

## **Impact and Role of the Public Realm in Creating More Socially Cohesive Communities: A Case Study of Urban Pattern in Almaty, Kazakhstan**

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### **ABSTRACT**

Over the last three decades, there has been a notable transformation in urban growth patterns in Kazakhstan's large cities, particularly in Almaty. While this can be traced back to market-oriented planning agendas, the increasing fragmentation of the public realm in cities can be linked to the recent residential development projects. The rise of these projects in post-Soviet neighbourhoods is often criticised due to their typology, as developers create them as gated communities. These patterns' socio and spatial fragmentation is associated with fewer opportunities for social interaction between Soviet neighbourhoods and the more recent exclusive communities. Therefore, this paper investigates the key issues present in the urban patterns of Almaty city that can hinder the creation of a more cohesive society. It presents a case study of other Soviet-developed neighbourhoods with similar development patterns. The study's methodology includes morphological mapping, observation of the use of the public realm and a survey of residents to support the findings. The investigation focuses on one of the typical urban patterns of mixed-use Soviet neighbourhoods and recent urban residential blocks, where an opportunity lies for perspective communities. The research reveals a lack of social cohesion between local communities due to mono-

functional land use, poor permeability and accessibility that fragmented the city into closed neighbourhoods. The research dives into the core issues of Soviet and post-Soviet urban morphology's outcomes in the public realm and the impact on social life in these neighbourhoods.

*Keywords:* Almaty, development projects, public realm, social cohesion, urban pattern

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## INTRODUCTION

Kazakhstan's large cities have undergone significant urban transformation over the past three decades, with changes in the urban planning system from the Soviet to the post-Soviet era. Recently, Almaty City, often described as the financial capital of Kazakhstan, has experienced a surge in newly developed large residential projects. In parallel, concerns are rising about how these investment-oriented developments in these large cities address the social cohesion between the newly formed communities and the existing ones living in the surrounding neighbourhoods built during the Soviet period. Urban transformation and new development projects have become a stage of tensions between the interests of the different social, political, and economic groups (Powell, 2011). Brenner et al. (2010) state that most global 'high-class' and 'business-class' development projects aim to sustain investment-oriented agendas that allow profit-driven parties to park investments for further market and sale purposes in large cities. Despite the 'world-class' image of development projects, tensions in creating more socially cohesive communities increase between existing communities and potential owners of real estate (Ghertner, 2015). Such projects result in fragmented urban areas with exclusive residential blocks, creating a divide between the new and old neighbourhoods, both spatially and socially. Inam (2014) claims this has intensified criticism of those involved in these processes, including developers, local authorities and traditional

practitioners globally. Tonkiss (2013) proposes carefully considering the public realm to address this as it can improve social cohesion in these areas.

While notions of sustainable communities and the phenomenon of exclusive and gated communities are widely discussed in academic research, including urban planning management, development processes and the economic effect of new development projects, there is still limited investigation into the role of the public realm in urban morphology. In particular, it can bridge the divide between segregated metropolitan areas within the context of recent development projects built in existing urban Soviet neighbourhoods. Whereas market-led ideologies have already shaped many urban developments in Almaty city since the 1990s, one of the urban patterns provides a unique opportunity to analyse the public realm outcomes through the lens of a socially cohesive community.

This study aims to provide a more comprehensive urban design assessment for what allows for a "socially cohesive community" to be formed, focusing on two neighbourhoods in Almaty. The research will examine the notion of "cohesive community" concerning urban design transformation and its outcomes in Almaty's public realm. It will be explored through three main research questions. Firstly, is the selected site fragmented into different disconnected communities, and what is the core issue of such urban transformations? Furthermore, is the public realm of recent post-Soviet neighbourhoods and

communities open to the urban context of the Soviet period? Thirdly, what value does it bring to local communities regarding social cohesion? The research aspires to extend the knowledge about the role of the public realm in enhancing social cohesion in diverse neighbourhoods. The findings could help urban designers, local communities, and authorities understand how implementing urban changes transforms areas and how these can be best applied to create more inclusive neighbourhoods, both socially and spatially.

### **Theoretical Framework**

**Closed/Open Community.** In urban research and studies, a correlation between the physical design of cities and the nature of communities residing within them has long been established. Historically, the Charter of Athens Manifesto was one of the most prominent texts that popularised the notion that the physical design of cities can help achieve a more humane, healthy, and liveable urban environment. Urbanists developed it as a response to physical decay and social inequalities in the towns of that time. However, these urban planning principles resulted in modernist zoning and overdetermination that failed to provide suitable solutions and increasingly emphasised the need to understand urban patterns that can create liveable environments (Jacobs & Appleyard, 1987). In the 1980s, they proposed an urban manifesto that is still applied nowadays in large cities. Kozhakhmetov and Abilov (2022) criticise such urban

planning approaches for concerning only problems and overlooking the social or physical aspects of those urban patterns that local people often put more value on. The criticism arises from the observation that these planning principles have led to the emergence of isolated districts in large cities, homogeneous communities, large-scale urban blocks and patterns that hinder social exchange (Carvalho & Netto, 2022). As a result, these urban patterns have become less adaptive in most cases, diminishing their ability to evolve into socially cohesive and liveable communities.

King's Cross Regeneration is a relevant precedent of a privately owned public realm developed by the King's Cross Partnership (KCP) investment company (Hallsworth & Stephenson, 2010). In 1996, the establishment of KCP aimed to support its stakeholders, including London and Continental Railways and Royaltrack, in the urban revitalisation of Camden and Islington Boroughs, operating within the framework of the Single Regeneration Budget. In 2000, Argent was chosen as the developer of the King's Cross Regeneration project (Madelin & Porphyrios, 2008). This regeneration project covers an area of 27 hectares and was estimated to cost a total of £3 billion at completion (Bishop & Williams, 2016). Currently completed and in operation, it is entirely privately owned and managed. These include parks, streets, open spaces and courtyards within the site (Imrie, 2009). Initially, Argent-St (2001) promised that "the public realm will underpin the success of these land uses". Although the

area was identified as an “Opportunity Area,” meaning a significant location with development opportunities, Camden Council (2004) claimed that their goal was “to avoid the development of an exclusive ‘ghetto’...we want to see and create a balanced and successful development” (p.8). Despite the developer carrying consultations and negotiating with 7500 different people from different interested parties and the existing local communities (Moore, 2014), Edwards (2009) asserts that the project did not live up to its ambitions. He claims that the public realm “are supervised and regulated spaces for consumption” with strict guidelines, with examples of visitors being ejected by security staff.

