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Temporal Transformation of Urban Space in A Heritage Corridor: A Case Study of Gg. Waroeng, Semarang

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Abstract

During the festival, the corridor undergoes a transformation in spatial use, characterized by the closure of vehicular access, pedestrian-dominated movement, and the utilization of the street space and building frontage for temporary culinary activities. This condition indicates that the spatial the environment of Gg. Waroeng is not static but adapts according to time and the activities taking place. This study aims to analyze the temporal transformation of space in Gg. Waroeng by comparing everyday and festival conditions. The study employs a qualitative approach with comparative analysis of the spatial and activity conditions of the corridor. Data were collected through field observation and documentation, which were analyzed based on movement patterns, spatial functions, commercial activities, spatial occupancy, and the relationship between buildings and street space. The results show that Waroeng Semawis transforms the spatial character of the corridor from a building-oriented commercial corridor into a street-oriented temporary public space dominated by culinary activities. The transformation is also reflected in the function of the frontage, where areas that support building-based commercial activities under everyday conditions are transformed into spaces for culinary tents, dining tables, and facilities supporting culinary tourism activities. However, the transformation of activities remains largely concentrated in the street space and has not been fully integrated with the functions of the buildings along the corridor. These findings indicate that temporary activities play a role in shaping the dynamics and spatial transformation of heritage corridors, while also demonstrating differences in spatial utilization patterns between permanent and temporary activities.

INTRODUCTION

Urban space is not only formed by physical elements that remain static but also by activities and movements that occur within it (Du et al., 2024). Changes in activities at different times can produce different patterns of space use, causing urban spaces to develop different characteristics over time (Güller & Varol, 2024). Under certain conditions, urban spaces that initially function as circulation routes can transform into spaces for social interaction, commercial activities, or other forms of public engagement when changes in usage patterns occur. These transformations are not always accompanied by permanent physical modifications but may take place through adjustments in spatial functions and the ways in which users utilize the space. Therefore, understanding urban space requires not only consideration of physical conditions but also attention to temporal dimensions and activity changes occurring within the space.

One form of temporal dynamics in urban space is reflected in the presence of temporary activities that occur during specific periods (Andres & Kraftl, 2021). Temporary activities are characterized by limited duration and specific implementation periods, resulting in patterns of space use that differ from everyday conditions. Their presence can influence spatial functions, movement patterns, and the intensity of activities within urban areas. In this context, temporary activities transform urban spaces through three main dimensions: function, movement patterns, and activity intensity. Within public spaces, temporary activities such as markets, festivals, and cultural events can transform spaces with established functions into spaces with different characteristics and uses during the activity period (Hallmann, 2024). These transformations demonstrate that temporary activities not only introduce new forms of use but also create temporary spatial configurations.

These temporary transformations become more complex when they occur in historical areas. This is because temporary interventions do not merely alter spatial functions at a particular time but also interact with physical, historical, social, economic, and cultural layers that have developed over extended periods (Regales & Simons, 2026). Previous studies on heritage corridors consistently demonstrate that heritage corridors are spatial systems connecting cultural assets, environments, infrastructure, services, and human activities rather than merely consisting of rows of buildings or roads (Chen et al., 2024). A heritage corridor is defined as a linear spatial system designed to connect, protect, and integrate historical, cultural, and natural heritage assets while supporting sustainable development (Yue et al., 2023). This indicates that heritage corridors pursue multiple objectives, including heritage preservation, regional revitalization, cultural tourism development, education, and cross-regional coordination within urban areas (Deng et al., 2025). These objectives are supported by the presence of heritage assets, road networks, buildings, public spaces, and social and economic activities that collectively form a spatial system. This spatial system is utilized by various users with diverse needs and activity patterns. Therefore, the character of a heritage corridor is determined not only by its physical elements but also by the activities that occur and the ways in which the space is used over time (Zhou et al., 2023). Differences in time and activity types can generate different patterns of spatial use, allowing a single corridor to exhibit different characteristics under particular conditions. In this context, temporary activities represent one element that can utilize and transform heritage spaces.

