

THE REVITALIZATION OF PASAR KAYUN SURABAYA BASED ON SUSTAINABLE DEVELOPMENT

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Abstract

This study aims to formulate criterias for revitalizing Pasar Kayun, to maintain its existing activities and the ecological zone along the Kalimas. Located at Kalimas Riverside, Pasar Kayun is well-known as a flower market in Surabaya that originally known as garden with buildings were facing the river. Nowadays,the river become a backyard for its market buidings, since there are new economic activities. Character appraisal and behaviour observation were used to assess the physical and social characteristics. The result is the zoning of this area needs to be reconsidered to support Pasar Kayun as a one of the tourism assets in Surabaya.

Keywords: Pasar Kayun, Kalimas Riverside, Ecological Zone, Character Appraisal, Behaviour Observation

1. INTRODUCTION

1.1 Background of Research

Pasar Kayun Surabaya is an area along the Kalimas riverare currently included in the commercial area at the center of Surabaya city. This area is well-known as a traditional markets specifically on ornamental and cut flowers, gemstone center, and eatery, which capture many local and domestic customers. Directly adjacent to the demarcation line of the river, making Kalimas as ecological aspects that should be noted in this area. Historically, Kalimas is an important transportation route in the days before highway was built. Riverbanks area was used as a recreation park and buildings along Kalimas were facing the river, implementing the concept of waterfront. Since about 1960, this area was used for non-permanent flower trading. In 1984, aquarium and culinary seller started to crowd the area, then in 1989, gemstone seller started to come there as well. As the city develops, the non permanent flower trading became permanent and people built their houses in spaces between existing commercial buildings. This development caused the existing buildings to face the road and made Kalimas as the backyard. This also caused some conflicts and made the area looked crowded, dirty, and unplanned and not good enough to be a tourist attraction.

Based on the definition of the riverbanks, this area is a unified land directly bordering the banks of the river water, which still have a dominant influence for the environment of the water edge, both morphological and ecological (Wikantiyoso, 2009). Thus, flood-plains ecosystem must participate in maintaining the ecosystem in the river. However, the economic activities in this region makes ecological zones of Kalimas overlooked while Kalimas has potential as visual support for the area to visual support for the area to make it stand out not only as a special traditional market, but also as a tourist area for local people and travelers who stay in the city.

1.2 Location of Research

Pasar Kayun is located at Kayoon Street, consists of several special trade commodity, such as ornamental flowers, cut flowers, gemstones, culinary and several aquarium shops. Geographically, this area has a northern boundary with Jl. Kayoon and offices, the southern boundary with Kalimas, the western boundary with Jl. Sonokembang and East boundary with RS. Mukti Mulya.



Figure 1 Mahakam Riverbank as area of study

2. THEORITICAL REVIEW

2.1 Sustainable Development

Sustainable development is a Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987 : 43). These three pillars of sustainable development become into foundation aspects in analyzing the region. According to the Forestry Commission, 2015, there are several components of the assessment in accordance with the continuous diagram (Figure 2), which includes the economic pillar of economic potential and equity components. Environment pillars includes components of the natural environment and resources. While the social pillars, its components include social and community pasrtisipasi. Thought to sustainable development can not be done separately, because each pillars has a relationship to the others. The balance can be achieved when the three pillars are observed and grown in the same portion.

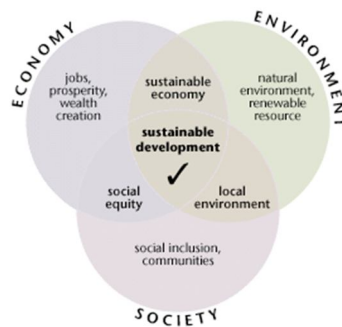


Figure 2 Sustainable development diagram

Source: Forestry Commision, 2015 (www.forestry.gov.uk)

2.2 Revitalization Of The Riverside

Revitalization is an effort to revitalize an area or part of the city that was once alive, but then suffered a setback (Rais, 2007). According to Sidharta (1989), revitalization is away of changing a placeto be used for a more appropriate use andgive more complex activities thatrequires a sustainable stage. The revitalization of an area can be caused by several things, including:

1. Having a land use transformation caused by the activity change in that area.
2. Having a degradation value of the land territory, in economic, social and cultural, the meaning and the visual appearance.
3. Having a bad image of an area that caused by social activities such as crime, dominance of informal sector, and disorderliness city.

