The Spatial Design Model for Kampong Batik Celaket Through its Productive Based Area:
A case study of Malang City, Indonesia

Key words: Design Model, Spatial Arrangement, Productive Area, Celaket.

Abstract: Malang City is one leading city in tourism field that embodied concept of Tribina Cita Kota Malang where part of it is to make Malang as tourism city. Aside as a tourist destination, Malang also grows as service, trade and industrial city. By these enormous economic and trade abilities will be able to change the orientation from a tourism city into a shopping tourism city. Kampong Batik Celaket area is increasingly recognized in public eye by many physical and non physical improvements also icons creation inside Kampong Batik Celaket environment. There are five factors as design reference: factors of location, environmental atmosphere, outdoor layout, road circulation system, and facade of buildings. These factors will be arranged into good construction in order to give comfort and safety in its shopping atmosphere. To begin with, these factors must undergo a research to understand their characteristics, so the result study can be used as a reference for planning and designing area of Kampong Batik Celaket to be one ideal, feasible and productive village. This study conducted directly on site which begun from surveys, interviews, and extraction important elements through visual studies. Then, the obtainable data are tested for formulating recommendations of designs from each subregion.

1. INTRODUCTION

Malang City is a prominent city in tourism field as this embodied in the concept Tribina Cita Kota Malang, where one of them is to make Malang City as a tourism city. Aside from tourist destination purpose, Malang City grows as a city of industry, commerce, and services. These enormous economic and trade capabilities are able to change the orientation of Malang City from a tourism city to a shopping tourism city. Eventually, this designation was made as the identity of Malang City. In the scope of East Java Province, Malang City is one of the important cities for the development of urban areas in East Java. It is seen from Malang City appointed as a center of the Regional Development Unit (Satuan Wilayah Pengembangan: SWP).

Each region in Indonesia certainly has special cultural characteristic that not necessarily possesed by other regions. This cultural feature is one of the regional attractions that has potential to promote Indonesia regions to the world. Hence, the cultural characteristics must be packaged in interesting and actual way so as to encourage the development of these cultural areas. Cultural distinctiveness not only focused on the realm of cultural arts activities but there are many cultural products that possess interesting cultural distinctions, for example the areas of batik artisans, pottery craftsmen, ceramic craftsmen and so on. The Batik Celaket Kampong (KBC) area of Malang City is a small home-based industrial area which is one of the icons of Malang City and a souvenir center for tourist when visiting this city.
The area of Kampong Batik Celaket (KBC) is increasingly recognized by public with the existence of physical and non-physical improvements together with icon creations in the environment of Kampong Batik Celaket (KBC). To get even better, sustainable improvements are ongoing in this location to make it popular both domestically and abroad. Many factors affect the sustainability of small businesses in this region where there are at least 5 (five) factors included: (1) location factor, (2) environmental atmosphere, (3) outdoor layout, (4) road circulation system, and (5) facade of building and land boundaries. Therefore, these factors above must be arranged to make this area comfortable and the shopping atmosphere become safe. The writer must conduct preliminary activity before correcting these 5 (five) factors, a research or understanding their characteristics at first, then results of this study can be applied as a reference for planning and designing the area to make Kampong Batik Celaket (KBC) becomes an ideal and productive village.

2. CONTRIBUTION

This study is expected to be useful for science as a source of new theories in the field of architecture and urban design with particular subject related to spatial theory. For the local government as a reference in formulating the policy of the spatial conservation model of the Kampong Batik Celaket (KBC) as a productive area. For urban designers in Indonesia, it can be studied as a contemplation or afterthought to develop areas that have the same character. For advanced researchers, the analytical framework used in this study can be an alternative for similar studies in Indonesia cities.

3. RELATED THEORIES

3.1. Theory of Urban Area Planning

In analyzing the design of the Kampong Batik Celaket (KBC) area the writer applying theory of Eight city-forming elements according to Shirvani (1986), namely:

3.2.1. Land Use

Land use is an element within design of urban areas which is also a two-dimensional design element for land designation of an area, but at a later stage will act as a determinant of function and embodiment of three-dimensional urban areas. In its application, determination of land use will be sequenced by circulation, transportation system and functions of an area within the regional scope. Furthermore, the development of land use plans arises with the impetus of achieving sustainability between policies and land use plan through establishment of the most appropriate functions in certain areas.

