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Experience Based Linkage on Gang Haji Ahom in Lembur Katumbiri, Bandung

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ABSTRACT

Kampung Pelangi (Lembur Katumbiri) in Bandung represents a prototype of an urban village that has transformed into a creative district through improvements in spatial quality and pedestrian connectivity. This study aims to analyze how linkage structures shape visitors' spatial experiences along the Gang Haji Ahom corridor as the main access route to the area. Using Roger Trancik's Linkage Theory (1986), the research examines spatial connectivity through the elements of paths, nodes, and edges, as well as the role of physical features such as wayfinding signage, paving patterns, and residents' social activities. The study employs a descriptive qualitative method with a case study approach, conducted through field observations and semi-structured interviews with 25 respondents consisting of visitors and local residents. The findings indicate that Gang Haji Ahom functions as a clear and legible connecting corridor, where visual continuity and social activities contribute to pedestrian orientation and comfort. A significant finding of this study reveals the role of social media platforms, particularly TikTok and Instagram, as an informal navigation system (digital linkage) that compensates for the limitations of physical wayfinding signage in the area. This study recommends integrating improvements in physical facilities with digital information management to optimize accessibility and enhance the attractiveness of creative urban village areas.

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1. INTRODUCTION

The transformation of urban villages into creative tourism destinations has become a widely adopted strategy in Indonesia to improve environmental quality and enhance local economic conditions. This phenomenon is clearly exemplified by Lembur Katumbiri, also known as Kampung Pelangi, in Bandung. As a dense urban settlement that has evolved into a public-oriented space, the success of this area depends not only on its internal visual attractions, but also on how well it is integrated into the surrounding urban structure. In this context, physical accessibility plays a vital role.

Gang Haji Ahom serves a strategic function as the main access corridor connecting the city's arterial road to the core of the creative area of Lembur Katumbiri. However, the organically grown and spontaneous nature of urban kampung settlements often produces complex spatial patterns that are difficult for external visitors to understand. In many cases, the design of tourism-oriented kampung areas tends to focus primarily on the aesthetics of the final destination, while overlooking the quality of the spatial experience along access routes and connecting paths. In fact, visitor comfort and orientation begin as soon as they enter and traverse these connecting corridors.

An unclear spatial structure along access routes can lead to disorientation, ultimately reducing the quality of the visitor experience. Therefore, a deeper understanding of spatial linkage is required. As stated by Trancik (1986), a well-functioning urban space requires a form of "glue" that binds fragmented parts into a coherent whole. At a micro scale such as Gang Haji Ahom, both physical and non-physical elements must work together to create legibility, enabling visitors to easily construct mental maps of the area (Lynch, 1960). Without proper analysis of these elements, design interventions in urban villages risk becoming ineffective and merely cosmetic.

Based on this background, this study aims to analyze the characteristics of spatial linkage along the Gang Haji Ahom corridor in Lembur Katumbiri. The research examines how physical elements (such as paths, landmarks, and edges) and social activities collectively shape area connectivity. The analysis synthesizes the Linkage Theory (Trancik, 1986), the concept of Collective Form (Maki, 1964), and the principle of Legibility (Lynch, 1960) to comprehensively understand the spatial phenomena occurring within the corridor.

1.1 Linkage Theory and Spatial Connectivity (Roger Trancik, 1986)

Linkage Theory is a fundamental approach in urban design that views the city not merely as a collection of static buildings, but as a dynamic system of spatial linkages. In his book *Finding Lost Space* (1986), Roger Trancik emphasizes that the quality of a city is highly dependent on the integration of its elements. Trancik defines linkage as "the lines that connect the parts of the city," where these lines are formed by streets, pedestrian pathways, linear open spaces, or other connecting elements that physically bind the urban structure together (Trancik, 1986). In its development, Linkage Theory is also understood as a representation of urban form that is inseparable from its circulation network, which serves as the backbone of mobility within an area (Raynanda & Indrawati, 2021).

The urgency of linkage is particularly evident in the context of micro-scale pedestrian routes or urban kampung environments. As cited by Anggraini and Wijayanti (2023) from Spreiregen's ideas, pedestrian paths in small-scale urban streets play a vital role as connectors between different functional areas. Without clear physical connectivity, an area may experience isolation, leading to a decline in urban vitality. Physical connectivity is also considered an important indicator of settlement resilience. Tambunan et al. (2021) found that

high levels of connectivity significantly improve accessibility and support environmental adaptation and mitigation strategies in dense urban areas.

Empirical studies on kampung settlements in Bandung further confirm that the configuration of street networks (physical linkages) has a strong associative relationship with the probabilistic distribution of pedestrian movement (Asriana et al., 2023). This indicates that the physical pattern of linkage directly influences how people move and carry out activities within a space.

