Visual Arrangement to Strengthen The Image of Nonongan Commercial Corridors, Surakarta, Indonesia

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Abstract- Nonongan commercial corridor in Surakarta (Indonesia) has an important role for the city related to its history, position and possesses architectural privileges. The architectural feature of the corridor is the presence of some old buildings that are urban artifacts and potentially become the focal point in the corridor. However, in its development, this corridor is poorly structured so that the image of corridors is less strongly reflected in the lack of visual interrelationships between old buildings and new buildings, the lack of visual quality of old buildings with potential focal points, lack of decoration on the surface of pedestrian ways, and less variation in vegetation. This study aims to strengthen the image of the corridor through the visual arrangement of buildings and road spaces of the Nonongan commercial corridor. The result of the study are identification of existing corridor special character, evaluation of building and street space visual character, and criteria and design concept of visual arrangement. The macro design concept to improve the visual quality of Nonongan commercial corridor are revitalize the old building which potentially become the focal point in the corridor. This study focuses on the aspects of buildings and road spaces (surface pedestrian ways and vegetation) Nonongan commercial corridor to strengthen the image of the corridor. To achieve the study goal, the research objectives are formulated as follows: 1) identify the existing characteristics of commercial corridor Nonongan Surakarta, 2) identify and evaluate the existing visual character of the building and road space, 3) formulate the criteria and macro design concepts of visual arrangement of buildings and street space. Townscape theory [3], visual characters [4], special character and identity [5] [6], linkage [7], and commercial corridors [8] are used as guidelines in accordance with the aims and objectives mentioned above.

I. INTRODUCTION

City in Indonesia often experienced developments leading to fabrication resulting in part of the city area has characteristics that are not different from other parts of the city. Whereas these place characteristics is important to make a space becoming a recognizable place [1]. Characteristic is formed because no two places are the same, because a design or similar design result can not be applied and implemented in two different places, the design must be firm and characteristic [2]. The presence of old buildings and elements of the street space which is an artifact and a reminder of the city's past history is often ignored in the planning and structuring of the area. As a result, the buildings and elements of the road space associated with the history of the city and potentially become a characteristic of the area is prone to disappear, especially in commercial corridors.

One of the commercial corridors that experienced the phenomenon mentioned above is Nonongan commercial corridor in Surakarta, Indonesia. The buildings in the corridor are more dominated by new buildings that are less related to the old buildings. In addition, the old buildings that are artifacts at the same time potentially become the focus of views on the corridors are less preserved and some are destroyed. Pedestrian pathways that should be able to accommodate users and improve visual road spaces are poorly maintained and have not yet accommodated the diffable user. Vegetation is found only in the median of Yos Sudarso Street, while in the corridor of Dr. Rajiman is only at some point. Nevertheless, the conditions mentioned above make corridors less visually imposing and appear as ordinary shopping areas (less characteristic).

As a commercial corridor strategically positioned and closely related to the history of the city, this corridor should have a strong characteristic. The characteristic should give an impression to the observer that the observer is in a modern commercial corridor with the feel of the past so that the city's history is felt. Therefore, visual arrangement to strengthen the special character of corridors is importance to do. This study aims to organize visual buildings and road space (surface pedestrian ways and vegetation) Nonongan commercial corridor to strengthen the image of the corridor. To achieve the study goal, the research objectives are formulated as follows: 1) identify the existing characteristics of commercial corridor Nonongan Surakarta, 2) identify and evaluate the existing visual character of the building and road space, 3) formulate the criteria and macro design concepts of visual arrangement of buildings and street space. Townscape theory [3], visual characters [4], special character and identity [5] [6], linkage [7], and commercial corridors [8] are used as guidelines in accordance with the aims and objectives mentioned above.

This study focuses on the aspects of buildings and road spaces that form the townscape [3]. Building aspect focuses on building facade. While the aspect of road space focus on pedestrian ways and vegetation. Data collected through observation and document studies. Analytical technique used in
this study is synchronic reading and walkthrough analysis which then concluded with character appraisal analysis. Synchronic reading analysis technique is used to obtain the potential of old building with townscape theory approach and component, composition, and elements of old building facade which can be replicated in new building. The walkthrough analysis technique is used to obtain the character and the evaluation of the road space with the approach of townscape theory, the visual character of pedestrian ways, and the visual character of the vegetation [9]. Character appraisal is used to derive the conclusions of the four segment characters in the commercial corridor.

These studies will contribute to the urban design literature by applying the townscape, visual character, linkage, and commercial corridors theory in the visual arrangement of commercial corridors as well as advice for the city government (especially to the city government of Surakarta Indonesia) in arranging the commercial corridor with certain characteristics that distinguish it from other trading corridors.

II. RESEARCH ELABORATIONS

To identify the existing characteristics of the corridor, visual character evaluation, and formulation of design criteria and concepts focuses on the theory of townscape, visual character, image and identity, linkage, trade corridor. This study uses a combination of direct observation and literature study for data acquisition and using synchronic reading, walkthrough analysis, and character appraisal analysis as an analytical technique.