Inam (2022) points out that allowing individuals or collectives access to a public realm where they can exert some sense of ownership can promote social cohesion in the communities occupying those spaces. Accessible public spaces encourage diverse social groups to participate in community and public life (Talen & Sungduck, 2018). On an urban level, elements of urban form such as mixed land use, high-dense urban developments, and diversity of everyday facilities have enhanced social exchange (Wilson, 2005). In terms of the physical characteristics of the public realm that promote the creation of cohesive communities, these include safe and clean streets, accessible and permeable to all neighbourhoods mainly for pedestrians, and facilities with a night-time economy that sustains liveable streets, providing “eyes on streets”, hence a sense of security. However,

it is essential to note that these physical spatial requirements do not guarantee success in achieving open communities without community involvement in urban transformation processes. Balestrieri (2013) reinforces the idea of community participation as key to achieving a public realm that serves local communities, as this needs to be emphasised in how stakeholders deal with “the concept of power as responsibility, but also transparency, retraceability and participation in decision-making” (p.57).

It is essential to understand that cities are rapidly changing, not only in size and expansion but also due to changing demographics with diverse cultural and socioeconomic groups. Sennett (2010) asserts that the population of large cities grows whereas the urban fabric expands. He advocates for cities to be more open, not only socially but also spatially, with physical interventions in urban contexts. Sennett (2010) highlights the importance of a public realm at the edges between different urban neighbourhoods and development projects. These can create bridges on the edges of other communities, giving opportunities to residents for chance encounters and social exchange, especially to people from different social backgrounds, while making them more cohesive (Talen & Sungduck, 2018). Thus, socially cohesive communities could be envisioned as open societies that allow for social communication between neighbourhoods, where the public realm plays a crucial role in allowing these processes to emerge.

### **Community and Public Realm.**

Contemporary cities represent a diverse social mix in various forms of difference and the relationship between these people, groups and communities (Young, 2010). Consequently, all the opportunities to engage people and sustain relations between different people lay in the public realm. There is a distinction between public space and the public realm. Spatially, politically and socially, we think of public space in the city as bounded and defined spaces such as squares, plazas, courtyards, and parks. The public realm, on the other hand, consists of interconnected spatial networks that include these public spaces intertwined with political structures but reach beyond to include mundane and widely utilised spaces like sidewalks and paths created by the movement of people (Inam, 2022).

Moreover, Lofland (2017) claims that a public realm has not only geography but also history and culture, such as ethical and behavioural norms and values, as well as different kinds of relationships among its participants, including positive and negative. All aspects of the public realm are what cities represent currently. Inam (2022) states that the public realm's performative role is vital for providing accessible activities to individuals and communities. Furthermore, the public realm's key role is to increase chances for strangers to meet each other there (Sennett, 2010). He argues for designing the public realm as a process rather than a complete form of architectural and urban objects. It is because, in an open community, the public

realm could be colonisable by diverse social groups to dwell without differences.

While Middleton (2008) points out that the social exchanges in a public realm are verbal and visual, Young (2010) claims that a public realm starts to perform when citizens appear and meet each other. These forms of interaction could be expressed by appreciation, entertaining each other, communicating, and engaging different cultures and individuals (Middleton, 2008). Talen and Sungduck (2018) highlight the importance of social diversity in terms of social status or race and age, cultural, and interest differences. Moreover, the public realm does not necessarily work to acquaint strangers. Still, it allows them to gather around different interests and facilities in the public realm while improving ties within society (Felder, 2020). Klinenberg (2016) claims that children are more open to social interaction through playing in a playground while creating ties for them and their parents. Consequently, parents with diverse backgrounds choose what to share with other participants of an open community, creating new social ties and improving social exchange and interaction while preserving segregation between communities (O'Brien et al., 2000). These third places, such as streets, alleys, boulevards, squares, and parks, not only provide physical ground but they help to improve community building and impact the perception of their quality of life (Jeffres et al., 2009). Overall, the public realm concept should be designed to be comfortable spatially for all citizens to allow different social ties.

A socially cohesive public realm emerges in districts with active public realm life. Firstly, socially active public realms are well-connected and accessible to other streets while creating flows of people there, providing eyes on streets, especially tonight (Jacobs, 1961). The psychological feeling of safety strengthens in districts with well-lighted streets guarded by CCTV cameras and in a socially active public realm. Secondly, Dovey and Pafka (2018) claim that urban patterns with overlapped functions tend to be socially active. Liveable public realms could not be active without facilities and a functional mix of the district and ground night-time economy (Dovey & Pafka). The night-time economy helps to sustain eyes on streets

and daily use facilities that attract people to walk there (Minton, 2012). Thus, the vitality of daily facilities people use is critical. Thirdly, the priority of walkable streets is vital in liveable communities because, according to Aelbrecht and Stevens (2019), walkable streets intensify social life in neighbourhoods, making them more secure while creating ties between participants and improving social cohesion. The meaning of a socially cohesive community in the paper is essential to analyse the public realm and urban patterns of Soviet and post-Soviet neighbourhoods on a small scale, which respond to large-scale urban issues with analogical backgrounds in relation to a functional mix analysis shown in Figure 1.

