



Visitors' Perceptions of Jalan Suroto Boulevard in the Kotabaru Cultural Heritage Area Using the Sense of Place Approach

Tiara Dita Melindasari^{1*}, Rony Gunawan Sunaryo², Trias Mahendarto³

^{1,2,3}Program Studi Magister Arsitektur, Fakultas Teknik, Universitas Atma Jaya Yogyakarta

*Correspondence: Email: 245420109@students.uajy.ac.id

ABSTRACT

The Kotabaru area is a cultural heritage site with colonial architecture and garden city principles that are still evident in the existence of Suroto Boulevard as the main axis of the area. The 2018 revitalization has improved the visual and landscape aspects of the boulevard, but it is not yet known how this intervention has affected user perceptions and the formation of a sense of place. This study aims to identify visitors' perceptions of Boulevard Jalan Suroto and analyze the formation of a sense of place based on physical, functional, and emotional dimensions. The method used is mixed methods with a qualitative dominance to explore subjective experiences, supplemented by quantitative data through a Likert questionnaire to assess aspects of comfort, safety, and visual elements. A total of 22 respondents were selected using convenience random sampling. Quantitative analysis was conducted using descriptive statistics and reliability tests, while qualitative data was analyzed through open coding, axial coding, and selective coding. The results of the study indicate that vegetation and colonial visual characteristics are the elements that most shape visitors' positive perceptions, while aspects of safety and emotional attachment remain weak. These findings emphasize the importance of improving physical and social quality to strengthen the sense of place in historic public spaces

ARTICLE INFO

Article History:

Submitted/Received 8 Dec 2025

First Revised 24 December 2025

Accepted 12 January 2026

First Available online 1 Febr 2026

Publication Date 1 February 2026

Keywords:

Urban Architecture;

Historic Area;

Visitor Perception;

Sense of Place

1. INTRODUCTION

The Kotabaru area is one of the historic areas in Yogyakarta that has an important value in the development of colonial architecture and spatial planning in Indonesia. The designation of the Kotabaru area as a Provincial Cultural Heritage Area was carried out in two stages, namely DIY Governor Decree No. 186/KEP/2011 (Pemerintah Daerah Istimewa Yogyakarta, 2011), which first designated this area as a cultural heritage area, and DIY Governor Decree No. 130/KEP/2023 (Pemerintah Daerah Istimewa Yogyakarta, 2023), which confirmed its status by expanding protection based on its historical and architectural value. The value of this area is reflected in its colonial spatial layout, Indis architectural style, and the application of the garden city principle in its planning. The spatial layout of the area was designed with a boulevard as the main axis, namely Mataram Boulevard (Jalan Suroto), which starts at an open space (now Kridosono Stadium) and stretches straight north (Handinoto, 1994).

Suroto Boulevard plays an important role in shaping the visual identity and heritage character of the Kotabaru area. Its well-designed landscape elements, symmetrical street proportions, and colonial buildings make it a representation of modern colonial public spaces in the Dutch East Indies (Yoga Pratama & Sardjono, 2023). However, with the dynamics of urban development, changes in building functions, facade modifications, increased traffic intensity, and the expansion of commercial activities have affected the visual quality, comfort, and carrying capacity of the space for pedestrians. Similar conditions have also been found in various studies on the revitalization of historic areas in a global context, where physical interventions often take precedence over evaluations of the user experience of the space (Mohammad-Moradi et al., 2020; Zhang et al., 2024).

These conditions not only affect the physical aspects of the area, but also influence how users perceive and interpret the space. A number of studies show that visual changes to historic environments can affect users' perceptions and emotional attachment to a place (Hollander & Anderson, 2020). In addition, increased vehicle volume and decreased quality of pedestrian facilities reduce the comfort and safety of walking activities (Li et al., 2025). Thus, the evaluation of heritage areas cannot stop at physical assessment alone, but needs to understand the social meaning, memory, and experience of space formed through human interaction with the environment.

In the context of urban architecture and public space design, understanding visitor perception is an important aspect in assessing how the identity, comfort, and meaning of a space are perceived by the community. Visitor perceptions are shaped by visual, emotional, and cognitive experiences when interacting with the environment (Kaplan, 1989). A perception-based approach allows designers to evaluate the extent to which public spaces not only function visually but also provide a social atmosphere and a sense of connection to the historical value of the area. This approach also helps avoid the risk of creating spaces that are visually appealing but lacking in social meaning, as identified in studies following the revitalization of historic areas (Cheshmehzangi et al., 2023; Najafi & Sharriff, 2011).

Literature reviews over the past five to ten years show a paradigm shift in the study of historic areas from a physical conservation orientation to an approach that emphasizes user experience and perception of space. Recent research shows that sense of place contributes to the formation of identity, emotional attachment, and social experience in the context of heritage (Bo & Abdul Rani, 2025). In addition, studies on walkability in historic public spaces confirm that pedestrians' perceptions of comfort, pedestrian networks, and environmental aspects greatly influence the quality of the spatial experience (Lomadze, 2024; Yuan et al., 2023). Other findings indicate that environmental factors such as visual comfort and pedestrian facilities play an important role in the heritage user experience, which ultimately

influences attachment to the place (Shi et al., 2024). The relationship between sense of place, heritage, and community identity is now understood as an important foundation in sustainable area revitalization strategies (Agradiana et al., 2020; Csurgó & Smith, 2022). Empirical studies show that good physical and visual quality does not necessarily result in emotional attachment without the support of social activities, a sense of security, and repeated experiences of the space (Chan et al., 2023; Mohammad-Moradi et al., 2020). These findings underscore the importance of an approach that bridges the physical, functional, and emotional dimensions in assessing the quality of heritage public spaces.

