

## Planning and Design Concept Supervision in Reflecting History and Local Culture to a City Corridor as an Effort to Control Spatial Planning

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### ABSTRACT

*Abstract* History and culture always been a part of a city. This community service activity intended to give a supervision about how to reflect history and local culture to a city corridor in the making of planning and design concept in Katingan, Kasongan City of Central Kalimantan. Participants were the government employee of Katingan's public work and spatial planning services. The tools and materials used in the supervision are a mini portable projector, laptop, and software: Arc GIS 10.4, and Sketch Up. The outcomes of this training activity are the employees can identify, analyze and incorporating history and local culture of a city and produce it into planning and design concept for a city corridor. A draft of planning and design document of Tjilik Riwut Street as a case study was produced during the activity and can be used as references as one of a tool to control spatial planning activity.

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### INTRODUCTION

Planning that correlatively related to design, which has similarity with urban design considers to be relatively new in Indonesia. Compared to other country, Indonesia just started to have the document as part of spatial planning in 2007 called *Rencana Tata Bangunan dan Lingkungan* (RTBL) (Menteri Pekerjaan Umum RI, 2007) which covers spatial planning and urban design. Before 2007, Indonesia only has District Planning Document as the micro part of spatial planning. On the other hand, RTBL actually placed below that documents and consist of many detailed documents, including the regulation of color, floor ratio, etc.

Different from other spatial planning's document, RTBL covers spatial planning and also urban design. While more than just creating spaces, urban design deals with how to create the sense of place, how to make a space become a space. Unfortunately not all of government employee are familiar with urban design. Most of them are coming from various educational background and do not have a clear understanding regarding urban design. This may lead to a poor control on spatial planning activity. One of the recommendation from urban planners and designers to overcome the issue is by improving the sense of belonging to their own district (Wardhani, Yudono, & Priambada, 2010). This can be reached by reflecting their local culture into planning and design concept.

Katingan's was picked for our supervision activity because Katingan has many spaces that has not been developed yet. As the heart of Kalimantan, Katingan already known with its slogan as

green city which has a lot of green spaces in form of protected area (forest) and also cultivated area (palm oil farms). At the same time, Katingan is famous with their traditional tribe called *Dayak Ngaju* that affect the history and local culture of Katingan. These made a significant difference with any other part of Kalimantan (Iban, 2014).

This supervision were focused to give basic knowledge on how to incorporate history and culture into planning and design concept of a street corridor in Katingan. Based on the observation, Tjilik Riwut Street was chosen as a case study. The result of this activity were the Katingan's public work and spatial planning services employee aware and know how to incorporate their history and local culture as a tool in creating urban design concept, and able to produce one set of document of planning and design/Urban Design's draft in Tjilik Riwut Street. The final objective of the document is to control spatial planning. Hence, hopefully the draft that produced by the participants could be the foundation for the employees to produce similar documents in other part of Katingan. The document consist of materials based on the Guidance of Urban Design, or in Indonesia known as *Rencana Tata Bangunan dan Lingkungan* (RTBL) (Menteri Pekerjaan Umum RI, 2007), including maps and illustration of 3D concept, especially in the part of planning and design.

## METHODS

Participants of this supervision activity were the government employee of Katingan's public work and spatial planning services, Central Kalimantan. The tools and materials used in this activity were mini portable projector, laptop, and software: Arc GIS 10.4, and Sketch Up. The data used in this activity were coming from observation, field research and literature review. During field survey, Kasongan then chosen as the specific area amongst other area in Katingan for this guidance activity where most of the area can be define as urban area.

### Data

The participants were taught on how importance to collect basic data regarding historical and cultural background of an area or a city. At the same time, they also understood that the physical data should be the basic material they used in field survey. Series of in depth interview were done with local chief and indigenous people to identify the specific character of Kasongan.