Kaiser et.all (1995) outlines several perspectives to be considered in understanding land use, such as: (1) Land is a functional space intended to accommodate a variety of usage. In this perspective the land accommodates regional growth that driven by population growth and economic expansion. When population increases and economic expands then the complexity of
functions from that region also increase. (2) Land as a setting of the activity system. It is called as activity system due to interrelation pattern between one to another activities which then triggers the onset of movement activity. For example: land with housing function has a high interaction to the land with education, health, trade and office service functions. Housing areas support the fulfillment of liveable necessities which must be supported by areas that able to accomodate the residents to meet their daily needs, namely buying household goods, carrying out professions, health services and other related activities. During their daily activities, the residents certainly doing ‘roundtrip’ activities from their habitation to other areas which of course will trigger the occurrence of movement activities that must be supported by transportation system. All activities described above are creating interdependent relationship between activities and other supporting facilities which then called as the activity system. (3). Land is a commodity. The usage of land must consider it's natural physical abilities along with its supportive capacity. Not all land can be used for settlements and economic activities like mountainous areas and river borders which must be protected as natural preservation areas.(4). Land as an image and aesthetic resource of the region. In addition to functional aspects and economic aspects, land also has aesthetic aspect. This aspect is important in providing quality environments that support recreational activities. Land that able to meet this aspect will have a land use value that appropriate for tourism, education and residential activities.

3.2.2. Building Form and Massing

Building form and massing discuss on how the form and mass of existing buildings can shape one urban area and how the existed relationship between these masses. In the arrangement of an urban area, the form and relationship between masses such as the height of the building, the distance between buildings, the shape of the building, building facades, and so on must be shown so that the space formation becomes orderly, has a dynamic skyline, horizon (skyline) and avoids lost space (unused space).

Nydia et.al. (2014) states that the shape and structure for the visual comfort of a building must have a clear orientation such as orientation towards east-west or north-south and also an orientation towards a good view. The orientation to the east-west direction for example, allows building to get full sunlight while the north-south orientation gets good sunlight.

3.2.3. Activity Support

Supporting activities (activity support) are all building functions and activities that support public spaces in an urban area. The shape, location and character of an area that has special characteristics will affect the function, land use and its supporting activities. Activity support also includes all uses and activities that help strengthen the city's public spaces, including all functions and usage that triggers to activity such as markets, recreation areas, public libraries, and community gathering places. Support activities (activity support) also must be integrated and coordinated through strong programming, guided to mixed use, diversity and intensity of use. Also important to pay attention to food service and entertainment by providing visual stimuli through physical objects that exist in the area.
3.2.4. Open Space

Speaking about open space always concerns its landscape. Landscape element itself consists of two elements, namely hard elements (hardscape) such as: roads, sidewalks, stakes, rocks, etc. and soft elements (softscape) in the form of plants and water. Open space can be found in form of fields, roads, river borders, green belts, parks and so on. Open space is a social activity that serves and also affects the lives of urban communities. According to Carr (1992) open space is a place for functional and ritual activities that brings together many groups of people, in normal routines of daily life and periodic activities. While Mirsa (2012) defines that open space in a city is a system of public land which includes roads, schools, parks, spaces for public buildings that arranged in a city network.

Soedrajat (2008) in the open space guidelines issued by the Directorate General of Public Works divides open space into several categories, namely green open space (RTH), non-green open space (RTNH) and public green open space (RTP). Open space (open space) can also be classified based on ownership, namely: (1). Private open space (land on a private housing or farm), (2). Open space for public use (land intended or planned as open space with public access and use), (3). Public open space (publicly owned land for active or passive community recreation uses).

3.2.5. Pedestrian Ways

Pedestrian is a path for people who walk as a facility to provide comfort and supporting element for the pedestrian activity and at the same time reviving urban spaces. Rubenstein (1992) says that Pedestrian can be interpreted as a pedestrian or a person who walks. Literally, pedestrian means people who walk on the road. A pedestrian is a person who travels from a place without a vehicle, to reach a destination with a specific purpose. The road is a medium on earth that makes it easy for humans to walk so pedestrian in this case means the movement or shifting of people from one place to another as a destination by foot.

