The Sidewalk Structuring Strategy As Iconic Pedestrian Case Study: Pedestrian’s Budi Luhur University - Jakarta

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Abstract. Over time, sidewalks do not only function as a space for circulation/movement of pedestrians. The sidewalk is expected to be able to improve the quality of the space where the sidewalk is located and can be an identity/icon for the surrounding environment. The existence of the sidewalks at the Budi Luhur University Campus has not been properly arranged so that it cannot yet be an identity/iconic for Budi Luhur University. From the formulation of the problem, research will be conducted with descriptive methods. Descriptive method is used to make a systematic, factual and accurate description, facts, properties and relationships between the phenomena investigated. This depiction is obtained through field observations, interviews and data from relevant agencies. The method of approach taken to achieve the stated goals is Identification of Design Norms; Identification of Comparative Study and Identification of Potential and Problems. The results of this study in the form of the concept of pavement arrangement as an iconic pedestrian.

1. Introduction

Over time, the role of sidewalks today is not only a facility for the movement of pedestrians. The function of sidewalks can be developed as educational facilities or facilities[1] and become a transit center for an area[2]. This condition is in line with the dynamic development of the city and the availability of land that is increasingly narrow. The more city residents who use the sidewalk, the better the city services provided to its citizens. A good city is a city that is fun for pedestrians to do walking activities, enjoy the face of the city and just sit waiting for public transportation. Sidewalks must also become the identity of the city and the environmental identity of an area.

As in general sidewalks in cities, sidewalks in the campus environment are expected to become regional identities. The presence of a campus is the same as the existence of a city, where the campus is a small part of the city environment. So that the identity of a campus can become a city identity. By making sidewalks and drainage as important entities of a road, road corridors will be able to become corridors that support the formation of urban aesthetics[3].

The existing condition of the Budi Luhur University (UBL) campus sidewalks still functions as a facility for moving pedestrians from one building to another. Even the sidewalks at the main field location (between unit 6 and unit 7) are cut off by the vehicle lane. The middle field is strategic because it is right in the middle of the campus site and is the main location for all campus activities, both formal and informal. Based on the above conditions, this study aims to improve the function of
the sidewalk in the main field as well as to become the identity of the Budi Luhur University campus area.

2. Problems Of The Study

2.1. Identification
The sidewalks of the Budi Luhur University campus are not well connected and have not become a regional identity.

2.2. Scope Of The Study
In this study the problems discussed are limited to the following:
2.2.1. The sidewalk design that can become a Pedestrian Iconic in terms of comfort and regional identity aspects
2.2.2. The area studied in this study is the middle field area of the Budi Luhur University campus

2.3. Core Of Problems
Based on the research background described above, the existence of sidewalks (pedestrian ways) on the Budi Luhur University campus has the following problems:
2.3.1. There are several locations that have no sidewalks, making it dangerous for pedestrian safety
2.3.2. For sidewalk locations in the central field, the sidewalk design cannot yet become an area's

3. Methodology
This study uses a descriptive research method approach. Descriptive method is carried out to make a systematic, factual, and accurate description regarding the facts, characteristics and relationships between phenomena investigated[4]. The results of this study are in the form of a redesign of the sidewalk, which functions as a Transit Pedestrian so that it can accommodate the safety and comfort of pedestrians and sidewalks that have become iconic pedestrians. The following are the described methods of approach taken to achieve the predetermined goals:

3.1. Identification Of Design Norms
This part aims to get formulate criteria, indicators, and elements that must be considered in designing sidewalks that accommodate accommodate the safety and comfort of pedestrians and sidewalks that have become iconic pedestrians.

3.2. Identification Of The Comparative Study
This part aims to get a comparison of the criteria, indicators, and elements of pedestrian design that are already there and are considered successful.

3.3. Identification Of Potential And Problems
This identification aims to get determine the condition of the existing research area, both its potentials and problem

3.4. The Stages Of Study
The stages of the research "Sidewalk Structuring Strategy as Transit Pedestrian" are as follows:
3.4.1. The initial stage of research is to conduct a literature study on sidewalks, sidewalk comfort standards and the concept of iconic pedestrians.
3.4.2. The next step is to analyze the iconic aspects that will be used in the research.
3.4.3. The results of the analysis show that the iconic aspects will be used in the Budi Luhur University Campus
3.5. The Factor Of Measure
In the systematic research process, research variables are used to prove hypotheses and to answer existing problems. In the research "Sidewalk Structuring Strategy as a Iconic Pedestrian" used the independent variable and the dependent variable. The independent variable is a variable that has an influence on other variables. The independent variable in this study is the form of sidewalks on Universitas Budi Luhur. The dependent variable in this study is the safety and comfort aspects and iconic aspects.

3.6. Data Collection and The Technique Of Analysis

3.6.1. Determine the Research Area
The first step in this study is to determine the study area. The researcher determines the area to be carried out by the study is the the central field area of the Budi Luhur University campus unit. Primary data are obtained directly from the data source. Primary data is also referred to as original data or new data that has the nature of up to date. To get primary data, researchers must collect it directly. Techniques that researchers can use to collect primary data by visiting, observing directly to the location of study analysis.