One relevant conceptual approach to examining the relationship between humans and the historical environment is Sense of Place (Dameria et al., 2020). This concept explains how the unique character of a place is formed from the experiences of the people who live there (Nezih RİFAİOĞLU & Şahin Güçhan, 2007). Sense of Place can be interpreted as the “soul of a place,” an awareness that allows a person to distinguish the character of one space from another (Carmona et al., 2003). Every space, from the scale of a city to a building, can evoke different positive or negative impressions depending on the activities and social meanings that take place within it. Within the framework of architectural and urban design theory, sense of place can be analyzed through three main dimensions, namely: (1) Physical, which includes the form, scale, and visual elements of space; (2) Functional, relating to the activities and social interactions that take place; and (3) Psychological or emotional, covering attachment, identity, and personal experiences with the place (Montgomery, 1998). This multidimensional approach places humans as the main subject in the formation of spatial meaning, as also emphasized in studies of heritage areas in Indonesia (Pramudito et al., 2020; Seliari et al., 2023).

However, previous studies on the sense of place in Kotabaru are still general in nature and focus on the scale of the area or colonial buildings as a whole (Sanjaya et al., 2023). Studies that specifically examine Suroto Boulevard as a linear public space are still limited, even though this corridor has unique visual characteristics, spatial functions, and social interaction patterns that differ from other spatial elements. In addition, studies on the sense of place after the revitalization of the area have not been widely conducted, especially in the context of the perceptions of space users.

Based on these issues and problems, this study aims to (1) identify visitors' perceptions of Jalan Suroto Boulevard as a public space in the Kotabaru cultural heritage area and (2) analyze the formation of a sense of place based on physical, functional, and emotional dimensions on the boulevard. This study uses the sense of place approach to understand the relationship between perception, experience, and spatial identity in the context of revitalizing historic areas. Through this approach, it is hoped that the future revitalization process of Jalan Suroto Boulevard will not only focus on restoring physical aspects but also accommodate user needs, enhance spatial experiences, and build sustainable emotional meaning.

2. RESEARCH METHODS

This research uses a mixed methods approach with a qualitative dominance, as it aims to explore the subjective experiences of visitors while also measuring perceptions in a structured manner. This approach was chosen to obtain a comprehensive understanding of the formation of a sense of place on Jalan Suroto Boulevard in the Kotabaru cultural heritage area.

Data was collected through closed-ended Likert scale questionnaires, open-ended questionnaires, and in-depth interviews. Quantitative instruments were used to assess visitors' perceptions of physical aspects, comfort, safety, and visual elements, while

qualitative data was used to explore meanings, experiences, and emotional attachments that cannot be represented by numbers.

A total of 22 respondents were selected using convenience random sampling, a number that is in line with the ideal range for qualitative research according to Creswell (2007). Quantitative data were analyzed using descriptive statistics in the form of mean scores, indices, and frequency distributions, and tested for reliability using Cronbach's Alpha ($\alpha \geq 0.70$) to ensure the consistency of the perception instrument.

Qualitative data were analyzed using content analysis through the stages of open coding, axial coding, and selective coding, which refer to the grounded theory approach. This analysis aims to identify patterns of perception in three dimensions of sense of place, namely physical, functional, and emotional.

Data integration was carried out using an embedded design model, in which quantitative findings were used to reinforce and validate thematic patterns that emerged from qualitative analysis. Thus, the analysis results not only describe the extent to which a perception arises but also explain why and how these perceptions are formed in the context of historic public spaces.

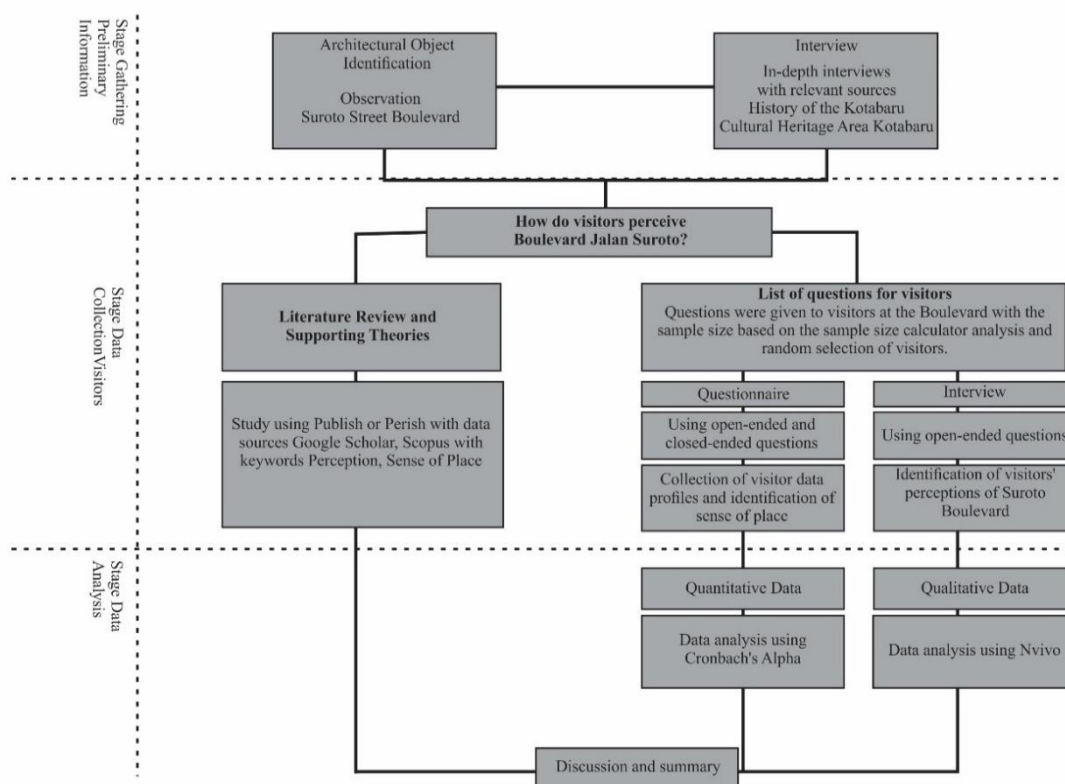


Figure 1. Research Method
Source: Author, 2025

3. RESULTS AND DISCUSSION

3.1 Research Location

The research location was in the Kotabaru Cultural Heritage Area, with a specific focus on the Suroto Street corridor. Administratively, Suroto Street is part of the Kotabaru Village, Gondokusuman District, Yogyakarta City, Special Region of Yogyakarta, Indonesia. The Kotabaru area began to be developed in the 1920s by architect Thomas Karsten, who applied the garden city principle in its spatial concept and design (Aufelisa & Rahmi, 2024; Pujiyanti,

2017). The historical development of the area can be traced through the history of Kotabaru, as shown in Figure 2.

