

Exploring Thessaloniki: The Evolution and Impact of Urban Public Spaces and Green Areas

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Abstract

Thessaloniki, a bustling and lively city, faces the challenge of limited public and green spaces amidst its dense urban fabric. Compared to European standards, Thessaloniki has one of the lowest ratios of green space per resident, with only 2.6 m² per inhabitant (Latinopoulos et al. 2016:132). On average, some 40 % of the surface area of European cities is made up of urban green infrastructure, with around 18.2 m² of publicly accessible green space per inhabitant; 44 % of Europe's urban population lives within 300 m of a public park (European Commission n.d). This suggests that prior policies and initiatives aimed at tackling this problem have faced significant hurdles and have not yet produced substantial outcomes (cf. Karagianni 2023). The scarcity of green spaces is further exacerbated by the city's high residential densities (COT 2017). These circumstances highlight the pressing need for effective interventions and strategies to enhance the availability and accessibility of public and green spaces in Thessaloniki. This text primarily focuses on the western part of Thessaloniki for the analysis of visibility, characteristics/typologies, impact on surroundings, challenges, and solutions & measures of green spaces. Therefore, this text gives an overview of the accessibility of green spaces; some are more hidden as they are small and not in prominent locations, whilst others are very visible due to their size and location. Further, different typologies of green spaces could be defined in the study area due to their different characteristics; these include squares & parks, pathway greenery, tree lines, school courtyards, sports areas, and open non-designed spaces. Each green space brings a potential to enhance its surroundings socially, environmentally, and economically. Finally, some solutions and measures are formulated to combat the challenges the green spaces of Thessaloniki face. By narrowing the scope to this specific area, we aim to gain a comprehensive understanding of the dynamics and issues related to public and green spaces in this particular region of the city.

1. Visibility

Public and green spaces in Thessaloniki vary in terms of their visibility within the city. Some spaces, such as Aristotle Square and the waterfront promenade, are highly visible and serve as iconic landmarks that attract both residents and visitors. These spaces contribute to the city's identity and serve as meeting points for social activities and events. On the other hand, there are hidden or under-utilised spaces that lack visibility and fail to draw people's attention. Enhancing the quality of these spaces is crucial to ensure their utilisation and integration into the urban fabric.



Fig. 1: „Setting the Grounds for the Green Infrastructure in the Metropolitan Areas of Athens and Thessaloniki: The Role of Green Space“ (Papageorgiou & Georgia 2018)

The western part of Thessaloniki stands out as an area with more green spaces, boasting a total of 55 parks (Karagianni 2023). Parts of this district (Vardaris & Xirokrini) have been developed in the concept of a Garden City, incorporating

planned development that prioritises the creation and preservation of green areas. In comparison to other districts of Thessaloniki, the western part, therefore, demonstrates a higher concentration of parks and green spaces, offering the potential to enrich the environmental landscape of the city.

2. Characteristics and Typologies

Thessaloniki boasts a diverse range of public and green spaces, each with its own unique characteristics. Parks, gardens, squares, plazas, and pedestrian streets are among the various typologies found throughout the city. These spaces offer opportunities for leisure, recreation, social interaction, and cultural activities. Additionally, Thessaloniki is known for its historical landmarks, such as the White Tower and the Rotunda, which serve as significant public spaces that showcase the city's rich heritage.

In the western part, Thessaloniki offers the following range of green and open spaces, each with its distinct characteristics and functions. These typologies include:

1. Squares & parks:

These designated areas serve as communal gathering spaces and recreational hubs for residents. Squares typically feature open plazas, often surrounded by buildings, while parks encompass larger areas with greenery, trees, and amenities such as benches, playgrounds, and walking paths.

2. Pathway greenery:

Along the streets, pathways and front gardens of the social housing district, Thessaloniki incorporates greenery, such as grass areas, sometimes flowerbeds, trees and shrubs, to enhance the visual appeal or provide sha-



Fig. 2: Square in Thessaloniki (own depiction)



Fig. 3: Pathway greenery in Thessaloniki (own depiction)

de. These green corridors have the potential to contribute to the aesthetics of the cityscape while offering a pleasant pedestrian experience.

3. Tree lines:

Thessaloniki embraces the concept of tree-lined streets, where trees are planted along the sidewalks or medians. These linear green spaces not only contribute to the city's aesthetics but also provide shade, they can reduce the heat island effects, and improve air quality.

4. School courtyards:

Within educational institutions, school courtyards serve as semi-private green spaces for students. These areas offer opportunities for outdoor activities, relaxation, and social interaction, fostering a healthier and more engaging learning environment. In Thessaloniki these places are always fenced, often by tall walls, not allowing any social interaction or opening of those places to the public.

