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Physical Transformation of Streetscape Post Urban Rejuvenation and Revitalization: Case of Banjarmasin's "Kota Lama"

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ABSTRACT

Streetscape plays a crucial role in shaping the visual identity of urban areas and supporting the function of public spaces as hubs for social interaction and creative economic activities. This study examines the physical transformation of streetscape elements in the "*Kota Lama (Old City)*" of Banjarmasin across three phases: pre-intervention (2015–2017), post-rejuvenation (2018–2020), and post-revitalization (2021–2023). Using Habraken's theory of Form, the Physical Order with its levels of intervention—support, infill, and treatments—this research employs qualitative methods, including literature review and visual documentation through Google Maps and Google Street View. The analysis focuses on streetscape components such as roads, building elements, and street furniture. Findings reveal that before intervention, the streetscape appeared basic and lacked regional identity. The rejuvenation phase brought aesthetic improvements through paving blocks, guiding blocks, signage, and the addition of furniture. The revitalization phase introduced more profound changes, including adaptive reuse of old shophouses, murals, creative signage, and rearranged façades, which collectively strengthened the area's visual identity. These transformations demonstrate a progression from support to infill and treatments, resulting in a dynamic, adaptive environment aligned with the socio-cultural needs of modern communities, particularly Generation Z. The study contributes theoretically to housing and settlement architecture and provides practical insights for sustainable urban rejuvenation and revitalization projects, highlighting the novelty of applying the levels of intervention framework to streetscape transformation.

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INTRODUCTION

In the global context, the rejuvenation and revitalization of urban areas is the main strategy in the development of regions or cities, especially those that carry the concept of tourism based on culture and history such as China (Khorasgani & Eskandar, 2024; Guo & Wang, 2024; Gu et al., 2022), in line with a study by Haas & Olsson (2014) which discussed that transformation in urban buildings and public spaces can increase local economic growth and provide a distinctive identity for the environment. In Indonesia, a similar trend has also grown rapidly in recent years as the public and tourists have increased interest in areas with the concept of "old town" or "heritage" buildings (Soewarno & Permata, 2019; Setiawati, 2020). Eckardt & AlSadaty (2023) found that the trend of transformation with this concept has also encouraged various initiatives, both by local governments and the private sector, to rejuvenate and revitalize previously neglected areas. "*Kota Lama (Old City)*" on Jalan Hasanuddin HM, Banjarmasin City is one of the areas that applies the same concept, by creating nostalgia and emotional connection with the city's history in its glory era from the 1960s to the 1990s, as well as making it an attractive urban public space for social interaction and economic sustainability for stakeholders.

The change or transformation in the "*Kota Lama (Old City)*" or "Bandarmasih Tempo Doeloe" area on Jalan Hasanuddin HM, Central Banjarmasin District as the center of

Banjarmasin City, occurs in line with the development of the power coffee shop business and culinary tourism attraction as a branding effort, which is in line with the discussion in the study by Glińska et al. (2021) and Ramlee et al. (2015). The initiation of the rejuvenation of the area in 2017 began with the opening of the first coffee shop on Jalan Hasanuddin HM, namely KOTALAMA KOFFIE, which became a pioneer in efforts to reuse and transfer the function of the building with the typology of shophouses (shop houses). Most of the shophouse buildings that stand along Jalan Hasanuddin HM, according to local news articles, have been abandoned as a result of declining business activities as well as changes to one-way road systems that reduce accessibility and visitor potential, which has also been found in similar cases in Malaysia in studies by Rashid & Heath (2022) and Saari et al. (2021). Some of the buildings have survived and have undergone changes in the configuration of the elements that form the space to the mass of the building that adjusts to the needs of the business owner alone.

The transformation of the "*Kota Lama (Old City)*" area not only brings new attractions to visitors but also creates a unique identity that combines the architecture of historic shophouse buildings with the needs of the coffee (drinking coffee) and hanging out (gathering) lifestyle by people from Generation Z or those born between 1997–2012 (Putra & Roostika, 2023). This trend coincides with the revitalization project planned by the local government since 2021 to revive the regional economy affected by large-scale social restrictions during the COVID-19 pandemic in Banjarmasin City. In line with the study by Yam & Ju (2016), this study is within the scope of housing and settlement studies, more specifically on the physical transformation of building objects with the typology of shophouses as well as the built environment and surrounding streetscape. As one of the generic types of urban housing and mixed-use buildings, shophouses often undergo a transformation of function and form according to the economic and social needs of the community (Tohiguchi & Chong, 2018; Hassan et al., 2022), and in this context, abandoned shophouse buildings and suboptimal urban spaces in the "*Kota Lama (Old City)*" area are converted into coffee shops, culinary places, and other commercial spaces that follow the lifestyle of modern society, especially Generation Z.

The contemporary global landscape of urban development has witnessed an unprecedented acceleration in heritage-based tourism and cultural revitalization projects, particularly in the post-COVID-19 era where cities seek to rebuild their economic foundations through creative economy initiatives. This phenomenon has become especially urgent as municipalities worldwide grapple with the dual challenges of economic recovery and the shifting preferences of younger generations, particularly Generation Z (born 1997–2012), who demonstrate distinct spatial and consumption behaviors compared to their predecessors (Putra & Roostika, 2023).

The urgency of understanding these transformations has been amplified by several converging factors. First, the COVID-19 pandemic fundamentally altered urban social dynamics, creating demand for outdoor, socially distanced spaces that can accommodate new patterns of social interaction while maintaining economic viability. Second, Generation Z's preference for experiential consumption, Instagram-worthy environments, and authentic cultural narratives has created new requirements for urban space design that traditional planning approaches may not adequately address. Third, the rapid digitalization of urban life has created opportunities for innovative documentation and analysis methods, enabling

researchers to track physical transformations through digital archives in ways previously impossible.

This research is expected to fill the gap that exists in the study of the physical transformation of streetscape after the rejuvenation and revitalization of urban areas. Based on the literature survey process that has been carried out, so far there has been no research that discusses the case of the "*Kota Lama (Old City)*" area of Jalan Hasanuddin HM, Banjarmasin City, especially with a theoretical approach to physical transformation and the level of intervention in the built environment. Previous studies tend to focus on urban rejuvenation and revitalization in general, without highlighting the specific forms of physical transformation in the streetscape element or its implications for tourism and the lifestyle of Generation Z people.