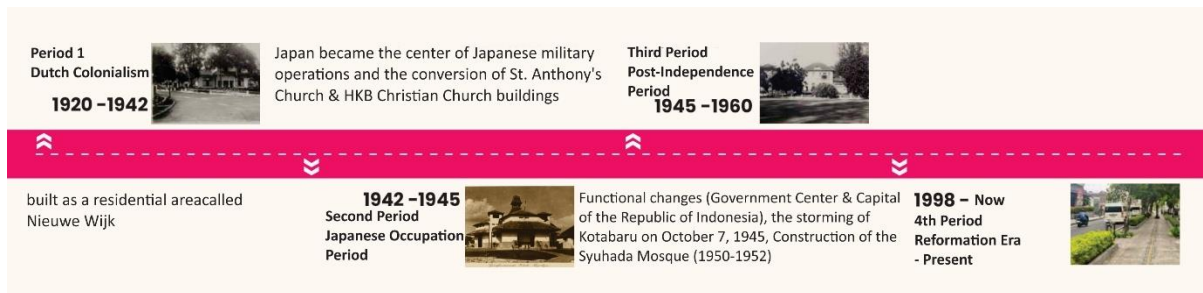


Figure 2. History of Kotabaru, Yogyakarta
 Sumber: <https://kotabarukel.jogjakota.go.id>

Jalan Suroto is one of the main corridors in the Kotabaru area that plays a strategic role in the spatial structure of this historic area. The pedestrian path along this road not only serves as a connecting element between buildings, facilities, and landmarks in the surrounding area, but also plays a role in shaping a unique spatial experience. The existence of a shaded, comfortable, one-way pedestrian path integrated with green landscape elements reinforces the character of the area as an implementation of the garden city concept, in accordance with design principles that emphasize the integration of built and open spaces (Howard, 1902).

Morphologically, the buildings along Jalan Suroto are dominated by commercial and public service functions. Commercial functions include offices, shops, beauty clinics, cafes, restaurants, and pharmacies. Meanwhile, public service functions include the TIC office, Telkom, Bulog, and the Yogyakarta City Library. This composition shows the transformation of the function of the colonial residential area into an area oriented towards services and economic activities. Among these functions, there is only one residential building on the west side of the road and one lodging building on the east side, reflecting the decline in residential functions along this corridor. The following is the site plan of Jalan Suroto Kotabaru Boulevard as shown in Figure 3.

Public space on Jalan Suroto is mainly in the form of a linear path stretching from north to south. This space consists of a road corridor, pedestrian ways, and interconnected park elements. In the context of public space theory according to (Carmona et al., 2003), the existence of pedestrian paths and green landscapes not only strengthens the functional aspects of urban space but also influences the perception, comfort, and identity of space in the user experience.



Figure 3. Site Plan of Jalan Suroto Boulevard, Kotabaru
Source: Department of Culture, DIY, 2025

Suroto Boulevard was revitalized in 2018 as shown in Figure (5) to reaffirm the function of the Kotabaru area as a "garden city" through physical arrangements such as widening pedestrian walkways, installing colonial-style garden lights, adding benches, floral landscape elements, and decorative lighting in harmony with the character of the cultural heritage area (DIY Cultural Office). This physical intervention demonstrates an effort to improve the aesthetic quality and comfort of the space, but the success of revitalization is not solely determined by visual aspects, but also by the extent to which the space can be experienced and interpreted by its users. In theoretical studies, an effective public space is one that is not only physically organized, but also capable of building emotional attachment, memory, and meaningful experiences for users (Carmona et al., 2003; Montgomery, 1998).



Figure 4. Condition of the Boulevard in 2015 source: gudang info jogja Figure 5. Condition of the boulevard in 2025 source: author, 2025

Therefore, Jalan Suroto becomes a strategic point for examining how visitors' perceptions and experiences are formed after revitalization, as well as how these experiences contribute to the formation of Sense of Place as an important dimension in understanding the value of historic urban spaces.

3.2 Identification of Visitor Characteristics and Patterns

The identification of visitor types and characteristics was conducted through a questionnaire survey on November 15–16, 2025, with a sample size of 22 respondents. This number was determined in line with the nature of qualitative research, which prioritizes data depth over participant quantity. This number is also within the range recommended by experts, such as Creswell (5-25 people) and Morse (at least 6 people). Thus, the number of

participants selected has been optimized to ensure quality and depth in accordance with the limitations considered appropriate in qualitative research methodology. The identification of visitor types and characteristics includes gender, age, origin, elements of interest, and the purpose of visiting Boulevard Jalan Suroto. The details are as follows:

Table 1. Table of Identification of Visitor Types and Characteristics based on Gender, Age, Origin, and Frequency

Gender	Distribution	Age	Distribution	Origin	Distribution	Frequency	Distribution
Female	11 (50%)	13	1 (4.5 %)	Yogyakarta	13 (59%)	Every day	3 (13.6%)
Male	11 (50%)	21-30	11 (50%)	Outside Yogyakarta	9 (41%)	Weekly	12 (54.5%)
		31-40	4 (18.5%)			Monthly	1 (4.5%)
		41-50	6 (27.3%)			Rarely	6 (27.3%)
		51	0				
		61-70	0 (0%)				

Source: Author, 2025

Based on the questionnaire results, the composition of visitors shows a balanced proportion between women and men (50% each), indicating that this space is gender-inclusive. The 21–30 age group dominated the sample with a percentage of 50%, followed by the 31–50 age group. This indicates that the boulevard is mostly accessed by the productive age group, who have high spatial mobility and the potential for active involvement in public spaces.