In the context of spatial experience, linkage functions not only as physical infrastructure but also as a perceptual medium. Xu et al. (2025) emphasize that integrated route structures and wayfinding systems can guide movement and create meaningful linear experiences along a corridor. This aligns with the findings of Jabbari et al. (2023), which recognize the role of pedestrian networks in organizing spatial experiences as an essential component of sustainable urban design. Therefore, the analysis of linkage along Gang Haji Ahom examines not only the physical characteristics of the pathway but also how the corridor facilitates continuity in users' spatial experiences.

1.2 Collective Form Theory (Fumihiko Maki, 1964)

Complementing Trancik's physical perspective, Fumihiko Maki (1964), in *Investigations in Collective Form*, introduces the concept of Collective Form to explain how buildings come together to form a cohesive spatial whole. Maki proposes three paradigms of form: Compositional Form, Megastructure, and Group Form. In the context of organically and evolutionarily grown urban kampung environments such as Lembur Katumbiri, the Group Form approach is the most relevant analytical framework.

Within this framework, Maki refers to linkage as "the glue of the city," namely the binding element that unites layers of activity and the physical forms of the city into a comprehensible whole. Maki outlines five specific bridging actions that constitute spatial connectivity, namely:

1. To mediate: connecting spaces through transitional elements;
2. To define: clearly framing or demarcating a space;
3. To repeat: creating visual unity through recurring elements;
4. To make a functional path: constructing routes that function both spatially and socially; and
5. To select: emphasizing key elements that reinforce direction and orientation.

These five actions affirm that connectivity is not merely visual in nature, but also generates patterns of social relationships. This argument is reinforced by recent studies by Aelbrecht and Stevens (2023), which state that the design and management of public spaces directly influence the character and quality of social encounters, ultimately affecting the experience of social cohesion within communities. Accordingly, the application of Maki's theory in this study serves to examine how simple physical elements along Gang Haji Ahom (such as terraces, fences, or street patterns) function as "glue" that fosters connectivity between the kampung's spatial structure and the daily activities of its residents.

1.3 Legibility and Imageability Theory (Kevin Lynch, 1960)

After understanding the physical aspects and collective spatial structure, visual perception becomes the next key consideration. Kevin Lynch, in *The Image of the City* (1960), introduces the concepts of legibility and imageability as visual qualities that enable individuals to comprehend urban layouts and form clear mental maps. Lynch identifies five elements that shape the image of the city: paths, edges, districts, nodes, and landmarks. The interaction among these five elements determines whether an area is easily understood or instead perceived as confusing.

For these elements to function effectively, visual consistency along movement routes is essential. A recent study by Joenso et al. (2022) on street corridors emphasizes that strong visual character emerges from the dominance of physical elements reinforced by continuity. This means that elements along pedestrian pathways such as pavement patterns, rows of vegetation, or fences should not stand independently, but rather form a rhythmic unity that produces a strong visual impact and intuitively guides the observer's gaze.

From a broader perspective, this visual dimension focuses on the creation of "urban visual drama" through the integration of public facilities, landscape elements, and street corridors (Pratama & Sardjono, 2023). Such visual drama plays a strategic role in strengthening visitor orientation. This is supported by the findings of Xu et al. (2025), which highlight that spatial design components, including wayfinding systems and integrated route structures, are crucial in guiding movement and creating meaningful spatial experiences.

In this study, the theory of legibility and these supporting findings are applied to analyze how physical elements manifest along the Gang Haji Ahom corridor. The analysis focuses on how the continuity of physical elements and visual markers (signage) work together to create a legible pathway, thereby facilitating visitor navigation toward the core area of Kampung Pelangi.

1.4 Life Between Buildings Theory (Jan Gehl, 1971)

The success of a linkage is not determined solely by its physical connectivity and visual clarity, but also by the life that unfolds within it. In his book *Life Between Buildings* (1971), Jan Gehl highlights the dialectical relationship between the physical design of cities and human social behavior. He states that "spaces for walking are the most fundamental of all public spaces," functioning as the arteries of urban social life.

In the context of dense settlements, pedestrian pathways are not merely circulation routes, but social spaces that enable interactions to occur naturally. This is confirmed by a recent study by Azizah et al. (2025), which found that well-designed pedestrian spaces can significantly enhance social dynamics and foster connections among individuals. However, such interactions require adequate physical support. As emphasized by Suminar and Sari (2021) in *Jurnal Arsitektur ZONASI*, the availability and quality of pedestrian facilities are key elements in creating a comfortable concept of walkability, which in turn encourages people to engage in outdoor activities.

Gehl classifies outdoor activities into three interrelated categories:

1. Primary (Necessary) Activities: mandatory activities such as walking to work or school, which occur regardless of environmental quality;
2. Secondary (Optional) Activities: optional activities such as sitting, relaxing, or enjoying the surroundings, which only take place when environmental conditions are supportive and comfortable; and
3. Social Activities: spontaneous interactions among users (such as greeting or playing), which emerge as a result of primary and secondary activities.