Bosselmann in "Urban Transformation: Understanding City Design" describes elements in urban areas that generally undergo changes or adjustments, including elements that form streetscape characters such as building facades, street furniture, pedestrian and circulation paths, vegetation and street landscapes, road and sidewalk pavement, as well as landmarks and regional identities. The main factors underlying changes in these elements are economic development triggered by trade and tourism, social trends and people's lifestyles, local government policies on regional planning and urban planning, and developments in construction technology and materials. The change of streetscape in the urban environment emphasizes not only the aesthetics of form, but also the function, circulation, and social interaction shaped by physical and socio-cultural aspects. According to studies by Wang and Shmelova-Nesterenk (2023) and Askari and Soltani (2022), studies that observe the design and process of physical change of streetscape are included in the scope of architectural and urban design research, especially in the design of building facades and other elements that shape the visual character of the area through an adaptive reuse approach such as in shophouse buildings in the "Old Town" area.

Habraken in "The Structure of the Ordinary" defines physical transformation as a continuous change produced by the interaction of various architectural elements in an urban context, and in the context of the streetscape, this change can be seen through changes in nominal classes, namely roads, building elements (building façade and streetscape signage), as well as furniture (street furniture and street décor) that reflect adjustments to the needs of the current generation of space users, especially Generation Z who tend to appreciate the aesthetics of public spaces for social interaction. Roads have changed along with the needs of mobility, the development of transportation technology, and changes in urbanization patterns, where roads not only function as transportation corridors but also reflect social and economic patterns in the surrounding area. Meanwhile, building elements undergo changes based on design needs, the development of material technology, the evolution of architectural styles, and involve adaptation to user needs and environmental efficiency.

Comparative analysis of similar heritage streetscape transformations reveals varying approaches and outcomes across different cultural contexts. In George Town, Penang, Malaysia, UNESCO World Heritage status drove comprehensive conservation efforts that balanced historical preservation with modern functionality (Ooi & Hardy, 2021). The Singapore shophouse conservation program demonstrated how regulatory frameworks could incentivize private investment in heritage preservation while accommodating contemporary business needs (Teo & Huang, 2019). In contrast, Bangkok's creative district development in

areas like Charoenkrung showcased more organic, community-driven transformation processes that emphasized authentic cultural expression over top-down planning interventions (Pongprasert & Torre, 2018).

However, existing applications of Habraken's levels of intervention theory have primarily focused on residential environments and building typologies, with limited exploration of its applicability to streetscape transformation in heritage tourism contexts. Previous studies utilizing this framework, such as those examining European urban renewal (Brand & Remøy, 2022) and North American neighborhood gentrification (Davidson & Lees, 2020), have not adequately addressed the unique challenges posed by tropical shophouse typologies, Southeast Asian urban morphologies, or the specific spatial preferences of Generation Z consumers.

Furniture is often redesigned or replaced to accommodate lifestyle changes, material technology developments, and interior design trends or cultural preferences at a certain time. In addition, Habraken introduced the concept of levels of intervention, which discusses how physical elements in the built environment can be managed at various levels. This concept is divided into three main components, namely support (permanent structural elements that form the basic framework of the built environment), infill (elements that can be adjusted or changed by the user based on needs), and treatments (aesthetic modification or surface of the space), which serves as a hierarchical approach to controlling and modifying the space according to the user's needs. From this concept, it can be highlighted the importance of distinguishing between elements that are permanent and elements that can be adjusted to create a dynamic and sustainable space.

Streetscape rearrangement interventions that make room for coffee shops, and even street furniture and landmarks, are strategies that facilitate social interaction, especially among Generation Z, who are synonymous with a lifestyle of coffee and hangout. Thus, it can be concluded that the transformation through the process of rejuvenation and revitalization becomes a solid theoretical foundation for understanding the physical changes of streetscape in this study. The position of this theory will help explain how the adaptation of building functions and the arrangement of public spaces can create sustainable tourist attractions and are relevant to the lifestyle trends of the younger generation.

The research novelty of this study lies in three distinct contributions that extend beyond existing scholarship. First, this represents the first systematic application of Habraken's levels of intervention framework to analyze streetscape transformation in a Southeast Asian heritage context, providing new insights into how this European-derived theory translates across cultural and climatic boundaries. While Habraken's theory has been extensively applied to residential environments and institutional buildings, its application to commercial heritage streetscapes represents an innovative theoretical extension. Second, this study pioneers the use of Google Street View temporal analysis as a primary data collection method for streetscape transformation research. Unlike traditional studies that rely on costly field surveys or limited archival photographs, this approach demonstrates how publicly available digital archives can provide comprehensive, longitudinal documentation of urban change processes. This methodological innovation offers significant implications for urban studies research in resource-constrained contexts. Third, the research addresses the specific phenomenon of Generation Z-driven commercial gentrification, a relatively unexplored aspect of urban

transformation studies. While existing gentrification literature focuses primarily on residential displacement or generic commercial revitalization, this study examines how the specific spatial and aesthetic preferences of a distinct generational cohort drive particular forms of physical transformation.

This study aims to analyze the physical transformation of streetscape elements in the "*Kota Lama (Old City)*" area of Jalan Hasanuddin HM, Banjarmasin City, through three main time phases in the process of rejuvenation and revitalization of the area. In particular, this study understands the transformation process based on the theory of physical transformation by Habraken, namely "Form, the Physical Order" through the concept of levels of intervention, in creating public spaces that are not only relevant but also sustainable for urban areas such as the "*Kota Lama (Old City)*" area. This research is expected to make an academic contribution by enriching the theory of physical transformation of urban areas. Practically, this research is useful to strengthen the potential of the "*Kota Lama (Old City)*" area in supporting the local economy and improving the quality of public spaces in a sustainable way, thereby creating a comfortable and relevant environment for visitors, especially Generation Z.

