

AGENDA 3-30-300 ROADMAP

STEPS FROM CONCEPT
TO CATALOGUE OF
INTERVENTIONS IN
BELGRADE

Written and Edited by
MILENA VUKMIROVIĆ



PLACEMAKING
WESTERN BALKANS

IMPRESSUM

Title: Agenda 3-30-300 Roadmap

Subtitle: Steps from Concept to Catalogue of Interventions in Belgrade

Written and edited by Milena Vukmirović

Design: Stanislav Mirković, Milena Vukmirović and Milana Mijatović

Publisher: Placemaking Western Balkans

Bibliographic imprint: Placemaking Western Balkans

For publisher: Milena Ivković

Print: Belpak

NUR code: 648

NUR description: Architecture

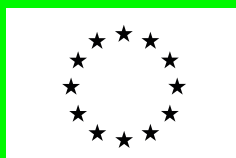
ISBN/EAN: 978-94-93439-09-2

Year: 2025

This publication is realised within the Agenda 3-30-300 project, initiated and led by Placemaking Western Balkans (PWB) and funded by WWF Adria and the EU4You program



**SAFE
NATURE
CLIMATE**



**#EY
ЗА ТЕБЕ**

AGENDA 3-30-300 ROADMAP

STEPS FROM CONCEPT
TO CATALOGUE OF
INTERVENTIONS IN
BELGRADE

Written and Edited by
MILENA VUKMIROVIĆ



PLACEMAKING
WESTERN BALKANS

PROLOGUE

The Agenda 3-30-300 project, initiated and led by Placemaking Western Balkans (PWB) in collaboration with WWF Adria and the EU4You program, was developed to popularise and critically examine the significance of the 3-30-300 principle in the Balkans and Southeast Europe. Conceived as both a research and educational initiative, the project stands at the intersection of academic knowledge, professional practice, and civic engagement, aiming to translate a globally recognised principle into actionable local strategies.

The 3-30-300 principle, developed within the framework of the Dutch Nature-Based Solutions Institute under the leadership of Professor Cecil Konijnendijk, has gained increasing attention worldwide as a simple yet effective guideline for greening cities and improving public health. It requires every resident to have three trees visible from their window, 30% canopy cover in each neighbourhood, and a maximum distance of 300 m to the nearest green space. Multiple international studies have confirmed that access to greenery improves mental health, reduces stress, encourages physical activity, mitigates the urban heat island effect, and strengthens social cohesion. In the long term, investing in urban nature reduces public health and infrastructure costs.

In Belgrade, where grey infrastructure continues to expand at the expense of green spaces and access to quality greenery remains uneven, the adoption of the 3-30-300 principle represents a significant step towards sustainable urban development. By re-centring nature in the design and management of public spaces, the principle provides a regenerative approach to urban transformation, where shade, biodiversity, and accessibility are understood as essential infrastructure.

Within this broader mission, the Agenda 3-30-300 project has established itself as a platform for exchanges between students, academics, practitioners, and citizens. Its activities include international student workshops, expert interviews, and public exhibitions. Importantly, the International Student Workshop on the 3-30-300 Agenda was organised in connection with the International Academic Conference on Places and Technologies (PT25), providing a strong academic framework and fostering dialogue between emerging professionals and leading experts in the field.

The exhibition “Greening the Cities – The 3-30-300 Principle in Action”, hosted at the Impact Hub Belgrade, marked a significant milestone in the project. It showcased the work of international student teams who, through visual narratives, illustrated how three distinct Belgrade neighbourhoods could be transformed by applying this principle. Serving as a public translator of the project’s findings, the exhibition highlighted how small, incremental, and locally tailored interventions—tree rows, pocket parks, rain gardens, green roofs, and vertical greenery— could enhance everyday life and ecological functioning in urban areas.

By combining European perspectives, local expertise, and citizen participation, Agenda 3-30-300 positions Belgrade within the global movement for greener, healthier, and more

equitable cities. The project demonstrates that a city where every child sees a tree from their window, every park is within walking distance, and every neighbourhood enjoys shade and greenery is prepared to withstand the challenges of climate change.

TABLE OF CONTENTS

FRAMEWORK	15
PRACTICE	21
CRITIQUE	37
PROSPECTS	41
GREEN PRINT BELGRADE	47
INSIGHTS	57
LOCATIONS	65
STUDENT WORKSHOP	75
EXHIBITION	99
CATALOGUE	109
CONCLUSION	179

PREFACE

PREFACE: AGENDA 3-30-300 ROADMAP

The 3-30-300 principle, developed within the framework of the Dutch Nature-Based Solutions Institute under the leadership of Professor Cecil Konijnendijk, has emerged as one of the most widely recognised tools for guiding the greening of cities. It sets out three simple but powerful goals: every resident should see at least three trees from their home, workplace, or school; each neighbourhood should have 30% tree canopy cover; and everyone should live within 300 meters of a public green space.

Although deceptively simple, the principle synthesises decades of interdisciplinary research in landscape architecture, environmental psychology, public health, and climatology. Studies have consistently shown that the presence of trees and greenery reduces stress, improves mental health, encourages physical activity, mitigates urban heat islands, and strengthens social cohesion in urban areas. In the long term, investment in urban nature decreases infrastructure costs, reduces the burden on healthcare systems, and enhances the overall resilience of cities.

As urbanisation accelerates and climate challenges intensify, the 3-30-300 principle provides an evidence-based and highly accessible framework that connects scientific findings with everyday life. It is a rule of thumb designed not to be rigid, but to inspire cities to translate global knowledge into local action.

In Belgrade and across the Balkans, urban development has often prioritised grey infrastructure over green infrastructure. The result is an uneven distribution of quality green spaces, heat-stressed neighbourhoods, and vulnerable public health conditions in the city. Thus, the adoption of the 3-30-300 principle represents a significant step forward, reframing trees and parks as essential infrastructure for climate adaptation and public well-being rather than optional amenities.

For Belgrade, specifically, where densely built historic neighbourhoods lack shade, modernist districts often suffer from fragmented open spaces, and hillside areas struggle with stormwater runoff, the principle offers a unifying lens. This demonstrates how small, context-sensitive interventions—tree rows, pocket parks, green roofs, and rain gardens—can lead to systemic change. In doing so, it resonates with broader European trends towards regenerative urban design while responding to the unique challenges of Southeastern Europe.

The Agenda 3-30-300 project, initiated and led by Placemaking Western Balkans (PWB), was conceived as a research and educational platform to localise this global principle. Its purpose is to test how the 3-30-300 rule can be applied in Serbia and the wider region and to develop tools that link academic theory with design practice and citizen engagement.

The project brought together students, academics, practitioners, and residents through a set of complementary activities: expert interviews, design competitions, pilot field studies,

and above all, the International Student Workshop on the 3-30-300 Agenda, organised in connection with the International Academic Conference on Places and Technologies (PT25). This connection to PT25 provided a strong academic foundation and positioned the students' work within the international dialogue on sustainable and resilient cities.

The workshop gathered students from Serbia, North Macedonia, and Greece to represent disciplines such as architecture, landscape architecture, horticulture, civil engineering, and construction management. This interdisciplinary setting ensured that each proposal was creative and feasible, combining ecological insights, spatial design, technical expertise and implementation strategies.

The Agenda 3-30-300 project was developed in partnership with WWF Adria and the EU4You program, alongside universities, civil society organisations, and municipal stakeholders. This framework of institutional and financial support enabled the project to extend beyond the academic setting and directly engage in public discourse.

The collaboration between international organisations, local institutions, and grassroots initiatives demonstrates the project's hybrid character, which is grounded both globally and regionally. This finding highlights the importance of cross-sector partnerships in creating actionable strategies for green and resilient urban futures that are sustainable.

The exhibition "Greening the Cities – The 3-30-300 Principle in Action", hosted at Impact Hub Belgrade, was a key moment in making the project's findings accessible to a broader audience. It translated technical maps and diagnostics into clear visual narratives aided by AI visualisations that show shading effects, stormwater infiltration, and continuity of tree corridors.

By standardising the presentation of interventions across three case study sites—Vračar (dense historic fabric), New Belgrade (modernist "city in a park"), and Banovo Brdo (heterogeneous hillside neighbourhood)—the exhibition allowed for a direct comparison of impacts and clearly communicated the universal message that small, locally adapted interventions can measurably improve everyday life.

The audience—residents, students, professionals, and decision-makers—responded enthusiastically, particularly to proposals that promised a quick and visible impact, such as shaded pedestrian routes, pocket parks, rain gardens, and critical rows of trees. This event sparked discussions about pilot projects, species selection, costs, maintenance, professional expertise, and community needs.

The Agenda 3-30-300 roadmap demonstrates that greener, healthier, and more equitable cities are within the reach of the government. The project shows that the principle is not an abstract number, but a tangible guide for urban transformation.

By aligning global knowledge with local challenges, combining student creativity with professional insight, and fostering dialogue between academia, communities, and municipal institutions, Agenda 3-30-300 positions Belgrade and the Balkans within the global movement for sustainable cities.

This publication is one of the key deliverables of this project. It provides an overview of the entire process, synthesises its main results, and presents a catalogue of intervention types proposed for three Belgrade neighbourhoods: Vračar, New Belgrade and Banovo Brdo. In this way, it not only documents the project but also provides a practical toolkit for professionals, decision-makers, and citizens, offering a clear vision of how the 3-30-300 principle can be applied in local contexts.

A city where every child sees a tree from their window, every resident is within walking distance of a park, and resilient canopies shade neighbourhoods is not only a vision for the future but also a practical and achievable path towards resilience in the face of climate change.