In this study, Gehl's theory is applied to examine how the Gang Haji Ahom corridor accommodates these three types of activities. The analysis focuses on whether the physical elements of the alley merely facilitate primary activities (serving only as a passage), or whether they are capable of stimulating secondary and social activities that strengthen the sense of place and community bonds in Kampung Pelangi.

1.5 Previous Studies on Linkage and Urban Villages

Research on linkage and spatial connectivity has been widely discussed in various global contexts. Wahid et al. (2021), in their study of India Street in Kuching, demonstrate that strong linkage is formed through the integration of pedestrian pathways, activity nodes, and spatial edges with primary and secondary activities. Their study emphasizes that spatial vitality is

determined not only by physical elements but also by the continuity of social activities along the corridor. This perspective serves as a foundation for understanding connectivity, which Milaković, Novaković, and Đukić (2019) reinforce through Fumihiko Maki's Group Form paradigm. They highlight that physical connectivity functions as a "social glue," enabling interactions within collective spaces and strengthening community cohesion.

However, in the specific context of informal urban environments, distinct challenges arise. Santos et al. (2021) highlight that the main barriers to integration in dense settlements are poor spatial configurations and limited accessibility, which directly contribute to spatial segregation. These findings are supported by Al Faraby (2021), who emphasizes the physical constraints of informal settlement street networks often narrow and fragmented which hinder residents' mobility. From a social perspective, Hidayati et al. (2021) demonstrate that pedestrian accessibility in urban kampung environments transcends mere transportation issues and plays a crucial role in enhancing social connectivity. Consistent with this, Paramitha and Kusdiwanggo (2024) assert that spatial elements in urban kampung areas are vital for sustaining local identity and a sense of place amidst urbanization pressures.

In the context of tourism-oriented kampung development, Nurlaily (2024) emphasizes that the success of thematic kampung relies heavily on active community participation in responding to the spatial environment. Furthermore, contemporary studies suggest that spatial experience is increasingly influenced by digital dimensions. Yang and Liu (2022) note that public perceptions of space can be shaped by digital interactions and place-images circulating on social media. In terms of orientation, Prandi et al. (2023) highlight the importance of inclusive navigation technologies to enhance accessibility, particularly in areas where physical signage may be insufficient. This suggests that in the modern era, the concept of linkage is evolving to include information accessibility as a key component of spatial experience.

Despite the extensive literature, most existing studies tend to examine kampung areas at a macro scale, focus primarily on community empowerment, or discuss general street vitality. There remains limited literature that specifically dissects the dimension of linear spatial experience along a single main access corridor connecting a city's arterial road to a kampung tourism destination.

This study seeks to address this research gap by focusing on a micro-scale analysis of the Gang Haji Ahom corridor. The novelty of this research lies in its integrated approach, which links the physical structure of linkage (Trancik and Maki) with visual perception (Lynch) and social activities (Gehl). The aim is to understand how a simple alley can transform into a legible, human-centered welcoming corridor that serves both tourists and local residents effectively.

2. RESEARCH METHODS

This study employs a qualitative descriptive approach to understand experience-based spatial linkage along the Gang Haji Ahom corridor in the Lembur Katumbiri area of Bandung. This approach aims to explore spatial relationships based on physical conditions and users' direct experiences.

Data collection was conducted through two primary techniques: spatial observation and semi-structured interviews. Spatial observation was carried out to identify the physical elements of linkage, such as circulation paths, inter-spatial connectivity, and the visual characteristics of the corridor. Semi-structured interviews were conducted with 25 respondents, consisting of local residents and visitors, to understand their perceptions and experiences while traversing the Gang Haji Ahom corridor.

The collected data were then analyzed interpretatively by referring to the principles of Linkage Theory as the analytical framework. This study does not employ quantitative methods such as space syntax or graph-based network analysis; instead, it emphasizes the interpretation of spatial relationships based on user experience and contextual conditions.

To clarify the research process, the stages of the research methodology are visualized in the form of a flow diagram, as shown in Figure 2.1.