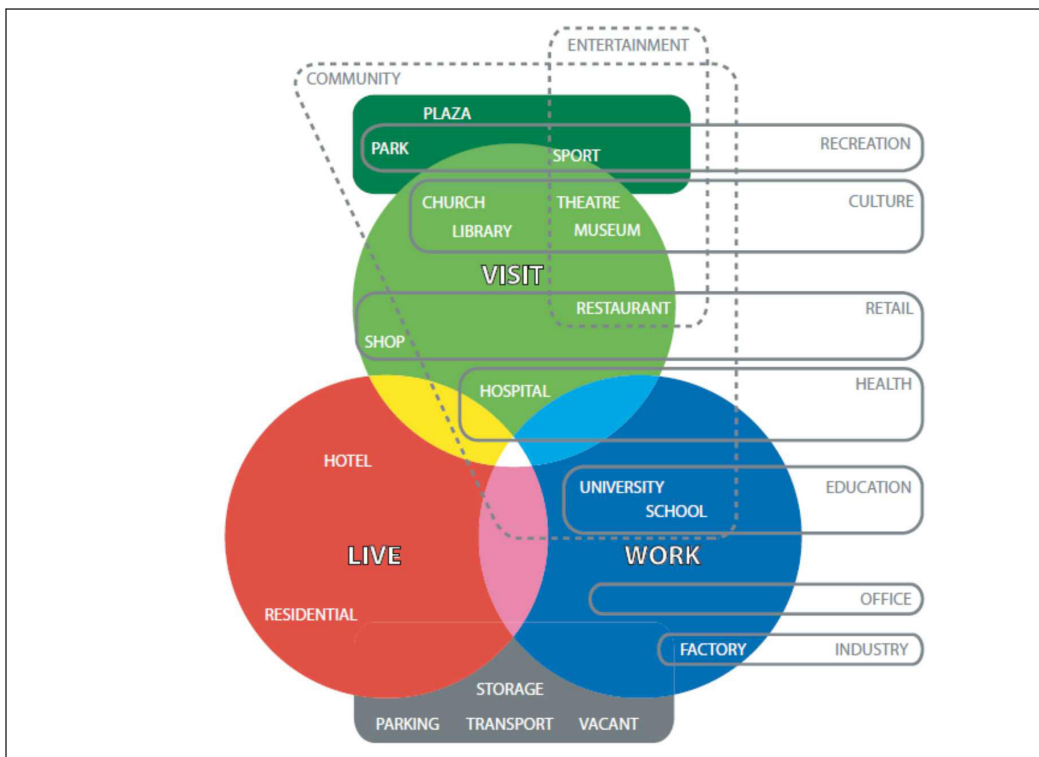


Figure 1. Overlapping functional mix triangle (adapted from Dovey and Pafka, 2018)

## METHODOLOGY

The methodological approach applied in the study is based on both the analysis of the urban context and theoretical concepts. Context analysis includes the analysis of the selected site and its urban morphology, observations, photography, and a survey. The morphological mapping is used to analyse land use, everyday facilities, functional mix, and housing height and age of the urban area. The site analysis includes observation of sports and kids' activity facilities, greenery, and night-time safety within the area's public realm. Theoretical concepts are based on a theoretical framework of urban design scholars, such as Jacobs (1987), Inam (2022), Felder (2020), Middleton (2008), and Talen and Sungduck (2018), illustrated in Figure 2.

The morphological mapping of the study area is a tool used to respond to the research questions through visual representation of an urban form. Dovey and Ristic (2015) suggest that morphological mapping helps to produce new ways of seeing, understanding, planning and designing the city. According to Soviet-based local urban planning regulations (Maloyan, 2004), mapping and analysing land use allows the visualisation of the site's division into different areas, such as residential, industrial, administrative, and recreational. The everyday facility analysis complements the land use map by highlighting active zones within the areas. The active zones show where potentially high flows of people are located or can emerge. As Jacobs (1961) particularly

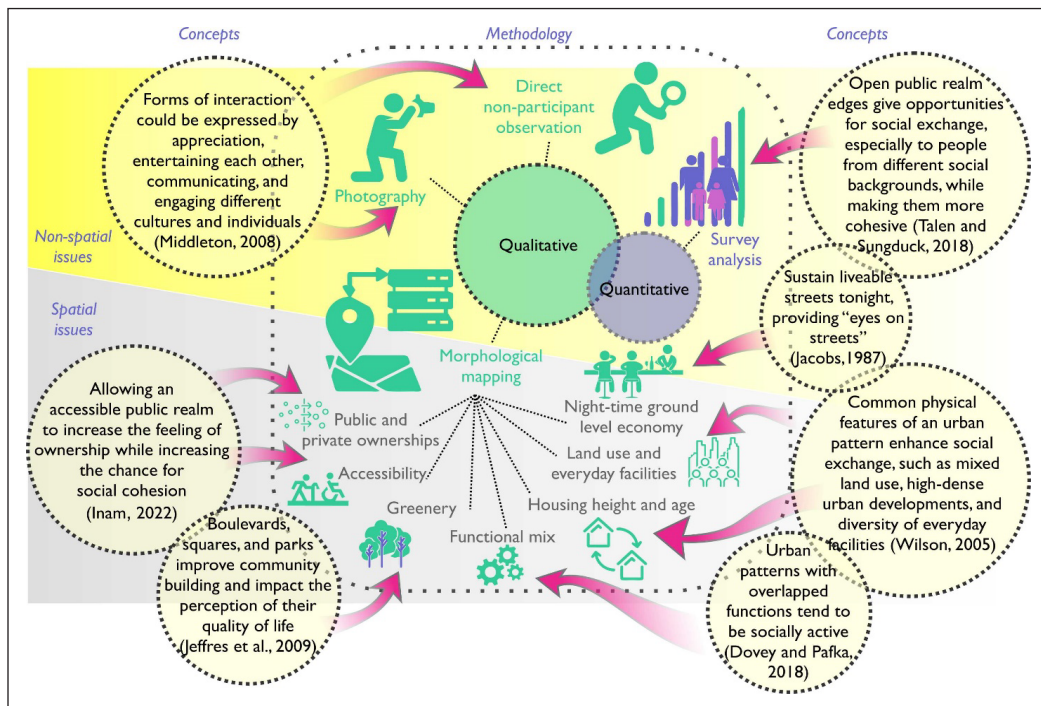


Figure 2. Framework for the relation between theoretical concepts and research methodology

highlights, local small shops, cafes and daily visit spots often serve as a stage for social exchange and interactions. The analysis of housing age and building height illustrates the contrast between Soviet and post-Soviet urban forms. The construction of functional mix analysis is adapted and based on the overlapping functional mix triangle (Dovey & Pafka, 2018).

The analysis of greenery in Soviet neighbourhoods and post-Soviet areas aims to show the environmental quality of public realms. Wood et al. (2017) highlight the vitality of the ecological quality of an urban space in attracting local communities to use it. Analysis of public and private ownership mapping in the public realm concerning its accessibility is adapted from Pafka and Dovey (2017) to demonstrate the site's fragmentation and cohesion between different communities within the study area. Analysis of playgrounds and sports facilities are designed to illustrate potential vital areas that might allow social exchange between diverse communities (Felder, 2020). Night-time ground economy analysis complements Jacobs's (1987) theory of providing "eyes on streets," specifically during late hours. Local communities' perception of a public realm will be analysed through the lens of a cohesive community to support the other investigative methods, as residents have personal experiences of the public realm as they inhabit it for extended periods. Additionally, the use of the public realm will be studied with non-participant observation and photography. This method will provide insight into how the spaces are

used: the selected site's streets, courtyards, playgrounds, and pathways.