Festivals are a form of temporary activity that can influence the use of heritage spaces (Finkel & Platt, 2020). A festival is an event that occurs at a specific time, has a relatively short duration, and is organized periodically, distinguishing it from routine activities (Wilson et al., 2016). The presence of festivals can generate changes in movement patterns and corridor utilization. Corridors that are typically used for daily trade and circulation activities may undergo functional transformations into public activity spaces during festivals (Stepanchuk et al., 2021). These changes may involve street spaces, building frontages, and other public spaces located along the corridor. Therefore, festivals represent temporary activities that demonstrate how heritage corridors can experience changes in spatial character over a specific period without undergoing permanent physical alterations (González-Reverté, 2023).

This phenomenon of changing spatial use can also be observed in the Semarang Chinatown area, a historical district shaped by trade development, settlement patterns, and the sociocultural activities of the Chinese community (Nusaputra & Dwisusanto, 2022). This

development formed a network of main roads and alleys connected to commercial and residential buildings throughout the area. Ongoing trading activities have continuously shaped the spatial character of the area, making the relationship between buildings, street spaces, and activities an important component in forming the area's identity (Stevens & Thai, 2024). Temporary activities in Semarang Chinatown primarily emerge through culinary tourism festivals and Chinese cultural celebrations that utilize street corridors as public spaces (Sasnita & Lindarto, 2025). During temporary events, spatial use differs significantly from everyday conditions. One alley in the Chinatown area, Gg. Waroeng, transforms into a nighttime culinary tourism corridor on weekends, resulting in temporary road closures (Kurniati & Erlambang, 2015). This demonstrates that corridors with commercial and circulation functions can temporarily transform into public event spaces without permanent physical changes.

In this context, Gg. Waroeng is one of the alleys in Semarang Chinatown that demonstrates a transformation from everyday activities to temporary activities. This corridor functions as a commercial corridor associated with trade activities and urban movement patterns. In Gg. Waroeng, differences in spatial use between everyday conditions and temporary activities can be observed through changes in road functions, traffic intensity, pedestrian volume, and the extension of activities from buildings into public spaces (Dwisusanto & Nusaputra, 2022). The presence of commercial buildings arranged along the road creates a relationship between building structures and street space as part of the corridor's character. Temporary activities held at Gg. Waroeng every weekend are known as Waroeng Semawis. Initially established as a Chinese New Year market, Waroeng Semawis developed in 2004 into a regular weekend activity that transformed Gg. Waroeng into a popular evening culinary tourism destination (Sherdianto & Anom, 2019). Literature on commercial corridors indicates that temporary uses, such as evening markets, can increase the socioeconomic benefits of urban spaces (Which et al., 2023). In this context, variations in spatial use experienced by Gg. Waroeng can enhance the social and economic functions of the area. Under everyday conditions, the corridor supports trade activities and user movement, whereas temporary weekend activities introduce different patterns of spatial use. These differences are important to study because activity changes within the same space can generate different spatial characteristics without permanent physical modifications. Therefore, comparisons between everyday conditions and temporary activity conditions can provide insight into how time and activities shape urban spatial transformation.

Although temporary activities in heritage corridors can provide social and economic benefits, changes in spatial use during these activities need to be understood as part of urban spatial dynamics. Previous studies on heritage corridors have primarily emphasized physical characteristics, historical values, and area functions as important components in shaping spatial identity, while temporal variations in spatial use remain relatively underexplored. In the context of Gg. Waroeng, the presence of Waroeng Semawis provides an opportunity to examine changes in spatial use within the same corridor under two different activity conditions. Therefore, this study analyzed and compared everyday conditions with conditions during Waroeng Semawis to understand how temporary activities influence spatial transformation in heritage corridors. This study aimed to analyze the temporal transformation of space in Gg. Waroeng through a comparative study of everyday conditions and conditions during Waroeng Semawis activities. Specifically, this research identified changes in spatial use under both

conditions to understand how differences in activities and time periods shape urban spatial transformation. The findings are expected to contribute to the understanding of spatial dynamics in heritage corridors, particularly regarding the relationship between permanent and temporary activities occurring within the same space. This research contributes to the literature on temporary urbanism and heritage management by providing practical insights for urban planners and policymakers seeking to balance heritage preservation with contemporary urban uses.

METHOD

This study employed a qualitative approach to examine the temporary transformation of urban space in Gg. Waroeng. The approach was selected because the research focused on observing spatial conditions and activities occurring along the corridor under different temporal conditions. Spatial transformation was analyzed by comparing everyday conditions with conditions during the Waroeng Semawis culinary festival.

