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**IMPACTS OF PUBLIC REALMS IN CREATING A COMFORTABLE
URBAN SPACE FOR EVERYDAY USE: A CASE STUDY
OF URBAN PATTERN IN ALMATY**

Abstract. *Public realms connect different parts of the city for gathering and social events, encourage job opportunities and help for better social life based on collective activities. However, contemporary public realms in cities consist of different public and private spaces used by diverse social groups. Thus, the cross-section of Satbayev, Baitursynov streets and Bukhar Zhyray boulevard in Almaty is selected as a test-bed for the investigation. Currently, the public realm represents fragmented spatial networks divided by highways to separated neighbourhoods. The paper depths into existing urban planning outcomes for potential urban transformations. These findings will be archived through morphological mapping, direct non-participant observation, and public realm photographing. The research confirms the hypothesis that public realms in contemporary urban planning are rather exclusive than inclusive due to lack of equity for daily visits, flexibility of use and urban informality.*

Keywords: *urban design, public realm, public and private spaces, society, Almaty.*

Introduction

Public spaces represent the physical manifestation of public life [16]. In the contemporary city, ownership of the public realm is a reflection of our current socio-political model [17]. Cities are inherently antagonistic with such diverse populations, lifestyles and identities living in such proximity. This conflict can be a positive step in recognising and promoting different identities by challenging beliefs and opinions [1]. Cities are divisive places, and extreme inequality from the current socio-economic system often means creating multiple identities in single urban areas that relate directly to differences in the urban experience [3]. These identities must be displayed publicly if they have any meaning or purpose [18]. The public realm is a space accessible to all citizens for their use and enjoyment [6].

Public spaces, including parks, squares, and markets, are 'co-produced', and the fundamental principles for their development include leaving room for self-

organisation, diversifying activities to encourage diverse people to participate, and maintaining access and availability [12]. Accessibility in public space is intertwined with ideas of democracy. Parkinson [15] notes that the public realm can be described differently. Accessibility to places where strangers are encountered because everyone has free right of entry is only one way of describing the 'public realm'. Kozhakhmetov and Abilov [10] suppose that this accessibility needs to be twinned with activities that appeal to a wide range of people for public spaces to be effective.

This article's purpose is to examine the public realm in the contemporary city closely. Especially questions relating to the private and public ownership of public realms and the right to use them. This report will attempt to ask questions relating to the perfect balance between different users of a public realm, including people and transportation. The investigation focuses on the selected site to understand the relationship between cars and pedestrians. Also, the authors analyse how the street pattern and its morphology affect the balance of these two. The selected area is located in front of the Head Campus of Satbayev University. Although the area is crowded with students from two universities and cars, this public realm needs to be more liveable area.

Materials and methods

The research methodology applied to this study is morphological mapping, non-participant observation and photography. The morphological mapping is used to investigate the relation of public and private realms, landowners of the private realm, connectivity, interfaces, ground-level night-time economy, densities, functional mix, permeability and accessibility, greenery, and public and privately owned public realms in relation to car roads. The relation of public and private realms shows how the area is separated in between different landlords and functional areas. Analysis of connectivity, permeability and accessibility illustrates the spatial use of public spaces by citizens, including use of green areas.

Non-participant observation is used to analyse people's perceptions of the selected site. All findings in the public realm were photographed to evidence the outcomes of the existing urban planning strategies. These findings are could be used to sustain potential design strategies, which might be applied in cohesion with citizens' and local communities' vision for future improvement in the public realm.

The selected study area is located in a historical part of Almaty in front of Satbayev University's main building. The selected site was developed in the 1960th [20]. The area is at the intersection of primary streets in Almaty, such as Baitursynov and Satbayev. Also, secondary streets such as Bukhar-Zhyrau boulevard and Pozharskiy street cross there, making the traffic more complex (Figure 1). The investigation site represents a fragmented public realm of privately and publicly owned realms of housing blocks, boulevards, Satbayev square, and streets. Until 2021 the square in front of the university was closed and isolated from the rest of the public realm. Although there have been improvements regarding maintenance along Baitursynov street, the area still lacks a performative role to be active, cohesive and equitable for all.