Meanwhile, visitor origin data shows that 59% of respondents are from Yogyakarta and 41% are from outside the region. This pattern reflects that the Suroto Road corridor not only has local significance for local residents, but is also a space that is accessed and appreciated by visitors from outside the city. The frequency of visitors varies, with 54.5% visiting weekly, 27.3% visiting infrequently, and 13.6% visiting daily. This pattern shows that even though the boulevard is located in a heritage area, its use is not limited to tourism but is also part of the daily activities of city residents.

In the context of Sense of Place, the frequency of interaction with a space plays an important role in forming physical closeness as well as user memory (Lewicka, 2011). However, high visitation intensity does not necessarily result in emotional attachment, as seen in the findings on the emotional dimension, which is still relatively low. This shows that positive perceptions of space are not always directly proportional to the formation of place memory, especially if public spaces do not fully support meaningful experiences.

3.3 Analysis of Physical Setting

In this section, respondents were asked to describe their perceptions of Suroto Boulevard with the open-ended question, "What do you know about Suroto Boulevard?" The answers are presented in the Word Frequency and Cluster Analysis charts using NVivo, which show visitors' perceptions of Suroto Boulevard with questions such as those in Figure 6.

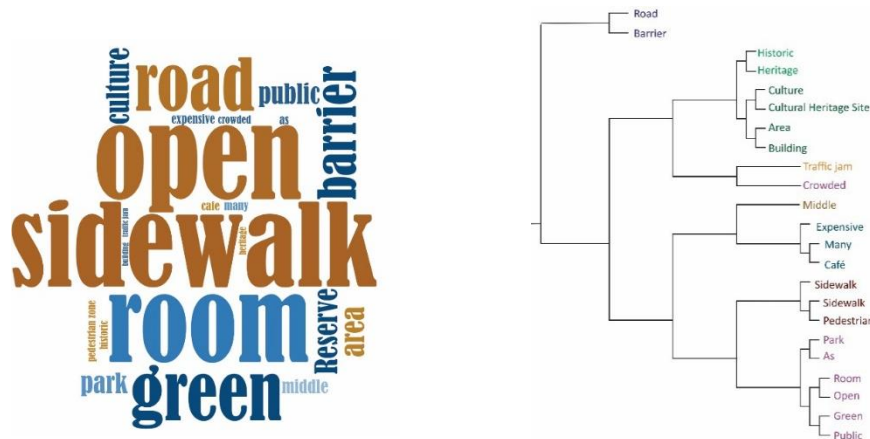


Figure 6. Word Frequency and Cluster Analysis of visitors' knowledge about Suroto Street Boulevard Source: Author, 2025

From Figure 6, it can be concluded that visitors most often associate Suroto Boulevard with words such as "sidewalk," "open space," and "green." The dominance of these terms indicates that visitors' understanding of the boulevard still focuses on its physical function as a pedestrian path and green open space area. In other words, the boulevard is perceived more as part of the city's infrastructure that provides visual and ecological comfort, rather than as a social space or cultural heritage area with historical value. This finding is in line with the theory of environmental perception (Kaplan, 1989), which states that users' initial perceptions are usually formed from the things that are most easily observed visually. As a result, the sense of place that emerges is still dominated by physical impressions, while the emotional and historical meanings of the boulevard are not yet fully embedded in visitors' perceptions.

3.3.1 Assessment of the Physical Setting on Suroto Boulevard

A reliability test was conducted to determine whether the measuring instrument could be used or not. There are several formulas that can measure the level of reliability, including Spermans Brown and Kuder Richardson (KR-20 or KR-21). The formula used in the reliability test was Cronbach's Alpha.

3.3.2 Accessibility Assessment

The assessment of the physical setting of the boulevard on Suroto Street includes the ease of supporting human experience physically and psychologically (Carmona et al., 2003), which can increase visitor comfort. Figure 7 shows that the highest level of assessment of ease on Suroto Road Boulevard is number 3 with 9 respondents (40.9%). Figure 7 shows that the assessment of ease is considered sufficient, but does not fully meet the comfort standards for pedestrians.

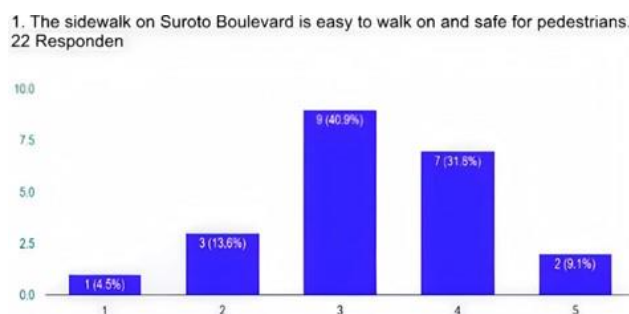


Figure 7. Assessment of information media based on the accuracy and credibility of information Source: Author, 2025

Table 2. Assessment based on Ease

Matrix	Score	Explanation
r value	0.82	Strong positive correlation based on high response concentrations at 3, 4, and 5 (81.8% total),
t-value	6.41	> t-table (2.086) → significant at $\alpha=0.05$
r-table (df = 20)	0.423	Critical value of <i>product moment</i> .
Explanation	Valid	Valid accuracy instrument.