RESEARCH METHOD

This research adopted a descriptive purpose (Kumar, 2014) with a qualitative approach. It examined the physical transformation of the streetscape in the *Kota Lama* (Old City) area of Jalan Hasanuddin HM, using the concept of levels of intervention within physical transformation theory. The study employed a longitudinal design, comparing the streetscape conditions in three phases: pre-intervention, post-rejuvenation, and post-revitalization, to observe changes and the impact of these processes over time. The research focused on architectural aspects related to streetscape transformation in the context of culinary tourism and coffee shops supporting the lifestyle of Generation Z and other visitors.

The case study was the *Kota Lama* (Old City) area on Jalan Hasanuddin HM, Banjarmasin City, Central Banjarmasin District, South Kalimantan Province. According to the 2021-2041 Banjarmasin City RTRW Regional Regulation, the area's zoning includes commercial, residential, and public spaces, with an emphasis on trade and services supporting the creative economy and tourism sectors, especially along Jalan Hasanuddin HM. The space was dominated by old shophouse buildings converted into commercial uses such as coffee shops, restaurants, hawker stalls, and souvenir shops. Geographically, the *Kota Lama* (Old City) area is bordered by the Martapura River to the northeast. Significant transformations observed after rejuvenation and revitalization included vintage-style buildings, repaired roads and sidewalks with added street furniture, and landmarks like sculptures at the Jalan Hasanuddin HM roundabout and the *Kota Lama* (Old City) marker gate. For analysis, the area was divided into two segments: segment A, which includes the marker gate and KOTALAMA KOFFIE, and segment B, which includes a parking area. Urban elements with notable transformations during the three phases were the primary objects of observation in this study.



Figure 1. The Situation of the "*Kota Lama (Old City)*" Area of Jalan Hasanuddin HM.
Source: Author (2024)

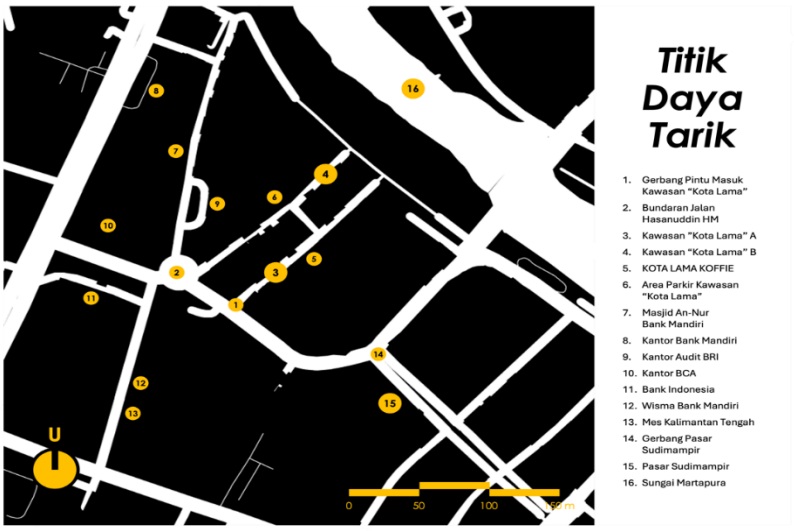


Figure 2. The point of attraction is around the "Old Town" area of Jalan Hasanuddin HM.
Source: Author (2024)

Data collection and analysis to discussion and conclusion of research were carried out throughout October to December 2024. The focus of this research includes changes in the shape and function of building facades, street furniture, land marking objects (sculptures and marker gates), as well as road pavement structures in the "*Kota Lama* (Old City)" area of Jalan Hasanuddin HM, Central Banjarmasin District as the center of Banjarmasin City, South Kalimantan Province, Indonesia. Research data is obtained from secondary data according to the ability and affordability to conduct research. Secondary data in this study included documentation or streetscape photos at certain points in the "Old City" area obtained in different time periods from Google Maps and Google Street View screenshots. Qualitative analysis is applied to interpret data obtained from documentation data or streetscape photographs in the "*Kota Lama* (Old City)" area, and then identified into a theoretical framework through relevant literature related to physical transformation theory. The data were

analyzed by identifying and interpreting the physical transformation of the streetscape as well as its relevance to the theory of physical transformation.

RESULTS AND DISCUSSION

The "*Kota Lama (Old City)*" area is a concrete form of urban areas that have undergone significant physical transformation due to gradual interventions, starting from collaborative initiations by creative economy actors, then continued with revitalization projects or programs by the Banjarmasin City Government with the Public Works and Public Housing Office. The initiation of the rejuvenation and revitalization project of the "*Kota Lama (Old City)*" area of Jalan Hasanuddin HM, Banjarmasin City includes the rearrangement of various *streetscape* elements such as building facades, street furniture, landmarks or *landmarks*, to road pavement, which directly creates a tourist destination area that meets the needs of community social interaction and invites creative economic activities. This study traces the physical transformation of *streetscape* in the area which is divided into three phases, namely the pre-intervention phase (2015-2017), the post-area rejuvenation phase (2018-2020), and the area revitalization phase (2021-2023). In addition, this study also observes the implications of interventions in public spaces within the scope of housing and settlements on the attractiveness and socio-economic dynamics of cities.

The first objective of this study is to observe changes in physical form and function in the *streetscape* of the "*Kota Lama (Old City)*" area of Jalan Hasanuddin HM, which includes building facades, street furniture, landmarking objects (*sculptures* and marker gates), as well as road pavement structures, in segment A and segment B.

Entrance Gate of the "Old Town" area

In the pre-intervention phase (2015-2017), it can be seen that the marker gate as the entrance to the "*Kota Lama (Old City)*" area still has a simple structure or form without additions or changes that define and the identity of the area as a culinary tourism attraction and coffee shop is strictly established. In the phase before the rejuvenation and revitalization of the area, it was seen that the marker gate only showed route access and the use of road space for the movement of vehicles across the old shophouse buildings in the area, without any specific aesthetic arrangement or identity of the area. Then in the post-rejuvenation phase of the area (2018-2020), the shape of the marker gate is still the same as in the previous phase and does not appear to provide a change in identity. In this phase the typical elements of the area are still not clearly visible, despite the arrangement of roads and vehicle parking within the "Old Town" Area, which is indicated by the "2 Wheel and 4 Wheel Parking" marker (located near the entrance to the area). Meanwhile, in the post-revitalization phase of the area (2021-2023), it can be seen that the marker gate has undergone more significant changes with the addition of visual elements and icons of the area through a board that reads "BANDARMASIH TEMPO DOELOE". In the revitalization phase, the marker gate shows the characteristics of the area and confirms that the "*Kota Lama (Old City)*" area has its own historical value or attraction.