3.2.6. Circulation and parking

Circulation and parking are elements of urban design that directly shape and control the patterns of urban activity, as well as the existence of a transportation system from public roads, pedestrian ways, and interconnected transit points that will form a movements (an activity).

Meanwhile, the ideal criteria for the circulation element according to Sirvani are first; the road must be designed as an open space that has a good view, like: (a). Clean and attractive landscape elements, (b). Height and border requirements for buildings adjacent to roads, (c). Parking arrangements on the roadside and plants that function as road dividers, (d). Improve the natural environment that is seen from the road. Second; Roads should be able to provide orientation to drivers and be able to create a readable environment, such as: (a). Creating landscape forms to improve the environmental quality of the area along the road, (b). Equipped with furniture that works day and night with decorative lights that support road athmosphere, (c). General planning of roads with city sights and some interesting visuals that can play a role as landmark, (d). Differences in roads arrangement like important roads are provided by road furniture, sidewalks, building boundaries back and forth, suitable land use and so on.
3.2.7. Signage

The meaning of signage is road directions, traffic signs, advertising media, and various other forms of marking. The existence of these marking will greatly affect the visualization of the area, both macro and micro when there are enough numbers and have distinguished characters. As a visual element that acts as a tool for orienting the community of users of urban spaces, it needs to be regulated to create harmony through a balance between public and private stops with non-excessive visual impact while at the same time able to reduce clutter and competition to traffic signs.

According to Merriam (1997) in the Webster dictionary quoted from Harisah, et al (2008) sign has following meanings: (a). Something that indicates a reality, quality and others, for example: black as a sign or indication of mourning, (b). A gesture or hint that conveys information, gives orders etc., such as nodding as a sign of agreement, (c). A sign or symbol that has been received and has a special meaning, for example the sign H for cents (in this definition the sign is the same as the symbol, (d). Parts of linguistics as words, letters etc. that are symbols of ideas, functions and etc., (e) In the form of display boards, placards etc. that provide information, advertisements or warnings, etc. (f) Signs of the footprint of an animal such as footprint (g). tangible traces or tangible indications, for example the sign of spring (information on the four-season state, spring is marked by the emergence of flowers from certain plants which then become flowers in spring).

3.2.8. Preservation

Preservation according to Feilden (2003) and Orbasli (2008) is an effort to maintain building in the existing forms and conditions and efforts to prevent or slow down the deterioration of the building quality without any changes. Repairs must be done if necessary to prevent further damage. Whereas preservation in urban planning is protection of existing residential (urban) and urban places (square, plaza, shopping area) and features, such as protection of historic buildings. Not only for old buildings that will be protected but also take care to all structures (buildings) and places (places) that exist in the city both permanent and temporary as long as it has economically and culturally significant, furthermore, the function of preservation is: (1). Protection of historic buildings, (2). Maintaining positive activities that related to buildings, (3). Considering criterion such as: location, design, settings, material, beauty, feeling, and associations with certain historical qualities. While Charter (2003) says that preservation is an activity that is indirectly related to the maintenance of artifacts (cultural heritage) in the same physical condition as when received by curator. Its aesthetic appearance should not be added or reduced. Any intervention that is necessary to duplicate the preserve can only be on the surface or on the "skin" and is not conspicuous.

4. Element Design Recommendation

From several analysis obtained, the suitable design for site conditions without changing the surrounding buildings are making a series of buildings
in the main road corridor to the main central shops of Kampong Batik Celaket, or you can take direction from southern road (towards the green area) which can be an economic value of local residents if they want to change some of their shop houses into boutiques or provide education about the batik process.

The concept map that determining the design of land use for this site explained below:

![Figure 1. Land use concept map](image)

Apart from it, to compensate the irregularity buildings appearances and irregular facades with a diverse look of the roof, the writer applying a more structured arrangement of the landscape outside the building. These recommendations can be seen in the picture below:

![Figure 2. Design recommendations for shophouse and pedestrian ways](image)

Build upon the recommendations described above for buildings in the community, it is better to have less color with the design of the area known as the Batik Celaket area, by a design model of each shop that wants to open a batik business with model as follows:
Therefore, it is expected to help in solving problems about appearances, besides helping to focus on elements of the landscape that are responsive to the climate and the hierarchy of the road, as well as outside space.