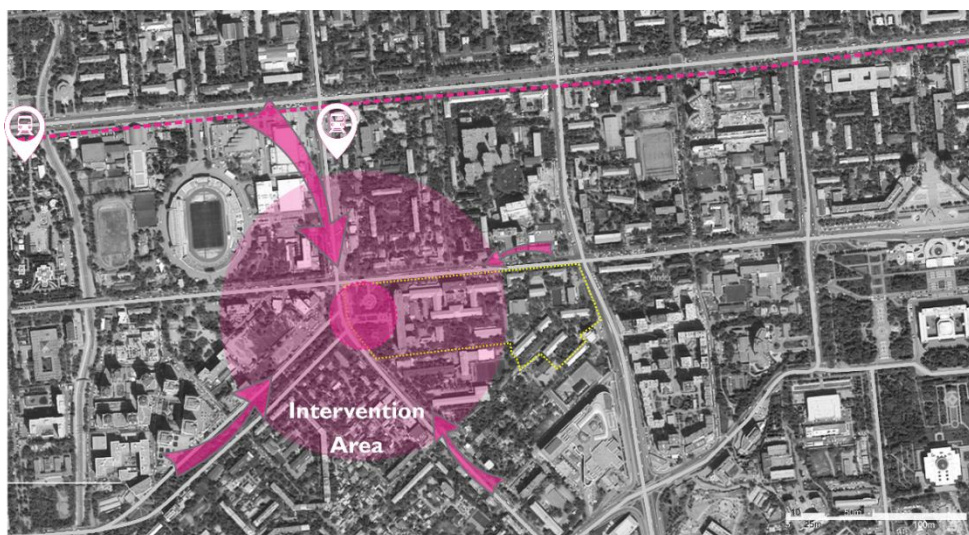


Figure 1 – Location of the selected study site [Source: based on Google Earth Pro]

Results and discussion

The connectivity analysis illustrates that the area is primarily car-oriented, with two to four car lanes on Satbayev and Baitursynov streets. Although the selected site is well linked with the rest of the city and metro stations, there needs to be more connectivity regarding pedestrians' walkability. Figure 2 shows no connection between Bukhar-Zhyrau boulevard and the massive public space in front of Satbayev University. Pedestrians from the boulevard side should walk up to Satbayev street and upwards to the square in front of Satbayev University's main building. The area's public realm could be walkable due to better pedestrian connectivity. Furthermore, cycling lane connectivity was not considered during the Baitursynov street reconstruction in 2017. The cycling lane was designed to connect Timiryazev and Abay streets only. Overall, connectivity analysis suggests that the selected study site's public realm is separated from primary car ways.

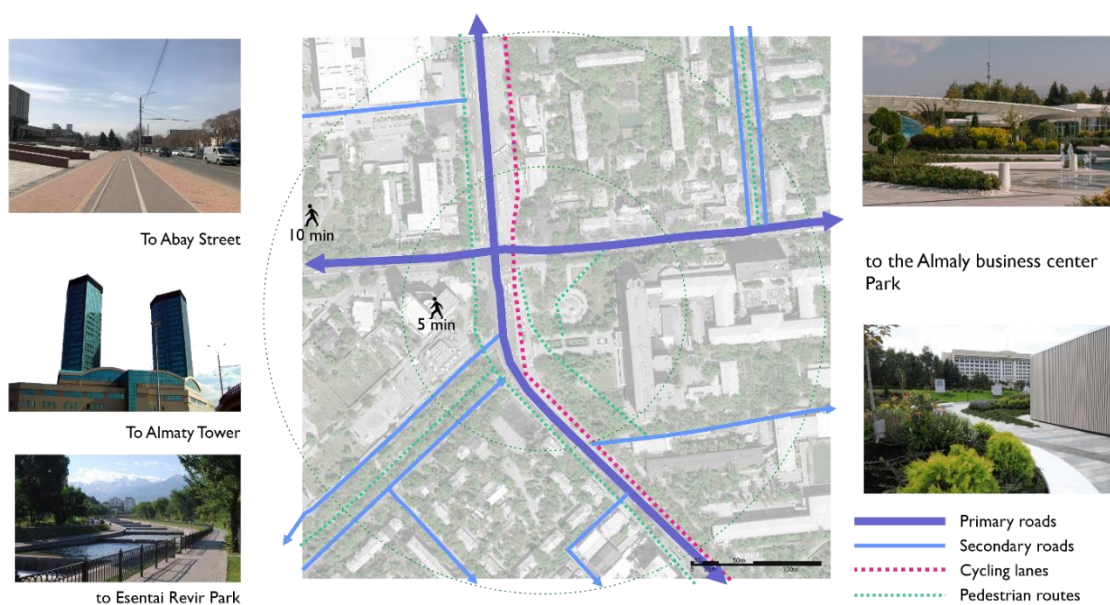


Figure 2 – Connectivity of the public realm [Source: authors, based on Google Earth Pro]

The analysis of land ownership demonstrates that large companies and educational corporations privately own most of the public realm (Figure 3). A few international and Kazakhstan companies privately own the core area around the study site. Grand Aiser, Astana International Hotel, MacDonald's and Satbayev University, and other small shops exist. However, there are large publicly owned spaces between existing housing buildings and along main streets, such as Satbayev and Baitursynov streets. Despite privately owned and publicly owned public realms, several land plots are privately owned public spaces. Many new 'public' spaces are owned and managed by private companies, with restrictive by-laws limiting the range of activity they can host, rather than local authorities with public mandates to allow the gathering, protests and so on [2]. "The liberal democratic state is an institution in which a relatively few people are selected, separated from the population, and designated to govern the whole" [16].