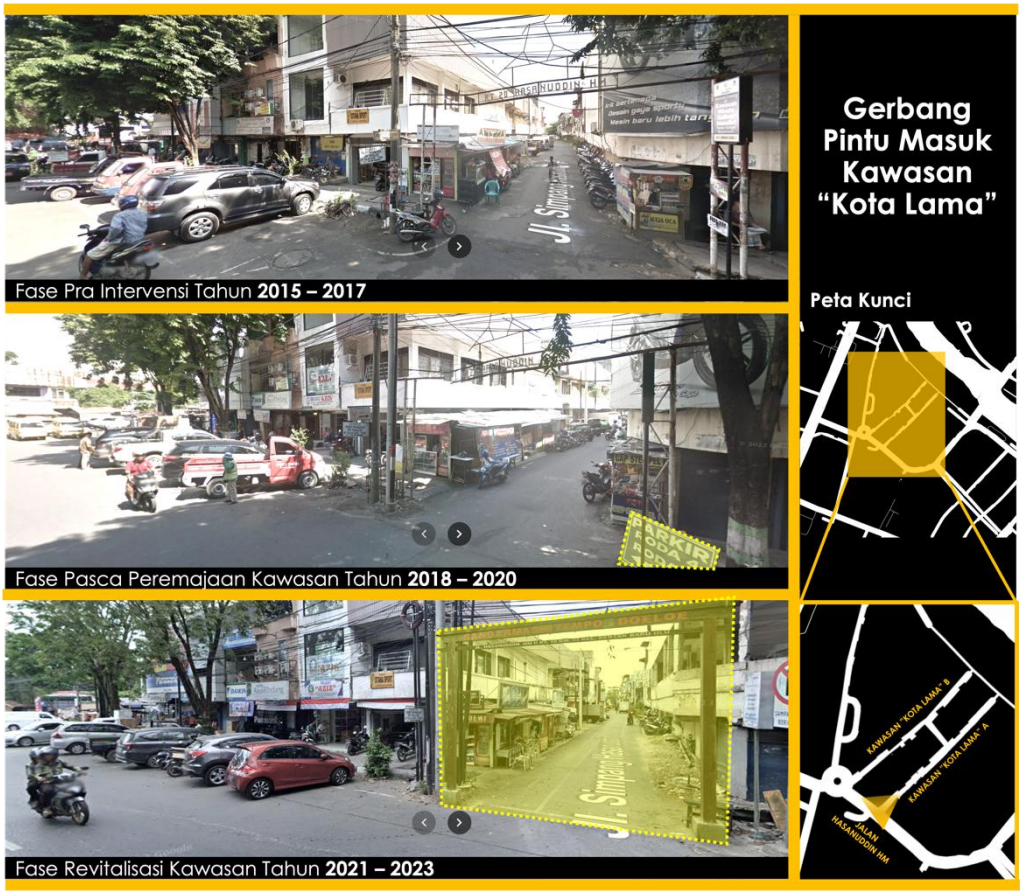


Figure 3. The stages of changing the marker gate in three phases or periods.
Source: Author (2024)

Sculpture of Jalan Hasanuddin HM Roundabout

In the pre-intervention phase (2015-2017), *the sculpture* located on the road roundabout was equipped with landscape elements such as vegetation and street lights with traditional ornaments, which showed the function of the city as a city greening area and traffic marker. In the phase before the rejuvenation and revitalization of the area, there was no affirmation of the city's land markings in the area, as well as the form *of sculpture* that was still less prominent as the identity of the area among the old buildings. Then, in the post-rejuvenation phase of the area (2018-2020) there were significant changes, namely the installation and *water fountain* in the middle of the roundabout, the rearrangement *of the grass softscape and* the hardscape *dak (stage) with painting, and the addition of stainless embossed letters written "BANJARMASIN BAIMAN" which were arranged around the* sculpture. In this phase, *water fountains* and stainless embossed letters not only add aesthetics but become a city identification element that can attract the attention of the public and tourists to take pictures. Meanwhile, in the post-revitalization phase of the area (2021-2023), *the water fountain* element was removed from the roundabout, and short shrub vegetation growing around it was visible, which showed a lack of maintenance and repair to the *sculpture*. The revitalization effort does not cover areas outside the "*Kota Lama (Old City)*" area such as the Jalan Hasanuddin HM roundabout, so that the deliberately removed elements result in *sculptures* appearing unprominent and reducing the

aesthetics of the area, but not becoming a visual barrier to the old buildings around the road and vehicle traffic.