The anonymous survey method collects the locals' responses to compare and sustain the results of morphological mapping and observations. The survey framework is based on the questionnaire principles of Abilov (2015) to show the contrast between Soviet and post-Soviet neighbourhoods and their use of the public realm. According to calculations through 2GIS, the selected residential development Baytal and Soviet housing blocks are occupied by approximately 1120 residents. Due to time limitations, the survey was conducted from 2021 October 20 to 2022 April 22. Authors could reach local communities by visiting the site and directly communicating with residents. However, the filled questionnaires were mainly received via WhatsApp chats of residents. Overall, 50 filled questionnaires were received, representing 5% of the total residents, the recommended minimum for generalising results within the study constraints. Due to ethical considerations, limitations included communication and discussions with psychologically vulnerable and underage community groups.

All survey points are designed to respond to the research questions. First, satisfaction with living conditions will demonstrate which neighbourhood is comfortable overall in terms of apartments and housing. Secondly, the average frequency of using everyday facilities in the residents' living blocks or residential development and neighbourhood communities per month will help to identify the active zones and support functional mix



mappings. Gaging the residents' experiences with difficulties accessing a public realm within the selected study will allow us to study if the neighbourhoods are spatially cohesive. It will be complemented by public and private ownership and accessibility mapping. Satisfaction with public realm facilities such as landscaping, playgrounds, sports equipment and greenery reveals if the public realm is welcoming to use. Thirdly, the question of how residents experience night-time walks will help to gain insight into the sense of security in the public realm, as per Jacobs's theory (1987) of having "eyes on streets". Finally, the frequency of interaction with neighbours and strangers within a residential development or standard courtyard blocks and respondents' feeling of open community will illustrate how far Soviet and post-Soviet communities are cohesive.

## RESEARCH BACKGROUND

Historically, Kazakhstan had the status of a satellite country in the hierarchical economic system of the Soviet Union, with priority to particular forms of industry or other economic drivers up to the 1990s. As a result, most towns in satellite countries were designed with a similar approach, ignoring regional and local identities. In such a rigid system, urban planning principles applied an approach to the functional division of cities by dividing them into different zones, e.g., residential, industrial, and recreational areas (Maloyan, 2002). Cities were separated into spatial units comprising "micro-districts" within a designated area. A typical micro-

district was functionally divided into apartment building blocks, a school, a kindergarten, and service businesses along primary highways (Sarzhonov & Schurch, 2023). However, the functional zoning within micro-districts did not provide a functional mix within the building blocks. For example, instead of small shops next door on the ground floor, there were only large shopping centres for several micro-districts. Although these micro-districts were designed to be accessible and permeable as open neighbourhoods, their urban design layouts replicated typical blocks, disregarding street life vitality and ground floor economy. In contrast, the post-Soviet areas were designed as high-rise and high-density blocks with commercial facilities. However, almost all post-Soviet neighbourhoods are designed as gated and fenced neighbourhoods.

Almaty is one of the highly urbanised historical cities in Kazakhstan. The city is considered the economic and financial capital of the country. The indicator of the gross regional product demonstrated high numbers, which is approximately 11% of the whole republic (Alibekova et al., 2018). While the city's urban pattern has been evolving since the mid-19th century, the city rapidly expanded during the Soviet Union era (Khodzhikov et al., 2022). Urban transformations were possible due to precast typical building blocks replicated in urban brownfields (Zhunussov, 2019). The selected research site was partially developed in the 1970s, close to a university established as a new educational core of the area (Figure 3).

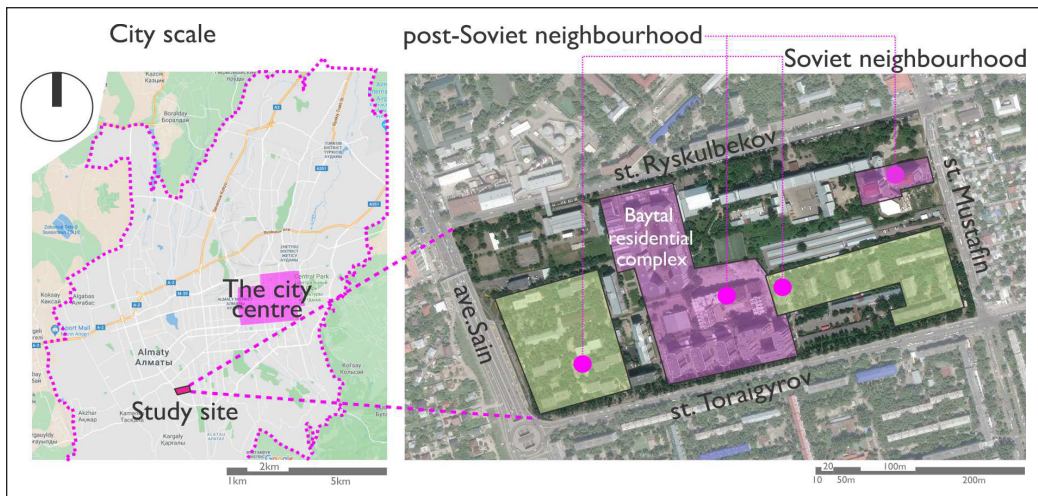


Figure 3. Location of the selected study area (adapted from Google, 2022)

The investigation area is on Almaty's southwest side. The selected area is part of the "bedroom communities" west of Almaty. The area has been transformed into a mix of typical Soviet Union housing blocks and post-Soviet contemporary residential developments. The study focuses on these two neighbourhoods on the site. Firstly, the recent residential blocks, such as Baytal, are considered a market-oriented development project. Secondly, the Soviet neighbourhood demonstrates a regional urban pattern due to its historical context. The site sits in a fragmented urban context with diverse local communities. These differences make the selected site valuable for studying outcomes of Soviet and post-Soviet urban design principles.

## FINDINGS OF THE STUDY

The selected site analysis represents a test bed for urban transformations and outcomes in the public realm. It is critical to investigate the area in depth to understand

the consequences of urban modifications, as all physical interventions in a public realm are layered and should be studied separately through the lens of an open and closed community and the notion of a cohesive community. The study's results represent current urban challenges that can be found in similar metropolitan areas with similar growth and expansion patterns and hence be applied to different urban contexts. The findings reveal existing urban planning issues of land use and everyday facilities, building heights, housing age, functional mix, greenery, children's playgrounds and sports facilities, accessibility and permeability, public and private ownership, night-time safety, and night-time ground economy.