5. Sports areas:

These sports areas can include playgrounds, sports fields, and courts, catering to various sports such as football, basketball, tennis, and more. Most of these spaces are enclosed by fences or walls, often featuring only a single entrance, creating a separation from the surrounding environment.



Fig. 4: Tree lines in Thessaloniki (own depiction)



Fig. 5: School courtyard in Thessaloniki (own depiction)

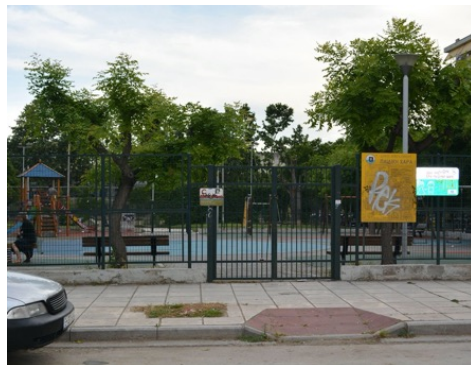


Fig. 6: Sports areas in Thessaloniki (own depiction)



Fig. 7: Open non-designed spaces in Thessaloniki (own depiction)

6. Open non-designed spaces:

In addition to intentionally designed green spaces, Thessaloniki also encompasses open non-designed spaces. These areas may arise naturally or as a result of urban voids or vacant lots. While not specifically planned or landscaped, they often appear as places for wildness or are used informally as car parks.

3. Impact on Surroundings and Potentials of green spaces

Public and green spaces have a profound potential to have positive impacts on their surroundings. Well-designed and well-maintained spaces contribute to the quality of life, aesthetics, and overall liveability of neighbourhoods. However, neglected or poorly maintained spaces may have the opposite effect, contributing to the deterioration of the urban environment and hindering community well-being.

Public and green spaces therefore have significant social, economic, and environmental impacts on their surroundings (cf. Aldous 2006, LHH 2020; Voigt et al. 2014; Gehl 2010).

Social Impact:

Promoting a Flourishing Community: Public and green spaces play multifaceted roles in enhancing community life. They serve as gathering spots, fostering social interaction, community engagement, and a shared sense of belonging, while also offering opportunities for individuals from diverse backgrounds to connect and establish social ties. Simultaneously, these spaces promote physical well-being by encouraging outdoor activities, leisure, and recreation, leading to improved physical and mental health. The relaxation and stress reduction afforded by these spaces contributes to an overall better quality of life. Moreover, they contribute to social equity by ensuring that well-designed and accessible areas are available to all members of the community, thereby mitigating social inequalities and promoting inclusivity (cf. Gehl 2010, Ward Thompson 2011, Aldous 2006).

Economic Impact:

- **Property Values:** Proximity to well-maintained public and green spaces can enhance property values and attract businesses and investments. These spaces contribute to the aesthetic appeal of neighbourhoods, making them desirable places to live, work, and visit.
- **Tourism and Recreation:** Public and green spaces, especially those with unique features or attractions, can become major tourist destinations, attracting visitors and generating economic activity. They provide opportunities for outdoor events, festivals, and recreational activities that support local businesses and the tourism industry.
- **Economic Development:** Strategically planned and designed public and green spaces can stimulate economic development by creating job opportunities, attracting businesses, and revitalizing neighbourhoods. They can act as catalysts for urban regeneration and contribute to the economic growth of a city or region. (cf. Aldous 2006)

Environmental Impact:

- **Biodiversity and Ecological Balance:** Green spaces provide habitats for flora and fauna, promoting biodiversity and supporting ecological balance. They contribute to the preservation of natural ecosystems, protect wildlife, and mitigate the impacts of urbanization on the environment.
- **Climate Resilience:** Vegetated areas within public and green spaces help mitigate the urban heat island effect, reduce air pollution, and improve air quality. They also play a role in managing stormwater runoff, reducing the risk of flooding, and enhancing the overall resilience of urban areas to climate change.
- **Environmental Education:** Public and green spaces offer opportunities for environmental education and awareness. They can serve as outdoor classrooms, promoting ecological literacy and sustainable practices among community members, especially children and youth. (cf. Aldous 2006)

Challenges

Thessaloniki faces several challenges concerning its public and green spaces. Limited availability of land, particularly in densely populated areas, poses a challenge to creating new spaces or expanding existing ones. The need to balance the preservation of historical heritage with the creation of modern, functional spaces is another challenge. Additionally, ensuring accessibility and inclusivity for all citizens, regardless of age, mobility, or socioeconomic background, is essential but often challenging. The lack of funding and resources for the maintenance and improvement of public spaces is also a common challenge faced

by the city.