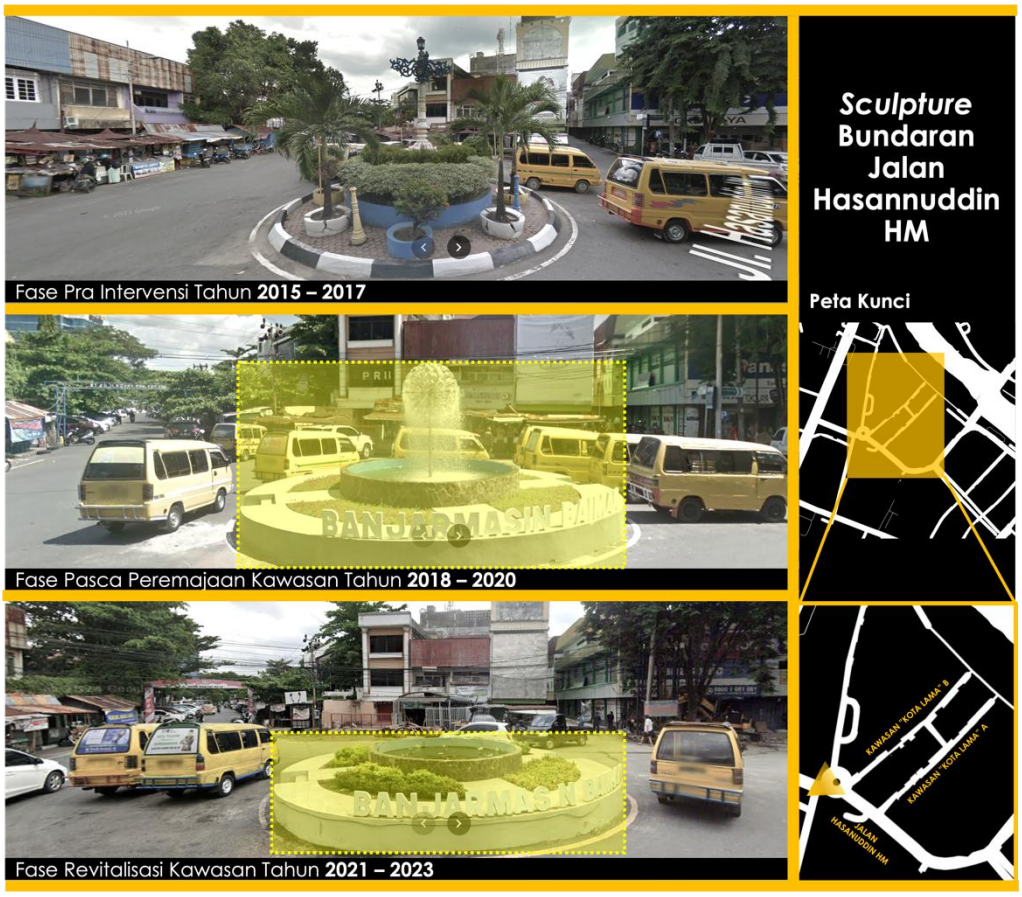


Figure 4. The stages of changing *the sculpture* at the roundabout.
Source: Author (2024)

Area Around KOTALAMA KOFFIE Coffee Shop

In the pre-intervention phase (2015-2017), the shophouse buildings along the road from the "*Kota Lama (Old City)*" Area marker gate look old and unmaintained, with the condition of paint on the walls that has begun to fade, as well as the road pavement structure that is just ordinary asphalt without street furniture that beautifies the space. In the phase before the rejuvenation and revitalization of the area, the simple architectural elements of the old shophouse buildings were only shown through harmonica doors and metal roofs that were straight to the wall. The KOTALAMA KOFFIE coffee shop was established in the post-rejuvenation phase of the area (2018-2020), by reusing one of the shophouse buildings in the area, with slight improvements to the façade, with the surrounding road pavement structure undergoing simple repairs. The coffee shop building is not equipped with clear signage elements, even though it has referred to the typology of the coffee shop building rather than a stall or a place to eat. Meanwhile, in the post-revitalization phase of the area (2021-2023), the KOTALAMA KOFFIE coffee shop and the surrounding coffee shops that started operating show a *shopfront* with a more contemporary/industrialist building façade design (such as *exposed cement walls*), as well as the addition of signage that stands out and attracts visitors,

although the buildings of some coffee shops still retain "*vintage*" elements to strengthen the atmosphere.*old town*". The results of the revitalization project are also seen in the road pavement structure which is visually improved using *paving blocks* with regular patterns to add visual value to the area and be more comfortable for pedestrians to pass.



Figure 5. Stages of change in the area around KOTALAMA KOFFIE.
Source: Author (2024)

Changes to Segment A of the "Old Town" Area

In the pre-intervention phase (2015-2017), the façade of the old shophouse building was obsolete where *storefront elements* such as harmonica doors and simple windows looked rusty and the paint color faded. In the phase before the rejuvenation and revitalization of the area, shophouse buildings (with simple and old architectural elements) gave the impression of being poorly maintained with *business signage* that was difficult for visitors and pedestrians to recognize, so that the façade did not display striking visual features. Then in the post-rejuvenation phase of the area (2018-2020), there were very minimal changes to the "Kedai SHINTA" dining place which used one of the old shophouse buildings with a little repair and repainting of the building. After this gradual rejuvenation initiation, not all shophouse buildings in the area were reused as coffee shops and eateries, so that wild vegetation grew on the roadside and piles of used furniture from the demolition of old buildings. The post-revitalization phase of the area (2021-2023) shows more significant changes to the old shophouse buildings with repainting and clearer *signage*, along with the operation of various

coffee shops and eateries in the "Old Town" area with the addition of chairs and tables outside the shop and chandeliers for lighting at night. One of the newly opened eateries since revitalization, "SANTAICHAN", has a contemporary façade design and shows the identity and type of business plus street furniture that allows visitors to sit and eat and interact in the street area.