The land use analysis illustrates that 43% of the area is residential, although three main spots have educational facilities, such as private universities and schools. For example, in 2014, the university owners sold the football field to a property company to

build Baytal residential blocks (Sarbasova, 2021). It suggests that the educational area was replaced by more profit-oriented land use. Koolhaas (2007) summarises this concept of evolving urban environments, suggesting that «if there was nothing, now they are there; if there were something, they have replaced it.» This discourse reflects how modern cities are ruled and work. It has been evidenced that urban land holds significant value when built with profit-yielding functions in the area. While the financial value of brownfield and abandoned lands increases, urban form has become denser with multifunctional residential developments (Minton, 2017). Therefore, the site possesses speculative market potential for future construction of high-rise and dense developments (Figure 4).

The mapping of housing age demonstrates that over half of the site’s housing blocks were built after the 1990s. The recent developments started emerging after 2005 and are considered new communities, including Baytal residences. As seen from modern housing blocks, developers handle the design of urban patterns and change after their own. The differences in urban planning principles between socialistic and market-led approaches are evident. Over time, core urban planning principles were replaced with market-oriented residential developments prioritising investors’ profits.

The analysis of building heights demonstrates that the area’s blocks are divided into high-rise and low-rise parts. The central part of the area, built by developers, has twelve to sixteen-storey tower blocks

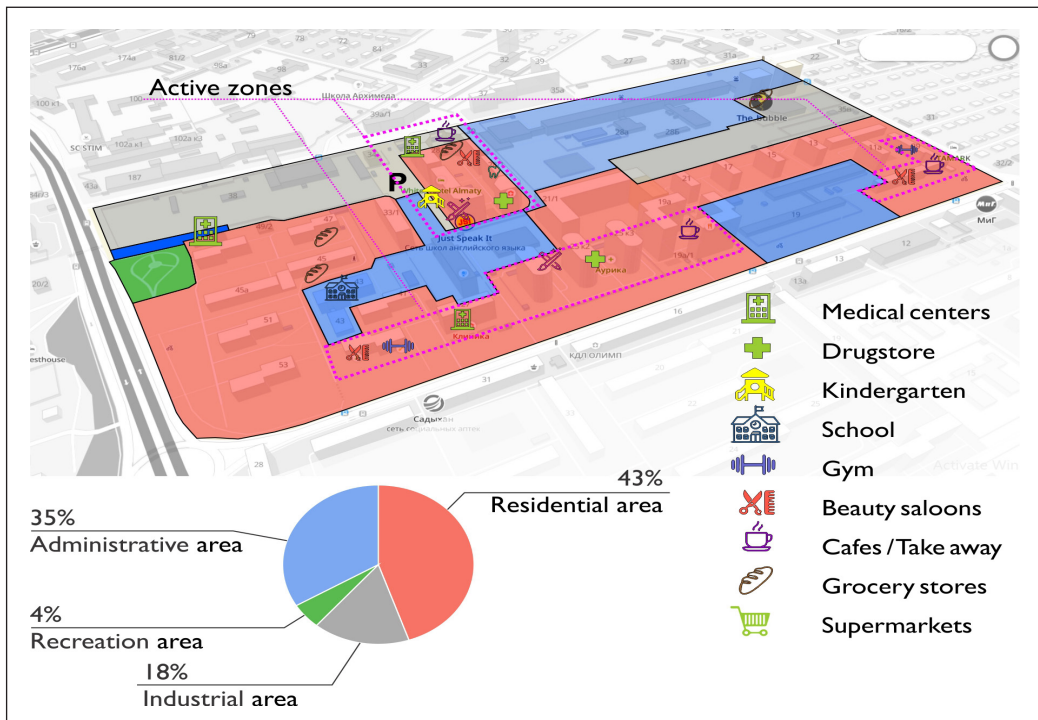


Figure 4. Land use and everyday facilities analysis (illustrated on 2GIS, 2022)

by developers. In contrast, yellow-coloured parts are dominantly Soviet housing blocks with up to nine storeys. It suggests that the density and quantity of residents are much higher in the recently developed housing blocks, whereas old housing blocks have fewer dwellers. Consequently, the heights of the recent residential developments, such as Baytal residential blocks, are getting significantly higher (Figure 5).

The functional mix analysis identified 68.4% of the land as mono-functional. All mono-functional buildings were designed before the 1990s with Soviet urban design approaches, which proposed dividing the area into distinct functions, such as living, work or recreation. Modern market-oriented residential developments have a more functional mix present. Nevertheless, work and live functions significantly outweigh the visit functions in the research area. The mapping highlights that Soviet parts are

mono-functional, as illustrated in Figure 6. The challenge of the lack of a functional mix does not facilitate diversity in the public realm (Dovey & Pafka, 2018). It fails to provide opportunities for community building and strengthening social ties (Talen & Sungduck, 2018).

Sennett (2010) asserts that equity in accessing public spaces may have psychological outcomes, as some interests might be favoured over others. Therefore, potential design strategies should consider increasing equity through greenery to attract local communities for social interaction. Greenery analysis shows public realm vegetation is denser in Soviet neighbourhoods (Figure 7). Although they are densely vegetated, there is no maintenance (Figure 8a). Recent developments only have a few green spots and vast hardscape areas. Baytal residential blocks have almost no green spaces that