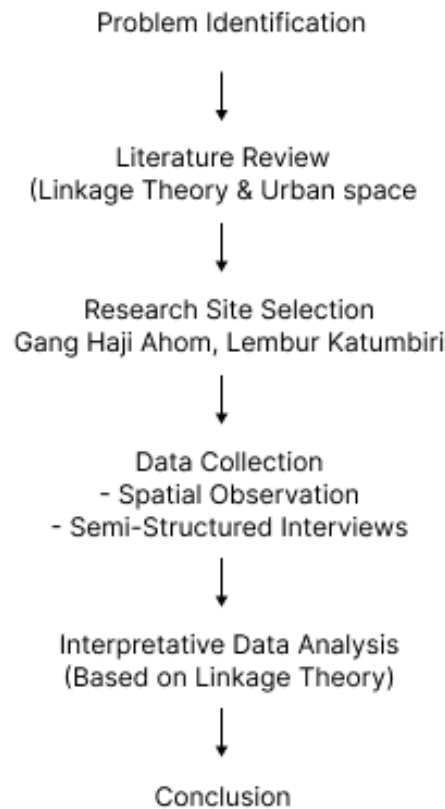


Figure 2.1 Research Methodology Stages Diagram
(Source: Author, 2026)

This diagram presents the stages of the research process, from problem identification and literature review to site selection, data collection, data analysis using Linkage Theory, and conclusion drawing.

3. RESULTS AND DISCUSSION

3.1 Linkage Characteristics

Gang Haji Ahom functions as an access corridor connecting Jalan Siliwangi to Lembur Katumbiri (Rainbow Village), a mural-based area that has been recently inaugurated and promoted as a community-based tourism destination in RW 12, Dago Subdistrict, Coblong District, Bandung City (see Figure 3.1). The position of this corridor establishes it as the primary entrance for pedestrians and visitors arriving from the city's arterial road. Therefore, circulation function and path legibility become critical aspects in the analysis of spatial connectivity (linkage) in this study.

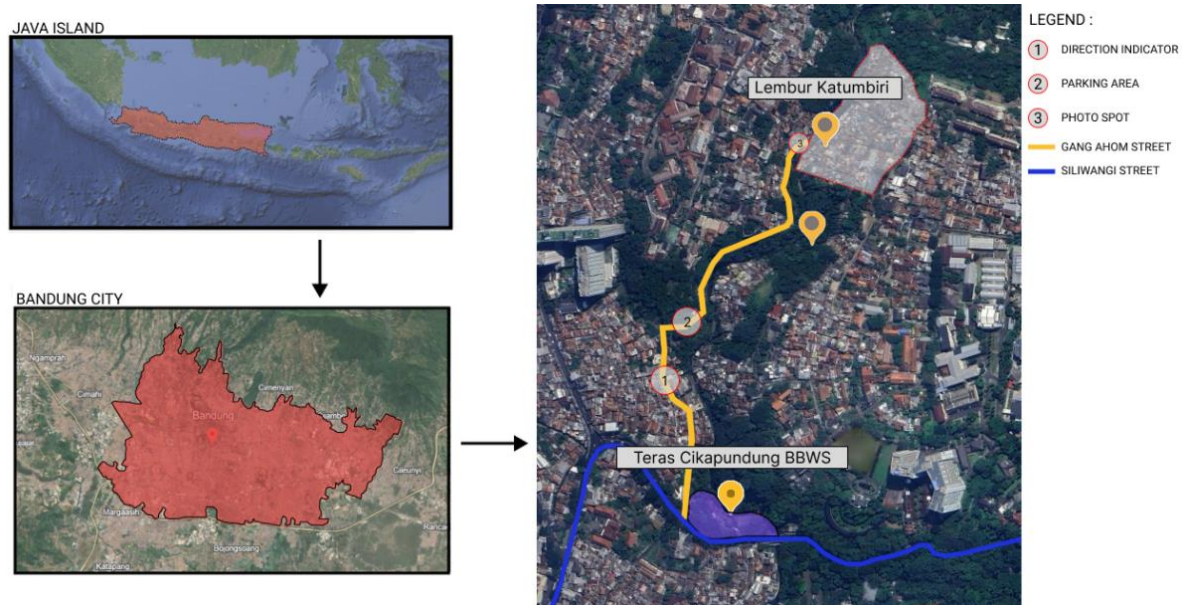


Figure 3.1 Study Area Location Map, Bandung
(Source: Author, 2026)

a. *Path*

Gang Haji Ahom is identified as a highly dominant path element. Physically, this corridor exhibits a linear form without branching, which is a key characteristic of a directed walking experience. This continuity is reinforced by surface elements, including:

- **Floor Pattern:** The use of consistent and uniform paving patterns along the corridor provides clear visual cues.
- **Directional Control:** The firm and consistent characteristics of the path minimize ambiguity, thereby facilitating pedestrian orientation and ensuring movement toward the core area of Lembur Katumbiri.

These clear path conditions create a high level of legibility, indicating that the circulation route functions optimally in guiding user movement, as illustrated in Figure 3.2.