Riverside is an area which is directly bordering the banks of the river water, and still have a dominant influence to the waterfront characteristics, both morphological and ecological (Wikantiyoso, 2009). Those area have a demarcation line, determined by the condition of the river embankment and river location. Based on the RTRW, Kalimas' demarcation line is 3-5 meters. According to Otto, McCormick, Leccese (2004) in Nugraha, Darjusanjoto, (2015), to protect the ecological zone on the riverside, there are principles that include several criteria. A

first criterion is to protect natural feature and its function, the second is to apply non-structural for new construction, the third is to reduce hardscape element, the fourth is concerning to stormwater management, and the last is to balance between public access and recreation with the river conservation.

2.3 Visual Quality

The most important factor that makes an area has a good environment quality is because of its visual quality (Shirvani, 1985). The visual quality is a visual condition that people see from a series of a good environment, proper position, and comfortable neighborhood (Cullen, 1975). The visual quality becomes a peculiar attribute at the visual system determined by cultural values and the physical property that being essential (Smardon, 1986 in KD. Kartika, 2008). According to Shirvani (1985) there are eight physical element in the urban design that related to the physical quality of the urban environment, namely land use, building form and massing, circulation and parking, open space, pedestrian ways, activity support, signage, preservation. These elements can be assessed based on the assessment landscape elements as the visual quality, influenced by the order, repetition, rhythm, unity, balance, proportion and scale, and emphasize (Vanderzanden and Rodie, 2008).

3. METHODOLOGY

This research is classified into qualitative study by using naturalistic paradigm. Qualitative research multi method in focus, involving an interpretive naturalistic approach to its subject matter. The components of qualitative research are an emphasis on natural settings, interpretation and meaning, and how the respondents make sense their own circumstances and multiple tactics to manifest the aims (Groat & Wang, 2002).

Character appraisal is used to assess the physical characteristics that exist in the region and behavior observation is used to determine the social characteristics of the community. The components that observed in the character appraisal included the building and landscape elements, street furniture, and signage, that affect the visual appearance of the area. Behaviour observation achieved by interviewing some stakeholders who directly related with the area, such as the market manager, traders, visitors, and street vendors around the site.

4. RESULT AND DISCUSSION

Result and discussion will be divided into two focus, the characteristics of the physical and non-physical characteristics (includes economic activity and character of the user behavior) to assessed the conflicts of the region. Particularly in non-physical characteristics, discussion regrouped based on commercial zone and following by explanations of the settlement zone in the region. While the physical characteristics will be discussed as a whole because the physical condition of each zone does not have significant differences.

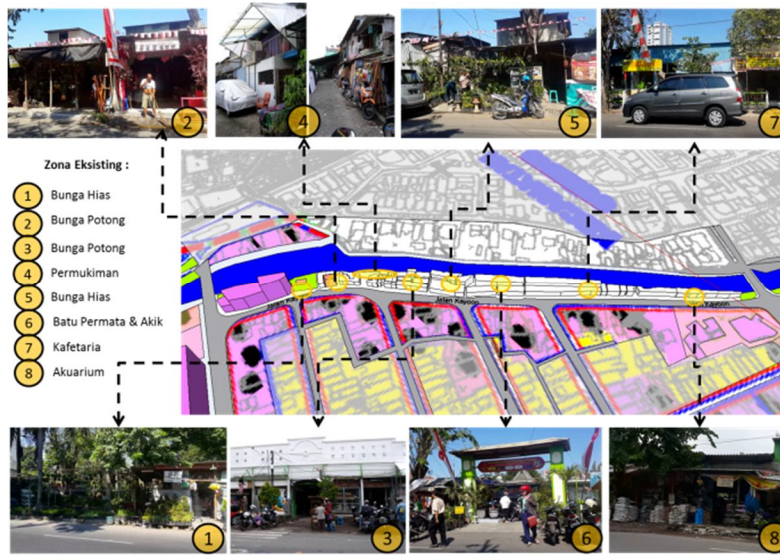


Figure 3. Existing Zone of Pasar Kayun
 Source: Researcher illustration on 2016

Physical Characteristics

Physical characteristics are described in the form of a table. Aspects of the table refers to the physical components of the area described in the literature review, namely building and landscape elements, as well as street furniture.