Dr Milena Vukmirović

FRAMEWORK

AGENDA 3-30-300: A FRAMEWORK FOR GREENER AND HEALTHIER CITIES

The 3-30-300 concept is a simple yet powerful rule of thumb developed by experts in urban forestry, most notably Cecil Konijnendijk, to help cities become greener, healthier, and more resilient to climate change. It is not a strict law but rather a guideline that sets clear and measurable goals for urban greening, with a strong emphasis on the fair distribution of green spaces so that all citizens can benefit from them.

Components of the Concept

3 – Three trees visible from one's window

Every resident should be able to see at least three mature and well-developed trees from the windows of their homes, workplaces, or schools.

Visibility is essential for mental health, cognitive functioning, and a sense of connection with nature. Numerous studies have shown that simply looking at green spaces reduces stress, anxiety, and mental fatigue. During the COVID-19 pandemic, when people were more confined to their homes, the importance of this “passive” contact with nature became more evident. A view of trees and nature provides short mental pauses (microbreaks) that improve concentration, creativity, and productivity. Visual contact with trees also helps people stay connected to seasonal changes and natural cycles, even in densely built-up urban environments.

30 – Thirty per cent tree canopy cover in every neighbourhood

From an aerial perspective, tree canopies should cover at least 30% of the surface area of every urban neighbourhood or district.

This indicator, known as tree canopy cover, plays a vital role in reducing heat, improving air quality, managing stormwater, and supporting physical health. Heat reduction is a key strategy for combating the “urban heat island” effect. Dense canopies create shade, prevent the overheating of concrete and asphalt, and cool the air through transpiration (evaporation of water). The temperature beneath trees can be 10–15°C lower than that under direct sunlight. Leaves filter airborne pollutants (PM_{2.5}, PM₁₀) and absorb harmful gases, including carbon dioxide. Tree canopies intercept rainfall, thereby reducing the pressure on drainage systems and lowering the risk of urban flooding. Neighbourhoods with more trees are more pleasant for walking, running, and cycling, thereby encouraging regular physical activity among residents.

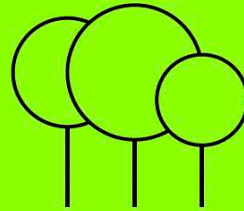
300 – Three hundred meters to the nearest park or green space

Every resident should live within a maximum of 300 m (approximately a five-minute walk) from the nearest high-quality public park or other green spaces, ideally no smaller than 0.5–1 ha.

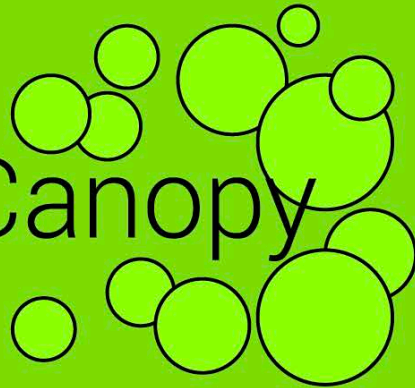
AGENDA

3-30-300

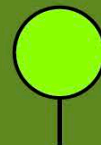
3 Trees



30% Canopy



300 Meters



Meeting this target is essential for accessibility, recreation, social cohesion, equality, and environmental justice. The closer a park is, the more likely it is to be used for exercising. Easy access promotes regular physical activity, such as walking and playing sports, thereby reducing the risk of chronic diseases. Parks are places of encounter, leisure, and community building. They are public spaces where people of different generations and backgrounds meet and interact. Ensuring equality means that everyone, regardless of economic status or neighbourhood, has the same access to the benefits provided by green spaces. This is particularly important for children, older adults, and people with limited mobility.

The 3-30-300 rule connects the visual, spatial, and accessibility dimensions of greenery, creating a comprehensive framework for planning liveable, healthy, and sustainable cities.

The concept was first formally introduced by Professor Cecil C. Konijnendijk, a scholar in urban forestry. His intention was not to create a rigid law, but to propose an evidence-based rule of thumb that condenses complex research into a practical and measurable format for planners and decision-makers (C. C. Konijnendijk, 2021).

Scientific Foundations of the 3-30-300 Principle

Although seemingly simple, the 3-30-300 principle represents a carefully considered synthesis of decades of scientific research in landscape architecture, environmental psychology, public health, and climatology (C. Konijnendijk et al., 2025b). Designed as a practical guideline for landscape architects, urban planners, and decision-makers, this concept translates complex scientific knowledge into measurable and achievable objectives. Its author, Professor Konijnendijk, formulated it not as a rigid law but as an evidence-based rule of thumb that offers cities a clear pathway for improving community health and resilience

The scientific basis for the first component—requiring that every resident should be able to see at least three trees from their window—is deeply rooted in the theories of biopsychological restoration. Since the 1980s, research has systematically demonstrated that passive contact with nature has a measurable and positive impact on human well-being. A foundational contribution in this field is the Attention Restoration Theory developed by Rachel and Stephen Kaplan (1989). They argued that natural scenes, such as views of trees, engage our “involuntary attention”, thereby allowing the cognitive resources required for focused work to rest and recover. This mechanism directly reduces mental fatigue and improves concentration.

The second component, which sets a target of 30% tree canopy cover in every neighbourhood, is grounded in ecological and climatological research that identifies this percentage as the threshold at which the ecosystem services of urban greenery become

highly effective. One of the most significant services is the mitigation of the “urban heat island” effect. Metropolitan areas with dense tree canopies can be substantially cooler because trees provide direct shade and cool air via transpiration. A study published in the Proceedings of the National Academy of Sciences (Ziter et al., 2019) highlighted that the cooling effect of trees on daily temperatures is most pronounced when canopy cover surpasses the threshold of about 30–40%. In addition to thermoregulation, dense urban forests act as biological filters for pollutants. Research by Nowak, Crane, and Stevens (2006) quantified the capacity of urban trees in the United States to remove thousands of tons of airborne pollutants, thereby directly improving public health.

Finally, the third component—requiring that every resident live within 300 m of the nearest park—draws directly on recommendations from the World Health Organization (WHO) and extensive epidemiological studies. In its 2016 report on green spaces and health, the WHO emphasised the importance of easy access to green areas as a prerequisite for a healthier lifestyle (Maas et al., 2006; WHO, 2016). As the report states, “Green spaces are essential for physical and mental health. They provide opportunities for physical activity, social interaction, and relaxation, and their accessibility can reduce health inequalities.” (WHO, 2016) This recommendation is supported by robust empirical evidence. Meta-analyses have confirmed a strong correlation between park proximity and increased physical activity. At the same time, large-scale studies, such as one conducted in the Netherlands with a sample of over 250,000 people, demonstrated lower prevalence rates for as many as 15 different diseases—including depression and cardiovascular disorders—among residents living near green spaces (Maas et al., 2006).

PRACTICE

APPLYING THE 3-30-300 PRINCIPLE IN PRACTICE

Transitioning from theoretical guidelines to practical implementation is the key test for any urban planning concept. Although relatively new, the 3-30-300 approach has quickly gained international recognition, with many cities integrating it into their strategic documents as a roadmap for creating greener and healthier urban environments. Examining examples from cities across different continents, such as Barcelona, Melbourne, and Toronto, reveals a spectrum of strategies, unique challenges, and innovative methods for monitoring progress.

Barcelona, Spain

Barcelona, a city renowned for its dense urban fabric, has identified the 3-30-300 principle as a central element of its ambitious Tree Master Plan 2017–2037 (Bayo & Paris, 2016). Facing significant challenges from the urban heat island effect and air pollution, the city has prioritised increasing canopy cover. Its strategy is multilayered and includes large-scale tree-planting programs, with an emphasis on selecting species resilient to drought and future climate conditions. A key component of the plan is the transformation of urban space through the Superblocks project, which restricts traffic within groups of residential blocks and converts reclaimed street space into green zones, pedestrian corridors, and community areas. The greatest challenge for Barcelona is the lack of available space; in the tightly built historic core, finding locations for new trees requires innovative solutions, such as vertical gardens and rooftop greening. To measure progress, the city employs advanced technologies, including regular mapping via Geographic Information Systems (GIS) to precisely track canopy cover at the neighbourhood level (with a target of 30%), as well as analyses of green space accessibility to ensure that as many residents as possible live within 300 m of a park.

Melbourne, Australia

On the other side of the globe, Melbourne has long been recognised as a global leader in urban forestry. Its Urban Forest Strategy 2012–2032 aligns fully with the principles of 3-30-300, even though it predates the concept itself (City of Melbourne, 2012). Confronted with an ageing tree population and extreme climate events, such as droughts and heatwaves, Melbourne has adopted a proactive approach. Its central strategy focuses on increasing the genetic diversity of trees to make urban forests more resilient to disease and climate change. The city developed a publicly accessible portal called Urban Forest Visual. This interactive map shows every tree in the town, along with data on its species, age, and ecological benefits. This tool is used not only to monitor canopy cover but also to engage citizens who can report issues or even send an “email” to a particular tree. Melbourne’s main challenges include balancing private land development—where the city has less control—with greening objectives, as well as ensuring adequate irrigation for young trees under increasingly frequent drought conditions. Monitoring progress relies on sophisticated technology, including Light Detection and Ranging (LiDAR), which enables three-

dimensional mapping of tree canopies and provides more precise data on canopy density and vegetation health compared to traditional two-dimensional surveys.

Toronto, Canada

Toronto integrates principles akin to 3-30-300 through its Toronto Green Standard (TGS), a set of environmental requirements for new development projects (City of Toronto, 2017). Rather than relying solely on public tree-planting programs, Toronto has applied regulatory mechanisms that require developers to contribute to greening objectives. The TGS mandates the use of green roofs, on-site tree planting, and permeable surfaces. The city also implements its Ravine Strategy to protect and revitalise its unique system of ravines, which form the backbone of Toronto's green infrastructure. One of Toronto's most significant challenges is ensuring an equitable distribution of greenery. Historically, lower-income neighbourhoods have significantly less canopy cover, leading to "ecological inequality." The city addresses this issue through targeted planting programs in priority areas. To track progress, Toronto combines high-resolution satellite imagery with GIS mapping to update its tree inventory and assess canopy coverage, which currently stands at about 28% intending to reach 40% (Duinker et al., 2021; Martin et al., 2025). Analyses of park accessibility were also conducted to identify "green space deserts" and guide future investments.