III. RESULTS AND FINDINGS

Based on data collection and analysis, the result are the identification of existing characteristics of the corridor, identification and evaluation of the visual character of the building and the street space, and the criteria and design concept to strengthen visual arrangement of the Nonongan commercial corridor.

A. Existing Characteristics of Corridor

The characteristic of the area is grown by socio-economic-culture of society and formed by sense of time and sense of place [6]. Characteristics of the area can be physical and non-physical form that can be used as a regional identifier. The physical identity that is easily captured by the observer is an object that is used as a reference (point of reference) to the region.

Based on the research, it can be seen that the characteristics of the Nonongan commercial corridor are physically visible from the presence of old buildings in the area. There are four building styles (colonial, Chinese, modern, and postmodern) that form visual corridors, with the dominance of modern and postmodern styles while the colonial and Chinese building styles became a contrasting element and enriched the visual sensation of the corridor. These colonial and Chinese-style buildings are either propelling or pathological elements [10]. Propelling elements means buildings or monuments that are physically present by accommodating different functions, while pathological elements are visually isolated elements. Propelling elements in the corridor are colonial and Chinese buildings functioned as shops, while the pathological element is a colonial house building whose visibility is blocked by street vendors in front of it. While on the street space (path of pedestrian and vegetation) there is no characteristic that makes this corridor different from other commercial corridor in Surakarta City.

B. The Building Visual Character Evaluation

Based on the analysis, the old building in the corridor (as shown on Fig. 1) has potentially become 1) focal point and incident, 2) focal point and screened vista, 3) focal point and hazard, 4) incident, and 5) incident and hazard in terms of place. The whole old building also potentially as thinness means building has a uniqueness that enriches the visual corridor in terms of content. The old building facade components that can be used as a replication element in new buildings in the corridor to create harmonization are harmonica or glass shaped entrances, symmetrical and recurrent geometric openings, rectangular geometry walls, and ornate balustrades and gevels.

![Fig. 1. The Potential of Old Building in the Nonongan Commercial Corridor](http://dx.doi.org/10.29322/IJSRP.8.7.2018.p7935)
Taking into the change of level on the top structure of the building.
- Bring pinpointing to potential buildings and buildings on strategic locations.

2. Strengthening “thisness” in buildings with a focus on improving the quality of detail, strengthening intimacy through facade element games, enhancing entanglement through the protruding features of the building.

3. Creating new building relationships with old buildings through replication of one or more old building components.

C. The Street Space Visual Character Evaluation

Street space on the Nonongan commercial corridor starts from vista in the form of crossroads and ends with another vista. The path along the segment forms an enclosure with the feature of a focused view of the environment covered by buildings on the right and left. Visual impression on the street space is formed from a row of buildings and vegetation on the median road that serves as decoration and shade, while the surface of pedestrian ways has not created a strong visual impression. In terms of place, this road corridor does not yet have a strong marker “here and there”. Otherwise, there is no difference in pedestrian ways motive in front of potential focal point building that serves as truncation and there is less strong punctuation that serves as a marker of prefix and suffix on road space. Meanwhile, when viewed from the aspect of content, street space in the corridor has not a memorable or entanglement element so the impression thisness on the road space is less strong. The presence of vegetation in the median road in one of commercial corridor enriches the visual space of the road in terms of content, but in the other street scape this vegetation element is less give the impression on the content. While the pedestrian ways do not have a special design or pattern that enrich the visual city floor, color and motif surface monoton, and can not accommodate circulation disabilitas.

Fig. 2. The Character of Street Space of the Nonongan Commercial Corridor

As mentioned earlier, the building and the street space should be dynamic and provide a diverse visual but remain unity [3]. As evaluation, there are several things that need to be done on the street space of Nonongan commercial corridors. There are:

1. Provide variations on the enclosure by emphasizing “here and there” on the street space in the corridor by:
   - Give different treatment or motives to pedestrian ways in front of focal point building as a form of truncation.
   - Provide clear prefixes and endings on street spaces and pedestrian ways to clarify punctuation.
   - Establish closure by giving visually appealing visual breaks.

2. Strengthening “thisness” of street space by presenting entanglement or memorable uniqueness.

3. Strengthen the function of vegetation as a marker of thisness.

D. Design Criteria and Design Concept To Strengthen Visual Arrangement

Design criteria for visual arrangement are determined based on the general criteria synthesized from the theory and specifically from the results of analysis and evaluation of visual characteristics of buildings and street spaces. The general criteria and design criteria for the visual arrangement of buildings and road spaces of Nonongan commercial corridors are shown in table 1.