Figure 3.2 Linear Pedestrian Path along Gang Haji Ahom, Bandung
(Source: Field Survey, 2026)

Physically, Gang Haji Ahom exhibits a linear path pattern without branching, featuring consistently patterned pavement and several points with dense vegetation along the route. The corridor runs adjacent to the Cikapundung River, forming a natural edge that enriches the walking experience while providing visual variation and microclimatic conditions along the route. The combination of path continuity, pavement patterns, and the river as a natural edge creates a clear path–edge structure that facilitates orientation and guides visitors toward the core mural area, as illustrated in Figure 3.2.

b. Edge

- **Natural/Ecological Edge:** This edge is formed by the flow of the Cikapundung River, which defines one side of the corridor (see Figure 3.3). The presence of the river creates a clear and stable boundary while influencing visual variation and microclimatic conditions along the pathway.
- **Built/Functional Edge:** The opposite side of the corridor is defined by residential facades and drainage channels (see Figure 3.4). The presence of dense vegetation at several points, along with facade decorations, creates a softer and more interactive edge condition.



Figure 3.3 Ecological Edge: The Cikapundung River Adjacent to the Corridor, Bandung (Source: Field Survey, 2026)



Figure 3.4 Functional Edge: Residential Façades and Drainage Channel, Bandung (Source: Field Survey, 2026)

c. Node

- **Orientation Nodes:** The presence of directional elements such as wayfinding signage (see Figure 3.5) and a small gateway (see Figure 3.6) functions as psychological markers that assist pedestrian orientation.
- **Activity Nodes:** Certain areas that function as centers of community activity, as shown in Figure 3.7, serve as nodes of social interaction and local commerce.

Conceptually, nodes within this corridor function as spatial pauses that reinforce visual orientation. Their presence supports the existing circulation path rather than disrupting it, thereby strengthening the overall spatial structure of the corridor.



Figure 3.5 Orientation Node: Directional Signage in Gang Haji Ahom (Source: Field Survey, 2026)



Figure 3.6 Activity Node: Community Interaction and Local Trading in Bandung (Source: Field Survey, 2026)



Figure 3.7 Transitional Node: Pause Space Along the Corridor, Bandung (Source: Field Survey, 2026)

3.2 Findings Based on Open Coding

Based on 25 semi-structured interviews with visitors and local residents, the open coding analysis identified three main themes that describe the linear pedestrian experience along Gang Haji Ahom toward Kampung Pelangi. These themes include:

1. ease of access and orientation,
2. comfort and path quality, and
3. visual attractiveness and social activities.

Each of the following subsections summarizes the key findings, representative quotations, and brief interpretations that are relevant to the theoretical discussion presented in the Integrative Discussion section.

3.3 Ease of Access and Orientation

a. Main Findings

- The majority of respondents stated that the route to Kampung Pelangi is easy to follow due to the continuity of the pathway and the paving block pattern that functions as a visual guide.
- Social media platforms (TikTok and Instagram) play an important role as pre-visit information sources for many visitors.
- Identified challenges include inconsistencies in directional signage, the relatively distant location of parking areas, and limited accessibility for elderly users.

b. Representative Quotations

Table 2.1 Conceptual Variables and Indicators

No	Quotation (Translated)	Participant
1	<i>"I didn't get lost; the route was easy to follow."</i>	Participant 1
2	<i>"I found the route through TikTok. Many people shared videos showing the path, so I knew which way to go."</i>	Participant 5
3	<i>"The direction signs were not very visible. Usually, I had to ask people around."</i>	Participant 21

c. Interpretation

The physical continuity of the pathway and the consistent paving pattern function as route markers that enhance corridor legibility. The role of digital media indicates a combination of pre-visit orientation (online information) and on-site orientation (visual cues and assistance from local residents). Weaknesses in wayfinding signage and the distance to parking areas indicate gaps in the linkage system that need to be strengthened in order to improve universal accessibility.

3.4 Comfort and Path Quality

a. Main Findings

- Respondents perceived the pathway as relatively comfortable for walking due to the paving block surface, a calm atmosphere, and the presence of vegetation at several points that enhances thermal comfort.
- Narrow segments and certain sloped sections or stairways reduce accessibility for vulnerable groups, such as elderly users and wheelchair users.
- The distance between parking areas and the corridor emerged as a recurring concern, despite the generally acceptable condition of the pedestrian pathway.

b. Representative Quotation

Tabel 2.2 Qualitative Coding Results on Corridor Experience Related to Access and Orientation

No	Quotation (Translated)	Participant
1	<i>"The pedestrian path is comfortable for morning walks, cool, and not crowded."</i>	Participant 3
2	<i>"The parking area is quite far, but the walking route itself is still comfortable."</i>	Participant 17

No	Quotation (Translated)	Participant
3	<i>"In the upper section, the path is rather narrow, but you can still reach the top. There are stairs and a direct uphill walking route."</i>	Participant 21

c. Interpretation

The quality of the path surface and the presence of vegetation reinforce the corridor’s function as a recreational walking route. However, physical constraints such as limited width and the presence of stairs indicate the need for minor design interventions such as resting points, selective widening, or the provision of ramps to enhance comfort and universal accessibility for all users.