Source: Author, 2025

3.3.3 Nighttime lighting

Empirically, 54.5% of respondents chose a value of 3 (fairly safe), followed by 31.8% with a value of 4 (safe) and 9.1% with a value of 5 (very safe). Meanwhile, only 4.5% expressed a feeling of insecurity, as shown in Figure 8. This distribution indicates that although the boulevard is relatively considered safe, most user experiences are still at a moderate level and have not yet reached a full sense of safety, especially at night. This is consistent with the assessment of lighting, which is not yet optimal. Based on Figure 8, nighttime lighting received the highest rating of 3, with 45.5%. This finding identifies nighttime lighting as still being a major concern for users.

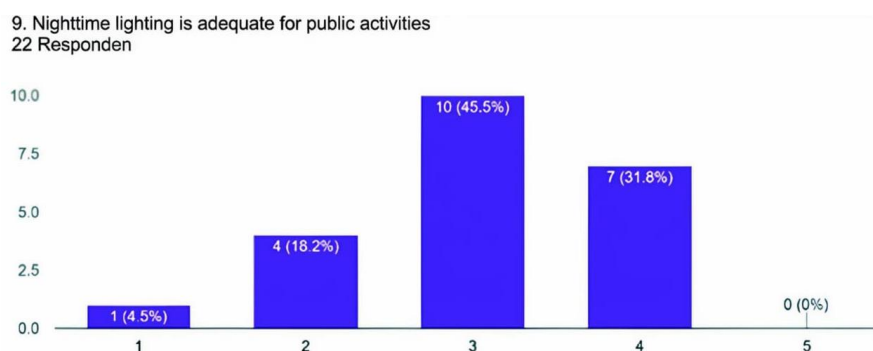


Figure 8. Nighttime lighting assessment

Source: Author, 2025

Table 3. Assessment based on nighttime lighting

Matrix	Value	Explanation
Value r	0.76	Strong positive correlation, majority of responses in categories 3 and 4 (77.3% of total),
t value	5.42	> t-table (2.086) → significant at $\alpha=0.05$
r-table (df = 20)	0.423	Critical value of <i>product moment</i> .
Explanation	Valid	Valid accuracy instrument.

Source: Author, 2025

3.3.4 Landscape Elements

Based on the questionnaire results, visitors' perceptions of the comfort of the space along Suroto Boulevard show that vegetation plays a very dominant role in shaping the quality of the spatial experience. A total of 72.7% of respondents gave the highest rating (score 5) for the comfort and shade provided by trees and vegetation, followed by 22.7% of respondents who gave a score of 4, and only 4.5% who gave a moderate rating (score 3). No respondents gave a poor rating (score of 1 or 2), indicating that the landscape aspect was considered most successful in shaping positive perceptions of physical comfort. As shown in Figure 9.

These findings are consistent with the results of the spatial element preference data, where trees were the most preferred element, chosen by 11 respondents (50%) in Table 5 as the main component they appreciated on the boulevard. This shows that vegetation is still a key factor in creating a comfortable, shady, and pleasant spatial experience, especially in areas with garden city characteristics such as Kotabaru.

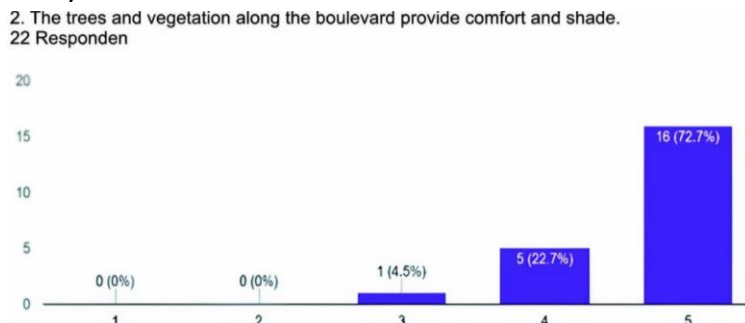


Figure 9. Assessment of landscape elements (Vegetation)

Source: Author, 2025

Table 4. Landscape Elements

Matrix	Value	Explanation
r value	0.91	Strong positive correlation, majority of responses in categories 4 and 5 (95.4% total),
t value	8.27	> t-table (2.086) → significant at $\alpha=0.05$
r-table (df = 20)	0.423	Critical value of product moment. Explanation
Explanation	Valid	Valid accuracy instrument.

Source: Author, 2025

Table 5. Preferred elements

Trees	11 (50%)
Supporting facilities (park benches, road materials)	7(32%)
Street lights	2 (9%)
Landmark (Clock)	2 (9%)

Source: Author, 2025

As for landscape elements such as benches, lights, and trash bins, according to visitors' perceptions, the majority of respondents gave a score of 4 (45.5%), followed by a score of 3 (40.9%), and a score of 5 (13.6%). No respondents gave negative ratings (scores of 1 or 2) as shown in Figure 10, indicating that all respondents considered these landscape elements to be functioning well, although most were still in the "fair" to "good" rating category, not yet "very good".

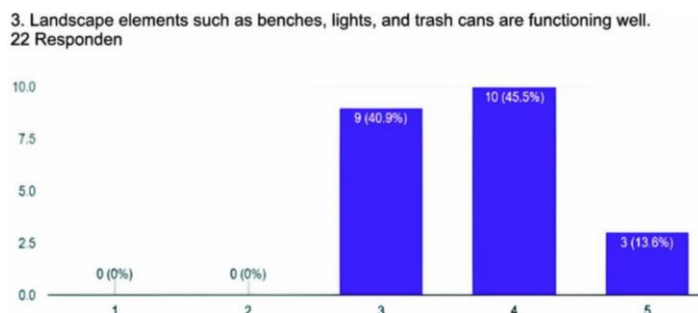


Figure 10. Assessment of landscape elements (benches, lights, and trash bins)

Source: Author, 2025

Table 6. Ratings based on landscape elements

Matrix	Score	Explanation
r value	0.83	Strong positive correlation, majority of responses in categories 3 and 4 (86.4% total),
t value	6.70	> t-table (2.086) → significant at $\alpha=0.05$
r-table (df = 20)	0.423	Critical value of the <i>product moment</i> .
Explanation	Valid	Valid accuracy instrument.

