from literature on the potential and constraints Watugong village derived from the data Tlogomas village. The location selected in the village Watugong because it has the potential of local wisdom undeveloped and can be projected to the village for future travel. Here the object of study is presented in the map (googlemaps search: 7 ° 56'20.0 "S 112 ° 35'51.1" E) and photos.



Figure 1. Watugong Kampong in Tlogomas,
7°56'20.0"S 112°35'51.1"E



Figure 2. Watugong archaeological site (it called pendopo) contains stones like traditional music instrument (gamelan/gong)

3. Result and Analysis

Tlogomas as the entrance area of Malang from the west direction (Kediri and Jombang), so it has a strategic role in the development of the city. As a buffer zone, Tlogomas grew rapidly into an area that is heterogeneous. Since the 90s Tlogomas with a definite step move towards a positive development since the establishment of several universities that are in the region of Tlogomas. The area is more developed and grown into urban communities after Malang Government move to the center bus stops and public transportation from Dinoyo to Landungsari where administratively included in the Tlogomas.

Geographically, Tlogomas has an area of 167.59 km², located of 444 m height above sea level, with 24⁰C max. temperature and of 18⁰C min. temperature. The maximum rainfall ever minimum 2,71 mm and 2,31 mm that has ever happened. People diversity who settled in region Tlogomas raises the potential of different with the other region. Tlogomas has 13,450 resident which prural conditions with many kind of excellent products. Tlogomas also has quantity of 9 RW(s) (citizen association) and 49 RT (s) (neighborhood association). Total amount resident by sex is 8002 men and 5,448 women.

Results ground inventories and interviews with community leaders indicate that the planned location located along the main road corridors (Kanjuruhan street) and the alley leading to the site, so

the focus of this research is the landscape planning of road corridors by considering the history of both hardscape and softscape elements. Here is a photo existing conditions as explanatory.



Figure 3. Existing condition at Kampong Watugong toward archaeological site area

Preliminary studies conducted in-depth interviews to community leaders and discussion on local communities to determine the factors that influence the development strategy of the Watugong tourist village, mentioned in SWOT analyzed:

- a. Strength, (1) Potential easy road access, (2) There are watersheds and water sources, (3) There is a heritage site of the Kanjuruhan Kingdom, (4) Production of handicrafts of local communities such as stoves, processing of plastic waste, and local culinary, (5) Availability of a gate that contain elements of history, (6) the surrounding area of education, (7) *guyub* (friendly) society and mutual cooperation, (8) the implementation of cultural activities, (9) the number of vacant land that can be used as a neighborhood park, (10) the attention of local residents against the historical heritage, (11) the high enthusiasm of the public to make the tourist village history.
- b. Weakness, (1) Conditions pavilion grand (Pendopo Agung) less aesthetic, (2) the absence of identity of the region as an area that has historical value, (3) Not available cicerone (signage) towards the site Watugong, (4) A watershed yet managed properly
- c. Opportunity, (1) The role of Government in synergy with the development of the tourist village history (*Kampung Tematik* Project), (2) The number of visitors from outside the city to an area of the site, (3) Close to educational facilities, (4) to be a lab or media research for institutions education, (5) Being a place of training on arts and culture, (6) Development of traditional culinary travel
- d. Threats, (1) Transfer of land use, (2) The modernization current, (3) Nature of apathy towards the values of history and culture, (4) Decreased activities is cultural, (5) The density of residential areas, (6) Low the government's concern towards historic areas

3.1. Plan of Activities, Functions and Space Needs

Based on observations in planning location, there are some of results could be descriptively explained. 'Welcome area' located on two sites : the bridge area and Merjosari. The bridge area located in the north tend to be only passable by small vehicles because of a lot of the alley leading to the village, another case with a gate from the direction Merjosari (south) which has a wider space and connection with Joyogrand, Villa Bukit Tidar or Graha Dewata housing, so the circulation get in better direction from the south direction. Circulation is also heading towards the parking of vehicles. At some point in the township existing actually be eco-settlement in which there are many open spaces and planted with shading trees (mango), ornamental plants (hanjuang, labu kendi, rose, jasmine and gardenia), although some houses there immediately adjacent by road due to the limitations of the land owner. The location of settlements toward the site (pendopo) is not far away, and can be reached by foot. The total distance

between the north and south entrance about 2 km. Another potential reason for this area is an owner of water source whose size is not too large, large discharge when the dry season. During this time only source of water used for bathing by some locals. Access to water sources is quite difficult, because it passes through rocks and slippery. The produced water to the river tends not clear anymore.