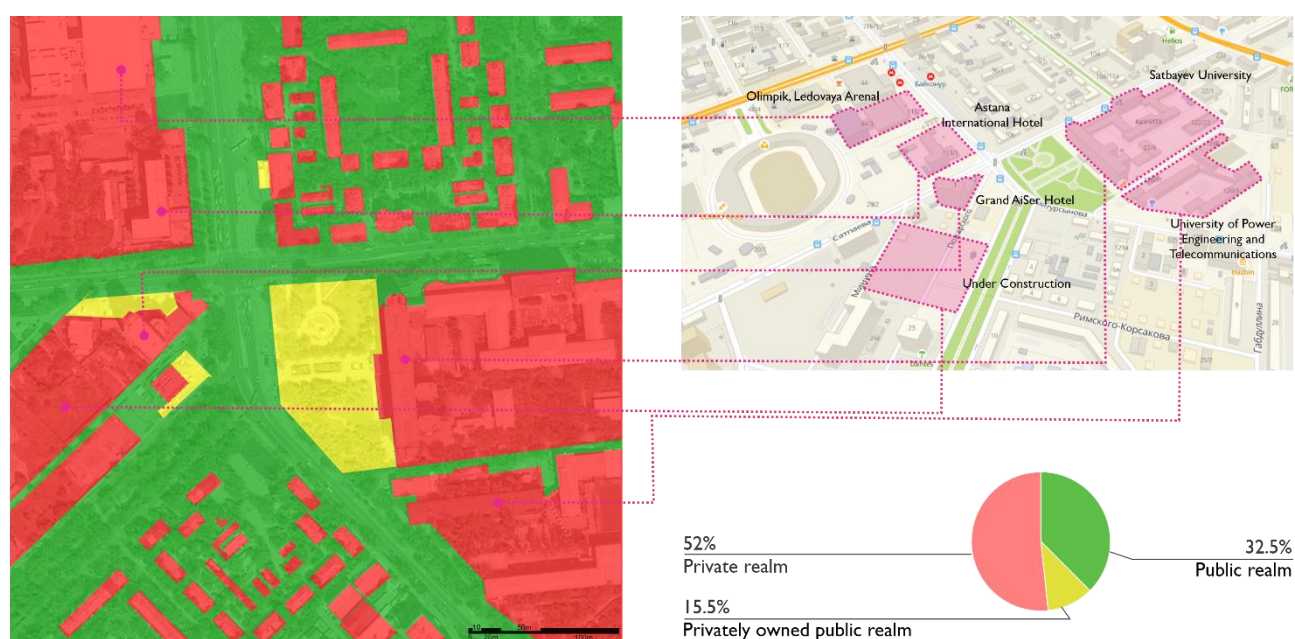


Figure 3 – Public/private realm analysis [Source: authors, based on Google Earth Pro, calculated from www.aisgzk.kz]

Analysis of the public realm for car users illustrates that the vast proportion of the public realm is equitable for drivers only (Figure 4). Koolhaas [9] regrets that "The urban plane now only accommodates necessary movement, fundamentally the car", meanwhile leading streets and the public realm to lose their value for public life. Although the public realm for pedestrians is 59.3%, 12% of it is a privately owned public realm that is managed and controlled by private interests. Therefore, only 47.3% of all public realm might be equitable for Almaty citizens.



Figure 4 – Public and private realm in relation to roads [Source: authors, based on Google Earth Pro]

Analysis of the selected site's functional mix shows that vast monofunctional buildings dominate the core area (Figure 5). Most of them are live functions, located in the north and south parts of the area and work functions, such as hotels and universities. The area is more work-live oriented, whereas the performative role of the public realm, in terms of equity, might lack the affordability of such profit-oriented facilities. Lack of mix negatively affects night-time safety as well as the liveness of the public realm.