Table 1 The Design Criteria for Visual Arrangement Of Nonongan Commercial Corridors

<table>
<thead>
<tr>
<th>Aspect</th>
<th>General Criteria</th>
<th>Design Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>- The appearance of the building should be interesting in detail and show diversity in an integrated, patterned continuity.</td>
<td>- The need to improve old building structures (potential focal points that have been altered and damaged).</td>
</tr>
<tr>
<td></td>
<td>- Old and new buildings should be united with a unifying element to achieve visual harmonization and continuity.</td>
<td>- The need for pinpointing of potential buildings through the arrangement of light.</td>
</tr>
<tr>
<td></td>
<td>- Commercial buildings should pay attention to openings and visibility to make it easier for observers or visitors to see the goods.</td>
<td>- The need to adjust the dimensions and design signs (sign) on the building by maintaining the legibility of the signs by observers.</td>
</tr>
<tr>
<td></td>
<td>- Commercial buildings at the intersection (node) must pay attention to the geometry, attractive visual, and become unifying</td>
<td>- The need to set the height of the building.</td>
</tr>
<tr>
<td>Sub-Aspect :</td>
<td>- The need to harmonize old buildings and new buildings with the addition of components or elements of old buildings in new buildings.</td>
<td>- The need to harmonize old buildings and new buildings with the addition of components or elements of old buildings in new buildings.</td>
</tr>
<tr>
<td>Building Facade</td>
<td>- Entrances and openings should create</td>
<td></td>
</tr>
</tbody>
</table>
### Aspect: General Criteria | Design Criteria
---|---
**Corridor.** | Transparency between the indoor and outdoor rooms.  
- The need to increase the visibility of trade building facades.  
- The need to organize a corner building through geometry games, heights, materials, interesting visual details, and a unifying corridor at intersections.

### Street Space

#### Sub Aspect: Pedestrian Ways

- Pedestrian ways should have aesthetic and attraction values (pay attention to paving, graphic design, trees or vegetation), fun, safe and accessible especially for disabilities.  
- The pedestrian path at the intersection point (node) should be an attractive transition space.

- Pedestrian ways should be designed with attention to user safety and comfort.  
- The design of the pedestrian path surface pattern should be designed in accordance with the characteristics highlighted in each segment.  
- There should be differences in surface design in front of potential focal point and incident buildings to confirm their existence.  
- The pedestrian ways at the intersection (node) should be connecting space that can unite the different surface designs.

#### Aspect: Vegetation

- Vegetation should lead to visual continuity, being a canopy or shade for pedestrians, creating no problem for building visibility, and serving as a hallmark of the corridor.  
- The need to organize vegetation that can be a shaded and planted in line with regular distances to provide good visual continuity.  
- The vegetation selection should pay attention to the position, character of the building, and the characteristics highlighted in each segment.  
- Vegetation should be a visually appealing element both day and night.

The macro concept of a visual arrangement to image of the Nonongan Surakarta commercial corridor is a commercial corridor with strong old building nuances and different shades formed by pedestrian ways and vegetation in each segment (there are 4 segments in corridor). So when observer enters the corridor, they will feel the unity or harmony formed by the old and new buildings, while if they move from one segment to another, they will feel different nuances caused by the arrangement of vegetation and surface design pedestrian ways. In general, the concept used in each aspect is described as follows.

1. Revitalize the old building (components, composition, and facade of buildings) that suffered damage and degradation in quality. In addition, efforts also made by arrangement of vegetation and space around to improve the visibility to the old building.
2. Adding one or more components of the old building facade in new buildings to improve harmony. Based on the analysis, the old building in the corridor has European (colonial) building characteristic, the dominance of European buildings is also evident in the building elements of Kasunanan Surakarta.
3. Constructing the surface of pedestrian ways by improving the dimensions, materials, and surface design patterns. Surface design patterns of pedestrian ways are tailored to the type of goods traded in each segment.

![Fig.3. The Macro Design Concept of Nonongan Commercial Corridors](image-url)

### IV. CONCLUSION

This research yields some conclusions that are:

1. The characteristics of the Nonongan commercial corridor are physically visible from the presence of old buildings in the area. While on the street space (path of pedestrian and vegetation) there is no characteristic that makes this corridor is different from other commercial corridor in Surakarta City.
2. The old building in the Nonongan commercial corridor potentially become a focal point and incident but some buildings have the potential to be hazard and screened vista. Therefore it is necessary to revitalize to strengthen the potential of the building as the focal point and incident. The addition of one or more old building components to the new building is done to harmonize the new building with the old building.
3. The street space of Nonongan commercial corridor does not have a strong marker “here and there” and has not a memorable or entanglement element. Vegetation and pedestrian ways are less visually reinforcing the corridor.
4. The macro design concept to improve the visual quality of Nonongan commercial corridor is revitalize the old building, harmonize the visuals of old and new buildings that also function as intercellular linkages by highlighting the characteristics of old buildings and providing different shades to show the distinctive characteristics of intercars in corridors through the design of pedestrian ways and vegetation surfaces.

ACKNOWLEDGMENT
This publication based on Master Thesis which conducted in 2018, entitled Visual Designing to Strengthen The Image of Nonongan Commercial Corridor, Surakarta, Indonesia. This research is funded by “Lembaga Pengelola Dana Pendidikan (LPDP)”, Ministry of Finance, Republic of Indonesia.

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