The research data were obtained through field observations and documentation of physical conditions, activities, and spatial use patterns under both conditions. The data were then analyzed comparatively to identify changes in corridor space resulting from differences in time and activity. This analysis was used to understand the characteristics of temporal transformation occurring in Gg. Waroeng as a heritage corridor.

Location Studies

The research was conducted in Gg. Waroeng, which is part of the Chinatown area, Semarang City. Java Middle. History area This rooted in the arrival of the Chinese community to trade at the port of Semarang, which was then established by government colonial Dutch as a separate residential area in 1740 (Indarti et al., 2024). The developments that have occurred in this area until now, forming a network of interconnected streets and alleys surrounded by commercial and residential buildings. Waroeng Hill is approximately 350 m long and approximately 8 m wide. This corridor connects Pinggir Hill and Waroeng Hill. And Jl. Fort in a way One direction. Besides In addition, Waroeng Alley also serves as a corridor connected to a number of small alleys in the Chinatown area, namely Baru Alley, Pasar Baru Alley, Mangkok Alley, Gambiran Alley, Tengah Alley, and Besen Alley. Most of the buildings along the Waroeng Alley corridor have the characteristics of commercial buildings that develop following the development orientation. road, so that form connection which is quite close between building space, frontage , and space road. Condition the make room the road is not only functioning as track movement, but also become part from activity trading which took place along the corridor.

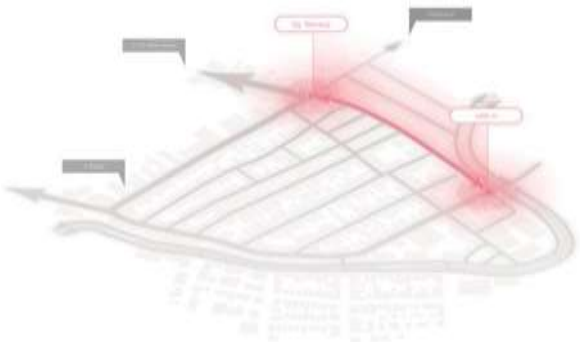


Figure 1. Case Study Location: Waroeng Hill

The architecture of the buildings in this area reflects a strong cultural acculturation, combining Chinese roof styles with local facade elements. which then developed become a characteristic of Semarang architecture (Sudarwani et al., 2023). In condition daily, corridor used For

Trading activities and the movement of area users. Trading activities take place in various types of businesses, particularly textiles, culinary, and services. At certain times, especially on weekends, the corridor is also used for Waroeng (traditional food stalls) Semawis. Activity the utilize road space as location Temporary culinary activities and produce conditions of space use that differ from everyday activities. The selection of Gg. Waroeng as the research location is based on the corridor's character, which allows for observation of the transformation of urban space within a single physical space. heritage Which The same but on condition activities that different. Condition daily represents the use of space formed through trading activities and routine movement, while the condition of Waroeng Semawis represents the use of space during temporary activities. The difference between these two conditions serves as the basis for identifying the temporal transformations that occur in the city's heritage corridor space.



Figure 2. Waroeng Hill Documentation

Collection Data

Data collection was carried out through field observation and documentation to obtain description about condition spatial and activities taking place on Waroeng Mountain. Observations were conducted under two different conditions to obtain an overview of the spatial conditions and activities taking place on Waroeng Mountain. Observations were conducted on weekdays and weekends when Waroeng Semawis was in operation. The division of observation conditions was carried out to see the differences in activities and use of space during daily conditions and when temporary activities were taking place. Data obtained from the observations were then used to describe The existing condition of the corridor at each observation time. On weekdays, observations were made of routine commercial activities taking place along the corridor. The data collected covering type activity business, Distribution of activities in buildings, as well as the use of space related to commercial activities. Data obtained from observations indicate several categories of activities taking place in the corridor. Besides activity on building, observations also pay attention to activity in the gang network. connected with Gg. Waroeng, including traditional market activities in Gg. Baru. The results of these observations are then presented through visual documentation and spatial program mapping to directly show the condition of the corridor and the distribution of activities taking place in inside. On weekdays , Observations were conducted on activities occurring in everyday conditions. Observations included street conditions, commercial activity within buildings, use

of the front area of buildings, and movement patterns along corridors. Visual documentation was used to record the physical conditions and activities observed during the observations, while the results of observations of the space and activity programs were then presented in the form of corridor mapping.