3.6.2. Identification of Design Norms
Secondary data obtained through Books/ journals on sidewalk arrangements that accommodate pedestrian safety and comfort and iconic aspects. The output will be in the form of criteria, indicators and design elements considered in the design of the sidewalk (pedestrian ways). Sidewalk planning standards (Departemen Pekerjaan Umum), and urban architectural design standards. The output that will be produced in the form of minimum dimensions that must be met in the arrangement and design of the pavement components.

3.6.3. Identification of Comparative Study
The comparative study cases conducted was a visit to sidewalk area of Losari Makassar and Martapura’s River sidewalk. The selection of the case study site is based on the assessment that the two sidewalks are considered successful in applying the sidewalk principle that accommodates pedestrian safety and comfort and iconic aspect.

4. Discussion

4.1. The Location of Study
The study location is in the middle field of the Budi Luhur University campus. The selection of this location is based on several criteria:
4.1.1. It is the central point of the Budi Luhur University campus site plan
4.1.2. To become the focal point of the Budi Luhur University campus activities
The study location is a connecting road between Unit 6 and Unit 7 on the Budi Luhur University campus. This road is bordered by the field on the west side and the auditorium on the east side. On the north side, there is the unit 7 campus building and the south side is the unit 6 campus building. This road condition is not supported by pedestrian facilities. Pedestrians must pass through motorized vehicles if they want to move from unit 6 to unit 7 of the Budi Luhur University campus building.

The auditorium building (east side) is used for formal meeting activities. This building is commonly used for seminars, wedding receptions and other activities that require privacy. The field (west side) is used for sports activities, competitions, and activities that require open space. Unit 7 (north side) and Unit 6 (south side) are used as the learning building.

Figure 1. The location of study (left); Existing conditions of around study area (right)
4.2. The Result of The Study

Based on the results of the analysis of the research aspects in the form of shapes and colors, the following results were obtained:

4.2.1. Shape

Based on strategic location points, it is necessary to have a form of building mass that can become a focal point. This research takes the object of a rotating rectangular shape. The existence of this bridge is not only a focal point, but also a means of unification among other building objects around the Budi Luhur University field. This bridge is not to function itself as an element that is more important than others, but to strengthen clarity of spatial functions, direct focus, and sharpen existing spatial concepts.

This bridge (sky bridge) is located on the east side of the Auditorium building, which connects Unit 6 (2nd floor) building on the South side with Unit 7 (2nd floor) on the North side of the field. Prior to this bridge, Unit 6 pedestrians who wanted to go to Unit 7 (or vice versa) had to walk in the hot sun. With this bridge, it is hoped that pedestrians in Unit 6 and Unit 7 can move places without having to get off. Meanwhile, pedestrians on the ground floor still get comfortable walking because this bridge
will protect the sun's heat. The selection of the rotated rectangular shape is based on the concept of the existing building shape around the site.

![Figure 3. Map of the connecting bridge location](image)

The selection of a rectangular shape is enhanced by the presence of a panel wall with a circular motif. To give a strong and firm impression, a list of columns was added along the connecting bridge. For the safety aspect, the bridge is equipped with railings on both sides of the bridge. The choice of glass material gives a broad impression of the interior (interior) of the connecting bridge. Pedestrians can enjoy the atmosphere outside the bridge or the interesting interior atmosphere.

![Figure 4. Map of the connecting bridge location](image)

The connecting bridge is equipped with interior facilities that support learning activities. The wooden bench equipped with flower pots gives a natural impression and a comfortable atmosphere for the learning process. Wooden benches are placed along the bridge without disturbing pedestrian circulation. The inside walls are covered and decorated with graffiti themed with the messages of the
founder of the Budi Luhur Foundation. In order not to look monotonous, the glass walls are adorned with circular patterned panels. The upper part of the bridge is equipped with lighting so that the learning atmosphere becomes more comfortable.

![Figure 5](image)

**Figure 5.** The interior of a glass wall (left). The interior of the bridge (center). The section of bridge (right)

4.2.2. Color
Color is another aspect analyzed in this study. At the bottom of the bridge, a batik motif is given with the inscription UNIVERSITAS BUDI LUHUR. This point is expected to become a "Selfi Spot" that can support activities around the campus field. The combination of gold and glass gives a luxurious impression and can characterize the connecting bridge icon. The bridge column list is given a silver color so that it gives a strong and firm impression.

5. Conclusions
After analyzing the aspects that affect the iconic pedestrian arrangement design:

The circulation aspect is obtained from the existence of a sky bridge. Pedestrians who are in building units can immediately move and walk without having to leave the building.

Aspects of pedestrian comfort and safety are obtained from the semi-closed sky bridge. Pedestrians can walk and move places without having to get hot and in the rain and avoid cross circulation with motorized vehicles.

The visual aspect is obtained by using a rotated rectangular shape on the sky bridge and color finishing both on the laying bridge and the walls around the existing field sidewalk.

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