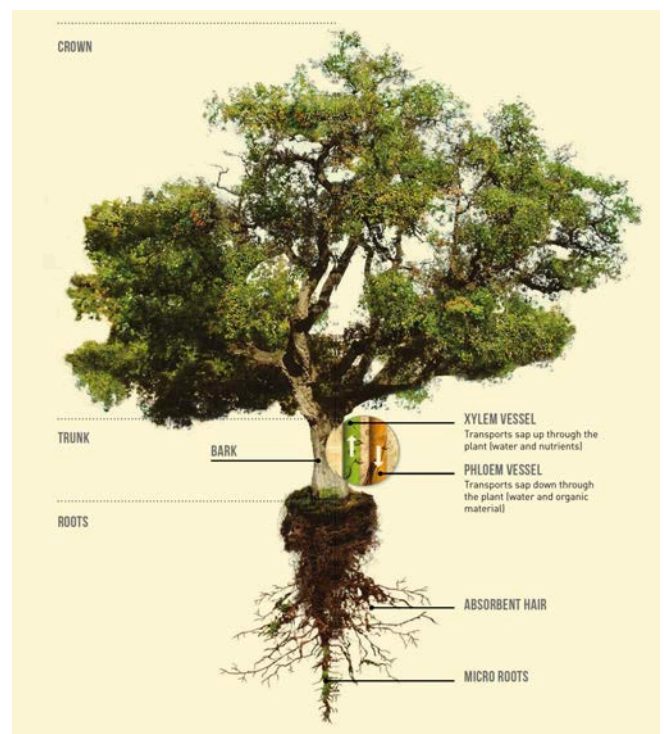
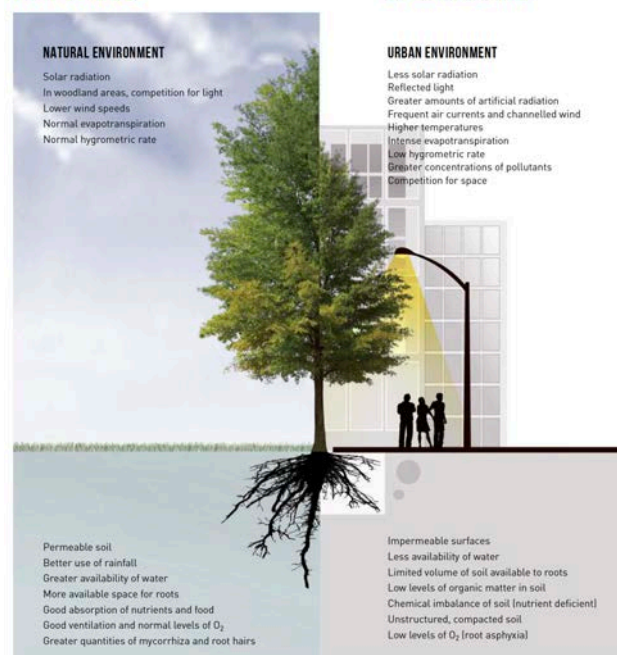
Despite operating under different geographic, climatic, and urban conditions, these cities demonstrate that the implementation of the 3-30-300 principle is achievable through a combination of strategic planning, regulatory tools, technological innovation, and community engagement. Their experiences also highlight that reaching these goals is not without obstacles and requires long-term commitment and systemic responses to challenges such as limited space and social inequality.

BARCELONA

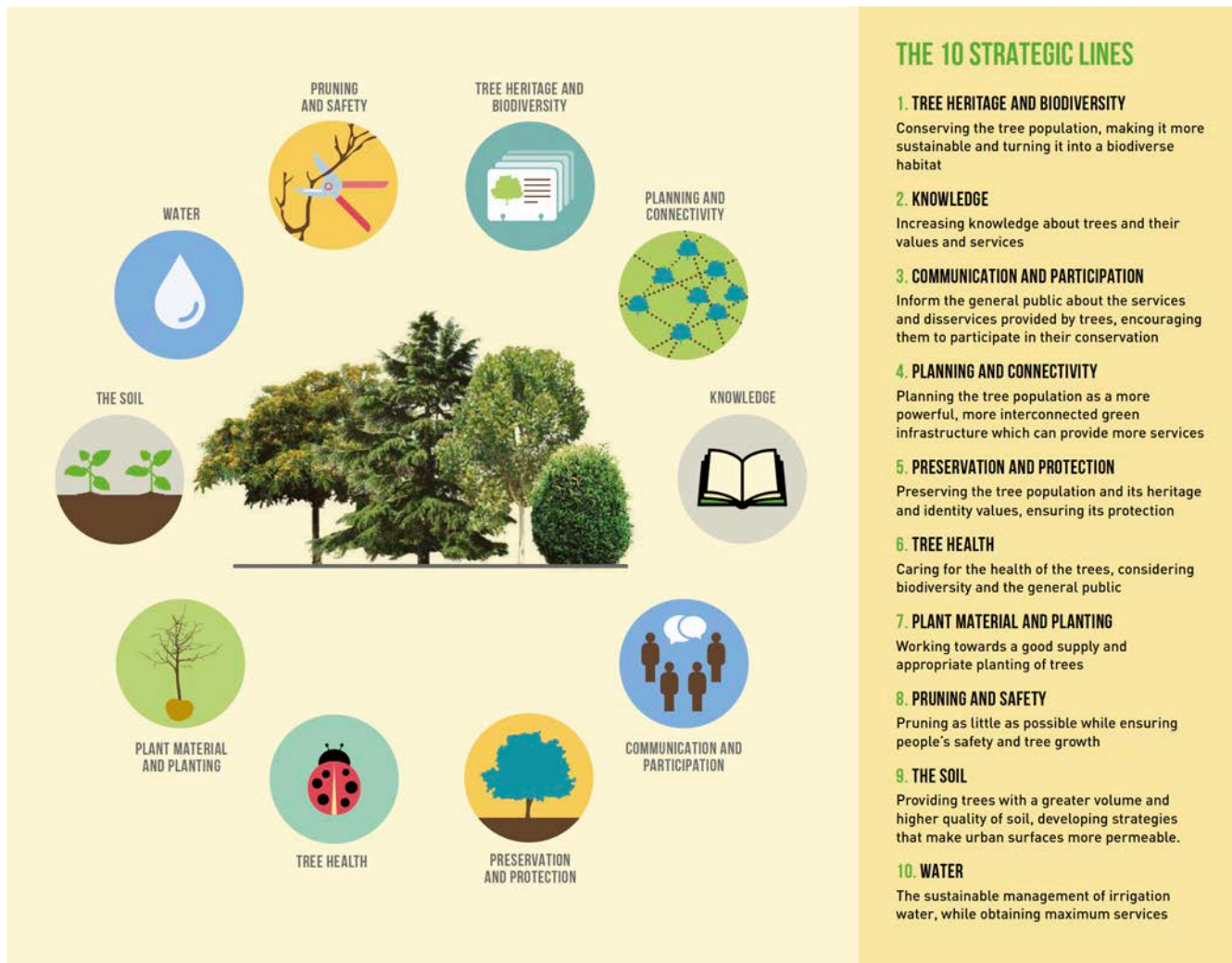


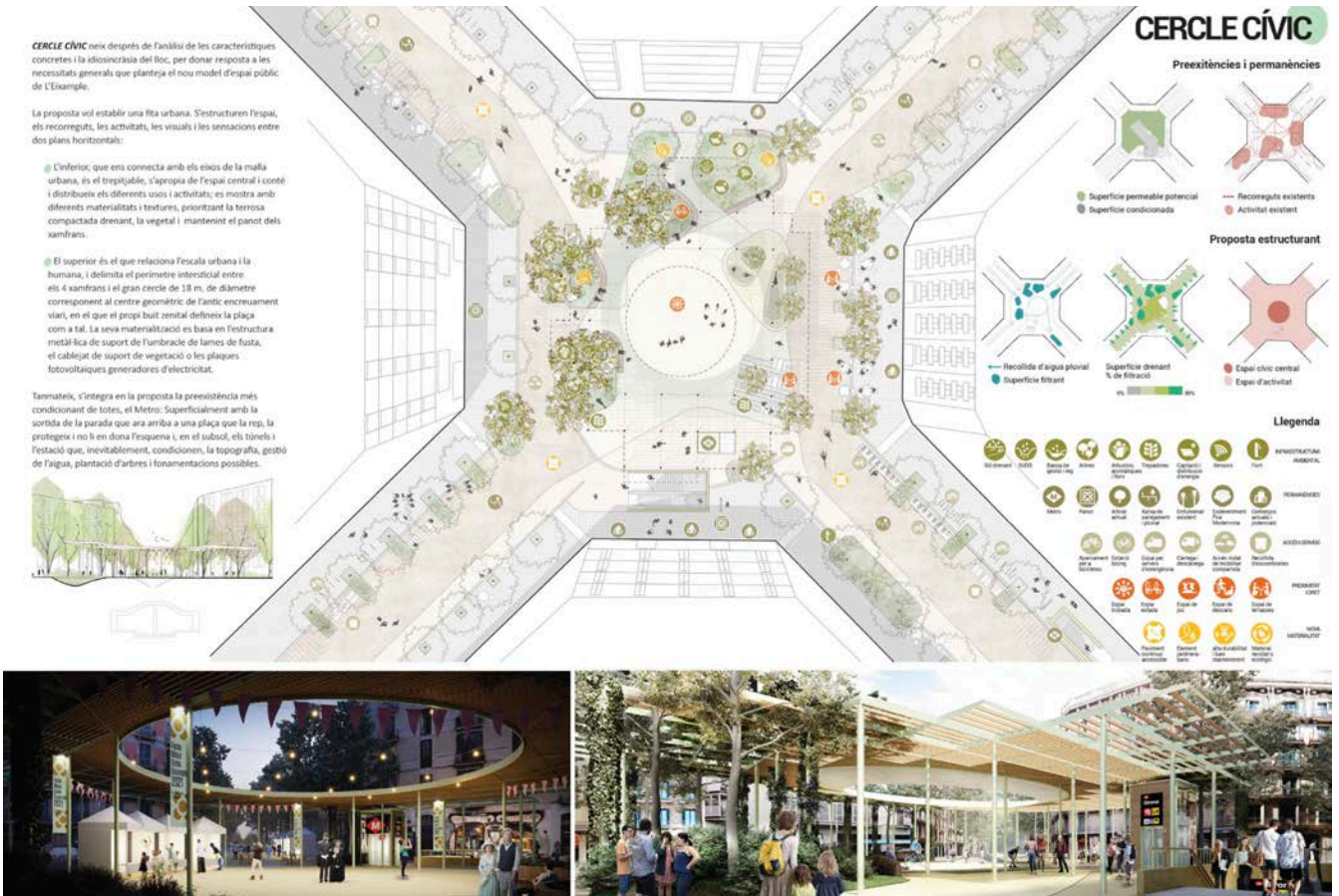
Green infrastructure of the Eixample district, Barcelona