4.1. Building Form Element Design Recommendations

Based on the results analysis of the existing building form elements, it is found that the problem lies in the irregularity of the region's skyline due to unorganised buildings and random buildings that have 1st – 2nd floors which can create an impression of facade irregularity.

According to these results, the design recommendation offered is to make the building skyline more organized by making a series of 1 floor buildings in the main road corridor and only at certain points is allowed for 2 floor buildings so it is expected to form a more interesting skyline.

In compensating the unorganised appearances of these buildings there are several designs that play in harmony. Although many buildings are not in harmony or incompatible with other buildings, the presence of archway (gapura) and batik distinctive features can attract more visitor to Kampong
Batik Celaket area. These recommendations are displayed in the following picture:

![Figure 5. Archway design recommendation](image)

In addition to the archway engraved with batik impressions (mural) in each building the residents can be a tourist attraction too. These are a positive value from the area which can be even more popular because many varieties of batik existed there.

![Figure 6. Recommendation of “Batik Mural” design as tourism attraction](image)

Based on the design recommendations as described above, it is expected able to help Kampung Batik Celaket to be better and more popular around people of Malang and its surrounding areas.

4.2. **Design Recommendation for Activity Support Elements**

From analysis of the element as explained above, there are some areas that potentially can be utilized as activity support areas like public facility such as mosque in Kampong Batik Celaket area as well as many old buildings that can be transformed into street cafes.

For mosque planning which is expected to be a religious public facility, the building should feature an open impression to its outer environment, and aid as an element of climate responsive landscape. Thus, a proposed design recommendation is changing mosque fence to be more open and placing plants as a barrier for blocking view toward inside the mosque, meanwhile the shape and facade did not have to be changed.

These recommendations are displayed in the following picture:
In addition to religious facility function, other functions as activity support are the presence or establishment of dining places (restaurants) and cafes inside this area.

With the presence of this cafe the writer’s expectation is helping to attract many visitors come to Kampung Batik Celaket. In addition to the mosque and restaurant or cafe, there are other points that also have potentiality to be developed into other activity support areas. These location points are displayed in the following image:
The existence of green area and number of batik kiosks need more concepts to think about, particularly with limited parking space and lacking of available spaces (land) which require several barriers that separate these area as displayed in the following picture:

Next, in each side of the road there will be little spaces for parking lot (either 4 wheeled vehicles or 2 wheeled vehicles) to make access lane can be entered as much as possible without many obstacles. Aside from it, the existence of green area will make Kampong Batik Celaket has a getaway recreational place, however these green areas are not maximized or equipped with the presence of attractive facilities. Therefore, design of the green area is proposed below:

With the existence of recreational spots such as relaxing place, skateboard ground, and maybe other additional ideas from the community
who want to open small diners in that location by utilizing available empty spaces.

### 4.3. Design Recommendation for Open Space Element

Based on the results of the analysis of the existing condition of the region, there are potential also problems in the open space element. The potential of the open space element in this region is a positive value that should be developed by the community. The problem of this area as it has a dense population, many buildings violate some boundaries of the area that should not be violated at the time of development. So, it is often found that many buildings are located on the side of the road within range less than 1 meter.

Based on the picture below, the proposed recommendations are transforming outer space of the building to be more organized and maximize the boundary space becomes pedestrian although this pathway is small but it sufficient to be a circulation path for humans to walk safely.

![Figure 13. The open space design for pedestrian and parking lot](image)

Maximizing the open space area on the road is also intended to increase the climate response element in the row of road corridors by utilizing green plants. An overview of the proposed recommendations displayed as follows:

![Figure 14. The restaurant/cafe and open space designs](image)

The addition of parks in several places such as roadside or in some parts of the shop houses areas that projected to be transformed as a boutique with batik patterns coloring or green plants, will give a good impression in the development of the area.

### 4.4. Design Recommendation for Signage Element

Based on the results of the existing analysis of the signage element, it was found that the potential for element of Kampung Batik Celaket area is
the existence of a archway as the entrance to the area, but this gate is considered less able to represent the character of the Kampung Batik area.