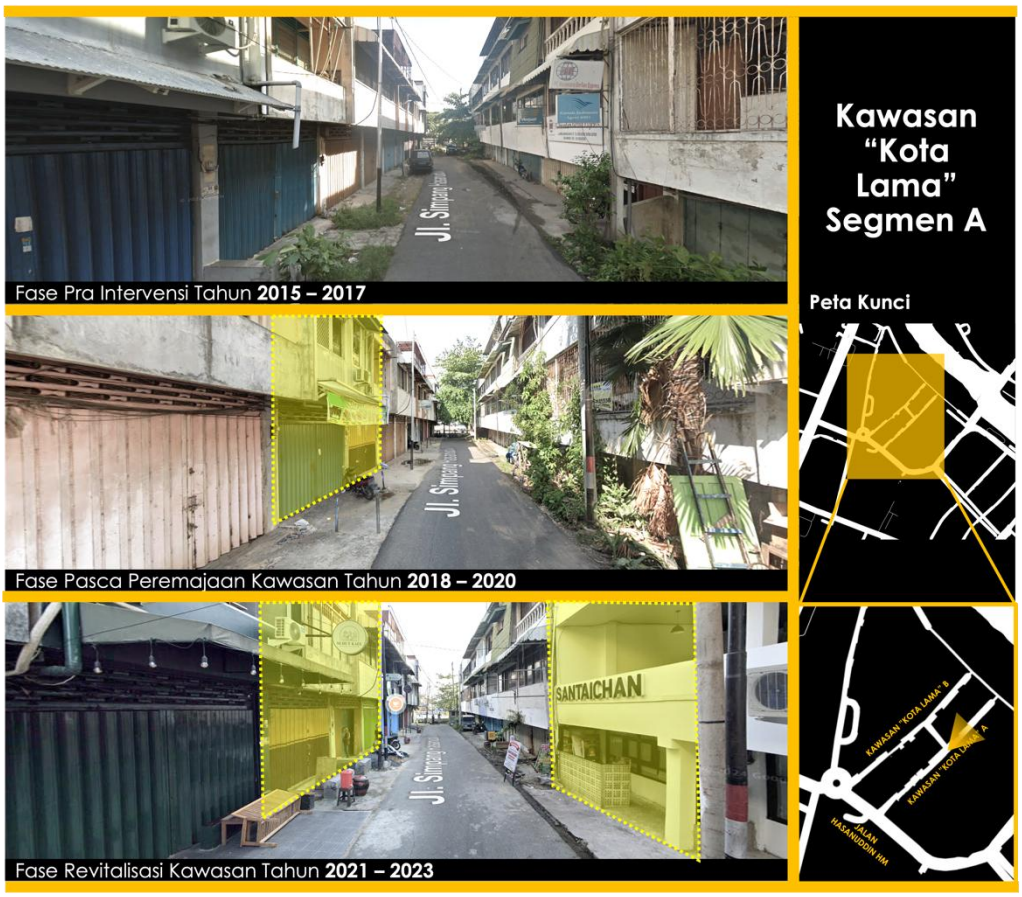


Figure 6. Stages of change in the "*Kota Lama (Old City)*" Area A.
Source: Author (2024)

Connecting Roads Between Segments of the "*Kota Lama (Old City)*" Area

In the pre-intervention phase (2015-2017), the walls of old shophouse buildings facing the small road connecting the segments seemed to be peeling off and tended to be dirty, and there were irregular graffiti or graffiti on the walls. The small road between the two buildings is just a cobblestone dirt and grass, with a simple pavement structure. Then in the post-rejuvenation phase of the area (2018-2020), there was an improvement in the structure of the connecting road pavement, which had used asphalt pavement to facilitate access, but there were no efforts to maintain and repaint the walls of the old shophouse building (which had not been converted) because there were more graffiti or graffiti. Meanwhile, in the post-revitalization phase of the area (2021-2023), the walls of old shophouse buildings next to the small road connecting the segments underwent significant changes, which were decorated with colorful murals and had a certain theme to liven up and attract pedestrians to cross between segments through this road and affirm the identity of the "*Kota Lama (Old City)*" area. In addition, road

pavement is also improved with the use of *neater paving blocks* and accompanied by *guiding blocks* on the side of the road to guide pedestrians, especially for the visually impaired.



Figure 7. Stages of changing the façade of the building and the structure of the road pavement.
Source: Author (2024)

Changes to Segment B of the "Old Town" Area

In the pre-intervention phase (2015-2017), old shophouse buildings that are obsolete do not have *storefront* or *signage* elements to show the existence of business activities along this segment, as well as open areas that should function as open spaces or parking lots in areas dominated by wild vegetation so that they look unmaintained. Then in the post-rejuvenation phase of the area (2018-2020), efforts were seen to clean some of the open area from wild vegetation for vehicle parking, but the façade of the old shophouse building did not undergo improvements to the *storefront* or the addition of *signage* as in the previous phase, which indicates that the old shophouse buildings in the segment are still not used for coffee shop and dining businesses. At the initiation of rejuvenation by the creative economy during the operation of KOTALAMA KOFFIE, the segment located northwest of the center of the area has not been planned as an expansion or part of the "Old Town" Area, so there are no significant changes to this segment. Meanwhile, in the post-revitalization phase of the area (2021-2023), a number of old shophouse buildings were reused as coffee shops and eateries with clearer *storefronts* and *signage*, as well as road pavement structures that use neat *paving blocks*

equipped with *guiding* blocks. In addition, there is a fairly large parking area on the side of the road as well as street furniture such as lampposts and seats.