### Data Analysis

The data then analyze through a descriptive method for spatial analysis. The result of the overlay map then compared with historical and cultural background of Katingan. With the ancestors of *Dayak Ngaju*, Katingan has magnificent gems of indigenous people and cultural story. Tjilik Riwut as one of Indonesian National Hero holds an important role to the history of Katingan. *Dayak Ngaju* also has a lot of Dayak ornaments that have special meanings with colorful patterns and motive. The participants understood the meaning of those historical and cultural elements and collecting all data remains to be the basic of urban design concept of the Tjilik Riwut street.

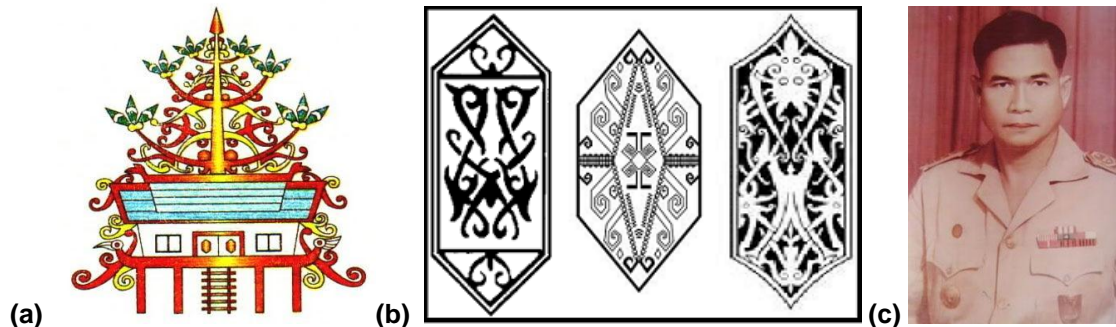
## RESULTS

According to the regulation, planning and design in Indonesia known as *Rencana Tata Bangunan dan Lingkungan* (RTBL), which is the guidelines on how to plan and design and develop a district with the intention to control land use. RTBL must consist of: Master plan and urban design guidelines, investment plan, monitoring and controlling guidelines (Menteri Pekerjaan Umum RI, 2007). RTBL has to be the main document for controlling the development in a district of a city. Architects, urban planner and urban designer are the professions that can handle the document of RTBL. Unfortunately, not all of the government employee of Katingan public work service capable to produce the RTBL document without any supervision from experts, because of the differences of educational background. Therefore this supervision activity were done in several stages, start from field survey, observation, site analysis and finalize with the supervision to produce urban design concept. The whole process were documented in a form of draft which based on the guidelines of RTBL.

The challenge to create a vibrant city is how to develop the city without losing culture and history of the city (Libeskind, Architect, Swickerath, Principal, & Libeskind, 2015). The new style of planning and design should respond the dynamic of urban development. Hence, each city should have their own unique character and local identity that derives from their history and local culture.

Katingan has the vision to make Katingan as a green city that based on environmental awareness. This vision parallel with the site condition where Katingan still has a lot of green space which contribute a lot of oxygen to the area and Kalimantan that also part of conservation area. The

