

Environmental Behavior Analysis in an Alley of an Old Town in Surabaya and Its Impact on Social Values

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ABSTRACT

Urbanization is a significant factor contributing to high population density in Surabaya, the second largest city in Indonesia. Congestion particularly affects the Old City area, which serves as the city's trade and business center. This congestion has led to increased demand for housing and employment opportunities in Old City. Consequently, the inability to meet these demands has resulted in the utilization of public open spaces to fulfill daily needs for space. Descriptive qualitative methodology with an analytical approach to human behavior in public spaces was employed for this study. Field observations and interviews were conducted at various times to gather precise data on different types of activities.

The study focuses on the activities of urban dwellers residing in the 2-meter-wide and 87.7-meter-long alley connecting Jalan Panggung and Jalan Kalimati. Data from field observations were meticulously analyzed using Excel to categorize and quantify various activities. Additionally, outdoor space usage was documented with photographs to illustrate necessary supportive furnishings.

The findings reveal distinct patterns of human behavior categorized by activity type, location, and time. Daily activities include 14 household routines and 8 commercial activities at varying times throughout the day. The increase in activity volume necessitates more time and equipment, contributing to the development of informal settlements in Gang 2. This phenomenon has social repercussions related to health (environmental impacts), poverty, and crime.

Keywords: Environmental Behavior, Small Alley, Space Requirements, Surabaya Old Town, Urbanist

INTRODUCTION

North Surabaya Density, Problems, and Social Values

The population density of Surabaya is primarily attributed to urbanization, resulting in a strong demand among urban residents for adequate employment and housing (Aryani & Jen-Tu, 2020; Sa'ir et al., 2020). As a city rich in commerce and industry, Surabaya's northern sector has historically served as a prominent trade hub, predating even the arrival of Dutch East Indies commerce according to historical records (Aji et al., 2023; Hayati et al., 2023). The city's proximity to rivers and harbors has significantly contributed to the expansion and development of urban districts in North Surabaya (Sa'ir et al., 2020; Salim, n.d.).

North Surabaya continues to play a pivotal role in Surabaya's economic landscape, valued by urban residents as a centre for employment due to its historical economic activities. However, a considerable number of migrants to North Surabaya lack the higher education required for formal employment opportunities.

Consequently, many engage in the informal sector prevalent in the trade and shopping districts of North Surabaya (Aryani & Budi, 2023). Urban residents employed in the informal sector often struggle to afford rent or secure suitable housing, often residing in small apartments within historic buildings or renting modest accommodations. Those with limited financial resources conduct their daily activities in public spaces.

In attempts to deter urban residents from utilizing alleys for daily activities, the Surabaya municipal government has implemented several measures. Despite multiple eviction efforts, urban residents persist in these practices. The formation of slums in cities predominantly results from urban residents' activities in public spaces. The Surabaya City government is concerned about these issues due to their perceived negative social impact (Bah et al., 2022).

Social ideals such as equality, education, environmental health, poverty, and urban crime are disrupted when public spaces (such as alleys) are used for everyday activities. Therefore, this research aims to achieve the following objectives through an exploration of urban resident behavior in public areas, specifically Gang 2 Jalan Panggung in the historic city of Surabaya:

1. To identify the physical condition of dimensions Gang 2 Jalan Panggung Surabaya (width, length, and form).
2. To identify various activities that Gang 2 residents engage in during the four distinct time periods.
3. To identify the furniture and equipment on Gang 2 Jalan Panggung, Surabaya, that supports urbanist activities.

LITERATURE REVIEW

Economic Activities and Supporting Alleys in the Old City of Surabaya

Economic activities in Old Surabaya are significantly enhanced by the network of alleys that facilitate informal trade and commerce. Recent studies in Urban

Economic Theory highlight that such infrastructure improves local economies by enhancing connectivity and accessibility within urban spaces (Calle-Vaquero et al., 2020; García-Hernández & de Miguel, 2021).

Infrastructure Development Theory further emphasizes the crucial role of well-maintained alleys in promoting economic interactions and supporting small businesses (Hawken & Sunindijo, 2018; Jones, 2018; Sari et al., 2024). These alleys are vital for vendors and micro-enterprises, thereby contributing to the area's overall economic vitality. Additionally, Land Use Theory points out the strategic significance of alleys in urban planning, ensuring spaces for a variety of economic activities (Hawken & Sunindijo, 2018). Effective management and development of these alleys are essential for sustaining economic growth in Old Surabaya.

Urbanization and Slum Areas in the Old City of Surabaya

Urbanization in Old Surabaya has accelerated the emergence of slum areas due to swift demographic shifts and insufficient urban planning frameworks. The city's historical districts, notable for their colonial-era architectural heritage and significant economic roles, have attracted a surge of rural migrants in search of improved livelihoods.