Figure 3. Waroeng Hill on Weekdays Documentation

The documentation of Gg. Waroeng on weekdays shows the situation of the corridor during daily activities. The documentation shows the existence of trading activities that take place directly in the building and frontage, while the road space is used as a space for vehicle movement and access to the building. The corridor road area is used for vehicle parking to support business activities. The diversity of business activities that occur in the Gg. Waroeng corridor is then mapped in a block plan diagram to obtain a comprehensive picture of the distribution of trade sectors and activities carried out in the corridor.



Figure 4. Existing Corridor Block plan (Weekdays)

The mapping diagram presents the seven identified categories. on observation weekdays in Waroeng Gg. The potential site category refers to buildings that were inactive at the time of observation but still have the potential to be reactivated through the use or rental of space. The entertainment category shows buildings used for entertainment activities, which in existing conditions include photo studios / selfie studios. The textile category shows businesses engaged in the textile sector, while the culinary category shows buildings used for culinary activities. Furthermore, the fruit shop category refers to shops that sell fruit, the pharmacy category shows businesses engaged in the pharmaceutical sector, while the specific shop category refers to shops that sell specific types of goods, such as electronics, household furniture, and other specific needs. In addition to grouping by function, the mapping also shows a number of block the building that marked with an exclamation mark (!). This symbol indicates location building Which has loss of the building's form or mass, leaving only land remaining at the time of observation. This information is recorded as part of the corridor's physical

condition to indicate the presence of spaces that no longer serve a building function under existing conditions.



Figure 5. Waroeng Hill: Demolished Building

Further data collection was conducted on weekends when Waroeng Semawis was operating on Waroeng Mountain . Observations were conducted to obtain an overview of the spatial conditions and activities that occurred during the event. ongoing. Documentation focused on temporary activities that appear in the corridor, use of road space, activities in the front area of the building (frontage), as well as pattern movement users during the activity. In addition, observations were made of buildings that continued to operate during the Waroeng Semawis operation to determine the relationship between temporary activities and existing activities in the corridor. The data obtained at Weekend conditions are then used to compare with weekday condition data to identify differences in space use and activities in the two conditions.



Figure 6. Waroeng Hill on Weekends Documentation

Documentation of Gg. Waroeng on weekends shows a view of the corridor during Waroeng Semawis's activities . Temporary activity is visible through the presence of tents and food vendors placed along the corridor. The space in front of the buildings and the street are used to support sales activities, serving customers, as well as eating and gathering activities. At the same time, pedestrian movement occurs between the culinary activity area and the buildings along the corridor. In addition to the space public main Gg. Waroeng, activity Waroeng Semawis is also connected by small alleys connected by corridors. Several alleys around Gg. Waroeng are used as supporting spaces for activities, including temporary parking for festival attendees.



Figure 7. Food stall Semawis: Visitors Parking

Data Which obtained from observation The Waroeng Gg. corridor during the festival is mapped into a block plan diagram . The mapping for weekend conditions uses the same activity categories as for weekday conditions to maintain a basis for comparison between the two conditions. In addition to the activity categories, activity Which already exists on weekdays , this mapping adds several categories related to festivals, namely activated potential site , food street vendors , and temporary parking lots . Activated potential sites indicate locations that are actively used by businesses on weekdays , but are inactive during festivals. The food street vendors category refers to the presence of trader culinary temporary which occupying corridor road space during the festival. The mapping also shows several temporary parking lots located in alleys. connected with Gg. Food stall And used as a visitor parking space during the event. In addition, the exclamation mark (!) symbol is still used For show location building which has lost its building mass and in its existing condition only land remains. Thus, mapping on condition weekends records ongoing activities in the building as well as temporary activities and the use of supporting spaces that emerged during Waroeng Semawis.