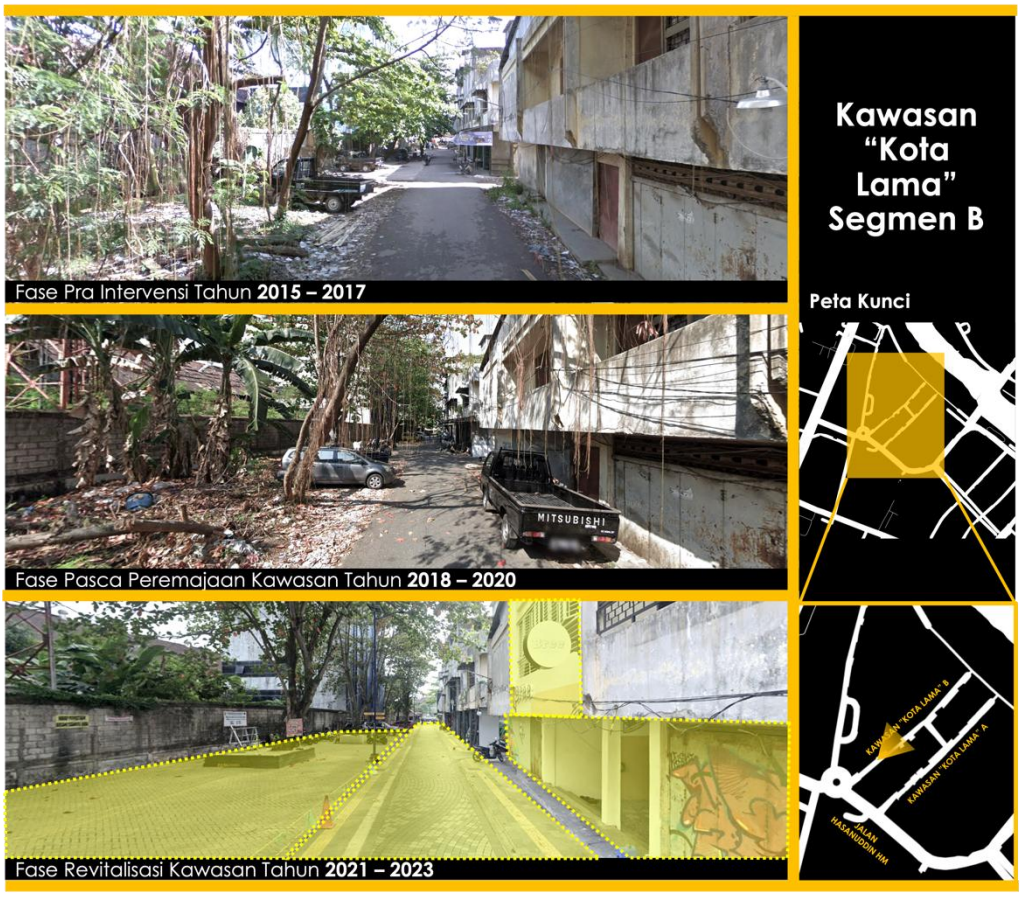


Figure 8. Stages of change in the "*Kota Lama (Old City)*" Area B.
Source: Author (2024)

Discussion

Based on the theory of "*Form, the Physical Order*" by Habraken, the transformation of urban physical elements can be observed through a *nominal class hierarchy* that includes street elements, buildings, and street furniture. In the context of the "*Kota Lama (Old City)*" area of Banjarmasin, this transformation process occurs in stages in three phases: pre-intervention (2015-2017), post-area rejuvenation (2018-2020), and post-area revitalization (2021-2023). The following analysis outlines the changes that occur in physical elements based on three main identifiable categories of *streetscapes* at the study site, including *roads*, *building elements* (focusing on *building facades* and *signage*), and *furniture*. In order to describe the process of physical transformation in more detail and systematically, this approach and analysis process also refers to the concept *of levels of intervention* described by Habraken, which is the level of change that includes permanent structures (*supports*), flexible elements (*infills*), and decorative elements (*treatments*).

Physical Transformation Roads

The theory of "*Form, the Physical Order*" by Habraken, highlights that the road is a physical element that becomes the basic infrastructure in the organization of the built

environment. Streets not only serve as physical links but also as public spaces that reflect social and cultural values.

In the pre-intervention phase (2015-2017), the road was only an ordinary asphalt structure that served the movement of vehicles without any additional aesthetic or functional considerations. Nothing is without additional patterns or elements that support pedestrian activities and reinforce the identity of the "Old Town" area. The function of the road is more focused on the movement of motor vehicles than as a space for social interaction. Based on the concept *of levels of intervention*, the road elements in this phase are included in the support category which is only a basic structure to support activities in the area.

Meanwhile, in the post-rejuvenation phase (2018-2020) there was a modest improvement in the pavement structure with more well-maintained asphalt, but it did not show the visual character of the area. In this phase, there is an improvement in the road pavement structure by replacing asphalt with *paving blocks* that are more aesthetically pleasing and friendly to pedestrians. The addition of *guiding blocks* began to be implemented, although it was not evenly distributed throughout the "*Kota Lama (Old City)*" area. Based on the concept *of levels of intervention*, changes in this phase tend to fall into the category of *infill* where road elements can be changed or adjusted to meet the needs of area users without changing the basic structure.

As for the revitalization phase (2021-2023), the application *of paving blocks* with regular patterns provides improved visual quality and pedestrian comfort. Elements such as *guiding blocks* were added to support accessibility, emphasizing the role of roads as inclusive public spaces, especially for the visually impaired. The connecting road between the segments is decorated with murals that reinforce the identity of the area and attract the attention of pedestrians. Based on the concept *of levels of intervention*, this mural element is included in the category *of treatments* in the form of decoration that enriches aesthetics without changing the main function of the physical element.

The analysis of physical transformation in *nominal classes* in the form *of roads* in the "*Kota Lama (Old City)*" area explains that there is a process of shifting the concept *of levels of intervention* of these elements, from *support* to *infill* and finally to *treatments* to enhance the experience of the space. It can be concluded that the change in the road shows that the elements that were originally categorized as *support* are improved by interventions in the form of *infill* and *treatments*, in creating public space tourist destinations that are adaptive and responsive to social needs.

Physical Transformation of Building Elements (Building Facade and Signage)

In Habraken's *theory of "*Form, the Physical Order", the *building façade* reflects the visual identity of the environment and plays an important role in the interaction between private and public spaces. *Signage* functions as an element of visual communication to convey the function or identity of the building. *Signage* was initially difficult to recognize, but after revitalization, *the signage* became clearer, more attractive, and highlighted the business identity that emphasized the character of the area as a tourist destination.

In the pre-intervention phase (2015-2017), old shophouse buildings in the "Old Town" area showed signs of obsolescence with faded paint and simple *storefront* elements (harmonica doors). Design efforts to reflect the character of the area are still not visible on the building's façade and *signage*. *The signage* on the shophouse building does not look prominent

and is difficult to recognize by visitors, and there are no *signage* elements that show the specific identity of the area. Based on the concept *of levels of intervention*, building facades and *signage* basically fall into the category of *infill*, which can then be changed in the next phase to create a new visual identity

Meanwhile, in the post-rejuvenation phase (2018-2020), the façade of the building began to be seen by repainting several shophouses. Coffee shops such as KOTALAMA KOFFIE began operating by utilizing old shophouse buildings that were repaired. The coffee shop has minimalist *signage* without prominent design elements. The physical transformation of *streetscapes* elements in this phase as a whole is still limited, where based on the concept *of levels of intervention*, there is an beginning (initial stage) of the intervention of the façade of the building in the "*infill*" category and *the signage* intervention in the *treatment category*.

As for the post-revitalization phase (2021-2023), there were changes or transformations to the façade of the renovated building with contemporary concepts and industrial design elements such as exposed cement walls. Some buildings retain *vintage* elements to maintain the "*tempo doeloe*" atmosphere. In addition, *signage* underwent significant changes with the use of larger, more attractive signage. *Signage* made of stainless embossed letters with the name of the area and the name of the business adds aesthetic value and makes it easier for visitors to recognize the place of business. Based on the concept *of levels of intervention*, changes to the façade of buildings and *signage* in this phase are included in the category *of treatments* that strengthen the visual character without changing the main structure of the building, in creating a more attractive spatial experience.