CONDITIONING FACTORS FOR TREES

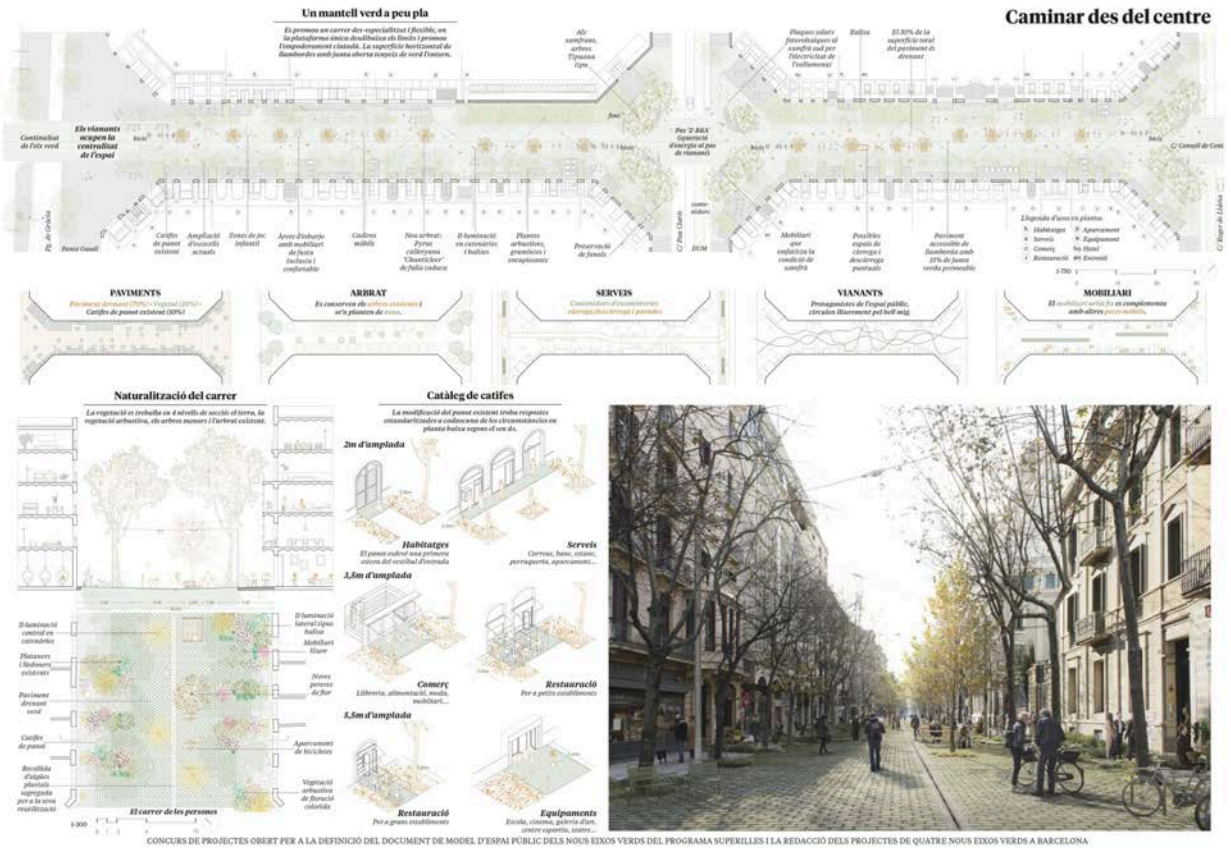


Trees in the city of Barcelona





Caminar des del centre



CONCURS DE PROJECTES OBERT PER A LA DEFINICIÓ DEL DOCUMENT DE MODEL D'ESPAI PÚBLIC DELS NOUS EIXOS VERDS DEL PROGRAMA SUPERILLES I LA REDACCIÓ DELS PROJECTES DE QUATRE NOUS EIXOS VERDS A BARCELONA

'Paisatges urbans diversos i concatenats'

La proposta cerca un equilibri flexible entre "invariants" i "variants" que ordeni i diversifiqui les opcions de viure l'espai públic de l'Exemple. Respon a condicions contextuals singulars, necessitats socials concretes i s'obre a formes d'apropiació temporal. Promou la visió d'un Eixample complex ple d'episodis urbans particulars. La proposta parteix de les tres condicions espacials i funcionals que neixen amb les Superilles:

- les places sense trànsit amb zones singulars "ad hoc" de barri, que construeixen la identitat de la superilla, fent l'ecosistema local més divers;

les cruïlles assolades, generoses i confortables amb usos animadors de les manses
es i on la presència del verd és important i els trams enllaç, més estrets i ombrívols
amb usos recurrents de proximitat que es caracteritzen segons el context en trams
'intercanvi', trams jardí-silenci i trams mosaic.

Els trams més concorreguts, trams 'd'intercanvi', concentren el comerç, restauració, art... S'hi privilegia la flexibilitat, transparència i continuïtat del pas, intercalant espais d'estada confortables, de reunió, de joc informal, etc. El verd estructural és primordialment la canòpia.

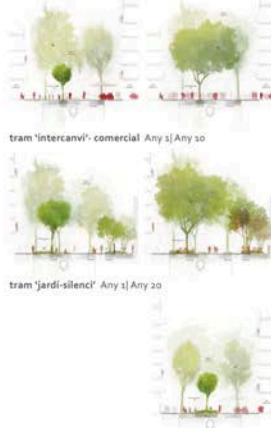
invariants i variants | **de SÒL a SOL**

Als trams amb hospitals, jardins, biblioteques, els trams "jardí-silenci" s'hi privilegien els espais verds pausats amb arbrat de divers ports i espècies multiestrat, amb un accent a la biodiversitat. Es generen espais d'estada, recollits i confortables, fonts, amb espais contemplatius i jugables vinculats.

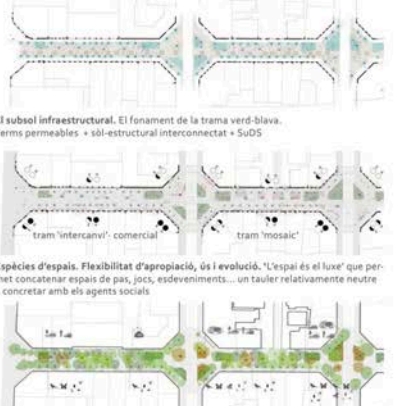
Els trams 'mosaic', d'estada, joc i verd són carrers més genèrics en què es combina la flexibilitat i polivalència d'espais oberts flexibles amb espais d'estada espacialment interessants, jocs informals, fonts i parterres verds estructuradors situats en les parts més assolibles i properes als xamfrans.



Panot existent 4M	Nou arbrat a portell costat solana	Suds o cel·les estructurals	Pou de graves connecta TV arbres 2 voreres	Sòl estructural de llamborda 12 sobre sorra
-------------------	---------------------------------------	-----------------------------------	--	---