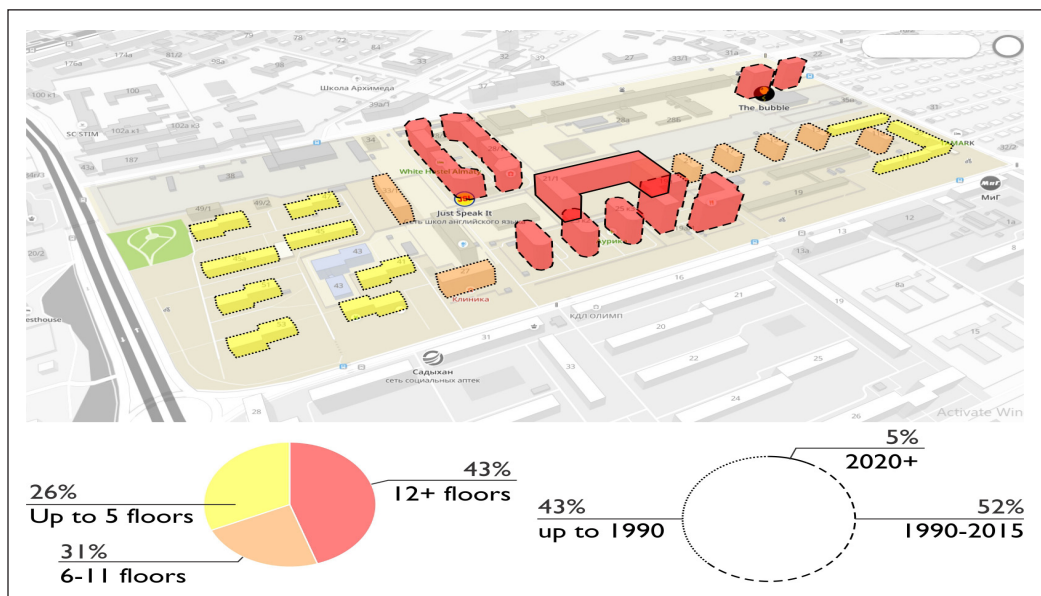


Figure 5. Housing age and building height analysis (illustrated on 2GIS, 2022)

could be used as public open spaces for leisure. Lack of greenery is a common issue for large development projects in Almaty as all public realm's underground spaces are used for car parking and paved on top, as

evidenced in Figure 8b. Mainly, the public realm with hardscape does not facilitate people's daily use, while urban greenery is more welcoming for different social activities (Wood et al., 2017).

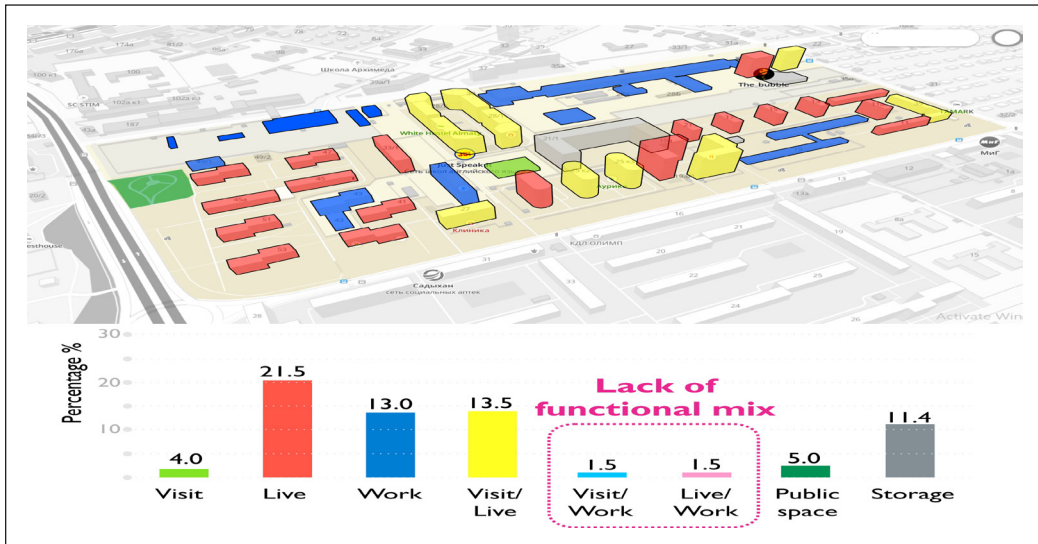


Figure 6. Functional mix analysis (illustrated on 2GIS, 2022)

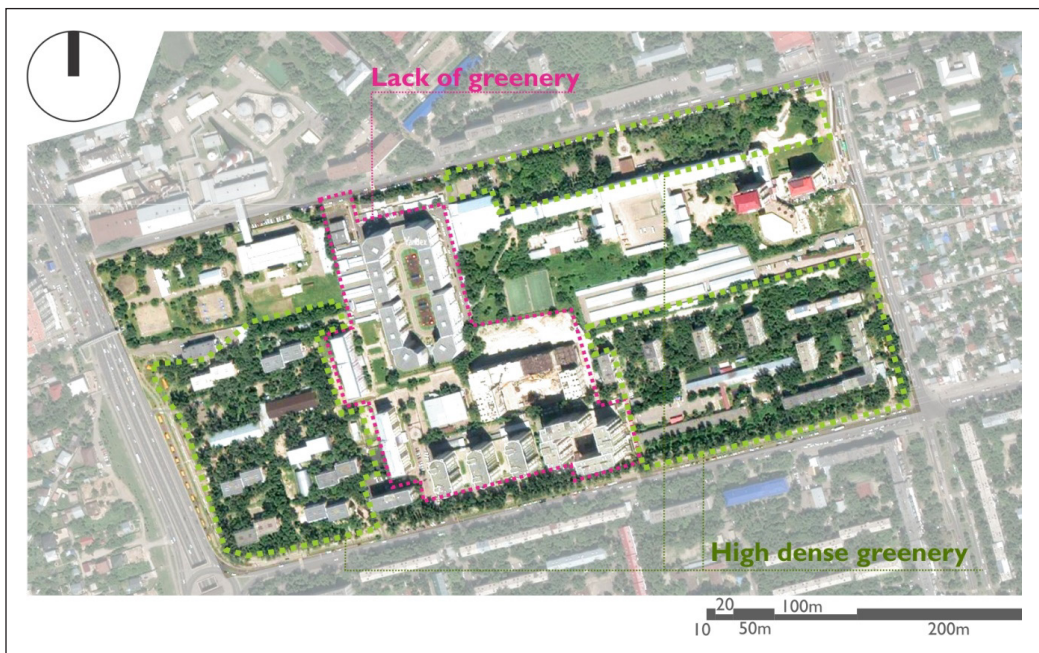


Figure 7. Analysis of greenery in Soviet and post-Soviet neighbourhoods (illustrated on Google, 2022)



Figure 8. (a) Wild greenery in the Soviet neighbourhood; and (b) Lack of greenery in the post-Soviet neighbourhood

Analysis of public and private ownerships in the public realm and accessibility demonstrates that the public realm is designed poorly without consideration of the existing context and a cohesive strategy with the new urban development projects. A fenced public realm negatively impacts permeability, as edges and gated parts create closed communities and increase walking distances to reach from one place to another. The fragmented public realm creates a spatial and social separation between local communities. It can also lead to increased vehicle use due to inaccessibility, as walking through the site has become difficult. These problems are mainly due to the recent impermeable and closed residential developments (Jaafar et al., 2017). This analysis shows how contemporary urban market-led projects have led to socially isolated communities (Figure 9).