3.5 Visual Attractiveness and Social Activities

a. Key Findings

Colorful building façades and designated photo spots emerge as the primary visual attractions that encourage visitation. This strong visual identity also supports spatial orientation, as the presence of the village becomes recognizable from a certain distance. In addition, residents’ activities such as informal vending and welcoming visitors add a social dimension to the corridor, allowing it to function not merely as a transit route but as a lively public space. However, color is utilized more as an identity marker than as part of a consistent wayfinding system.

b. Representative Quotation

Table 2.3 Qualitative Coding Results on Corridor Experience Related to Visual Attractiveness and Social Activities

No	Quotation (Translated)	Participant
1	<i>"The houses are nicely decorated with colorful elements, which makes the area visually appealing."</i>	Partisipan 1.
2	<i>"It is a residential neighborhood, but it has been transformed into a tourist destination... people have made the atmosphere colorful."</i>	Partisipan 2.
3	<i>"From a distance, you can already see the colorful appearance of the village, so you know you are heading in the right direction."</i>	Partisipan 6

c. Interpretation

The visual identity of Kampung Pelangi serves a dual function: as an attraction for visitors and as a visual marker at a medium-distance scale. Social interactions and local economic activities reinforce the sense of place and enrich the linear pedestrian experience; however, the effectiveness of color as an orientation tool needs to be complemented by physical orientation elements (such as directional signage and activity nodes) to ensure a more consistent linkage system.

3.6 Integrative Diagram of Physical and Digital Connectivity

Gang Haji Ahom is shaped through a dynamic interaction between physical and digital connectivity that mutually reinforce one another. Based on interviews and field observations, social media plays a significant role in shaping visitors’ initial imageability and orientation toward Kampung Pelangi prior to their arrival. These preliminary perceptions are subsequently confirmed through direct spatial experience, in which the corridor’s linear physical structure reinforced by building edges and visual markers creates a clear and legible route with several activity nodes that function as points of interaction. This configuration facilitates pedestrian movement while simultaneously encouraging pauses and social interactions between residents and visitors.

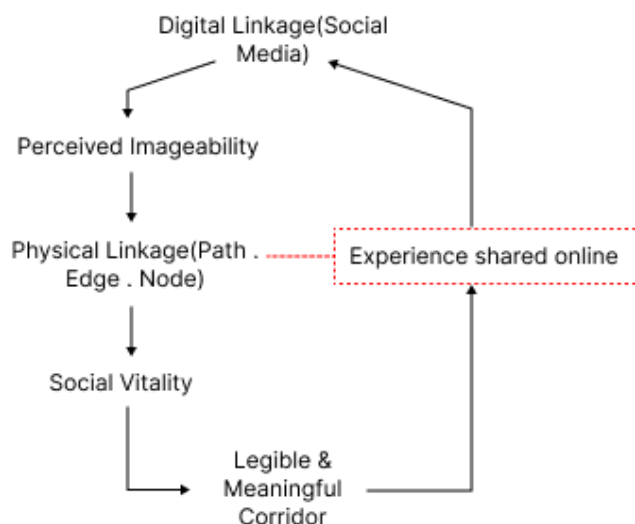


Figure 3.8 Integrative Diagram of Physical and Digital Connectivity
(Source: Author, 2026)

Interviews with local residents and field observations indicate that everyday community activities, the presence of physical elements such as pavement, vegetation, and directional signage, as well as the intensity of visitor arrivals, collectively contribute to the formation of social vitality and spatial comfort. This legible and meaningful spatial experience encourages visitors to document and share their experiences through social media, thereby creating a feedback loop between physical experience and digital representation, as illustrated in Figure 3.8. Consequently, the connectivity structure of Gang Haji Ahom is shaped not only by physical elements but also by social practices and digital perceptions, which together reinforce the corridor's role as both a spatial and perceptual connector to Kampung Pelangi.

3.7 Integrative Discussion

The five analytical frameworks employed in this study Linkage (Trancik, 1986), Collective Form (Maki, 1964), Legibility and Imageability (Lynch, 1960), Life Between Buildings (Gehl, 1971), along with findings from recent empirical studies on linkage in urban settlements converge on a single core idea: an effective urban corridor must integrate structured physical connectivity with a clear visual identity and active social use. This synergy creates spaces that are legible, comfortable, and meaningful for users. Each theory offers a complementary emphasis:

1. Trancik emphasizes connective structures that bind fragmented urban spaces;
2. Maki highlights bridging design actions that mediate and integrate physical elements;
3. Lynch stresses perceptual clarity through paths, landmarks, and nodes that support orientation; and
4. Gehl centers human activity as the lifeblood of public space.