tram 'mosaic' Any 1|Any 20 Secció fugada

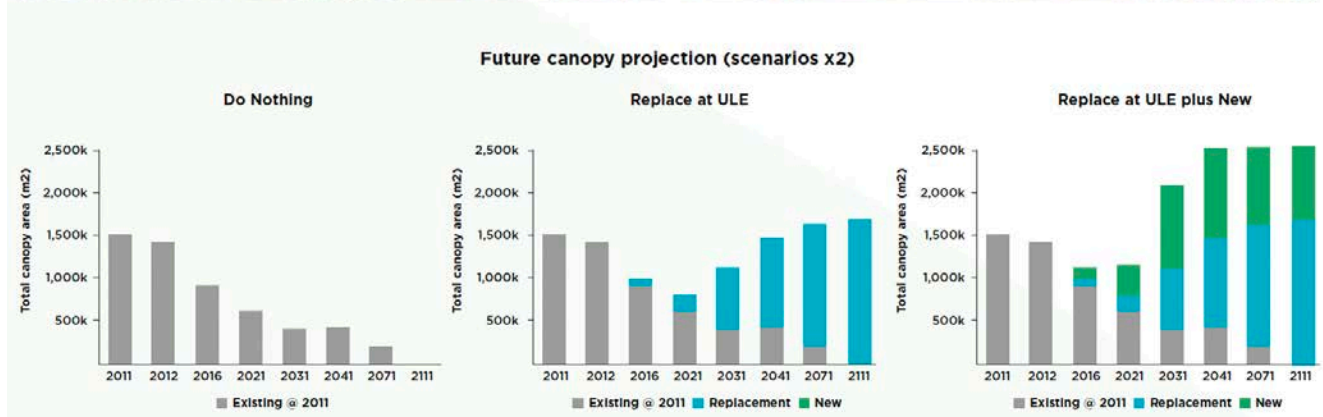
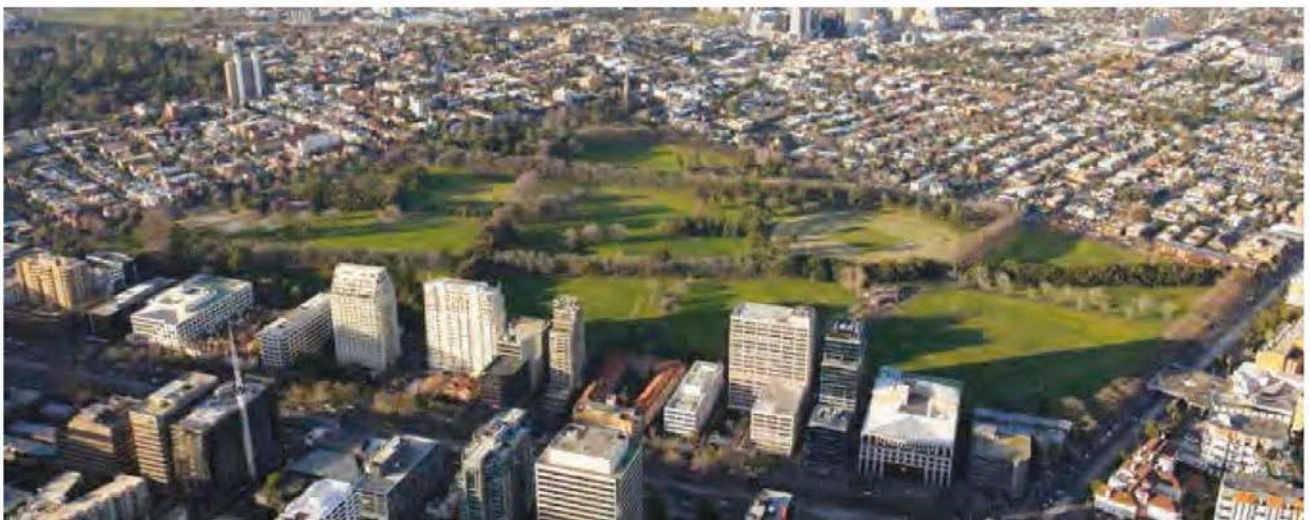
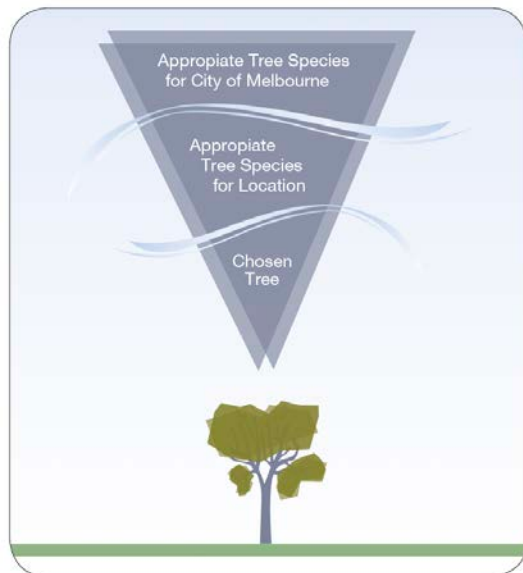


Un verd estructural, divers i resiliència. 15-25M3/arbre de sòl interconnectat que permet reubicar arbres a 7-8M façana.



[1](#)
[2](#)
[3](#)
[4](#)
[5](#)
[6](#)
[7](#)
[8](#)
[9](#)
[10](#)
[11](#)
[12](#)
[13](#)
[14](#)
[15](#)
[16](#)
[17](#)
[18](#)
[19](#)
[20](#)
[21](#)
[22](#)
[23](#)
[24](#)
[25](#)
[26](#)
[27](#)
[28](#)
[29](#)
[30](#)
[31](#)
[32](#)
[33](#)
[34](#)
[35](#)
[36](#)
[37](#)
[38](#)
[39](#)
[40](#)
[41](#)
[42](#)
[43](#)
[44](#)
[45](#)
[46](#)
[47](#)
[48](#)
[49](#)
[50](#)
[51](#)
[52](#)
[53](#)
[54](#)
[55](#)
[56](#)
[57](#)
[58](#)
[59](#)
[60](#)
[61](#)
[62](#)
[63](#)
[64](#)
[65](#)
[66](#)
[67](#)
[68](#)
[69](#)
[70](#)
[71](#)
[72](#)
[73](#)
[74](#)
[75](#)
[76](#)
[77](#)
[78](#)
[79](#)
[80](#)
[81](#)
[82](#)
[83](#)
[84](#)
[85](#)
[86](#)
[87](#)
[88](#)
[89](#)
[90](#)
[91](#)
[92](#)
[93](#)
[94](#)
[95](#)
[96](#)
[97](#)
[98](#)
[99](#)
[100](#)

MELBOURNE



Melbourne's urban forest strategy. Future canopy projection



Melbourne's green roofs

MELBOURNE



Existing conditions at Birrarung Marr and Yarra River southern bank with the trees colour coded to show existing ULE. (Colours indicate: Red 0-5 years ULE; Orange 5-10 years ULE; Blue 10-20 years ULE; Green 20+ years ULE).

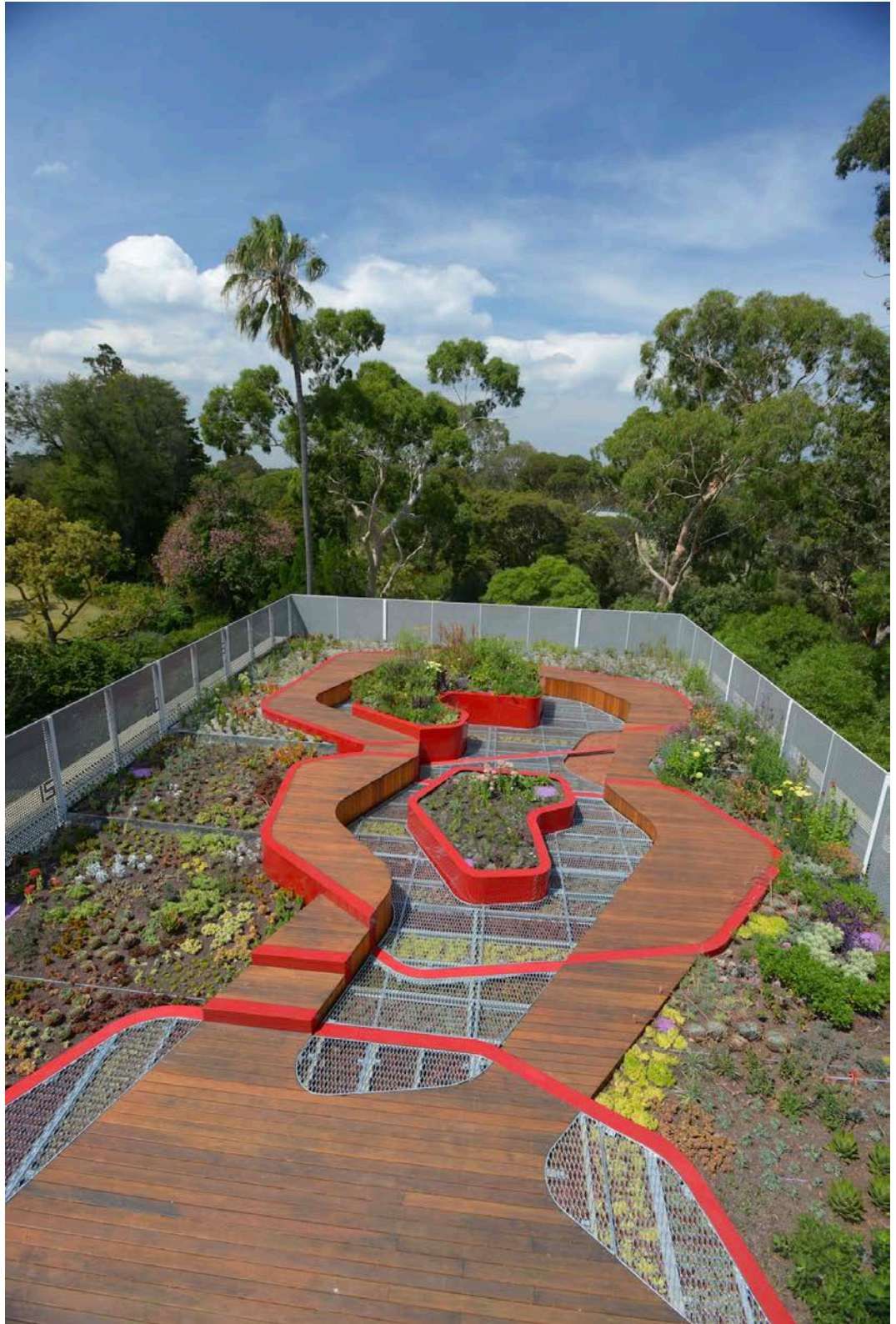


Modelling of Birrarung Marr and river bank in next 11-20+ years without replacement planting.