Table 1. Table of Physical Characteristics of Pasar Kayun

Source: Researcher Identification on 2016

Physical Aspect	Components	Characteristics
Building	Land Use	Based on the Riparian = 3 meters, there is one building (mosques) that infringe the land use. Based on building demarcation line = 5m, most of the building are breaking the rules.
	Order	Each zone has a significant difference sometimes.
	Repetition	No repetition, except on the Gemstone Zone, kiosk were build identic
	Rhythm	Invisible because there are no space to enjoy the rhythm of the building
	Unity	Looks unite, because the merchandise covered by flowers
	Balance	Invisible because there are no space to enjoy the rhythm of the building
	Proportion and scale	Human scale, building consist of one or two floor
	Emphasize	There is no emphasize, but area of cut flowers look prominent because the façade already on the renovation
Landscape	Hardscape	Paving (for the rear perimeter road vehicles), stucco (for pedestrian circulation path, in front of or inside the market), asphalt (parking area and the main vehicle lane perimeter front), Ceramic Floor (in the center of Gems).
	Softscape	There are big trees as boundary between the building and the street every few meters, but the roots damaging the asphalt of Kayoon Street.

Street furniture	Bench Street lights Fences Trash bin Signage Dsb.	<ul style="list-style-type: none"> • The bench and street light is only in gemstone zone • Fence only in a few places, and blocked with merchandise of the store • No pedestrian lights • Bins are placed at unequal distances • There are no signage except neon box stores and directional markers only on gemstone zone. • Traffic signs are minimal in this area.
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Non-Physical Characteristics

Non-physical characteristics are described by the depiction of events and human activities in the area, and assessed through behavioral observation of each zone, as follows:

1. Ornamental Flowers

Behavior of traders are actives, offer commodity to the visitor, the visitor does not have to park, it causing traffic jam on the Kayoon street. In fact, the commodity in this zone has two potential: the economic potential through sales, and greening potential to help maintaining river ecosystems and provide comfort for visitors.

2. Cut Flowers

The employees spend time with caring for plants cut, waiting inside the store, and collecting garbage of the flower. The remaining pieces of flowers were collected near each kiosk, and reduce the space for walking. In the tourism area, comfort factor and pedestrian safety is the focus, so the waste disposal that takes pedestrian lane is a problem that needs to be solved.

3. Gemstones

Physically, this center is an area is considered to have the best condition among the other centers because of tighter management and there is no residential activity. Commodities that are traded do not produce a lot of waste so and do not cause untidiness and litter problems. Activity in this center is run by a same background of hobby, and has the potential to attract communities and tourists as souvenir center. Not enough space for parking and for event reduces the potential of this zone.

4. Culinary&Aquarium Shop

Pedestrian way is used as a display area or expansion of the cafeteria, disturbing pedestrians so they have to walk outside without security and shade. Despite the existence of guardrail, the act of traders in using the land in front of his shop make visitors at both centers to have a tendency to stop and park near the booth they want to go (they already have objectives before arriving at the site) and use the shoulder of the road for circulation. To support the development of the area as a tourist area, the comfort and safety of pedestrians need to be considered.

5. Residential Area

Besides commercial zones, activity in residential zones also has an impact to the region. Residential zones which is located behind the commercial zone, directly adjacent to the evacuation route, rear perimeter of Pasar Kayun. The settlements are not directly toward the river, and make the perimeter route as a place for their goods (collectors, traders, scavengers), parking, and as garbage piling area for temporarily. Through the illustration below on the condition of the river, it appears that only a part of research area that is full of garbage. Based on the interviews with the residents, this area is not equipped with the clean water system from taps, so that almost every house has wells connected to the water distribution system in Kalimas. Waste management is also connected directly to the exhaust towards Kalimas.

