

Research paper

THE MULTIPLE BENEFITS OF POCKET PARKS AS URBAN MICRO-INTERVENTIONS AND THEIR IMPLEMENTATION POTENTIAL IN THE CITY OF NIŠ

Natalija Stanković¹, Maša Randelović²

Abstract

In urban areas, which are increasingly facing environmental and spatial challenges such as the urban heat island effect, air pollution, and a decline in quality of life, there are often neglected and underutilized spaces with the potential to become valuable public resources. In this context, pocket parks represent one of the key micro-interventions that can contribute to improving urban living conditions by enhancing microclimate, increasing biodiversity, and creating accessible public spaces. By analyzing theoretical frameworks and examples of best practices from various cities worldwide, this paper explores the multiple benefits of pocket parks from ecological, microclimatic, social, and urban planning perspectives. Special emphasis is placed on the possibilities for implementing pocket parks in the city of Niš, Serbia through the identification of potential locations based on an analysis of the urban context and spatial-functional criteria. The research indicates that pocket parks, as part of a sustainable development strategy, can contribute to the regeneration of degraded areas and the improvement of urban structures. By examining relevant criteria and implementation challenges, the paper provides recommendations for integrating pocket parks into the urban development of Niš, highlighting the potential of micro-interventions in creating a higher-quality and more sustainable urban environment

Key words: *Pocket parks, Urban micro-interventions; Sustainable development; Ecological aspects; Niš*

¹ PhD Student, Junior Researcher, Innovation Center University of Niš, Serbia, natalija.stankovic@icun.ni.ac.rs, ORCID 0009-0009-3532-8878

² PhD Student, Junior Researcher, Innovation Center University of Niš, Serbia, masa.randjelovic@icun.ni.ac.rs, ORCID 0009-0004-9275-8448

1. INTRODUCTION

We are witnessing that contemporary cities, perhaps more markedly than ever before, are facing a series of global challenges, among which the risks posed by climate change, rapid urbanization, and the effects of urban heat islands stand out. These and other global processes and issues further emphasize the need for a thoughtful approach to urban space planning and design. One of the key problems arising from the above is the insufficient amount of green spaces. Cities often lack an adequate number of parks, tree-lined avenues, green squares, and other green areas relative to their population density. This presents a serious urban planning challenge, as it fails to meet the basic needs of citizens for recreation, outdoor activities, microclimate mitigation, and maintaining a connection with nature in daily life. Furthermore, even when green spaces do exist, they are not evenly distributed across urban neighborhoods. This leads to situations where certain areas, particularly those that are socially or infrastructurally neglected, lack access to green spaces within walking distance (typically defined within a 300- to 500-meter radius) [1]. Such spatial inequality raises the issue of urban justice, as privileged neighborhoods are often significantly better equipped with greenery, while less developed and poorer areas are neglected, further deepening social and environmental disparities within cities. Among the existing urban green spaces, smaller, often overlooked areas stand out — despite their limited size, they possess significant potential to become active parts of urban life through appropriate transformation. Pocket parks, as a form of small (semi-)public green spaces, offer a response to these challenges by enhancing the quality of space and life at the micro-location level, particularly in densely built urban environments.

This paper explores the concept of pocket parks as a form of urban micro-intervention, with a special focus on their multifaceted significance and potential implementation in the urban context of the city of Niš, Serbia. The aim of the paper is to identify and explain the key values that pocket parks can offer in contemporary cities, both in terms of microclimatic and ecological improvement and in promoting social inclusion and urban justice. Additionally, the goal is to, through the analysis of Niš's specific spatial context, identify potential locations suitable for the implementation of pocket parks and offer guidelines for their integration into sustainable urban development strategies. The methodological framework of the paper includes a qualitative analysis of the available literature, as well as the examination of a best practice example from New York, the Paley Pocket Park, in order to recognize applicable models for the local context. It also encompasses an analysis of the urban context of a selected municipality within Niš, including cartographic representations and data on the existing green infrastructure, an assessment of location potentials, and a synthesis of findings to formulate recommendations for future interventions.