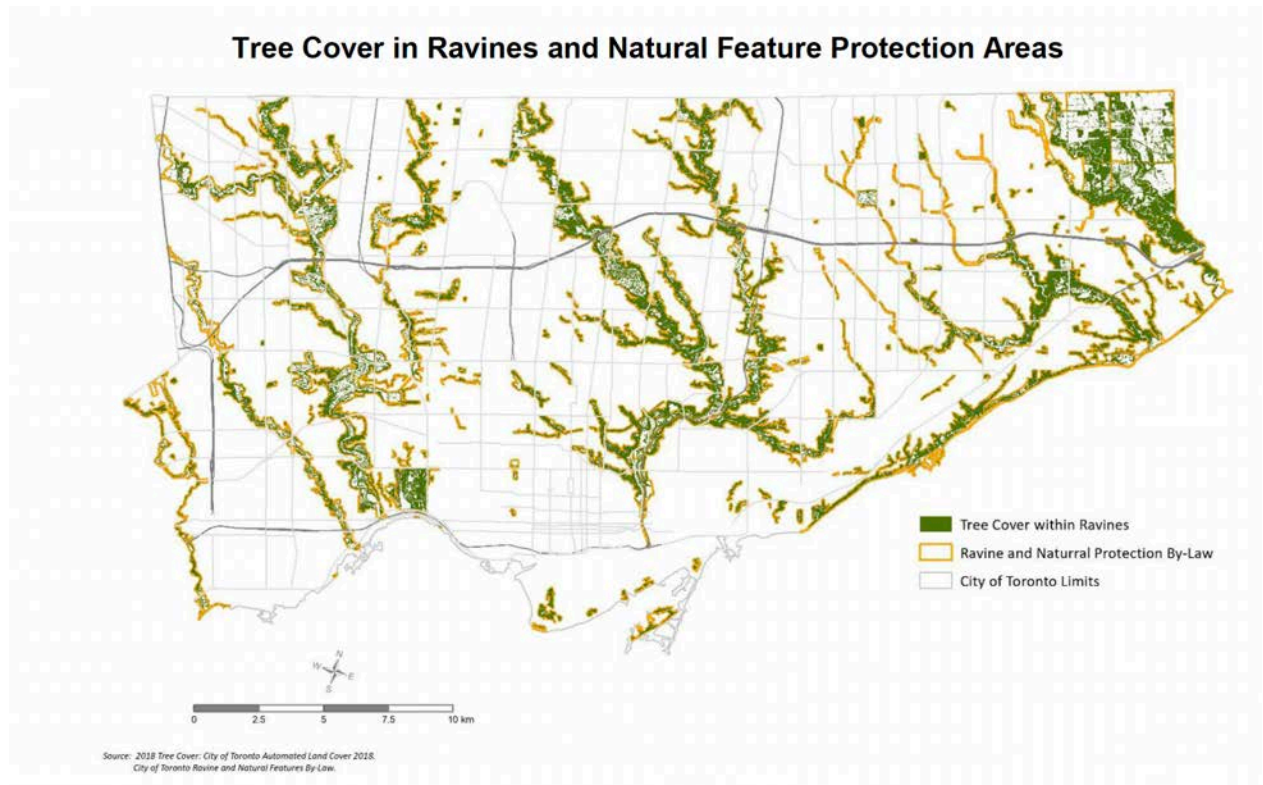
Modelling of Birrarung Marr where successional planting has been undertaken over the next 11-20+ years. The series of images above illustrates the importance of successional planning to compensate for the future loss of trees.

Melbourne's urban forest strategy. Modelling of Birrarung Marr



The Green Roof at the Burnley campus of the University of Melbourne

TORONTO



Toronto City Strategy, Tree cover in Ravine and tree cover distribution in the City of Toronto



Protect

Maintain and improve ecological health



Invest

Invest in and expand the ravine system



Connect

Ensure opportunities to connect to ravines



Partner

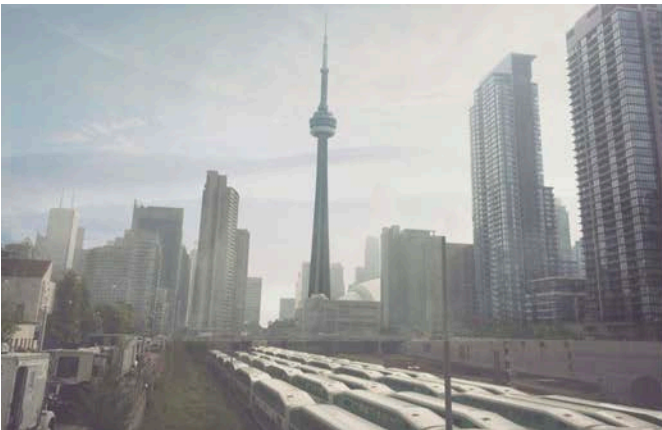
Partner with stakeholders to create opportunities



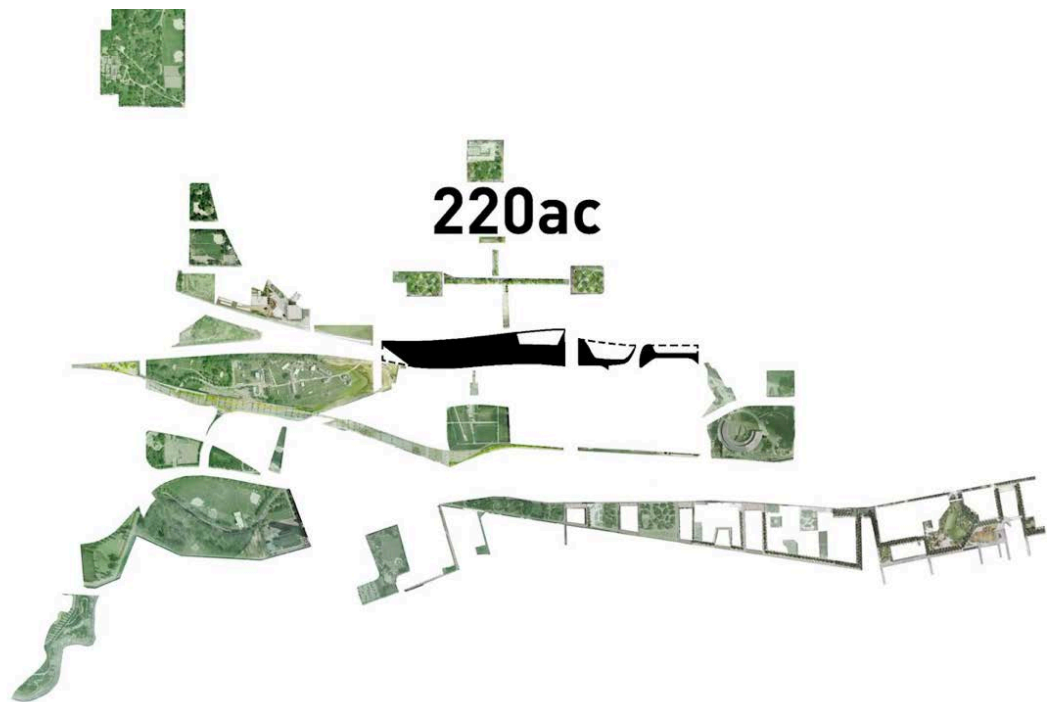
Celebrate

Celebrate, recognize, and respect ravines





Rail Deck Park



Rail Deck Park

CRITIQUE

CRITIQUE OF THE 3-30-300 PRINCIPLE

Although the 3-30-300 rule is beneficial as a communication tool and strategic guideline, its strength—simplicity—represents its key limitation. Critical analyses by urbanists, sociologists, and ecologists point to several vital challenges regarding universal applicability, the tension between quantity and quality, and unintended socioeconomic consequences. Therefore, the thoughtful application of this rule requires awareness of these limitations to avoid overly simplified and potentially counterproductive planning.

One of the most significant critiques relates to the concept's universal applicability. The 3-30-300 rule was formulated for European and North American cities in temperate climates. However, its direct application in extreme environments is problematic. In cities with arid or semi-arid climates, such as Phoenix or Dubai, the goal of 30% canopy cover is not only ecologically unsustainable because of the enormous water consumption but also incompatible with native ecosystems. In such contexts, alternative forms of greening, such as xerophytic gardens or shaded open spaces, may be far more appropriate. Similarly, in highly dense historic city centres, such as those in Tokyo or older European cores, it is physically almost impossible to achieve 30% canopy cover without drastic and undesirable interventions. For this reason, critics suggest that the rule should be treated as an adaptive framework rather than a rigid standard to be applied uniformly across the globe.

This concept also faces a significant challenge in distinguishing quality from quantity. The rule specifies quantitative indicators, including the number of visible trees, percentage of canopy cover, and maximum distance to green spaces. However, it says nothing about the quality of these resources. A park located 300 m from a residence may fulfil the metric. However, if it is neglected, poorly lit, monotonously designed, or perceived by the community as unsafe, it fails to fulfil its essential social and health functions. Ecologists emphasise that “quality” also entails biodiversity: monocultural planting of a single tree species may meet the 30% canopy target but remains ecologically impoverished and disease-vulnerable. As sociologist and urbanist William H. Whyte argued in his work on public spaces, “What attracts people most, it would appear, is other people.” (Whyte, 2001) A successful park must be programmatically and design-rich, inclusive, and culturally relevant to the community it serves—dimensions that mere numbers cannot capture.

Perhaps the most serious critique arises from the domain of social justice and concerns the phenomenon of green gentrification. Numerous case studies, such as those of the High Line in New York or park revitalisations in Barcelona, have shown that significant greening investments can dramatically increase neighbourhood attractiveness. Paradoxically, this improvement in the quality of life triggers market mechanisms that drive up housing prices and rents. Consequently, lower-income residents and long-standing community members, who were intended to be the primary beneficiaries of new green spaces, are often forced to leave under economic pressure. This process, defined by researchers such as Dooling as green gentrification, transforms greening from a common good into a luxury (Dooling,

2009). Without proactive policies on tenant protection, rent control, and affordable housing development, the implementation of the 3-30-300 principle may inadvertently deepen social inequalities and create exclusive “green enclaves” rather than promote ecological justice for all.