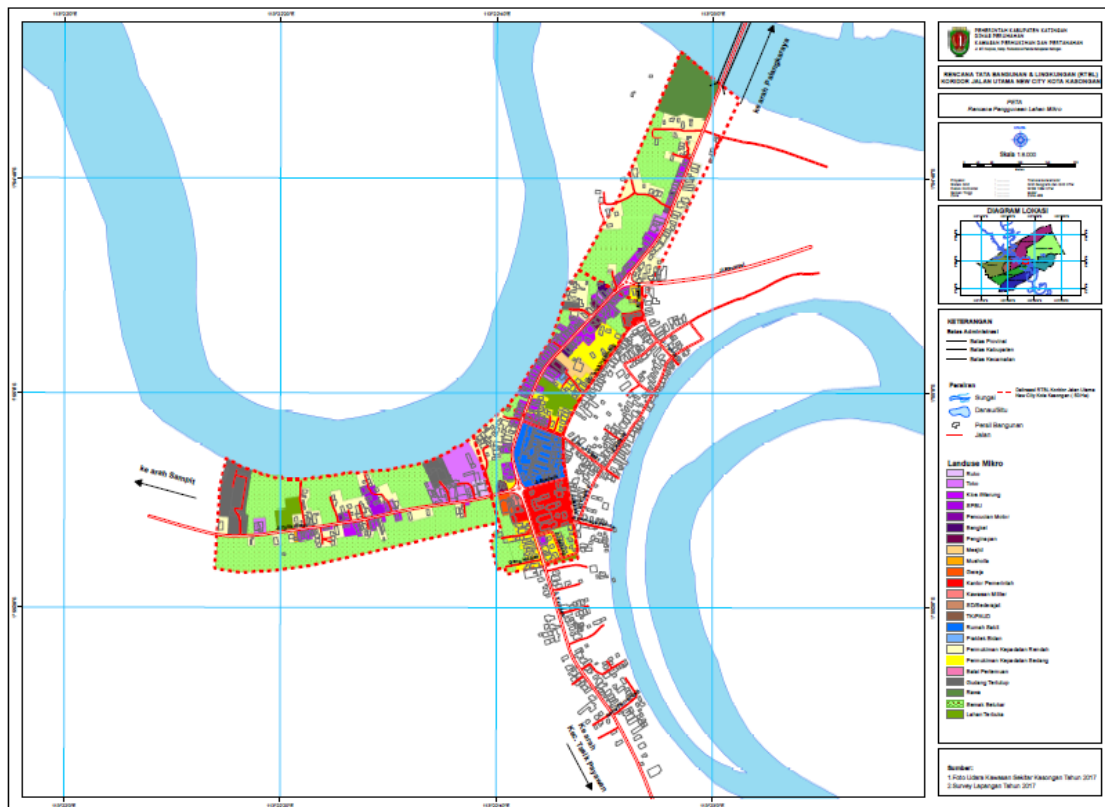
forest is one of Katingan’s local identity (Katingan, 2016). The indigenous people of Katingan, *Dayak Ngaju* also has a deep relationship with nature. Nature is an essential part of their lives. In fact, the ornaments of *Dayak Ngaju* comes from natural form of roots, branches and leaves of trees. The colors also comes from nature, such as chocolate soil, green leaves, red and yellow flowers, etc.



**Figure 1. the Historical and cultural background of Kasongan (left- right) (a)Batang Garing (tree of life)- (b)Talawang, theTraditional Shield of Dayak Kasongan- (c)Tjilik Riwut, National Hero from Kasongan**

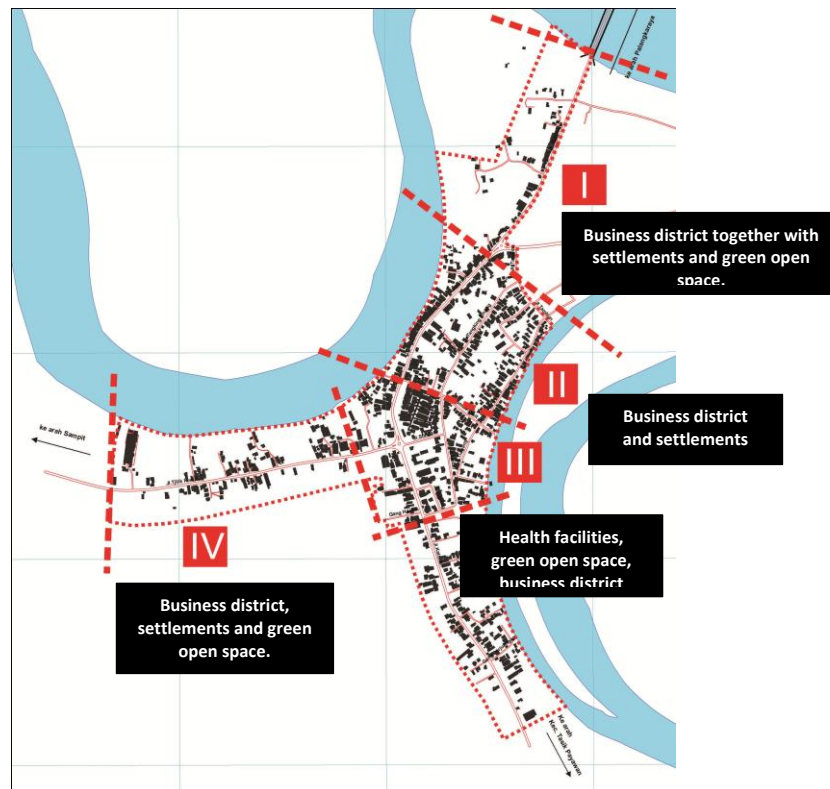
The unique character of Kasongan can be seen from its historical and cultural background. After field research and analysis, it was then decided there are three most important element that represent the history and culture of Kasongan. The first one is Batang Garing or tree of life. Indigenous people of Kasongan called *Dayak Ngaju* and the tribe were the one who originally live along the riverbank in Kasongan. *Batang Garing* or in English mean the three of life is the symbol of the equity between man, life, and their God (Iban, 2014). The tree of life also used as the basic ornament for traditional shield of *Dayak Ngaju*. (see Figure 1(b) ) that called talawang. Therefore, the second cultural element of Kasongan is *Talawang*. Nowadays talawang also common to be used as decorating elements whether indoor or outdoor. The ornament in *talawang* represents the shape, pattern and color in *Batang Garing*. The third element comes from Tjilik Riwut, as the National Hero that originally come from Kasongan and also the tribe of *Dayak Ngaju*. Tjilik Riwut is very famous in Central Kalimantan as one of the first Dayak people who introduce Kasongan nationally. These historical and cultural background then reflected in the concept of Kasongan’s urban design through the use of ornament, color, etc.