2. THEORETICAL FRAMEWORK

Pocket parks originally emerged in Harlem, one of the poorest neighborhoods in New York City, during the mid-1960s, through a pilot project. Generally, they developed as a response to the presence of numerous underutilized urban spaces, with the aim of assigning new purposes to these areas. The core idea was to explore and activate neglected parts of the city to create spaces that facilitate social interaction among residents and contribute to enhancing the quality of everyday urban life [2]. Pocket parks have been subject to various

interpretations and approaches, and as such, the literature offers numerous definitions that vary depending on the author, context, and disciplinary perspective. While some authors identify pocket parks as a distinct, independent category of urban green spaces [3], others view them as a subtype of local parks, often defined by a size of up to 1.2 hectares according to certain criteria [4]. Spinelli confirms the initial definition of a pocket park as a public space located within a city block, primarily intended to serve and benefit the local community. Some authors emphasize that pocket parks have a broader role in enhancing urban sustainability by providing opportunities for employment, creating spaces for creativity and entrepreneurship, and improving public health and well-being [5]. To encompass the diverse views, pocket parks can be broadly defined as small urban green spaces that, as a form of urban micro-intervention, serve to improve the urban quality and resilience of the city, foster well-being, connectivity, diversity, and flexible use. Their design should reflect urban specificity, promote a sense of community, and respect the needs of the local population as the primary users of such spaces. There is no "standardized" pocket park, which is undoubtedly a positive feature, as the design of public spaces should always respond to local needs and context.

Since the late 1960s, when they were first recognized as a distinct category of urban spaces, 13 different types of pocket parks have been identified, including: small urban gardens and mini-parks, green street strips/greenways, playgrounds, adventure playgrounds, street workout parks, relax areas/parklets/sunset parklets, street charge/smart areas, smart energy-gym areas/fitness spaces, pop-up cafes and restaurants/pop-up activity parking, public art parks, urban farming/allotment gardens, street food parks, and flood protection parks/flood control parks [6]. Due to this wide variety in typology, the design process must be flexible and inclusive. In this context, the concept of co-design is particularly important — a participatory approach in which users are actively involved in all stages of planning and designing spaces, ensuring that the design aligns with different age groups, the real needs of the community, and the specific characteristics of the location [2].

3. EXAMPLE OF GOOD PRACTICE FROM NEW YORK CITY AND THE MULTIPLE SIGNIFICANCE OF POCKET PARKS

Paley Park, located in the heart of Midtown Manhattan, New York City, stands as one of the most famous and highly regarded examples of a pocket park, designed to offer an oasis of peace and quiet amid the urban hustle and bustle (*Fig. 1a*). Originally opened in 1967, the park was the result of a vision by architect Robert Zion and a philanthropic initiative led by William S. Paley, founder of CBS (Columbia Broadcasting System). Paley Park is a privately owned public space, primarily intended to provide opportunities for rest and relaxation within a densely urbanized environment. Covering an area of 390 m², the park is dominated by an impressive six-meter-high waterfall that spans the entire width of the rear wall, helping to mask city noise and creating a soothing soundscape. Additionally, twelve locust trees positioned in the central part of the park provide pleasant shade, while visitors are offered movable wire chairs and marble tables (*Fig. 1b*). The ground is paved with granite slabs, and the side walls are covered with English ivy, creating a harmonious blend of natural and urban elements. One of the key features of the park is its flexibility and ability to adapt to the needs of its visitors, including accessibility for people with disabilities. Paley Park is carefully designed to create an optimal microclimatic environment, with strategic orientation that allows

for maximum sunlight exposure during the day, while greenery and water features contribute to a pleasant atmosphere. Although small in size, the park is highly functional and efficiently used, accommodating up to around 200 visitors at a time, predominantly during daylight hours when it is most frequented. Paley Park also serves as an excellent example of sociological impact, providing a much-needed space for rest and relaxation, which is crucial in the fast-paced life of a major city like New York. It allows people to retreat from the stress of the urban environment, positively influencing mental health and overall well-being. Due to its intimate nature, the park becomes more than just a physical space; it is a setting for informal social interaction, often used for taking breaks, meetings, creative work, or simply enjoying a quiet moment. One of the reasons for the park's long-standing popularity and sustainability lies in its thoughtful design. By respecting the spatial planning regulations, using high-quality materials and natural elements, Paley Park has become a symbol of how small urban spaces can be effectively utilized to meet community needs. Its renovation in 1999, which included the replacement of the waterfall system (*Fig. 1c*), upgrades to the underground irrigation systems, revitalization of green areas, and preservation of original design elements, once again confirmed the importance of maintaining the park's integrity [7].