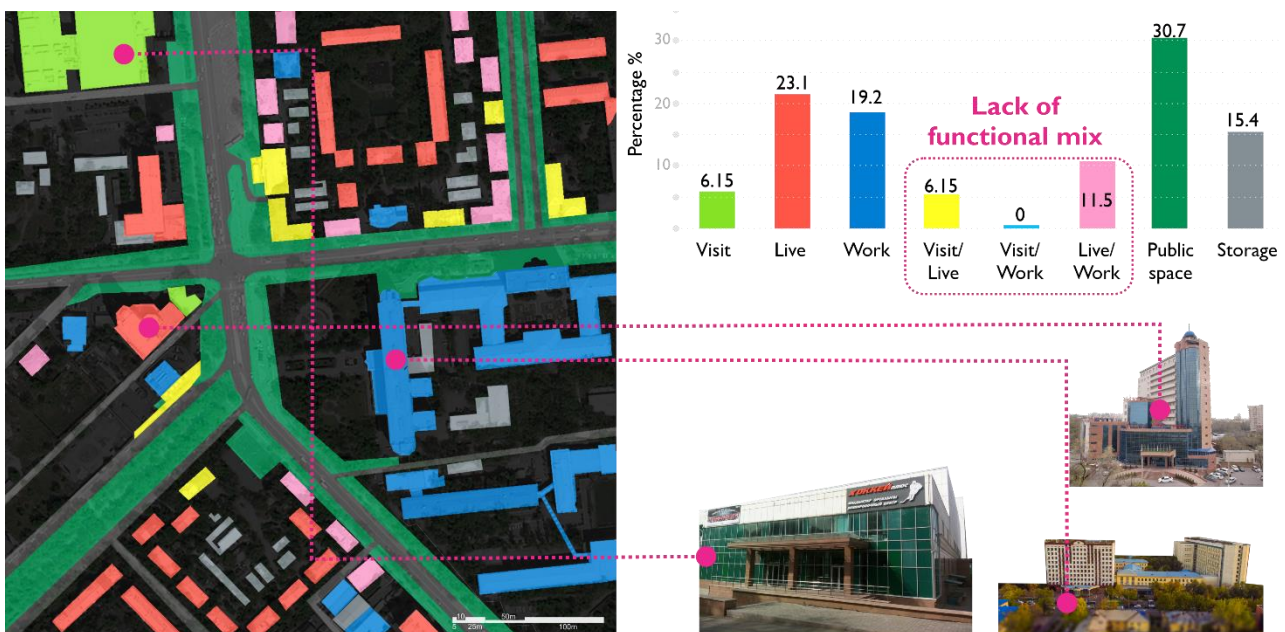


Figure 5 – Functional mix analysis [Source: authors, based on Google Earth Pro]

The analysis of interfaces represents that many interfaces, which are edges of private and public realms, are mainly impermeable (Figure 6). Dovey and Wood [5] state that impermeable interfaces are 'dead' and 'anti-social' that inhibit social activity. Consequently, it might lead to a lack of social safety (ibid). For example, Kamalipour and Peimani [8] claim that blank interfaces give a possibility to be appropriated by street trading. However, Lynch [11] argues that without a right to control appropriation and modification of the public realm is impossible.



Figure 6 – Analysis of interfaces [Source: authors, based on Google Earth Pro]

The analysis of the ground-level night-time economy illustrates that the area is mainly active until 6 p.m. (Figure 7). However, 20% of businesses work until the late-night. Thus, more than the capacity to provide an 'eye on streets' is needed for the large open area, mainly on the area's south and west. While the Satpayev University area is fragmentary active, there is a lack in terms of business activity. In addition, the rest ground was secured mainly by CCTV except for Bukhar-Zhyrau boulevard. Consequently, the study area is fragmentarily active, and the rest ground is secured mainly by CCTV, representing how ground control is 'privately secured' [13]. A lack of functional mix and a significant proportion of impermeable interfaces do not interact with a private inner realm at night. Therefore, some parts of the intervention area are not equitable enough for night-time walking alone due to mono-functional buildings that close at 6 p.m.