This brief analysis does not negate the value of the 3-30-300 principle as an aspirational goal for urban planners. Instead, it calls for caution and contextual awareness in their use. Practical application requires flexibility in targets, a strong focus on quality, biodiversity, and inclusivity of green spaces, as well as the implementation of robust social measures to ensure that the benefits of greening reach all segments of society, particularly the most vulnerable.

PROSPECTS

PROSPECTS OF THE 3-30-300 PRINCIPLE

The 3-30-300 concept, as a dynamic and influential framework, was never intended as a final solution but rather as a starting point for the deeper integration of nature into the urban fabric. Its future lies not in rigid application but in its evolution, synergy with other advanced urban paradigms, and reliance on technological innovation. Looking ahead, the rule is likely to develop by incorporating more sophisticated indicators of quality. Simultaneously, its implementation will increasingly intersect with concepts such as the 15-minute city and be supported by digital tools that enable more precise planning and monitoring.

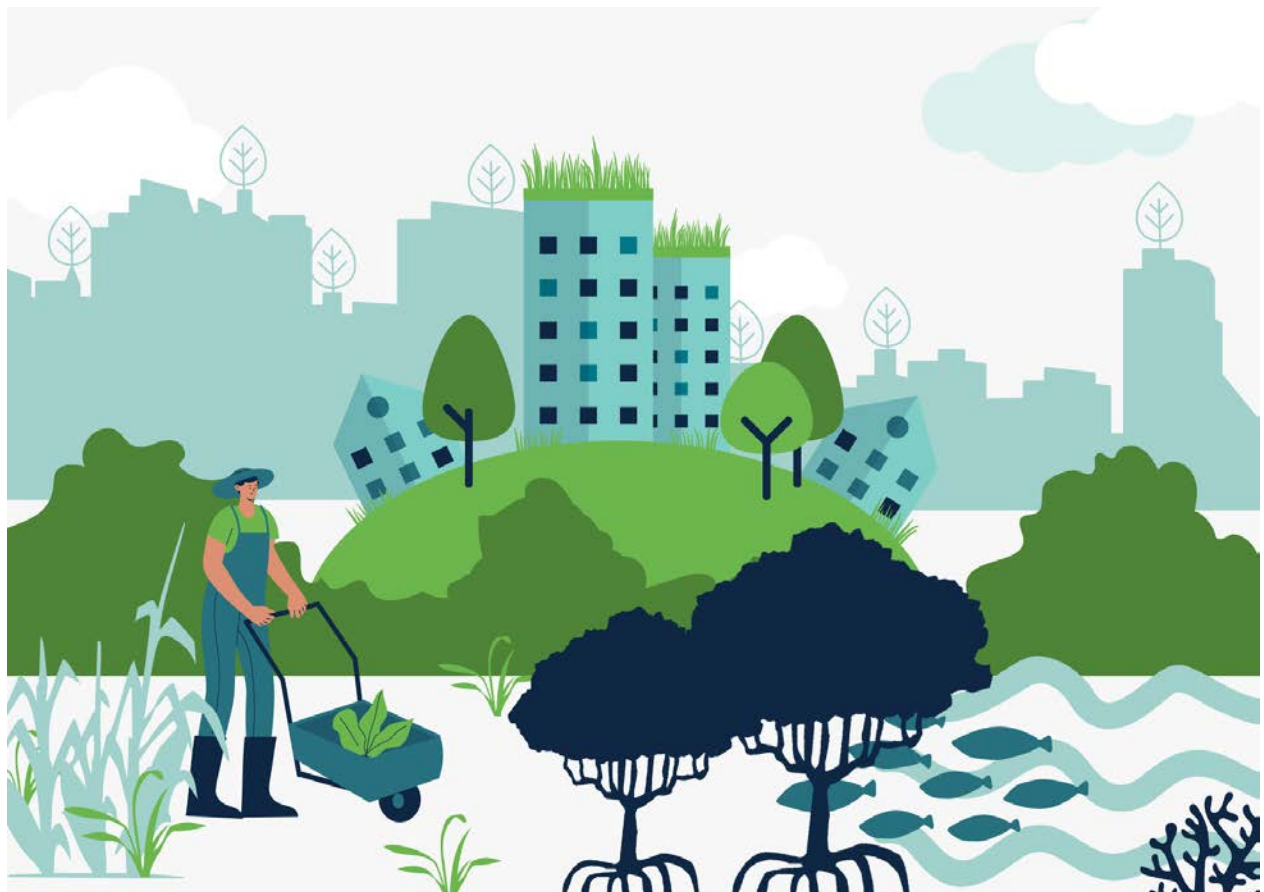
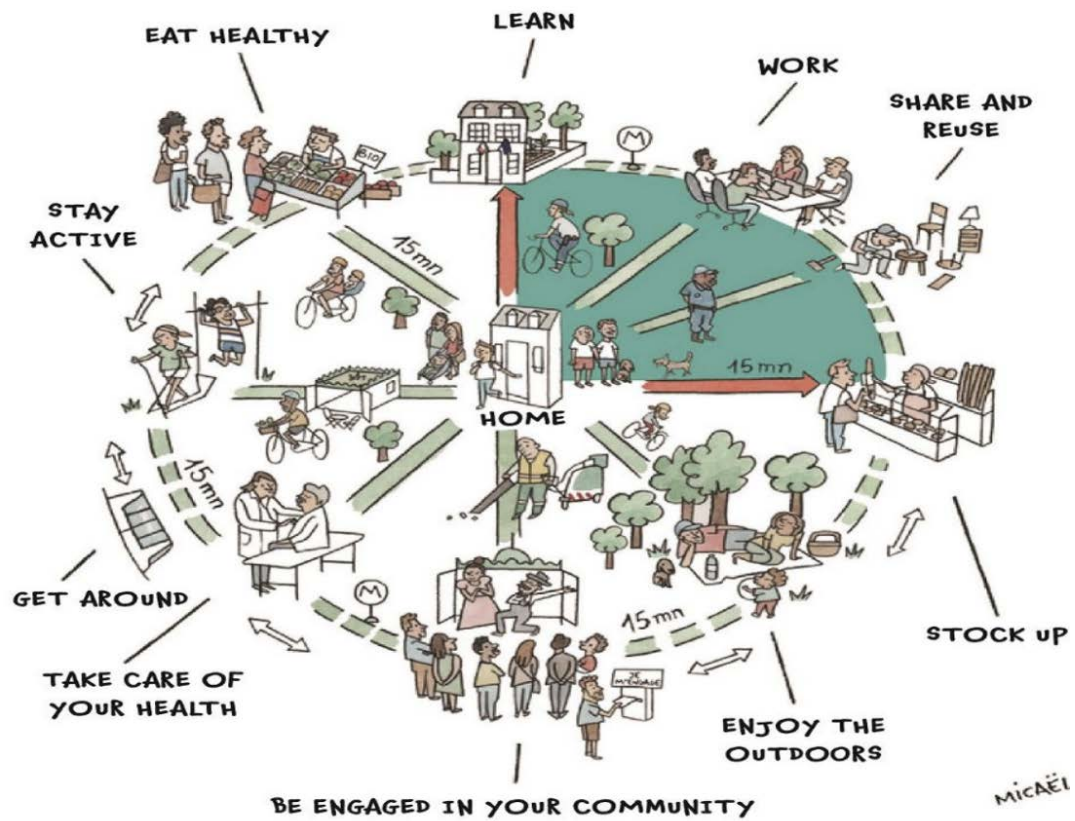
The future evolution of the concept will likely move towards adding a “fourth dimension” that addresses quality and functionality. In response to critiques regarding its excessive focus on quantity, experts have proposed supplements that could include indicators such as biodiversity (e.g. a requirement for a minimum number of native tree species), the age structure of the urban forest (ensuring the presence of both young and mature trees), or a green space quality index evaluating factors such as safety, available amenities, and inclusivity. One proposal is the introduction of a “3-30-300-30” rule, in which the final number could represent a requirement that at least 30% of trees in a neighbourhood be native species, or that parks must satisfy 30% of defined quality criteria. Such modifications would preserve the simplicity of the original rule while making it more resilient to criticism and more effective in achieving genuine ecological and social goals in the long term.

The 3-30-300 principle does not exist in isolation; its strength is multiplied when it is connected with other leading urban planning concepts. It serves as a key building block for realising the vision of the 15-minute city, a model promoted by Carlos Moreno and the City of Paris, which aims to ensure that all residents have access to essential services within 15 minutes by walking or cycling (Moreno, 2024). Within this model, the 300 m rule for parks is a fundamental precondition for quality of life. Moreover, the concept fits seamlessly into the broader framework of Nature-Based Solutions (NBS), which the European Commission promotes as a method for addressing societal challenges, such as climate change, water management, and public health, through natural processes. Planting trees to achieve 30% canopy cover is a textbook example of an NBS for combating urban heat islands and urban flooding. Finally, the philosophy of the rule is deeply intertwined with the principles of biophilic design, which seeks to integrate natural elements and processes into architecture and the urban environment to satisfy the innate human need for connection with nature.