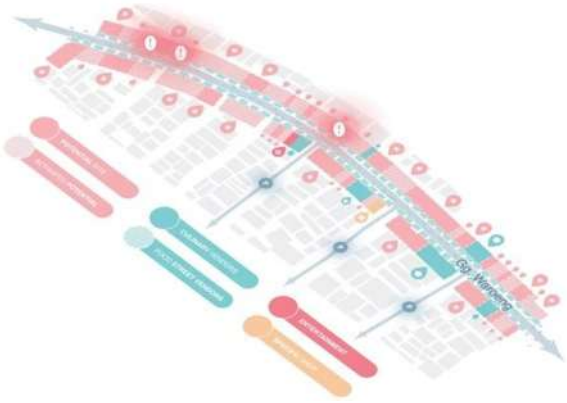


Figure 8. Existing Corridor Block plan (Weekends)

Mapping the weekend conditions provides an overview of the distribution of activities and use of space during Waroeng Semawis's business hours. Data Which obtained from second The observation conditions, namely weekdays and weekends, were then used as a basis for comparing the spatial conditions and activities in Gg. Waroeng. The comparison was conducted by considering several aspects, namely movement patterns, spatial functions, commercial activities, and the relationship between buildings and street space. These aspects

were used to observe differences in use. room between condition activity daily life and conditions when temporary activities take place. Comparison between second condition the aims to identify change use space that occurs in Gg. Waroeng based on the differences in time and activities that take place.

Processing Data

Data from observations, documentation, and mapping on weekday and weekend conditions processed use analysis comparative. The analysis was conducted by comparing the conditions of space and activities in both observation periods to identify change use space on Gg. Waroeng when Waroeng Semawis is in operation. Weekday conditions are used as a representation use room on activity a day-day, whereas condition weekends used as a representation of space use during temporary activities. As a basis for the comparison process, activity data on weekdays was first summarized based on activity category and building usage status. The recapitulation was based on the number of units and percentages to show the composition of the activities . on corridor in condition daily.

Table 1. Recapitulation Program Room Existing (Weekday)

No	Kategori Sektor	Jumlah Unit	Persentase (%)
1.	Sektor Tekstil *(Textile/Fashion)*	22	22.68
2.	Sektor Kuliner *(Culinary)*	14	14.43
3.	Sektor Spesifik *(Specific Shop)*	11	11.34
4.	Sektr Farmasi *(Pharmacy)*	5	5.15
5.	Sektor Buah *(Fruits Shop)*	2	2.06
6.	Sektor Hiburan *(Entertainment)*	1	1.03
7.	Bangunan Tidak Aktif *(Potential Site)*	42	43.30
	Total Bangunan	97	100
	Void (unit)	3	

Weekend conditions were observed when Waroeng Semawis was in operation. Therefore, the classification of these conditions was adjusted to reflect the changes in activity observed during the festival, while maintaining categories comparable to weekday conditions. In addition to ongoing activities in the buildings, observations also recorded buildings that were not operating. activity business during festival. The condition differentiated become activated

potential, namely buildings that have business activities on weekdays but are not active when the festival is taking place, and potential site, that is building which were inactive in both observation conditions. In addition to activity in the building, the weekend condition also recorded the presence of temporary activities that specifically occurred during Waroeng Semawis, such as food street vendors and the use of certain areas as temporary parking lots. A summary of the data for the weekend condition is presented in the following table.

Table 2. Recapitulation Program Room Existing (Weekends)

No	Kategori Sektor	Jumlah Unit	Persentase (%)
1.	Sektor Kuliner *(Culinary)*	9	9.28
2.	Sektor Hiburan *(Entertainment)*	1	1.03
3.	Sektor Spesifik *(Specific Shop)*	11	11.34
4.	Bangunan Tidak Aktif Saat Festival *(Activated Potential)*	44	45.36
5.	Bangunan Tidak Aktif Sepenuhnya *(Potential Site)*	42	43.30
	Total Bangunan	97	100
	Void (unit)	3	

The recapitulation data for weekday conditions is then used as a basis for comparison to observe changes in space use during Waroeng Semawis activities . On weekdays, the activity classification is arranged based on function. And status use buildings found during observation, so that they can describe the conditions of daily commercial activities on Gg. Food stall . Classification the covering the textile /fashion , culinary , specific shop , pharmacy , fruit sectors shop), entertainment (entertainment), as well as inactive buildings (potential sites) . This data is the basis For identify change activity and the status of building use under observation conditions next. Collection data on These two summary tables serve as the basis for comparing weekday and weekend conditions. The comparison was made by maintaining the same observation units—the building and corridor space of Gg. Waroeng —so that identified changes can be seen based on differences in time and activity at the same location. Data recapitulation program room used For compare changes in type activity and building usage status, while the block plan for each condition is used to see changes in distribution.

activity spatially. Field documentation is used as supporting data For show use spaces that cannot be represented through building classification.