![Diagram of Kampung Batik area](image)

*Figure 15. The location map and archway design*

(a) The Main Archway functions as entrance lane of Kampong Batik Celaket; (b) The Sub Archway located in Alleys functions as photo or selfie shoot painted with batik pattern with overall performance of ancient look.

In addition, the directional signage in this area cannot be found in other parts of the area, while the need for signage, in the form of landmarks, nodes, and directional signage is very much needed inside the design of an area. Based on these needs, recommendations for points that can be placed on the signage can be seen in the figure below.
Figure 16. The signage and mural design in KBC alleys

The alley design with batik patterns on each wall ornamented with colorful accents is chosen to be far from monotonous and boredom atmosphere, following younger generation nowadays. Moreover, when the name of each alley given after Javanese name or a mixture between Javanese and Indonesian language obviously will create a distinct impression as well as a language lesson for the community.

4.5. Design Recommendation for Pedestrian Ways

Based on the results of the existing analysis of pedestrian ways there are several potential roads that can be developed as pedestrian ways, here are some roads that have the potential to be developed pedestrian ways:

Figure 17. Pedestrian ways picture on site

Pictures above are some of the potential roads that can be changed into pedestrian ways where the problem that occurs in some road is the misuse pedestrian paths (which available) to be parking lots for the residents there. Therefore, the following design is expected to solve the problem.

Figure 18. Design recommendation for pedestrian ways

The design result is focusing on elevating side of the road where pedestrian way will be constructed so residents vehicles can not park in the roadside anymore. Then, there are some pedestrian ways which are not
raised in order to provide parking space for several vehicles there, so that it will not interfere the road circulations in its surroundings.

**4.6. Design Recommendation for Circulation and Parking Element**

Based on the results of the existing analysis of the parking element, one potential element that able to conserved in this area is a graveyard. The development of this area is needed because it has potential to be parking area. The preliminary picture about condition of the existing parking area is displayed below:

![Location Map of Parking Lot](image19)

*Figure 19. Location Map of Parking Lot*

![Design for parking lot](image20)

*Figure 20. The design for parking lot*

A small area that can be used as parking lot exists and it located close to the green area which together can form a large parking area under this design recommendation:
4.7. Design Recommendation for Promotion

In raising efforts for villages development lots of ways can be done for Kampong Batik where one of them is promotion with several incentives to stimulate immediate product purchases and increase the number of costumer product purchases. By sales promotion, the company can introduce certain product such as *Batik batu* also the atmosphere in that village, increasing the number of customers buying against similar products from competitor. For example, marketing strategy 'by one get one' for batik purchasing, or in certain amount of purchasing will get a present or a discount.

![Image](image.png)

Figure 21. The design of promotion enhancement for Kampong Batik Celaket

In addition, by attracting many people or costumers with the scenery that presented in Kampong Batik Celaket also becomes one of the ways to do promotions, by introducing some murals with batik patterns, also with the existence of green garden batik is also a special value for this area.

5. CONCLUSION

The Batik Celaket area is a potential area for cultural development and can be one of the assets of the City of Malang that can be the image of this prominent city. There are many potentiality that existing in this region and very diverse which need to be explored more and develop further. As for the existing problems, it is expected to be solved or minimally minimized by some design recommendations. Classified on the basis of priority needs for problem solving in the Batik Celaket region, the following stages are design recommendations:

*Stage I: Improving circulation and parking space, also pedestrian paths*

Priority of problem solving for this element put in stage I because of researcher’s observation, this is the most important role to ensure the visitors comfort, so it is expected with a comfortable circulation and parking space can make visitors not reluctant and disturbed about parking problem when visiting Kampong Batik Celaket.

*Stage II: Fix up the signage element*

To attract visitors into the Batik Celaket area. One element that can play an important role in attracting visitors to the area is an attractive signage. The main signage is needed to arouse curiosity and attract visitors by giving landmark element located at the entrance gate of the area.

*Stage III: Fix Up Land Use and Activity Support Elements*
Complementing and coordinating land use zoning and enabling activity support in the area, so hopefully these area can be more lively and non-monotonous.

**Stage IV: Fix Up The Building Form and Massing, Open Space, and Preservation Elements**

This is a further effort in complementing the region as one of complex area which expected becomes an alternative choice of tourist destination in the city of Malang.

**REFERENCES**