Source: Author, 2025

The three research instruments representing the Physical Setting Assessment indicators on Suroto Boulevard (Accessibility, nighttime lighting, and landscape elements) have been validated. This is indicated by the calculated r-values for all indicators (0.76–0.91), which exceed the table r-value (0.423; df = 20), supported by significant calculated t-values (5.42–8.27; $\alpha=0.05$). According to Nunnally and Bernstein (1994), 0.6 is acceptable for exploratory investigations. Therefore, this instrument is deemed suitable for assessing the quality of the physical setting on Suroto Boulevard.

However, even though the instrument is valid, the evaluation results show that the three indicators are generally only in the "fairly good" category with a score range of 40–45%. Specifically, the indicators regarding vegetation and landscape elements received relatively high scores, while the assessments of convenience and safety were still at a moderate level. The interview results reinforce these findings, with respondents expressing the need for improvements, especially in terms of safety, particularly pedestrian crossing facilities and night lighting. These findings indicate that the physical quality of the space does not yet fully support a safe, comfortable, and sustainable spatial experience.

To enhance the sense of place, Suroto Boulevard needs to adopt a more holistic design approach, considering accessibility, safety, and pedestrian experience, with the following recommendations:

Table 7. Recommendations

No	Recommendation	Description	Theoretical Study
1	Strengthening Pedestrian Connectivity	Pedestrian paths need to be designed to be more integrated and uninterrupted, because walkability is a requirement for the formation of meaningful spatial interactions	(Montgomery, 1998)
2	Create safe and characterful crossings	Elements such as raised crosswalks, crossing lights, or heritage pattern crossings can be implemented to make the crossing experience both safe and meaningful	(Jacobs, 1961)
3	Adaptive lighting based on public spaces	Adaptive or automatic lighting according to visitor arrival	(Gehl, 2011)
4	Enhancing Human Scale	Adding benches, tree canopies, signage positioned to strengthen the proximity of the space to pedestrians, thereby increasing the sense of belonging	(Carmona et al., 2003)
5	Creating spaces that invite people to stay	Sense of place can be strengthened through public space design that invites people to stay, not just pass through	(Sepe, 2017)

Source: Author, 2025

3.4 Functional Analysis of Suroto Boulevard

The functional dimensions of Suroto Boulevard show that this space is still dominated by transitional activities. As many as 40.9% of visitors use the boulevard as a thoroughfare, followed by leisurely walking (22.7%) and jogging (16.2%), as shown in Table 8. This data confirms that the boulevard does not yet fully function as a space for social interaction, but is instead mostly interpreted as a space for circulation and passive recreation. In the context of public space theory, Gehl (2001) refers to this phenomenon as "necessary activities," which are activities that occur without requiring high-quality space.

Table 8. Purpose or Activities of Visitors

Purpose of Visit	Distribution
Walking/recreation	5 (22.7%)
Work	4 (18.2%)
Crossing	9 (40.9%)
Jogging	4 (16.2%)

Source: Author, 2025

Visitor activities are also influenced by safety factors. Based on the safety assessment of Suroto Boulevard according to visitors, it was rated as adequate, with the highest rating being number 3 with 12 respondents, representing 54.5%, as shown in Figure 11.

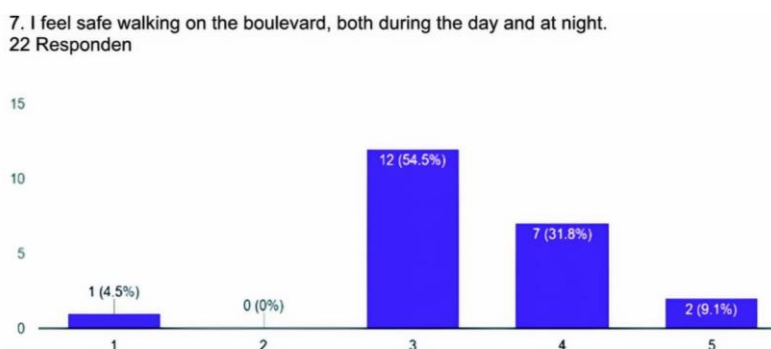


Figure 11. Safety assessment

Source: Author, 2025

Table 9. Assessment Based on Safety

Matrix	Score	Explanation
r value	0.79	Strong positive correlation based on high response concentrations at 3, 4, and 5 (95.4% total),
t-value	5.98	> t-table (2.086) → significant at $\alpha=0.05$
r-table (df = 20)	0.423	Critical value of <i>product moment</i> .
Explanation	Valid	Valid accuracy instrument.

Source: Author, 2025

The reliability test value for this indicator shows $r = 0.77$ and $t\text{-count} = 5.98$ (greater than $t\text{-table } 2.086$), so the safety indicator is declared valid and reliable. However, the non-dominant distribution of scores in the high category indicates that the perception of safety is not entirely stable, especially in relation to night lighting and the presence of visual surveillance points, as shown in Figure 8. This reinforces the finding that the quality of functional space is not yet optimal, especially for supporting social activities outside of daytime hours.

3.5 Analysis of Impressions or Feelings that Arise When Being on Suroto Boulevard

The feelings that arise when visitors are on Suroto Boulevard are generally related to comfort, tranquility, and the shady atmosphere created by the vegetation that shades the corridor. The keywords that most frequently appeared in the respondents' answers were "comfortable," "calm," "cool," and "beautiful," indicating that the initial emotional dimension is formed through physiological impressions and visual experiences. This finding reinforces the view (Montgomery, 1998) that spatial experiences often begin through direct sensory perception.