RESULTS AND DISCUSSION

Building Activity and Occupancy

The results of the observation show that weekday conditions show Gg. Waroeng as corridor Which his activities main taking place in buildings and frontages. Based on the diagram mapping and recapitulation of the corridor program, there are 97 unit building Which identified, with 55 units or around 56.70% are in active condition and 42 unit or 43.30% is at in condition No active (potential site). The most dominant activity is the textile sector with 22 units (22.68%), followed by culinary sector as much as 14 unit (14.43%) and 11 specific shops units (11.34%). Meanwhile, the pharmaceutical, fruit, and entertainment sectors accounted for smaller proportions. This composition indicates that, on a daily basis, commercial activity in Gg. Waroeng is still dominated by trading activities taking place inside the building.

This differs from when Waroeng Semawis was held. Activities previously taking place in the buildings did not remain open during the festival. Most buildings that were active on weekdays closed during Waroeng Semawis. ongoing. On moment Which The same, Temporary culinary activities emerge on the street through the presence of vendors and stalls. These changes demonstrate that temporary activities not only add new types of activities but also influence the spatial occupancy patterns that have already developed in everyday situations.

Transformation of Space Function and Frontage

These changes in activity affect the function of the space in the corridor. In this condition weekdays, room road Gg. Food stall It is primarily used as a one-way vehicle circulation route, supporting business parking, and access to the building. Commercial activities take place in the building, with the frontage area serving as a transitional space and supporting business activities. Therefore, the use of the space under daily conditions is crucial. -days show a relatively strong relationship between building activity and street space.

When Waroeng Semawis is running, the function road space experience change. Access closure vehicle allows room road used for temporary culinary activities, visitor movement, and a dining area. The frontage area also underwent changes in use through the placement of tents, tables, and supporting facilities. Spaces that previously functioned as supporting building activities have now become a direct part of festival activities. These changes demonstrate that the street and frontage spaces have the capacity to accommodate a variety of activities. For operate function Which varies depending on the time and activity taking place. In this context, the transformation that occurred in Gg. Waroeng was not a permanent physical change, but rather a change in the function and way the space was used. corridor functioned during activity day work or temporary in progress.

CONCLUSION

Based on the results of the research implementation, it was concluded that the Gg. Waroeng corridor demonstrated changes in spatial utilization patterns between permanent activities on weekdays and temporary activities on weekends. Under everyday conditions, trading activities primarily occurred within buildings, while the street space and building

frontages functioned as supporting areas for these activities. During Waroeng Semawis, some activities shifted into the street space through the presence of temporary culinary vendors, dining activities, pedestrian movement, and social interactions. This condition indicated a change in the orientation of spatial use, from building-oriented activities during everyday conditions to more street-oriented activities when temporary events took place. The changes experienced by the Gg. Waroeng corridor did not merely indicate an increase in temporary activities but also reflected transformations in street functions, building utilization, and the relationship between buildings and street spaces. Temporary activities within the Gg. Waroeng corridor remained primarily concentrated in the street space and frontage areas, while some buildings that were active under everyday conditions did not participate during the festival and functioned mainly as background elements.

These findings demonstrated that temporary activities played an important role in shaping the dynamics and transformation of space within the heritage corridor. Although Waroerng Semawis increased the intensity of street space utilization and created a public space character that differed from everyday conditions, its presence had not fully established a connection between temporary activities and the buildings along the corridor. This difference indicated that temporal transformation in Gg. Waroeng occurred through temporary changes in spatial use but had not yet completely transformed the involvement of buildings as part of festival activities. Therefore, temporary activities can be understood as one of the factors shaping corridor spatial dynamics while also demonstrating differences in utilization patterns between permanent and temporary activities.

The implementation of temporary activities in Gg. Waroeng should further consider the relationship between street spaces, building frontages, and buildings as an integrated spatial system. Buildings that do not currently participate in festival activities could be encouraged to take a more active role in supporting temporary activities so that festival use is not concentrated only in street spaces and frontage areas. Such involvement may serve as a consideration in managing temporary activities within heritage corridors, ensuring that these activities not only generate short-term changes in spatial use but also strengthen the relationship between temporary activities and the spatial and architectural structures that shape the corridor's character. Future research should expand observations across multiple periods of Waroeng Semawis implementation and consider activity intensity and duration to obtain a deeper understanding of temporal spatial-use dynamics.

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