The issue of poor accessibility and permeability hinges on who owns the public realm and how it is controlled (Minton, 2017). Therefore, the analysis of public realm ownership demonstrates to whom the space belongs (Figure 9). Moreover, this extends the community's knowledge of how an area is controlled and whom it is designed for. Figure 6 illustrates that the old part of the selected site represents a publicly owned public realm. However, the public realm in the recent developments like Baytal residential blocks is privately owned. While land plots of educational and industrial facilities are private, the primary streets provide flexible public space and neighbourhood connections. The land ownership analysis demonstrates that the privately owned public realm is reserved for the residents in the gated communities. It suggests that these closed spaces cater to a need greater than social exchange with



Figure 9. Analysis of public and private ownerships in the public realm and accessibility (illustrated on 2GIS, 2022)

outsiders as they are gated. It comes with restrictions and limited access to strangers. As a result, the urban context is fragmented into detached communities.

O'Brien et al. (2000) suggest that a «lack of attention to the different ways children use their cities will hinder advances in social policies designed to enhance participation for all children» (p.75). Moreover, Felder (2020) points out that children's social interaction helps parents acquaint themselves. It means the role of a child-friendly public realm can increase the chances of locals improving social cohesion and turning them into open communities. Observation of the public realm in terms of facilities that could be attractive for children illustrates that playgrounds and sports grounds are located evenly in old and recently developed parts. However,

their quality and size are incomparable due to different investment scales. While privately owned public realms in recent residential developments are equitable for children, no other attractions exist in the Soviet neighbourhoods' courtyards except a few playgrounds and sports equipment (Figure 10).

The analysis of the night-time economy complements the study of functional and everyday use facilities and illustrates that the area is mainly well-lightened, and only a few shops work until midnight. Despite well-lit streets, there is a lack of pedestrians who use the public realm in the evening. Most pathways are empty at night because there is a lack of a night-time economy. The lack of everyday facilities, functional mix and poor accessibility makes the inner part of the selected site less safe for night-time walking

(Dovey & Pafka, 2018). Thus, some parts of the area need to be more comfortable for night-time walking due to the lack of night-time ground economy (Figure 11). Although Jacobs (1961) suggests providing ‘eyes on streets’ for the psychological feeling of pedestrians’ safety, there is a lack of people on the streets, especially deep in the area.

Profile of respondents briefly describes the respondents’ gender, age-range and location on the research site. 88% of respondents are 26-65 years old. A quarter of respondents were aged 18 to 25 and above 65 years. Questioners were conducted in two parts of the selected study site. The first 25 respondents lived in the

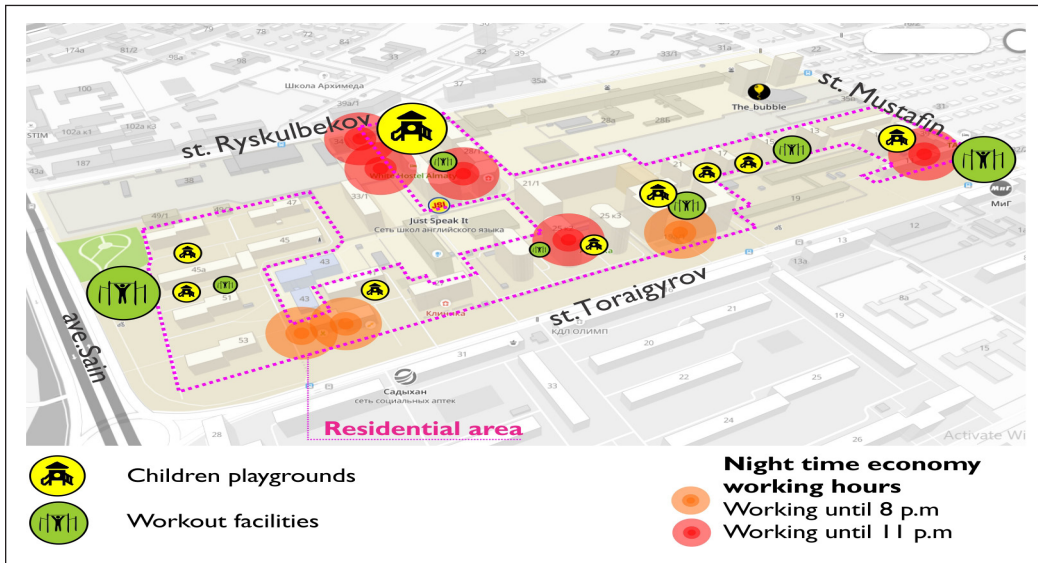


Figure 10. Analysis of playgrounds, sports facilities, and night-time ground economy (illustrated on 2GIS, 2022)



Figure 11. Lack of street life along Sain Avenue in the evening



Soviet neighbourhood, and the other 25 questionnaire results were received from Baytal residential blocks. The number of responses is the same for the convenience of comparing two local communities in the research area, as shown in Table 1.

Survey questions are designed to address the problems shown in the morphological mapping and observation. The first significant finding is that one-third of residents from the Soviet residential

blocks are not satisfied with their current living conditions. In contrast, 19 residents out of 25 in the Baytal residential blocks are contented. The survey question gives a better understanding of apartment size, location of the house, maintenance of commonly used areas, and architectural view of the area, which have a critical role for dwellers.

Secondly, residents that live in Soviet neighbourhoods use everyday facilities in their area six times on average per month and two times within their neighbourhood. However, residents from Baytal frequently use everyday facilities in their neighbourhood, although the use of facilities beyond their housing is low. These results complement the analysis of the diverse functional mix in Baytal residential blocks. Satisfaction with public realm facilities such as landscaping, playgrounds, and sports equipment was the same throughout the site; half of the respondents reacted positively. In both parts of the study areas, residents are only partially satisfied with the greenery, which is vital in improving social cohesion, as demonstrated in Table 2.