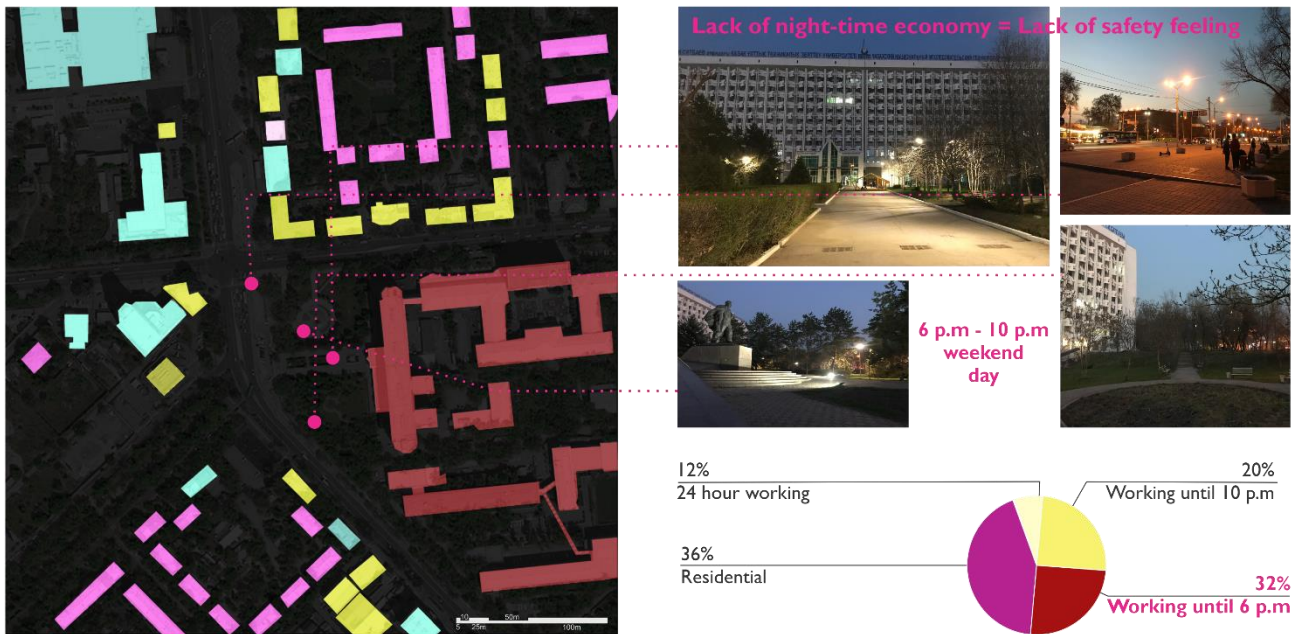


Figure 7 – Analysis of night-time ground level economy [Source: authors]

The Satbayev University area's building footprint density analysis illustrates that most land is open (Figure 8). While 13% of buildings are high-rise, the FAR is significantly low, which might decrease the neighbourhood's liveliness [4]. Primarily, open spaces are used for wide roads and parking lots. It suggests that the area highly depends on CCTV and state control in terms of social control. This urban morphology partially does not provide "eyes on streets" to improve a feeling of invisible social security [7].