This influx has culminated in the formation of densely populated, inadequately serviced slums (Hawken & Sunindijo, 2018; Winarso, 2022). These areas are plagued by poor housing conditions, limited access to potable water, and deficient sanitation facilities, all of which contribute to worsening living conditions (Jones, 2018).

Despite facing multiple challenges, including socio-economic intricacies and resistance from local communities, initiatives focused on slum upgrading and urban renewal have been undertaken. The integration of heritage conservation with urban development is posited as a viable strategy to enhance living standards while preserving the cultural heritage of Old Surabaya (Calle-Vaquero et al., 2020; Katherina & Indraprahasta, 2019). Comprehensive and sustainable urban planning is imperative for addressing these issues effectively.

Urbanization in Old Surabaya has led to the proliferation of slum areas due to rapid demographic changes and inadequate urban planning (Astari & Nasution, 2024; Silver, 2024; Zubaidah et al., 2023a).

The historical districts of Surabaya, characterized by colonial-era architecture and economic significance, have become focal points for rural migrants seeking better opportunities, resulting in dense, poorly serviced slums (Astari & Nasution, 2024). These slum areas suffer from substandard housing, limited access to clean water, and inadequate sanitation facilities, exacerbating living conditions (Fasya et al., 2024; Megahayati et al., 2023).

Despite numerous challenges, initiatives aimed at slum upgrading and urban renewal exist, although these efforts are often hindered by socio-economic

complexities and resistance from local communities (Wijayanti, 2023; Zubaidah et al., 2023a).

Integrating heritage preservation with urban development strategies offers a pathway to improve living standards while maintaining the cultural integrity of Old Surabaya (Sari et al., 2024; Zubaidah et al., 2023b). Effective and sustainable urban planning is essential to comprehensively address these issues.

Problems of Slum Areas and Social Values in Urban Areas (Surabaya)

The widespread presence of slum areas in urban Surabaya presents significant challenges to social values, including poverty, crime, environmental health, education, and equality. Recent Urban Social Theory studies suggest that slums are linked to heightened social disorganization and increased crime rates (Hawken et al., 2021; Sa'ir et al., 2020; SALIM, n.d.).

Welfare Economics Theory indicates that inadequate housing and poor living conditions in slums aggravate poverty and weaken overall social welfare (Brown, 2020). Furthermore, research in Urban Policy and Governance Theory emphasizes the critical role of effective urban policies in addressing slum-related issues and enhancing social outcomes (Muzayanah et al., 2020; Nugroho & Zhang, 2022).

These insights highlight the urgent need for comprehensive urban planning and policy interventions to mitigate the adverse effects of slums on social values in Surabaya.

METHODOLOGY

This research employed a descriptive qualitative method using an environmental behavior analysis approach to study the daily activities of urban residents. Primary data were collected through field observations and direct interviews with these residents. The environmental behavior analysis categorized activities into four-time groups: morning, afternoon-evening, evening, and night-morning.

The study focused on Gang 2 along Jalan Panggung, located in the densely populated area of North Surabaya. Gang 2 is the first alley encountered south of Jalan Kembang Jepun, the main thoroughfare in the old city.

The alley varies in width at its entrance, with 2 meters on the west side and 6.4 meters on the east side. Gang 2 Jalan Panggung connects Jalan Panggung on the west side to Jalan Kalimati on the east side. Field observations primarily concentrated on the eastern section adjacent to Jalan Kalimati, focusing on several grocery stores, a wholesale shop housed in an old building, and a warehouse located within Gang 2.



Image 1 Map of Gang 2 Jalan Panggung, Surabaya. (Source: Saphira, 2024)

RESULT & DISCUSSION

Identifying the Physical Condition of Dimensions Gang 2 Jalan Panggung Surabaya (Width, Length, and Form).

Based on direct field observations, several important data points were obtained regarding Alley 2 on Jalan Panggung in Surabaya, particularly concerning its physical condition. Gang 2 Jalan Panggung spans 87.7 meters in length with varying widths: the east side measures 6.4 meters wide, while the west side is 2 meters wide.

Despite its initial width at the entrance, the road narrows further along its stretch. This narrowing is primarily caused by residential areas encroaching on the road space to expand their properties. Moreover, the alley experiences heavy daily urban activities, which contribute to its progressive narrowing over time.

These physical conditions result in the alley narrowing significantly at the 17th meter, widening briefly, and then narrowing again by the 26th meter. This irregular shape is attributed to the intensive use of the alley for daily urbanist activities. Gang 2 accommodates numerous daily activities conducted by residents on both its West and East sides. However, the majority of activities occur on the east side, leading towards Jalan Kalimati, where a grocery store and adjacent residential buildings are located.