Pendopo area has an important point of the zone, which is a place to store historical objects, access is still limited. In addition, not commercialized, there is no zone that holds educational functions like a library. The public generally have access to the site after permission from a manager, when there is an event or cleaning the historical objects, called *ruwatan*. Another aspect from historical field, rural communities are also active in making local handicrafts such as stoves and plastic waste recycling, which products will be inviting tourists. People love to work together and cooperate in environmental hygiene, cultural activities and build the park. According to Mr. Aryadi as headman, this potential aspect can be developed in future village environmentally planning. As for the testimony of citizens who expect to their village planning for the tourism history area. It can improve the welfare of the community, strengthen the identity and towards a better life. By opening up the concept of the village as a tourist history area, local communities inviting domestic and international travelers to visit Watugong site.

As a village which refers to the concept of eco-tourism, the principles include:

- a. The principle of conservation
- b. The principle of community participation
- c. The Economic principles
- d. The principle of education

Step designing resumed on user activity plan as follows design user, the user consisting of villagers and tourists arrivals who have different needs. Travelers can be adults aged or children with visiting hours are 8:00 to 17:00. Circulation to welcome area with a path from the entrance to the south, which is where the road more accessible by vehicle. Main entrance from the north only accepts pedestrians and bicycles. The parking area is located on an open area which is quite wide and holds about 30 cars. Along the driveway, Watugong identity has been shown with various ornaments, carvings, street name signage, sculpture, and various types of vegetation as a shading, steering, and aesthetic elements. To reach the site, visitors can walk next to the side of the road which offered traditional hawker (street food) and souvenirs. Each of the entrance, there is a gate with unique ornaments Kanjuruhan kingdom. Pendopo, this building accommodates educational function by adding a library area, storefront Watugong and other historic objects. Visitors are also directed toward the source of the water and headed into the water next to river.

The space function is found based on the needs which contain functions and activities. They are classified based on a hierarchy of interests that consists of welcome area, a buffer area, a conservation zone and core zone. 'Welcome area' consists of the construction of the gate with the charge history, their welcome relief, sculpture about Watugong and the addition of local vegetation. Buffer area consists of settlements, but has a special function to provide souvenirs, the development of local crafts, traditional culinary region, the addition of local vegetation and fence design each house with loads of history. The core zone, consisting of the restoration of the great pavilion, designed area of the village with historical ornaments, designing wall reliefs that discount the value of education and history. Planning the core zone, namely the restoration of the pavilion site, the design area of the village with historical ornaments. Conservation Area consists of the revitalization of the watersheds, reforestation area of the river, and the provision of arranging for fishing.

3.2. Basic Concept

The rationale thought for this Watugong landscape planning is the 'Conservation of History' which many elements like Kanjuruhan Kingdom form and ornament on site locations. This step illustrating the past in the present, but they appear in new materials and functions. Design applies to the lane road to the site and along the path of settlements, by adding a gate, post information, information boards, signage, sculpture, garden open spaces and selection of plants throughout the settlement.

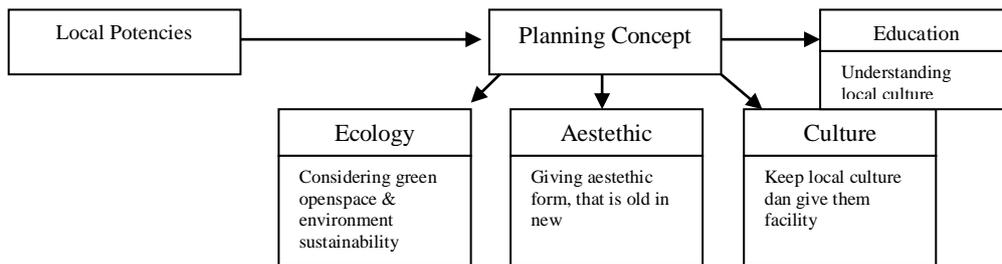


Figure 4. concept diagram

A. Mass Planning Concept

Mass structuring on Watugong tourist area is divided into four zones: the welcome area, a buffer area, conservation area, and the main zone. This structuring effect on the bearing elements of aesthetics at the site that is the gate, monument, post information, information boards and signage.