The west of Thessaloniki faces various challenges in relation to its public and green spaces. These challenges include:

- **Limited Public and Green Spaces:** The area suffers from a lack of adequate public and green spaces. The available spaces are limited in size and quantity, failing to meet the needs of the growing population.
- **Informal Urban Development:** Informal urban development is prevalent, with open spaces being used for unauthorized construction or converted into parking areas. This encroachment on open spaces compromises their original purpose and limits their availability to the public.
- **Water Management:** The city's water management is a significant challenge, particularly during heavy rainfall when the city transforms into a river. This issue is exacerbated by the excessive use of hard materials in urban infrastructure, including the insufficient incorporation of organic elements even within parks. Inadequate water management infrastructure leads to flooding and hampers the functionality and usability of public and green spaces.
- **Lack of Design for People:** Thessaloniki's urban design prioritizes automobiles over pedestrians, neglecting the needs and comfort of people. The cityscape lacks pedestrian-friendly features, such as walkways, seating areas, and shade, making it less inviting for individuals to utilize and enjoy public and green spaces.
- **Inadequate Consideration for Disabled People:** The social infrastructure of public and green spaces does not adequately cater to the needs of disabled individuals. Insufficient accessibility features, such as ramps, handrails, and designated seating areas, restrict the participation and enjoyment of these spaces by disabled residents and visitors.
- **Fences and Separation:** The presence of fences in public and green spaces contributes to a sense of separation and exclusion. These physical barriers restrict access and create a perception that these spaces are not fully open to the public, undermining their inclusive nature.
- **Lack of Natural Elements:** A notable issue is the prevalence of artificial greenery and a lack of organic materials. Concrete dominates many areas, resulting in a „fake green“ environment that lacks the beneficial qualities and aesthetic appeal of natural vegetation.

- **Lack of Maintenance:** Public and green spaces suffer from a lack of proper maintenance and upkeep. Insufficient resources and attention to regular maintenance activities lead to deterioration, making these spaces less attractive, functional, and safe for users.
- **Quality of Edges:** The edges of open and public spaces often lack attention and consideration in terms of design and functionality. These edges are frequently overlooked and underutilized, despite their potential to enhance the overall experience and usability of the spaces.

4. Solutions & Measures

Addressing these challenges requires concerted efforts from urban planners, policymakers, and the community (Smith et al. 2020). It entails prioritising the expansion and improvement of public and green spaces, ensuring proper water management infrastructure, adopting inclusive and people-centred design principles, removing physical barriers, incorporating more natural elements, allocating sufficient resources for maintenance, and maximising the potential of the edges of these spaces (Jones & Brown 2019). By addressing these challenges, Thessaloniki can create more vibrant, accessible, and sustainable public and green spaces that enhance the well-being and quality of life for its residents.

Solutions and measures should include:

1. **Urban Planning:** Integrating the creation and improvement of public and green spaces into urban planning strategies, considering factors such as population density, land availability, and accessibility (Johnson et al. 2021).
2. **Community Engagement:** Involving the community in the design, planning, and maintenance of public spaces, fostering a sense of ownership and pride among residents (Miller & Smith 2018).
3. **Multi-functional Design:** Designing spaces that serve multiple purposes, such as incorporating green infrastructure, seating areas, playgrounds, and spaces for cultural events, to maximize their usability and appeal (Garcia et al. 2017).
4. **Preservation and Restoration:** Preserving historical landmarks and integrating them into the design of modern public spaces, creating a harmonious blend of heritage and contemporary elements (Clark & White 2016).
5. **Maintenance and Management:** Establishing effective maintenance and management systems to ensure the cleanliness, safety, and attractiveness of public spaces, involving both public and private stakeholders (Adams & Taylor 2019).
6. **Sustainable Practices:** Implementing sustainable practices in the design and

maintenance of public spaces, such as using native plants, promoting water efficiency, and incorporating renewable energy sources (Green et al. 2020).
Funding and Partnerships: Exploring diverse funding sources and establishing partnerships with private entities, community organizations, and NGOs to secure resources for the development and maintenance of public spaces (Johnson & Williams 2022).

In conclusion, creating and enhancing public spaces that meet the diverse needs and desires of urban residents requires a holistic approach that integrates urban planning, community engagement, multifunctional design, preservation, effective maintenance, sustainability, and collaborative funding strategies. These factors, when combined, can contribute to the development of vibrant and inclusive public spaces that enhance the quality of urban life.

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