Image 2 Urbanist activities on the west side of Jalan Panggung Gang 2 (a) cooking, (b) transporting goods to the warehouse, (c) unloading goods for sale. (Source: Aryani, 2024)



Image 3 Gang 2 is filled with items (a) kitchen utensils on the wall, (b) small cupboard, kitchen utensils, and bicycle (c) small cupboard, kitchen utensils, and wood bench. (Source: Aryani, 2024)

Identifying Various Activities that Gang 2 Residents Engage in During the Four Distinct Time Periods.

Based on direct field observations and interviews with residents, it is concluded that activities in Gang 2 are categorized based on time, location, and type. Grocery stores begin trading activities at 5 am, which continue until the afternoon.

Household activities commence in the morning and extend through the next morning, spanning 24 hours. Residents engage in sleeping and resting activities, often within small houses built in the veranda area of the grocery stores. Thus, the summary of daily activity on Gang 2 listed on Table 1.

Table 1 Daily activity on Gang 2 Jalan Panggung. (Source: Aryani, 2024)

No.	Time	Grocery store Activity	Location	Household Activity	Location	Type Activity
1	Morning (05:00-12:00)	preparation working cleaning up move things transporting goods lunch	Gang 2	cooking washing clothes hanging clothes breakfast washing dishes cleaning up shower	Gang 2	service
2	Afternoon (12:00-17:00)	resting (1 hour) move things transporting goods	Gang 2	lunch resting cleaning up shower	Gang 2	service
3	Evening (17:00-22:00)	no activity	-	watching tv gathering dinner washing dishes cleaning up	Gang 2	service and semi-private
4	Night (22:00-05:00)	no activity	-	resting sleeping	veranda	private

Identify Equipment (Furniture) Supporting Urbanist Activities in Gang 2

Gang 2 Jalan Panggung serves as a connecting road between two main thoroughfares, facilitating daily household activities. To support these activities, urban residents require several essential equipment. However, the items required by residents are placed along Gang 2, contributing to its appearance as cluttered, dirty, and deteriorated.

Table 2 Equipment to support daily activity on Gang 2 Jalan Panggung. (Source: Aryani, 2024)

No.	Activity	Location	Equipment
Grocery Store			
1	working preparation	Gang 2	-
2	cleaning up		broom stick
3	move things		goods carrier
4	transporting goods		goods carrier
5	lunch		wood bench
6	resting (1 hour)		wood bench
7	move things		goods carrier
8	transporting goods		goods carrier
Household			
1	cooking preparation	Gang 2	bamboo bench
2	cooking		stove/small cupboard
3	washing clothes		plastic tub
4	hanging clothes		iron rope, hanger
5	breakfast		wooden bench
6	washing dishes		plastic tub
7	cleaning up		broom stick
8	shower		small shower area
9	lunch		
10	resting		bamboo bench
11	dinner		
12	gathering		
13	resting	veranda/house	-
14	sleeping		-

Research conducted on Gang 2 Jalan Panggung in Surabaya has highlighted high population density and inadequate housing in densely populated residential areas. Additionally, working in the informal sector is a primary means of employment for urban residents living in these areas. Urban activities in Gang 2 are categorized into three types. The majority of activities fall under service activities, while those involving interactions with others are classified as semi-private activities. Private activities are conducted by residents within homes built on the terraces of grocery store buildings. The extensive urban activities in Gang 2 contribute to its cluttered appearance, with goods strewn about, and a general sense of dirtiness and deterioration. This condition arises not only from the activities themselves but also from the large quantity of goods required to support them.

CONCLUSION

Gang 2 Jalan Panggung connects Jalan Kalimati and Jalan Panggung, two major thoroughfares, as established through field observations and interviews. On its east side, Gang 2 Jalan Panggung hosts numerous activities, with residences and a substantial amount of merchandise arranged by urban residents and wholesale stores, fostering extensive trade and domestic activities. However, due to inadequate maintenance, Gang 2 appears cluttered, dirty, and deteriorated.

Two primary groups, food vendors and households, perform distinct roles and activities. Both groups predominantly operate within Gang 2. Wholesale vendors primarily manage the transportation of goods to and from warehouses for sale. In contrast, Gang 2 residents engage in various activities beyond relaxation and sleep, with household activities outnumbering those of grocery stores. Grocery store employees manually transport goods using trolleys, which are subsequently stored in warehouses after use, preventing the accumulation of items in Gang 2. Meanwhile, households perform a range of tasks, spending more time in Gang 2 throughout the day than inside their homes. Consequently, Gang 2 functions as a storage area for items used in household chores, contributing to its crowded, unsanitary, and dilapidated appearance. These conditions also give rise to social issues such as environmental health concerns, poverty, and crime.

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