Figure 1a. Park location, Google Maps; Figure 1b. Park courtyard and Figure 1c. Waterfall, <https://www.paleypark.org/>

Pocket parks, such as Paley Park, represent more than just spatial micro-interventions; they are multi-layered urban resources offering a wide range of benefits across ecological, microclimatic, sociological, and urban planning aspects. Their significance lies not only in the aesthetic enhancement of the urban landscape but also in their ability to address key challenges of contemporary urban life. From an ecological perspective, pocket parks contribute to the reduction of the urban heat island effect, increase soil permeability, and enable natural rainwater infiltration—an especially important function in densely built environments with a high percentage of impermeable surfaces. Through the planting of trees and the introduction of green spaces, these parks improve air quality, support biodiversity conservation, and create micro-ecosystems. In terms of microclimate, the thoughtful placement of greenery and water features, such as the waterfall in Paley Park, helps create a more pleasant outdoor environment during the summer months, reduces noise levels, and enhances the comfort of open public spaces. Sociologically, the importance of pocket parks is particularly evident in their function as places for gathering and informal interaction. In urban environments where private spaces often dominate over public ones, these small parks become crucial points of social cohesion, allowing people of different ages, interests, and professions to share common space. From an urban planning perspective, pocket parks complement the existing network of public spaces, helping to create urban green corridors and revitalizing neglected parcels. They can serve as catalysts for further development in their immediate surroundings, improve the visual identity of neighborhoods, and contribute to overall urban regeneration.

4. ANALYSIS OF THE URBAN CONTEXT OF NIŠ, SERBIA AND IDENTIFICATION OF POTENTIAL POCKET PARK LOCATIONS IN THE CITY

The Municipality of Medijana, as the central and most urbanized part of Niš, faces significant challenges related to the lack of accessible and evenly distributed green spaces. Although the area includes several larger parks and green corridors, many densely built residential neighborhoods remain without adequate small-scale green spaces that are easily accessible to pedestrians. An analysis of the current state of green infrastructure, based on the typology of green spaces defined within the Green Surge project, identified several potential locations suitable for the development of pocket parks [8]. The selection criteria included lack of nearby green areas, degraded or underused spaces, good pedestrian access, and potential for integration into the urban fabric. The attached map presents the selected area of analysis within the territory of the City Municipality of Medijana and marks the identified potential locations for the development of pocket parks (*Fig. 2*). The visualization highlights their distribution within the broader urban matrix, as well as the characteristics of each micro-location, which are additionally illustrated through detailed enlarged views. At several locations, urban furniture intended for children, such as playgrounds and benches, was observed. However, it is generally in poor condition, worn out, neglected, or poorly maintained, which further emphasizes the need for intervention. Each of these sites was evaluated in the context of its spatial potential, current land use, and the needs of the local community, with the aim of formulating recommendations for their transformation into high-quality and functional micro-urban green spaces.



Figure 2. Identification of potential P.P. locations in the City of Nis, Google Earth

5. CONCLUDING CONSIDERATIONS

In the context of sustainable development, pocket parks are recognized as significant urban micro-interventions due to their flexibility and contextual adaptability, generating multiple positive effects with minimal spatial and financial investment. The challenges that arise during their implementation include unresolved property ownership issues, lack of institutional support and long-term management strategies, as well as limited community involvement, which can lead to a mismatch between design and users' actual needs. Despite

these obstacles, the multifaceted value of pocket parks is immeasurable. Complementing the existing network of public green spaces, pocket parks contribute to the formation of an urban mosaic of microspaces, thereby increasing accessibility and ensuring a more balanced distribution of greenery across the city. The example of Paley Park in New York clearly demonstrates that even spatially modest interventions, when carefully designed and aligned with users' needs, can significantly enhance the quality of urban life. The spatial context analysis of the Medijana municipality in Niš, Serbia has identified numerous neglected and underutilized spaces which, if appropriately transformed into pocket parks, could improve the equitable accessibility of green areas, particularly in infrastructurally disadvantaged zones. The goal of identifying potential locations for pocket parks in the city is not only the physical revitalization of these small spaces but also their strategic use to enhance the urban microclimate, increase opportunities for social interaction, and strengthen the overall resilience and quality of life in the city. The proposed interventions support sustainable urban development by forming a network of green microspaces that enhance the ecological, social, and aesthetic quality of life in Niš.

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