The analysis of physical transformation in *nominal classes* in the form of *building elements* in the "*Kota Lama (Old City)*" area shows that the transformation of the façade from *the infill* category to *treatments* creates the identity of the area through flexible and adaptive visual changes. *Signage* also acts as a physical element in the *treatment category* that can create an identity of the area that can be easily recognized and provide visual added value to the "*Kota Lama (Old City)*" area of Banjarmasin. The physical transformation of the building façade strengthens the visual identity elements relevant to the infill intervention category as elements that can be changed according to needs and *treatments*, which enrich the aesthetics without changing the basic structure, as well as *signage* in the *treatment category* that supports strengthening the character of the area in order to increase local tourist attraction.

Physical Transformation of Furniture (Street Furniture and Street Decor)

According to the theory of "*Form, the Physical Order*" by Habraken, *street furniture* and *decoration create* a direct interaction between the user of the space and the physical environment. This element provides comfort while enriching the visual and sensory experience.

In the pre-intervention phase (2015-2017), no prominent elements of street furniture were found. The street space is dominated by vehicles without sitting space or decorative elements that beautify the area. The "Old Town" area in this phase looks simple without any eye-catching decorative elements. Based on the concept *of levels of intervention*, street furniture elements are categorized as *infills* that can be changed and adjusted according to the needs of the user.

Then in the post-rejuvenation phase (2018-2020), the addition of street furniture began to be carried out, such as chairs and lampposts, as well as *a water fountain* at the Jalan Hasanuddin HM roundabout which is also an iconic element that attracts the attention of

visitors. The addition of decorative elements with stainless embossed letters written "BANJARMASIN BAIMAN" around the *water fountain* began to show efforts to beautify the "*Kota Lama (Old City)*" area. *Softscapes* such as ornamental plants are also starting to be seen in some areas. Based on the concept *of levels of intervention*, changes in this phase show a significant increase in street furniture with *the infill* category.

As for the post-revitalization phase (2021-2023), there was an increase with the addition of furniture such as benches outside coffee shops and decorative light poles with contemporary designs, in addition, there were information boards, flower pots, and hanging lights that created a more lively atmosphere and strengthened the identity of the "*Kota Lama (Old City)*" area of Banjarmasin. These two elements show the strengthening of the concept *of levels of intervention* in the *treatment* category to create a more attractive and comfortable area.

The analysis of *this nominal class* shows that the addition of street furniture shows how elements in the *infill category* can increase the comfort and attractiveness of the "*Kota Lama (Old City)*" area within the city of Banjarmasin, which can be adjusted without changing the basic structure. In addition, *street décor* as an element in the *treatment category* is able to strengthen the visual identity of the area and provide a dynamic public space experience that is relevant to social and cultural needs.

The physical transformation *of streetscape* in the "*Kota Lama (Old City)*" area of Banjarmasin showed a significant gradual process in the three phases of intervention. Habraken's theoretical approach to "*Form, the Physical Order*" shows how physical elements such as *roads*, *building elements*, and *furniture* undergo changes in their structure and function. This transformation not only improves the aesthetics of the area but also supports social interaction and creative economic activities, strengthening the region's identity as a tourist attraction and a comfortable public space. The use of the concept *of levels of intervention*, including the categories *of support*, *infill*, and *treatments* from Habraken, also provides a consistent analytical framework in understanding the changes that occur, in the context of interventions or efforts to rejuvenate and revitalize the "*Kota Lama (Old City)*" area of Banjarmasin. The relationship and changes in the physical elements in the "*Kota Lama (Old City)*" area of Banjarmasin based on the three *main nominal classes* and *the level of intervention* from the theory of "*Form, the Physical Order*" by Habraken, are described and summarized in the following table.

Table 1. Physical Transformation Matrix *of Streetscape "Kota Lama (Old City)"* Banjarmasin

Nominal Classes	***Level of Intervention* (Habraken, 2000)**		
	Phase So Interventions (2015-2017)	**Phase Post-Rejuvenation (2018-2020)**	**Phase Post-Revitalization (2021-2023)**
Roads	***Support*** Asphalt pavement without patterns or additional elements	***Infill*** Replacement of asphalt into *paving blocks* with *guiding blocks*	***Treatments*** Use *of patterned paving blocks and* additional murals
Building Elements	***Infill*** The façade of an old shophouse building,	***Infill*** *Repainting of* shophouse buildings	***Treatments***

	without a visual identity	and operation of coffee shop business	Shophouse building façade design with *contemporary signage*
Furniture	***Infill*** No street *furniture* and *interesting street décor*	***Infill*** Addition of chairs, light poles, and *water fountains*	***Treatments*** Addition of chairs, tables, flower pots and hanging series lamps

Source: Author's Analysis (2024)

CONCLUSION

The physical transformation of streetscape in the "*Kota Lama (Old City)*" area of Banjarmasin through three phases of intervention (pre-intervention 2015–2017, post-rejuvenation 2018–2020, and post-revitalization 2021–2023) showed significant improvements in aesthetics, function, circulation, and social interaction, with the application of the theory of Form, the Physical Order (Habraken) and the concept of levels of intervention (support, infill, treatments) that maintain the historical character of the area while being adaptive to the needs of modern society. especially Generation Z. Physical changes in roads, building elements, and street furniture strengthen the identity of the region and create a more inclusive, aesthetic, and functional public space. This research emphasizes the importance of community-based design approaches and sustainable management to strengthen historical identity, support tourist attractions, and encourage creative economy activities. The implications for residential and residential architecture, especially the typology of shophouses, show that the concept of support, infill, and treatments can improve comfort, local identity, and social interaction in the residential environment. Further research is suggested to deepen socio-cultural aspects, assess the economic impact of revitalization on local businesses, and explore the role of digital technology in enriching the experience of public spaces with broader integration of qualitative and quantitative data.

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