The result of this study clearly showed that the condition of Kalimas riverside is changed from the old condition. Kalimas has new activities on economics, which affect the ecological condition of the river and the behavior of society. Under certain conditions, some locations are not convenient to use, and has a negative impact to the surrounding area. The impact such as traffic jam on the Kayoon street and pollution of the river, if the event is held on the riverside. This happened because the user's behavior cannot be predicted and the riverbanks are not equipped with a fences, barrier, or green space as buffer zone between the market and the river ecosystem. Economic aspects of development in the region is rapidly increasing, and cause a change in the activities that originally a trade become a settled. It also followed by the increasing of the population density in the region so that the green open spaces and public spaces along the river used improperly. Their trading activities which develop into these activities cause untidiness settled and the regional spatial structure no longer facing and pay attention to the Kalimas river.

Based on the previous analysis, the design criteria are then formulated. Criteria for revitalization of the area should be designed in accordance with the existing problems in the region concerned. In this area, zoning is a key element that needs to be set back, followed by the face of the building to reflect the visual quality of the area, and arrangement of infrastructure to facilitate both the visitors' and traders' activities.

To increase land productivity and function, the arrangement of the zone must consider the aspects of behavior that becomes a problem before, such as the behavior of the residential and an additional activities that can contaminate the water of Kalimas. Land use in these areas should be maximized to bring a new public space that is convenient for residents of Surabaya in larger scope, not only for visitors who have the need to shop in this area. Comfortable public areas can be accommodated through signs and guardrail must be clear and provide security and Street furniture should be equipped and not as a commercial element, but as an element of public space on the border along the river. In addition, to preserve the area along the river (mainly the river banks), types of activities in each zone must consider the demarcation line of the river and the Kayoon street, and the building should be facing the river (waterfront). The existence of the river should be considered as an appeal for the centers in economic terms, and has potential to be a new water recreational park. Elements of landscape acts as a green space on the border line of the river and also as the barrier between the economic zone and ecological zone along the river.

The examples of implementation of the criteria are described in the following illustration:

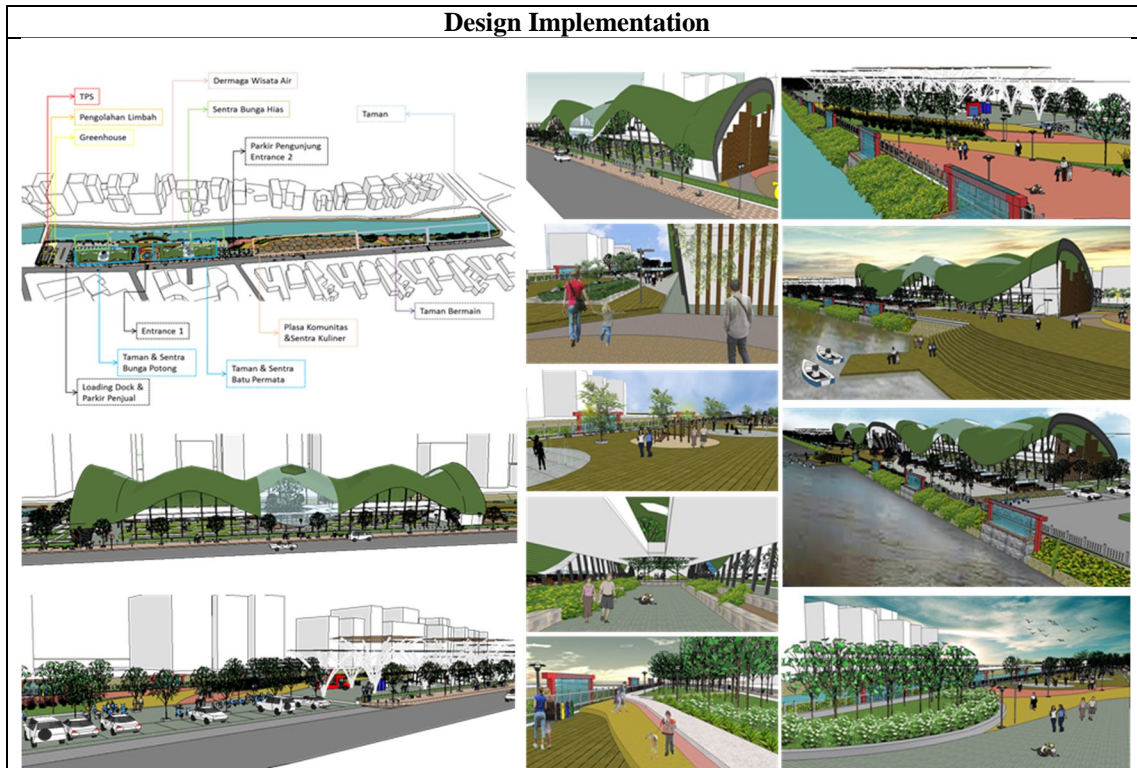


Figure 3. The Implementation design of the revitalization of Pasar Kayun
Source: Researcher illustration on 2016

Figure 3.a explained that the problems encountered in the region will be handled by:

1. Moving the ornamental flower centers being in the rear area of the region as supporting ecological river.
2. Adopt a curved building with a facade facing towards Jl. Kayoon and rivers, without walls which can forward a view toward Kalimas, and use the system to add a roof garden green space in the region.
3. Distinguishing pure trading activity center and that is relaxing into two distinct areas, separated by a centralized parking spaces.
4. Adding public spaces and green spaces in all of spot placement centers in the area with small parks and tourist spots of water in the specialized trade center that can attract visitors on a relaxing spot to stay past the spot trading.

The pedestrian ways in front of the stall is equipped with street furniture and free from obstacles. Signage and neon box has a similarities between each zone that shows the difference of them. Gemstone area hosted in the 2nd floor, so the 1st floor can be used for parking and public spaces. The area along the riverbanks is reserved for pedestrians, equipped with street furniture and safety fence. Rear zone is planned as an ornamental flower area, with a non-permanent building that oriented to the river. This zone act as enhancer of ecological zones and still have commercial value. Overall, the region is directed as an area that is comfortable and safe to walk around all the commercial stands. Overall, the region is directed to be an area that is comfortable and safe to walk around all the commercial centers in it.

5. CONCLUSION

This study is useful to improve the visual quality of the region that caused of the environmental degradation due to the rapid growth of economic factors in the region. Based on sustainable development, the study aims to build a better visual quality of this area. The analytical study of the existing condition obtained through the character appraisal and behaviour observation were used to develop a criteria design that support this area as a one of the tourism assets in Surabaya.

6. REFERENCES

- CULLEN, Gordon. (1975). *Townscape*. London. The architectural press
- GROAT, Linda & WANG, David. 2002. *Architectural Research Methods*. Canada: John Wiley& Sons,inc
- K.D KARTIKA, Felisia Femy. (2008). *Pengaruh Activity Support Terhadap Penurunan Kualitas Visual Pada Kawasan Kampus Undip Semarang*. TESIS Pascasarjana Universitas Diponegoro Semarang.
- NUGRAHA, Setyo. DARJOSANJOTO, Endang Titi Sunarti. (2015). *Design Criteria for Open Space at the Riverbank Area in Kampung Wonorejo Timur*. International Journal of Education and Research Vol. 3 No. 4.
- WIKANTIYOSO, Respati.(2009). *Pemanfaatan Dan Perancangan Kawasan Tepi Air Sungai Terpadu Dan Berkelanjutan*. Retrieved at 12/03/2016, http://respati.ucoz.com/blog/pemanfaatan_dan_perancangan_kawasan_tepi_air_sungai_terpadu_dan_berkelanjutan/2009-11-03-12
- SHIRVANI, Hamid. (1985). *The Urban Design Process*. Van Nostrand Reinhold Company, New York
- SIDHARTA, Budiharjo, E. (1989). *Konservasi Lingkungan dan Bangunan Kuno Bersejarah di Surakarta*, Gadjahmada University press., Yogyakarta.
- VANDERZANDEN, Ann M. & STEVEN N. RODIE. (2008). *Landscape Design: Theory and Application*, Thomson Delmar Learning, Canada