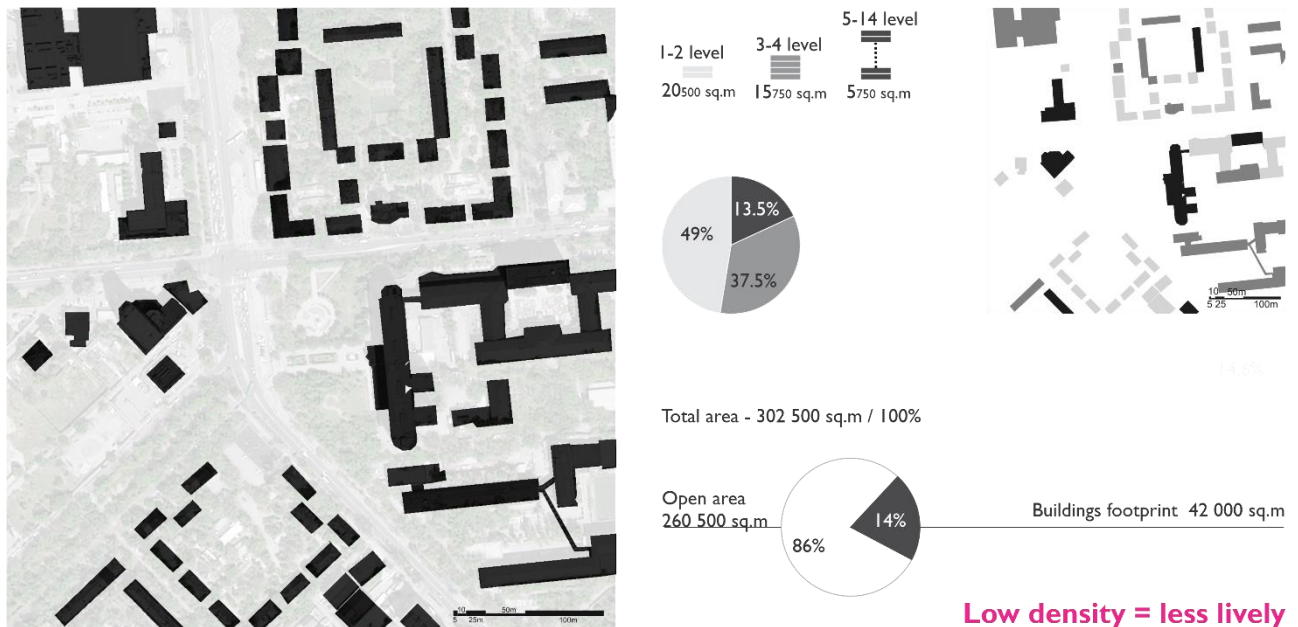


Figure 8 – Analysis of building densities [Source: authors, based on Google Earth Pro]

Within the 200m radius, around a 3-5minute walk, permeability is 34%. It is because of the construction, but only a few of them exist (Figure 9). However, analysis of the site connectivity and accessibility illustrates that the core area is highly car-dependent and fragmented by wide car roads and parking spaces, which makes the public realm inequitable for pedestrians. Analysis of accessibility for pedestrians and vulnerable groups shows that the core public realm is highly accessible. However, many barriers lead to long distances to reach some places, such as the cross-section of Satbaev and Baitursynov streets. For example, there is no direct link between the large square in front of the university's main building and the green boulevard. It makes the public realm fragmented and inconvenient to use daily.

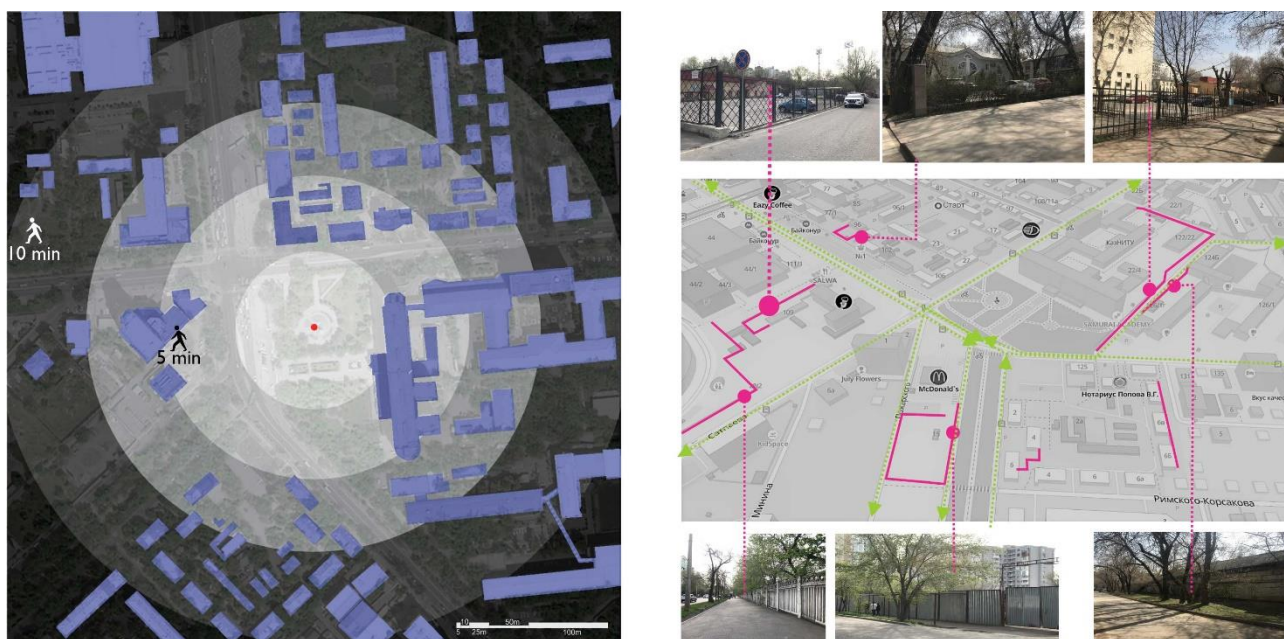


Figure 9 – Permeability and accessibility analyses
[Source: authors, based on Google Earth Pro]

Analysis of greenery in the public realm represents a very high rich proportion of green spots and trees (Figure 10). The area in front of the head campus of Satbayev University and Bukhar-Zhyrau boulevard has massive trees. It makes the public realm more equitable for daily use, facilitating social cohesion as parks [20]. However, there needs to be more greenery connectivity due to significant car ways. Therefore, design strategies should consider how to keep equity through greenery.