Table 1  
*Profile of respondents*

Demographic profiles	Total	Percentage
Surveyed number of residents	50	100%
<b>Gender</b>		
Male	18	36%
Female	32	64%
<b>Age range (years)</b>		
18–25	6	12%
26–45	18	36%
45–65	19	38%
>66	7	14%
<b>Respondents' location</b>		
Soviet residential blocks	25	50%
Baytal residential blocks	25	50%

Table 2  
*Results of the survey*

Research questions	Location on the selected site	
	Residents from the Soviet residential blocks	Residents from Baytal residential blocks
Respondents' location		
Satisfaction with living conditions (apartment size, location, maintenance of commonly used rooms in the housing and architectural and esthetical view of housing)	32%	76%
The average frequency of using everyday facilities in the residents' living blocks/residential development per month	Six times	17 times
The average frequency of using everyday facilities in the neighbourhood communities within the selected study site per month	Two times	Three times

Table 2 (continue)

Research questions	Location on the selected site	
	Residents from the Soviet residential blocks	Residents from Baytal residential blocks
Respondents' location		
Satisfaction with public realm facilities (such as landscaping, playgrounds, and sports equipment)	44%	56%
Satisfaction with public realm greenery	40%	16%
Frequency of acquainting with neighbours within a residential development / common courtyard blocks	Medium	Low
<i>The number of friends/acquaintances there:</i>		
0	60	80
1–10	32	16
>10	8	4
Frequency of acquainting with strangers or people from the neighbourhoods within the selected study site.	Low	Low
<i>The number of friends/acquaintances there:</i>		
0	92	96
1–10	8	4
>10	0	0
A feeling of open community	56%	20%
Residents who had difficulties with accessibility and permeability in a public realm within the selected study site	80%	64%
A feeling of safety at night-time (walking along within the selected study site)	60%	72%

Thirdly, the frequency of acquainting with strangers or people indicates the social cohesion within and between local communities. Interaction within the study communities in the Soviet blocks and Baytal are low, where one-fourth of residents have acquaintances in their housing blocks. However, only a few respondents, primarily women aged 26 to 45, know people beyond their neighbourhood. Most local communities do not interact with each other at all. The fundamental problem of low social exchange is barriers that limit accessibility and permeability in the public realm. This issue was pointed out by up to

80% of respondents. It results from poor urban planning and closed boundary edge conditions of exclusive developments. It also reflects on the feeling of night-time safety, where more than half of respondents perceive the walking-along experience negatively. The justification of survey analysis and public realm study results illustrate that the level of social cohesion in the selected neighbourhoods is insufficient in Table 3.

## DISCUSSION OF FINDINGS

The investigation of the selected site unveiled existing urban planning issues that negatively

Table 3  
*Relation of survey outcomes and the public realm issues*

<b>Residents from the Soviet residential blocks</b>	<b>Residents from Baytal residential blocks</b>
<b>Highlights of survey results</b>	
Two-thirds of residents are unsatisfied with living conditions, using everyday facilities in the residents' living blocks six times and two times in the neighbourhood monthly. Over half of residents are not contented with greenery, landscaping, playgrounds, and outdoor sports facilities. Only two-fifths of respondents know neighbours in their block and two beyond within the selected site. Approximately half of the local dwellers do not feel an open community and safety at night-time.	A significant number of Baytal inhabitants are content with their living conditions. The frequency of using local daily use facilities is much higher than in Soviet blocks. Although more than half of the residents considered public realm outdoor facilities satisfactory, most complained about vegetation. One of the considerable issues is that a fifth of respondents know other dwellers within Baytal blocks, and few people communicate with other local communities. As a result, there is a low proportion of open community feeling, despite three-quarters of respondents feeling comfortable walking along tonight.
<b>Main issues of the public realm</b>	
Lack of accessibility Poor connectivity Shortage of everyday use facilities Maintenance of public realm greenery and outdoor facilities	Lack of connectivity Shortage of greenery Poor connectivity Maintenance of public realm outdoor facilities
<b>Level of community cohesiveness</b>	
The medium within living blocks Low in-between neighbourhoods	Low within living blocks Almost no relation between neighbourhoods

impact the principles of a socially cohesive community mentioned in the theoretical framework. The research findings revealed that one urban planning problem intensifies others with a domino effect: Minor spatial urban obstacles, poorly resolved urban planning solutions, lack of community involvement and closed systems created isolated communities with failing social cohesion. For example, poor accessibility and permeability between post-Soviet residential developments and Soviet neighbourhoods, lack of functional mix and night-time economy have caused problems, such as a lack of social activity within the selected site and a lack of pedestrians at late time. While the site is not convenient for daily use, the public realm does not facilitate social

interaction. Moreover, similar urban patterns in Almaty are becoming problematic in terms of social cohesion in future on a larger scale that fails the principles of a socially cohesive public realm.

Although the area intensifies with market-oriented development projects, the site still has some appealing brownfields for market-led developers' potential exclusive projects. Thus, perspective urban transformations should be open to local citizens' opinions before implementing any material intervention. Although the process of urban design could be heavy to handle by responsible parties due to tensions, debates and conflicts of interest, the outcomes will be more democratic. Despite the adverse results of traditional urban planning approaches,

the investigated urban pattern still has an opportunity to become truly cohesive.

## **CONCLUSION**

The research of the selected site concerning the cohesive community notion has revealed three primary underpinning outcomes that could be used for perspective urban investigations and urban design strategies. Firstly, the evidence from this study suggests that the selected urban pattern in Almaty city is fragmented into different social communities. Core urban planning omissions cause the lack of cohesiveness between neighbourhoods. Secondly, the critical issues of poor social cohesion are gated post-Soviet neighbourhoods that emerge due to closed-edge conditions, poor connectivity and accessibility within the selected site, and lack of everyday use facilities and the night-time ground economy. Thirdly, the current public realm has little value in benefiting local communities of Soviet neighbourhoods. Finally, the methodological approach used in the paper with a combination of morphological mapping, observation and survey could be applied to other similar urban contexts of post-Soviet towns to explore urban patterns through the lens of a socially cohesive public realm.

## **IMPLICATION OF THE STUDY**

The research revealed the existing public realm issues in creating cohesive communities in the case of a typical urban pattern in Almaty. These findings provide insights for potential urban transformations, such as

creating accessible public realms to outsiders but allowing residents to have a local sense of community to foster a spirit of open community identity. Therefore, there are next steps for further implication. First, the results of the survey and analyses should be introduced to local communities via social media and neighbours' chats. Secondly, active local volunteers form action groups. Urban design practitioners and students, including the authors of the research, support them regarding design strategies. They should consider ways to improve social cohesion, allowing better accessibility, connectivity and walkability for potential social interactions and possible ties between and within communities. Thirdly, the concept of a socially cohesive public realm could be proposed to local authorities to implement through city development plans. One of the more significant principles to emerge from this study is that the public realm should be designed as a process open for further modification by citizens because cities are in flux.

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