From the map’s overlay and site analysis using Arc GIS 10.4, Tjilik Riwut chosen as the study area because the street is the main corridor of Kasongan and also functioned as the artery provincial street that connects Kasongan with the surrounding area. Tjilik Riwut Street also named after the National Hero, therefore it became one of the consideration to choose it as the study area.



**Figure 2. Micro Land Use Map of Tjilik Riwut Corridor using Arc GIS 10.4**

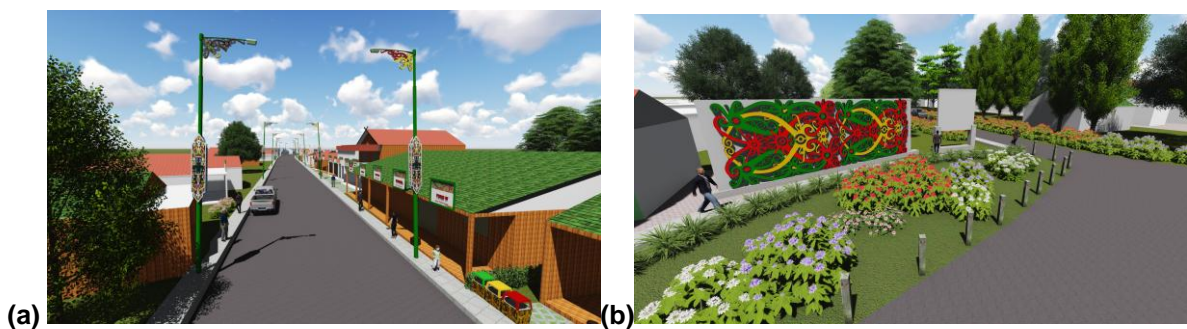
The planning and design for Tjilik Riwut street corridor decided to focus on how to improve the physical quality of the corridor while still conserving history and culture of *Dayak Ngaju* into the design (see figure 3). The corridor was divided into 4 segments. The first segment functioned as business district together with settlements and green open space. In this segment there should be a main gate that enhance the beginning point of the corridor. The second segment functioned as business and settlements district. The third segment consist of health facilities, green open space and business district. The last segment as business district, green space and settlements. These segments were divided based on land use and character of each area. At some points, these 4 segments have different problems that need to be solved.