Figure 10 – Public realm greenery analysis
[Source: authors, based on Google Earth Pro]

The observation of the public realm in the core area from the visitor's perception illustrates that the public realm lacks facilities that encourage people to interact, such as architectural landmarks, urban spatial elements, fountains and waterfronts, as well as art installations (Figure 11). While some fragmented parts of the public realm could be interesting for random strangers, the large area in front of the university is dull. Moreover, there need to be more local neighbourhood facilities to attract local children. O'Brien et al. [14] 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".

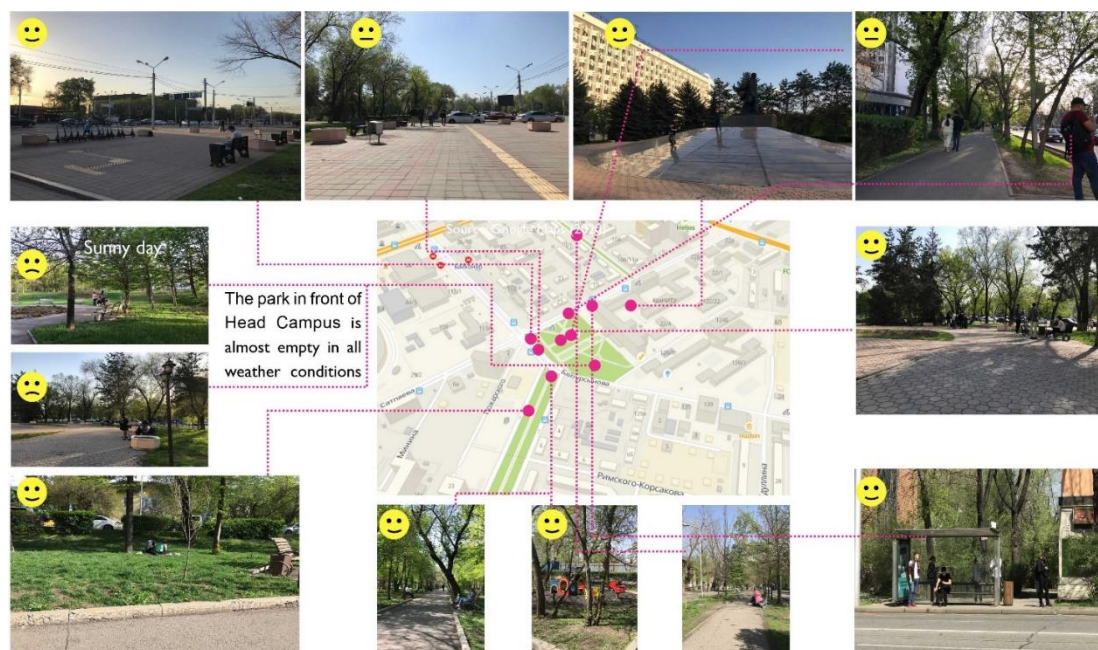


Figure 11 – Perception of the public realm everyday use [Source: Authors, 2GIS map]

The site analysis revealed that the selected study area lacks in terms of social activity and equity, public control and informal social acts and businesses. According to investigations, one urban issue has been intensified by another problem. Gradually, minor material urban problems that are solved regardless of community involvement might cause a more massive negative effect in the long term. For instance, low density, poor walkable connectivity, lack of functional mix and night-time economy have created problems, such as lack of social activity in the core area and lack of people at night-time. The square in front of Satbayev University lacks everyday use, a large open space in the core area. While the public realm is designed to satisfy citizens, it is not equitable for daily visits. The lack of everyday attractiveness makes the public realm less inviting for informal businesses that could have sustained the area's affordability.

Although the study area is one of the most significant state-initiated urban patterns, the site is unique and attractive for further urban transformations. Despite the adverse outcomes of conventional design approaches, the public realm has an enormous potential to become truly equitable for all citizens. However, these urban interventions should consider local citizens' involvement in designing before implementing any fixed spatial intervention. These processes might involve tensions between different ideas and even struggles of interests. Consequently, genuinely radical urban changes could require more time and energy than conventional urbanism, which is used to visualize fixed outcomes.

Conclusion

The function of the public realm is as the stage of difference in our society, where urban identities can be expressed and experienced. As a result, a conflict between what we believe and what we experience can be explored. They are spaced for democracy to take action and enshrined by design. Public realms are for us and should be influenced by us, accessible to all, always and serve us all. The function of the public realm is one that policymakers should understand and appreciate. Moreover, to a degree, they do. Nevertheless, the death of planning in contemporary cities and neoliberal policies often leave our policymakers powerless in legislating for real, long-lasting reactionary change. The function, or essence, of the public realm needs to be preserved through policies controlling capital forces.