Table 10 of sub-category and category grouping (Sturgess method) regarding the impressions or feelings that arise when in the Suroto Street boulevard in the Kotabaru area

No	Question	Subcategory	Category	Index
1	Trees and vegetation along the boulevard provide comfort and shade.	Thermal and visual comfort	Rich in vegetation	4.68
	The vegetation and layout of the boulevard support a cool and green environment.	Layout & landscape		4.68
2	The views along the boulevard have an attractive visual character.	Visual/aesthetic appeal	Strong Regional Character	4.18
	I am proud that this boulevard reflects the identity of Kotabaru and Yogyakarta.	Place identity & pride		3.59
	This boulevard has a different character compared to other areas in Yogyakarta	Perception of place uniqueness		4.05
3	The temperature and air circulation in the boulevard area feel comfortable.	Microclimate & Air circulation	Comfort	4.23
	The boulevard environment is well maintained (clean, quiet, no traffic jams).	Environmental quality		3.23
4	The boulevard is often used by the community for social activities (meeting, walking, relaxing).	Intensity of space utilization	Social interaction	3.00
	I see positive social interaction around the boulevard.	Social interaction & encounters		3.32
	The boulevard supports cultural activities or public events in the Kotabaru area.	Cultural & community activities		3.82
5	I have special memories or experiences on this boulevard.	Personal memories & experiences	Emotional attachment	3.32
	I feel emotionally connected to the atmosphere on this boulevard.	Emotional attachment		2.86

Source: Author, 2025

However, the depth of these feelings is still superficial and has not developed into a stronger emotional attachment. The average score on the indicators of spatial identity and place memory is in the moderate range (2.86–3.32), indicating that although visitors feel comfortable and enjoy the atmosphere, they do not yet feel a sense of belonging or emotional connection to the boulevard. In the context of sense of place, Relph (1976) explains that spaces that do not trigger emotional closeness tend to experience placelessness, a situation in which spaces have physical form but do not have strong personal or cultural meaning for their users.

This lack of attachment may be due to the boulevard being used more often as a space for passing through or personal activities, rather than a space that facilitates social interaction

or collective memory. Lewicka (2011) asserts that place attachment is formed when users are not only physically present, but also have consistent social and emotional involvement. This is not yet predominantly seen on Jalan Suroto Boulevard, where the function of the space does not encourage visitors to stop, engage in activities together, or build meaningful, recurring experiences.

Thus, although the initial impression of the boulevard is positive, the sense of comfort that arises is not accompanied by a deep sense of belonging or connection. The emotional aspect of the sense of place is still weak and needs to be strengthened through public space strategies that encourage social interaction, spatial memory, and a more explicit neighborhood identity, whether through social activation, historical markers, or a more legible colonial architectural narrative.

4. CONCLUSION

This study aims to identify visitors' perceptions and analyze the formation of a sense of place on Jalan Suroto Boulevard through physical, functional, and emotional dimensions. The results show that a sense of place in this area has not been optimally formed and is still partial.

Physical dimensions are the most dominant aspect in shaping visitors' perceptions. Vegetation, visual comfort, and the character of the boulevard space provide a positive sensory experience, in line with Montgomery's (1998) view that physical quality is the basis for the formation of a sense of place. However, the dominance of physical aspects has not been balanced by the strengthening of space functions and emotional attachment.

In terms of functionality, Boulevard Jalan Suroto has not yet functioned optimally as an active public space. Visitor activities are still dominated by movement and individual activities, so the space has not been able to encourage intensive social interaction. This supports Gehl's (2011) theory that the quality of public space functionality greatly determines the formation of social life. Meanwhile, the emotional dimension shows a relatively weak level of attachment, reflecting the condition of placelessness as described by Relph (1976).

Based on these findings, the recommendations of this study include: (1) strengthening the function of public spaces by providing seating, rest areas, and continuous pedestrian paths; (2) improving safety and comfort by improving nighttime lighting and pedestrian crossing facilities; and (3) strengthening heritage identity through historical interpretive elements and community-based activities. Referring to Lewicka (2011), the development of a holistic sense of place requires the simultaneous integration of physical quality, social function, and emotional attachment.

REFERENCES

- Agradiana, I., Budihartan Tipizza Agradiana, N., & Hartanti, N. B. (2020). The Walkability of Street Corridors And Pedestrian Preferences In Jakarta Old City Heritage Area. *INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH*, 9(03). www.ijstr.org
- Aufelisa, N., & Rahmi, D. H. (2024). *Kontinuitas Arsitektur pada Bangunan Adaptive Reuse di Kotabaru Yogyakarta Continuity of Architecture in Adaptive Reuse Buildings in Kotabaru Yogyakarta* (Vol. 8, Issue 2).
- Bo, L., & Abdul Rani, M. F. (2025). The Value of Current Sense of Place in Architectural Heritage Studies: A Systematic Review. In *Buildings* (Vol. 15, Issue 6). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/buildings15060903>