**Figure 3. The concept and theme proposal for Tjilik Riwut Street’s segments**

The planning and design concept of Tjilik Riwut Street need to reflect the historical and cultural background of Kasongan and Katingan. Therefore, the concept of the design tried to incorporate the potential history and culture of the city by using Sketch Up. All of the street furniture in these segments use *Dayak Ngaju’s* ornament and colors. On the top part of the street lights the ornament was used as the main focus of the street. The traditional shield from *Dayak Ngaju* also part of the street light design (see figure 4(a)). In the green belt as part of node (see Figure 4 (b,c)), *Dayak Ngaju’s* ornament also could be used to create a unique character of the corridor. The design of the green belt also based on the guidelines of green city (Pekerjaan Umum dan Perumahan Rakyat, Jenderal Cipta Karya, Islam, & Bina Penataan Bangunan, 2017). Another local culture elements that should be part of the concept is the typical form of roof in Kasongan that represents the local culture of *Dayak Ngaju*. Almost all of the roof along the corridor have the same form and similar list plank (see Figure 4 (d)),. The material always from wood with no extra ornaments.

The other guidelines that use in the planning and design process was the Green City guidelines (Pekerjaan Umum dan Perumahan Rakyat et al., 2017) in order to achieve the vision of green city. Trees, bushes and other green elements based on the guidelines that can minimize carbons and produce more oxygen. The less land provided along the corridor also need other solution. Vertical garden is one of the proposal for the corridor that have no more extra space for vegetation. The design of vertical garden also need to reflect the character of Kasongan. With special arrangements of colors and type of vegetation, it can create a new look for Tjilik Riwut street corridor.



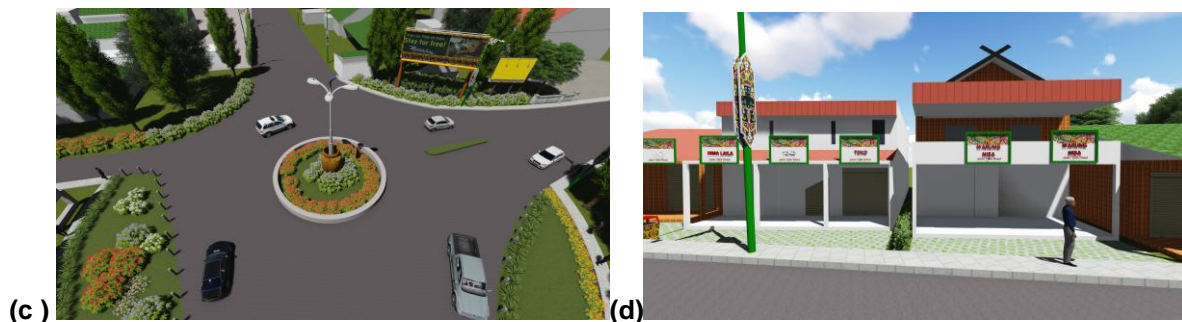


Figure 4. Planning and design concepts for: (a) Tjilik Riwut's Corridor (b) One corner of green belt in Kasongan (c) One of the node in the corridor (d) The signage of Kasongan

The form of street furniture, signage and green space along Tjilik Riwut street corridor could reflect the history and local culture. These elements may create a sense of Kasongan because the use of special ornaments and colors may enhance the local identity of the city.

## CONCLUSIONS

This community service activity has met the achievements:

1. The government employee of Public work and Spatial Planning service of Katingan capable to reflect historical and cultural background to the concept of planning and design in a city corridor of Katingan and produce it in a form of draft by using Arc GIS 10.4 and Sketch Up software.
2. The government employee of Public work and Spatial Planning service of Katingan capable to produce one draft document of Tjilik Riwut street corridor based on the Ministry of Public Work's regulation about planning and design in Indonesia (Menteri Pekerjaan Umum RI, 2007)
3. Planning and design concept in the corridor of Tjilik Riwut Street of Kasongan city has so many potential to reflect Kasongan's historical and cultural background. This can be implemented in forms of street furniture, signage and also element of green space.
4. A good planning and design design document (RTBL) might lead to a good control of spatial planning activity. RTBL should covers all of the planning document, including monitoring, controlling and evaluation plan.

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