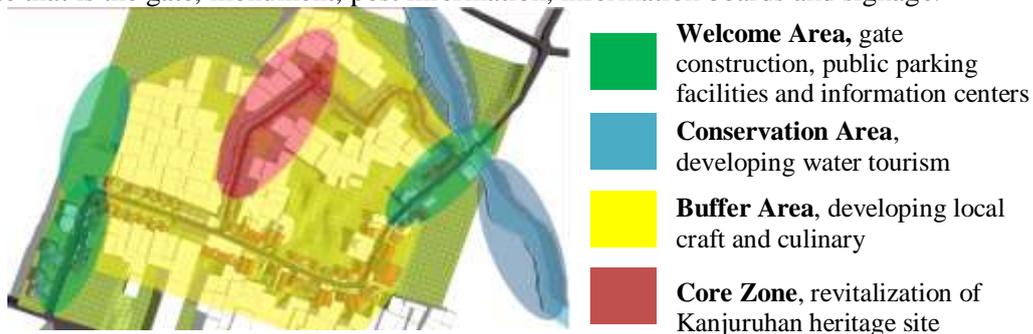


Figure 5. site zoning



Figure 6. important location in site

B. Form Concept

Form follow the concept of history on the site, by using unique Kanjuruhan kingdom ornaments with jasmine buds characteristic or Kalamakara, the same form of the Candi Jago, Singosari and Candi Jago. Gong and the motives leaves the higher the conical worship Hyang Mring Waseso.



Figure 7. Form concept

C. Vegetation Concept

The concept of vegetation is achieved by the use of a typical plant Kanjuruhan kingdom like rose, jasmine, croton, gardenias, hanjuang, frangipani, and banyan. The arrangement of vegetation have been based functions such as ornamental plants placed in the garden or yard while the shade is located on a side street. Unisex uniform plant as a hallmark of the township is selected hanjuang.

As for the results obtained from the study of the concept of structuring the landscape of history in Kampung Watugong include (1) the concept of ecotourism is used for the design-based conservation, community participation, economic, and education, (2) The form is used to follow the concept of the history of the site, namely the Kingdom Kanjuruhan with characteristic of the buds of jasmine and shape Kalamakara, (3) Element outer designed limited to the arrangement of the fence, gate, posts information, information boards, signage, sculpture and parks, (4) Design of landscape history based on user requirements such as walking and enjoying the atmosphere around, see colorful flowers typical of Kanjuruhan, understanding the formation sculpture, monument and can be learned in the area of the site, (5) spatial zones are distinguished on 4 main welcome area, a buffer area, conservation area and the core zone. Structuring element adapted to function tread. The following illustration concept.

4. Conclusion

This study found the concept of landscape history is based on the potential regional or local wisdom by presenting an attractive view in village. Visitors are expected to enjoy the facilities presented in designs such as education zone, archaeological sites, and souvenirs and culinary. Landscape design in question is to determine patterns of structuring softscape and hardscape that support pedestrian as a space to walk towards the site. Ecotourism criteria also included the historical and cultural conservation, community participation, community economic development planning and improvement, and education.

Acknowledgement

Worship and praise to Allah SWT. who has given smoothness on this research activity. Neither the gratitude we say to the dean of the faculty of agriculture and whole Landscape Architecture lecturer in Tribhuwana Tungadewi University especially Rizki Alfian who gave me help to look data from Tlogomas, also Wahidyanti who gave support to me, then Malang government, Tlogomas district office and their staff, because this article never exist without their program support, also along whole friends who participate in helping the completion of this study.

Reference

- [1] I Setyabudi 2016 *Elemen dan Proses Desain Arsitektur Lanskap Taman Rumah Tinggal* (Book Style) Malang CV. Dream Litera Buana
- [2] R Hakim 2012 *Komponen Perancangan Arsitektur Lansekap : Prinsip-Unsur dan Aplikasi Desain* (Book Style) Jakarta PT. Bumi Aksara