Meanwhile, empirical field studies reinforce these theoretical foundations by demonstrating how local morphology and community participation shape accessibility and foster a distinctive sense of place. Collectively, these components suggest that continuity of physical movement, repeated visual cues, and opportunities for social interaction are mutually reinforcing elements in the creation of successful pedestrian corridors.

In summary, the integrative framework of this research can be formulated as follows:

Structured Connectivity + Visual Legibility + Social Vitality = Meaningful Pedestrian Experience

This synthesis serves as the primary analytical lens used to evaluate the spatial characteristics and quality of Gang Haji Ahom in this study.

Table 2.4 Qualitative Coding Results of Corridor Experience Related to Visual Attractiveness and Social Activities

Aspect	Main Findings	Evidence / Examples	Implications	Related Theories
Path	A dominant linear route with strong surface continuity	Consistent paving patterns; a direct route leading to Kampung Pelangi	Facilitates orientation; enhances corridor legibility	Trancik, Lynch, Maki
Edge	Natural and built edges complement each other along the corridor	Cikapundung River; residential façades; drainage channels; vegetation	Adds visual variation and improves microclimate; enriches the walking experience	Trancik, Maki
Node	Nodes function as orientation points and pauses for activities	Directional signage; small gates; spaces for interaction and local commerce	Provide visual and social pauses without disrupting route continuity	Lynch, Trancik, Maki
User perception	Visitors report ease of orientation and comfort, alongside functional issues	Ease of navigation due to paving; issues with unclear signage, distant parking areas, and limited access for elderly users	Indicates the need to improve signage, accessibility, and supporting facilities	Gehl, Lynch
Physical–social interaction	The linear experience is shaped by physical elements and residents’ activities	Vegetation, street vendors, and community interactions along the route	Social activities strengthen place identity and enhance perceived comfort	Gehl, Maki
Additional factor	Social media increases awareness and visitation to the corridor	Visitors cite TikTok and Instagram as sources of pre-visit information	Digital image management should complement physical interventions	Digital Linkage (Yang & Liu, 2022); Digital Wayfinding (Prandi et al., 2021)

4. CONCLUSION

This study demonstrates that all linkage elements as discussed in the theoretical framework paths, nodes, edges, and social activities are clearly identified along the Gang Haji Ahom corridor as the main access route to Kampung Pelangi. The linear pathway with consistent paving patterns, the presence of natural edges formed by the Cikapundung River and residential façades, as well as community activity nodes, collectively contribute to clear spatial legibility while strengthening the area’s social vitality. These findings confirm that

traditional linkage structures remain relevant within organically developed urban village contexts.

However, this research also identifies an additional dimension not fully addressed in classical linkage theory, namely digital linkage. The presence of social media particularly TikTok and Instagram functions as an informal navigation system that supports visitor orientation through visual content, geotagging, and pre-visit experiences. This digital dimension is shown to compensate for limitations in physical elements such as inconsistent directional signage, restricted accessibility for vulnerable groups, and the distance of parking facilities from the main corridor. Consequently, visitors' spatial experiences are shaped through a synergy between physical connectivity and digital representation.

Based on these findings, this study recommends that the development of urban creative villages should not only focus on improving the physical quality of paths, nodes, and edges, but also integrate strategies for digital information management. The provision of clear wayfinding systems, enhancement of universal accessibility, and strengthening of activity nodes should be pursued in parallel with the use of social media as a tool for promotion, navigation, and place-image formation. This physical digital integration is expected to enhance legibility, improve pedestrian comfort, and expand the appeal of Kampung Pelangi as a community-based tourism destination in the future.

REFERENCES

- Aelbrecht, P., & Stevens, Q. (2023). *Geographies of Encounter , Public Space , and Social Cohesion : Reviewing Knowledge at the Intersection of Social Sciences and Built.* 8(4), 63–76.
- Al Faraby, J. (2021). Streets in informal settlements: Design, community, and power in Indonesian Kampung [Cardiff University]. In *Cardiff University*. <https://orca.cardiff.ac.uk/id/eprint/141401/>
- Anggraini, D. S., & Wijayanti, W. (2023). New Urbanism and Urban Design Dimension Implementation in Public Space in the Simpang Lima Area, Semarang City. *Journal of Architecture & Environment*, 22(1), 57–66. <https://doi.org/10.12962/j2355262x.v22i1.a16582>
- Asriana, N., Koerniawan, M. D., Tambunan, L., & Paramita, B. (2023). The effects of street-network configuration in modelling walkability through space syntax. *DIMENSI (Journal of Architecture and Built Environment)*, 50(1), 13–20.
- Azizah, K. P., Setiadji, B. H., & Huboyo, H. S. (2025). Walking towards wellness: Exploring community views on urban walkability for a healthier lifestyle in Semarang. *Jurnal Kesehatan Masyarakat (KEMAS)*, 21(1), 250–260. <https://doi.org/https://www.google.com/search?q=https://doi.org/10.15294/kemas.v21i1.26750>
- Gehl, J. (1971). *Life between buildings: Using public space*. Van Nostrand Reinhold.
- Hidayati, I., Yamu, C., & Tan, W. (2021). Journal of Urbanism : International Research on Realised pedestrian accessibility of an informal settlement in Jakarta , Indonesia. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 14(4), 434–456. <https://doi.org/10.1080/17549175.2020.1814391>
- Jabbari, M., Fonseca, F., Smith, G., Conticelli, E., Tondelli, S., Ribeiro, P., Ahmadi, Z., Papageorgiou, G., & Ramos, R. (2023). “The Pedestrian Network Concept: A Systematic Literature Review.” *Journal of Urban Mobility*, 3(May), 100051. <https://doi.org/10.1016/j.urbmob.2023.100051>
- Joenso, R. C., & Purwanto, E. (2022). Jalur pedestrian sebagai unsur fisik pembentuk karakter visual koridor Jalan Diponegoro Salatiga. *Sinektika: Jurnal Arsitektur*, 19(1), 43–49.