- Carmona, M., Heath, T., Oc, T., Tiesdell, S., Boston, A., London, H., Oxford, Y., San, P., San, D., Singapore, F., & Tokyo, S. (2003). *PUBLIC PLACES-URBAN SPACES The Dimensions of Urban Design*. <http://www.elsevier.com>
- Chan, S. H. G., Lee, W. H. H., Tang, B. M., & Chen, Z. (2023). Legacy of culture heritage building revitalization: place attachment and culture identity. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1314223>
- Cheshmehzangi, A., Chen, W., Mangi, E., & Heath, T. (2023). Practical challenges of urban regeneration in China. In *Frontiers in Sustainable Cities* (Vol. 5). Frontiers Media SA. <https://doi.org/10.3389/frsc.2023.913500>
- Csurgó, B., & Smith, M. K. (2022). Cultural Heritage, Sense of Place and Tourism: An Analysis of Cultural Ecosystem Services in Rural Hungary. *Sustainability (Switzerland)*, 14(12). <https://doi.org/10.3390/su14127305>
- Dameria, C., Akbar, R., Indradjati, P. N., & Tjokropandojo, D. S. (2020). Tinjauan Ulang Potensi Sense of place dalam Pelestarian Kawasan Pusaka Perkotaan. *TATALOKA*, 22(3), 379–392. <https://doi.org/10.14710/tataloka.22.3.379-392>
- Handinoto. 1994. “‘Indische Empire Style’ Gaya Arsitektur ‘Tempo Doeloe’ Yang Sekarang Sudah Mulai Punah.” *Dimensi* (Desember):1–14
- Hollander, J. B., & Anderson, E. C. (2020). The impact of urban façade quality on affective feelings. *Archnet-IJAR: International Journal of Architectural Research*, 14(2), 219–232. <https://doi.org/10.1108/ARCH-07-2019-0181>
- Howard, E. (1902). *Garden Cities of Tomorrow*.
- Kaplan. (1989). *Environmental Preference a Comparison of Four Domains of Predictors*.
- Li, Y., Lu, J., Meng, Y., Luo, Y., & Ren, J. (2025). Exploring Urban Spatial Quality Through Street View Imagery and Human Perception Analysis. *Buildings*, 15(17). <https://doi.org/10.3390/buildings15173116>
- Lomadze, E. (2024). *Pedestrian Perception of Walkability in Public Spaces Example of a Historical Neighbourhood*.
- Mohammad-Moradi, A., Yazdanfar, S.-A., & Norouzian-Maleki, S. (2020). Exploring the Sense of Place Components in Historic Districts: A Strategy for Urban Designers and Architects. *Int. J. Architect. Eng. Urban Plan*, 30(1), 30–43. <https://doi.org/10.22068/ijaup.30.1.30>
- Montgomery, J. (1998). Making a city: urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), 93–116. <https://doi.org/10.1080/13574809808724418>
- Najafi, M., & Sharriff, M. (2011). The Concept of Place and Sense of Place In Architectural Studies. *World Academy of Science, Engineering and Technology International Journal of Humanities and Social Sciences*. scholar.waset.org/1307-6892/14034
- Nezih RİFAİOĞLU, M., & Şahin Güçhan, N. (2007). *ICOMOS-Finding the Spirit of Place 16th General Assembly and International Scientific Symposium UNDERSTANDING AND PRESERVING SPIRIT OF PLACE BY AN INTEGRATED METHODOLOGY IN HISTORICAL URBAN CONTEXTS*.
- Pemerintah Daerah Istimewa Yogyakarta. (2011). *Keputusan Gubernur Daerah Istimewa Yogyakarta Nomer 186/Kep/2011 tentang Penetapan Kawasan Cagar Budaya*.
- Pemerintah Daerah Istimewa Yogyakarta. (2023). *Keputusan Gubernur Daerah Istimewa Yogyakarta Nomer 130/Kep/2023 tentang Penetapan Kawasan Cagar Budaya Kota Baru sebagai Kawasan Cagar Budaya Peringkat Provinsi*.
- Pramudito, S., Kristiawan, Y. B., Wismarani, Y. B., Chrisma, F., & Analisa, K. (2020). IDENTIFIKASI ASPEK SENSE OF PLACE KAWASAN BERSEJARAH BERDASARKAN PREFERENSI PENGUNJUNG (Studi Kasus: Kawasan Sagan, Yogyakarta). In *Jurnal Arsitektur ARCADE* (Vol. 206, Issue 3).

- Pujiyanti, indah. (2017). *ALTERNATIF DESAIN ARSITEKTUR HIJAU PADA PERSIL BANGUNAN UNTUK MEMPERKUAT KARAKTER GARDEN CITY DI KAWASAN KOTABARU DAERAH ISTIMEWA YOGYAKARTA*. <http://mmr.umy.ac.id/artikel/proceeding/>
- Sanjaya, H. B., Iftironi, M., Hanifah, D., & Khumaira, H. (2023). *IDENTIFIKASI SENSE OF PLACE PADA BANGUNAN CAGAR BUDAYA BERLANDASKAN PERSPEKTIF PENGUNJUNG (STUDI KASUS: KAWASAN KOTA BARU, YOGYAKARTA)* (Vol. 6, Issue 1).
- Seliari, T., Primadani, G., Salimin, B., Arsitektur, F., Desain, D., Kristen, U., Wacana, D., Taman, B., Rawa, N., & Watumohai, A. (2023). *IDENTIFIKASI SENSE OF PLACE DI KAWASAN WISATA BUKIT AHUAWALI BERDASARKAN PERSEPSI PENGUNJUNG*.
- Sepe, M. (2017). The role of public space to achieve urban happiness. *International Journal of Sustainable Development and Planning*, 12(4), 724–733. <https://doi.org/10.2495/SDP-V12-N4-724-733>
- Shi, Y., Harumain, Y. A. S., & Bava, H. H. (2024). Perception of tourists and residents on the pedestrian environment of heritage cities. *Journal of Chinese Architecture and Urbanism*, 6(1). <https://doi.org/10.36922/jcau.1879>
- Yoga Pratama, H., & Sardjono, A. B. (2023). *ANALYSIS OF URBAN DESIGN DIMENSIONS IN CULTURAL HERITAGE AREA (CASE STUDY: KOTA BARU AREA, YOGYAKARTA CITY): Vols. x, No. y*.
- Yuan, K., Abe, H., Otsuka, N., Yasufuku, K., & Takahashi, A. (2023). A Comprehensive Evaluation of Walkability in Historical Cities: The Case of Xi'an and Kyoto. *Sustainability (Switzerland)*, 15(6). <https://doi.org/10.3390/su15065525>
- Zhang, R., Martí Casanovas, M., Bosch González, M., & Sun, S. (2024). Revitalizing Heritage: The Role of Urban Morphology in Creating Public Value in China's Historic Districts. *Land*, 13(11). <https://doi.org/10.3390/land13111919>