The public realm is vital in cities as spatial networks that sustain non-spatial relations and social interactions. Also, the public realm has a sense of place connected with the global network. Therefore, the performative role of the public realm in contemporary cities is essential. It is because of how and for whom it is controlled, who it is equitable and what kind of informality is allowed. All three critical aspects of a public realm overlap with each other and directly or indirectly influence each other.

The study discovers that conventional practitioners propose and implement formal strategies and interventions focused on short-term spatial changes. These approaches are based on traditional and fixed masterplans and drawings legislated with officials and developers. These urban public realms are designed as a final product to consume. However, reality demonstrates that radical public realm transformations are

more continuous processes of urban transformations. These changes in the public realm involve material elements, such as streets, plazas and buildings, and a non-physical social component. Therefore, progressive urban transformations could be more effective when it involves more citizens as possible to satisfy all with a long-term perspective.

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ҚОҒАМДЫҚ КЕҢІСТІКТЕРДІҢ КҮНДЕЛІКТІ ПАЙДАЛАНУ ҮШІН ҚОЛАЙЛЫ ҚАЛА ОРТАСЫН ҚҰРУҒА ӘСЕРІ: АЛМАТЫ ҚАЛАСЫНДАҒЫ ҚАЛА ҚҰРЫЛЫМЫ МЫСАЛЫНДА

Аңдатпа. Қалалық қоғамдық кеңістіктер азаматтарды байланыстыру, әлеуметтік іс-шараларды ұйымдастыру, жұмысқа орналасу мүмкіндіктерін ынталандыру және ұжымдық белсенділік арқылы әлеуметтік өмірді жақсарту үшін қаланың әртүрлі бөліктерін байланыстырады. Дегенмен, қалалардағы қазіргі қоғамдық кеңістіктер әртүрлі топтар пайдаланатын әртүрлі қоғамдық және жеке кеңістіктерден тұрады. Зерттеу нысаны ретінде Сәтбаев, Байтұрсынов көшелерінің қиылысы және Бұқар Жырау бульвары таңдалды. Қазіргі уақытта қоғамдық кеңістік автомобиль жолдарымен бөлінген, бөлішектенген қалалық орта болып табылады. Бұл зерттеу қала құрылысының әлеуметтік трансформацияларының ғылыми негізін қамтамасыз ету үшін бар қала құрылысы мәселелерін зерттейді. Бұл табылған деректер морфологиялық картаға түсіру, тікелей қатыспаған бақылау және қоғамдық аумақты суретке түсіру арқылы мұрағатталады. Зерттеулер қазіргі заманғы қала құрылысын жоспарлаудағы қоғамдық аумақтар күнделікті қолдануға үшін теңдіктің болмауына, пайдалану икемділігіне және қалалық бейресмилікке байланысты инклюзивті емес, эксклюзивті деген гипотезаны растайды.

Түйін сөздер: қалалық дизайн, қоғамдық аймақ, қоғамдық және жеке кеңістіктер, қоғам, Алматы.

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ВЛИЯНИЕ ОБЩЕСТВЕННЫХ ПРОСТРАНСТВ НА СОЗДАНИЕ КОМФОРТНОЙ ГОРОДСКОЙ СРЕДЫ ДЛЯ ПОВСЕДНЕВНОГО ИСПОЛЬЗОВАНИЯ: НА ПРИМЕРЕ ГОРОДСКОЙ СТРУКТУРЫ В АЛМАТЫ

Аннотация. *Городские общественные пространства соединяют разные части города для связи и передвижения горожан, организации общественных мероприятий, поощряя возможности трудоустройства, и помогают улучшить социальную жизнь на основе коллективной деятельности. Однако современные общественные пространства в городах состоят из различных общественных и частных пространств, используемых различными группами. В качестве объекта для исследования выбран перекресток улиц Сатбаева, Байтурсьнова и бульвара Бухар Жырау. В настоящее время общественное пространство представляет собой фрагментированную городскую среду, разделенную магистралями. Представленное исследование углубляется в существующие проблемы городского планирования для создания научной подосновы к потенциальным городским преобразованиям. Эти результаты будут изучены путем морфологического анализа участка, натурного обследования и фотографирования в общественных местах. Исследование подтверждает гипотезу о том, что общественные пространства в современном городском планировании являются скорее исключительными, чем инклюзивными из-за отсутствия социального комфорта для ежедневных посещений, гибкости использования пространства и городской неформальности.*

Ключевые слова: *градостроительство, общественное пространство, общественные и частные пространства, общество, Алматы.*