- Liu, T. (2022). *Social Media Data in Urban Design and Landscape Research: A Comprehensive Literature Review*.
- Lynch, K. (1960). The image of the city. In *Social Problems* (Vol. 8, Issue 3). MIT Press. <https://doi.org/10.2307/798927>
- Maki, F. (1964). *Investigations in collective form* (Issue 2). Washington University School of Architecture.
- Milaković, A., Novaković, N., & Đukić, A. (2019). Group form reconsidered: Physicality and humanity of collective spaces. *SAJ - Serbian Architectural Journal*, 17(3), 235–250.
- Nurlaily, D. K. (2024). Systematic literature review: Partisipasi masyarakat terhadap pengembangan kampung wisata. *Jurnal Arsitektur Zonasi*, 7(2), 347–358.
- Paramitha, O., & Kusdiwanggo, S. (2024). Analysis of urban design dimensions in a cultural heritage area (Case Study: Kotabaru Area, Yogyakarta City). *Jurnal Arsitektur Zonasi*, 7(3), 547–560.
- Prandi, C., Rita, B., Silvia, B., & Daniela, M. (2023). Accessible wayfinding and navigation : a systematic mapping study. *Universal Access in the Information Society*, 22(1), 185–212. <https://doi.org/10.1007/s10209-021-00843-x>
- Pratama, H. Y., & Sardjono, A. B. (2023). Analysis of Urban Design Dimensions in a Cultural Heritage Area (Case Study: Kotabaru Area, Yogyakarta City). *Journal of Architecture&ENVIRONMENT*, 22(2), 127. <https://doi.org/10.12962/j2355262x.v22i2.a16855>
- Raynanda, Y. A., & Indrawati, I. (2021). Pengaruh Wisata Kuliner terhadap Perkembangan Jalur Pedestrian (Studi Kasus: Segmen Jl. Kebumen-Cilacap Kecamatan Tambak Kabupaten Banyumas). *Prosiding (SIAR) Seminar Ilmiah ...*, 8686, 372–377.
- Santos, C. M. V., Dwisusanto, Y. B., & Kusliansjah, Y. K. (2021). The importance of physical linkage and connectivity to integrate the kampung and formal parts of the city. *ARTEKS : Jurnal Teknik Arsitektur*, 6(3), 401–414. <https://doi.org/10.30822/arteks.v6i3.916>
- Suminar, L., & Sari, P. A. (2021). Identifikasi fasilitas pejalan kaki di koridor Jalan Affandi Yogyakarta dalam mendukung konsep walkability. *Jurnal Arsitektur Zonasi*, 4(3), 366–377.
- Tambunan, L., Donny Koerniawan, M., Asriana, N., & Fathina Izmi, N. (2021). The Study of Connectivity and Network Degree toward Mitigation Strategy for Resilient Kampung in Indonesia (Case Study: Kampung Taman Sari, Bandung). *IOP Conference Series: Earth and Environmental Science*, 738(1), 4–9. <https://doi.org/10.1088/1755-1315/738/1/012080>
- Trancik, R. (1986). *Finding lost space: Theories of urban design*. Van Nostrand Reinhold.
- Wahid, J., Abdullah, A., Salleh, B., & Karsono, B. (2021). Probing into urban linkage theory: The case of India Street, Kuching. *Planning Malaysia (Journal of the Malaysian Institute of Planners)*, 3(3), 30–40.
- Xu, X., Ding, E., Yu, K., Yu, J., Liu, W., & Bo, L. (2025). Modeling Pedestrian Accessibility : Research on Public Space of Industrial Heritage Renovated Districts. *Buildings*, 15(1), 1–41.