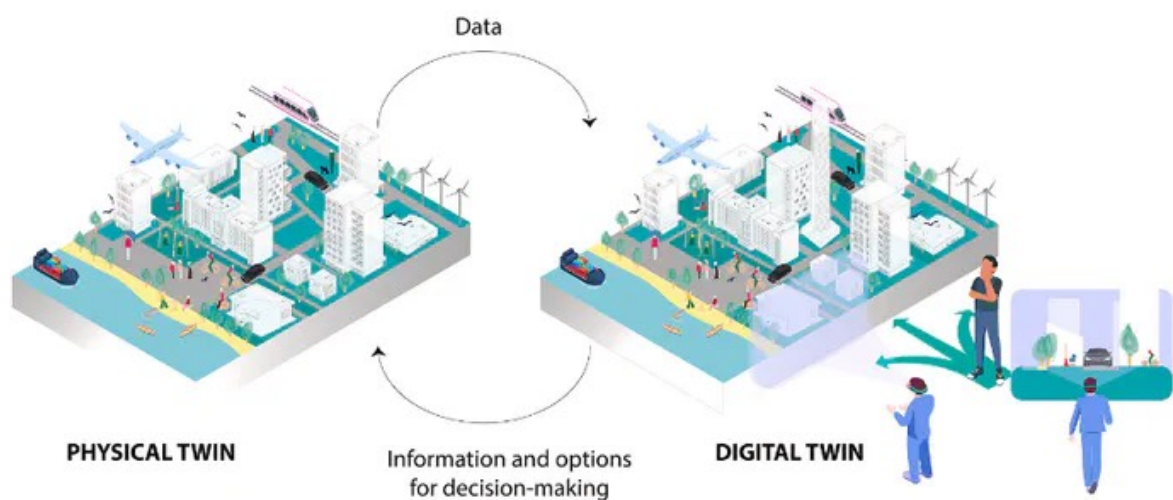
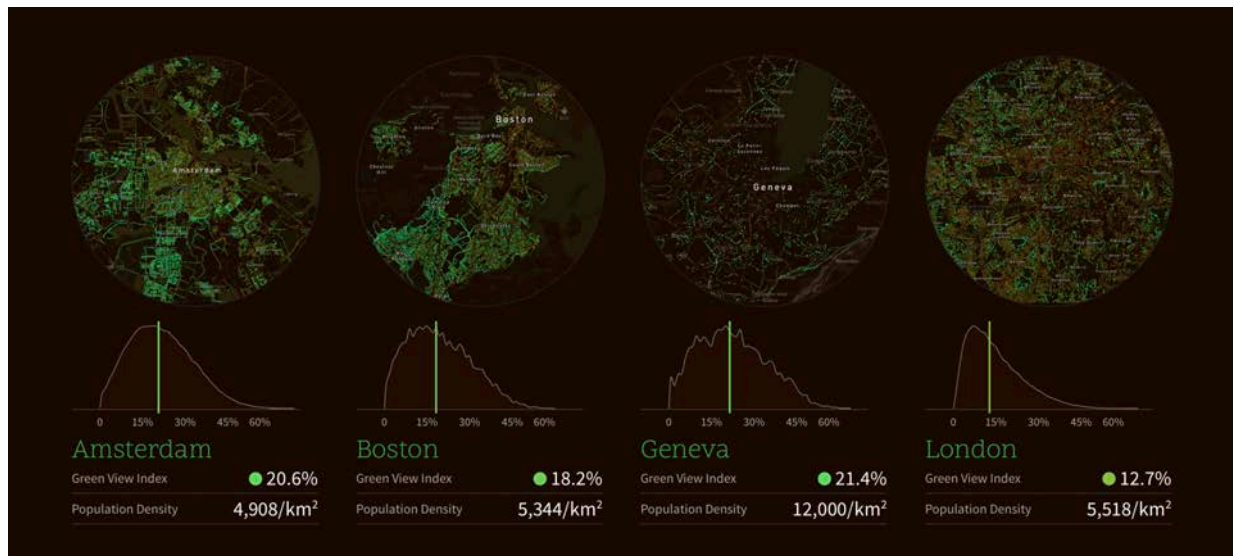
Technology plays an increasingly critical role in achieving and monitoring these objectives. Traditional tree inventory methods are slow and costly, but modern technologies offer revolutionary possibilities for improving these methods. High-resolution satellite imagery and Light Detection and Ranging (LiDAR) technology enable cities to map canopy cover with exceptional precision, measure vegetation height and density, and even identify

individual trees (Li et al., 2015). Artificial Intelligence (AI) and machine learning are used to analyse these data to predict tree-fall risks, optimise planting schedules, and identify neighbourhoods with the most significant “green deficit.” (MIT Senseable City Lab, 2025) Looking ahead, the concept of digital twins—virtual real-time replicas of cities—will allow urban planners to simulate the effects of different greening scenarios before a single tree is planted (Delanote et al., 2022). These tools can demonstrate how increasing canopy cover in a given neighbourhood influences local temperature, air quality, or property values, thereby elevating data-driven planning to an entirely new level.

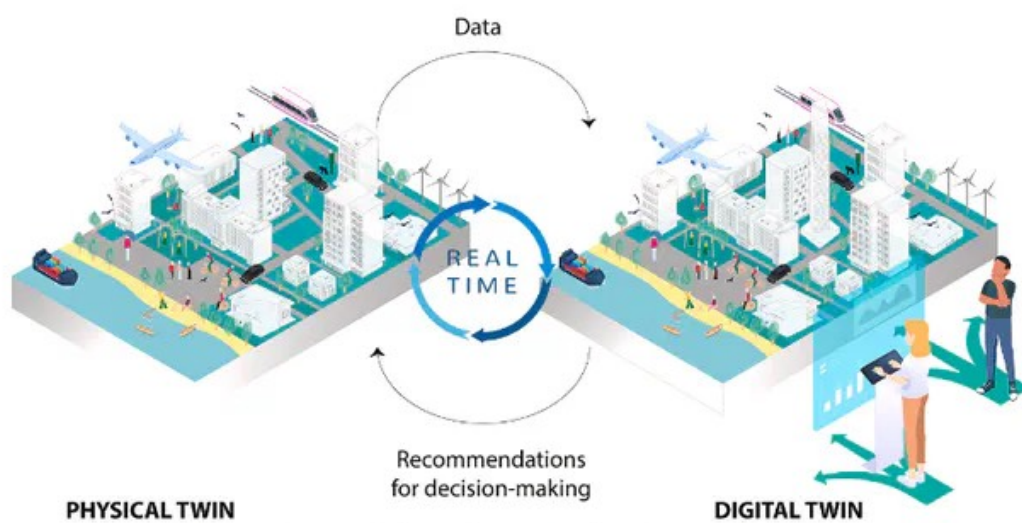
The future of the 3-30-300 principle is promising but contingent on its ability to adapt, integrate, and harness technological advances. By evolving to incorporate quality, creating synergies with related urban visions, and applying advanced digital tools, this concept has the potential to remain one of the most essential guidelines for building humane, sustainable, and resilient cities in the future.



15 minute city and Nature-based solutions



Stage 5: Dynamically Integrated 3D Stage



Stage 6: Real-time Decision-Making Stage

Treepedia by MIT Senseable city lab and Digital twin illustration by Haraguchi M, Funahashi T, Biljecki F (2024)

GREEN PRINT BELGRADE

FRAMEWORK FOR GREEN BELGRADE

Belgrade's green infrastructure and aspirations for a more sustainable urban environment have been shaped by an evolving multilayered network of strategic documents. Although none of the official plans explicitly adopt the 3-30-300 principle as a metric, their essence and goals increasingly align with the philosophy underlying this concept. An analysis of key documents, from earlier plans to the most recent strategy, reveals a clear evolution in the city's approach to urban greening.

One of the first significant acts was the Afforestation Strategy for the Belgrade Area (2011), primarily aimed at increasing forest cover across the broader territory of the city. Although its focus was not on urban greenery in the strict sense, it opened the door to viewing green areas as resources essential for enhancing the city's ecological functions, thereby indirectly underscoring the importance of quantitative targets.

A crucial step towards a systemic approach was the General Regulation Plan for the Green Space System of Belgrade (GRP-GSSB), adopted in 2019 (Urbanistički zavod, 2019). This legally binding document, for the first time, defines a network of green areas as an integrated green infrastructure. It introduced typologies of green spaces, acknowledged their ecological and social functions, and established rules for their protection and development. At a conceptual level, the plan emphasises the need for equitable distribution and accessibility of greenery, aligning closely with the principle of having a park within 300 meters.

The Climate Change Adaptation Action Plan with Vulnerability Assessment, developed with UNDP support, marked a significant convergence of green space policy and climate policy (Akcioni Plan Adaptacije na Klimatske Promene sa Procenom Ranjivosti, 2015). It promotes the concept of blue-green infrastructure and sets a target of 25 m² of public green space per capita, thus providing a quantitative framework directly connected to the principles of 3-30-300.

The next step in operationalising these goals was the Green City Action Plan (GCAP) for Belgrade (GCAP Green City Action Plan for City of Belgrade, 2021), prepared in 2022 with support from the European Bank for Reconstruction and Development (EBRD). The GCAP identifies key challenges, such as the shortage and uneven distribution of greenery, and proposes concrete projects, such as creating pocket parks, establishing a Green Space Cadastre, and improving access to green spaces in the most densely populated neighbourhoods. Thus, the GCAP most directly supports the principle that every resident should have trees or a park in their immediate vicinity.

The most recent and overarching document is the Belgrade Green Infrastructure Development Strategy 2025–2035 (BGIDS), adopted in 2024 (Strategija Zelene Infrastrukture Grada Beograda, 2024). For the first time, it positions green infrastructure as an independent pillar of urban development and integrates previous goals into a unified

and more ambitious framework. The strategy emphasises linking large parks with micro-greenery in blocks and courtyards, enhancing biodiversity and climate resilience, thus moving closer than ever to the essence of the 3-30-300 rule.

Finally, the implementation of all these strategies and plans is ensured by Belgrade's General Urban Plan (GUP). Although the draft of the new GUP 2041 is still under preparation, it integrates the goals of the GRP-GSSB, the GCAP, and the BGIDS. As the strongest legally binding planning instrument, the GUP defines minimum percentages of greenery, protects green corridors, and secures space for new parks, making it essential for the realisation of any quantitative target.

The evolution of Belgrade's strategic documents demonstrates a clear shift from sectoral policies to an integrated approach to green infrastructure. Although the 3-30-300 rule has not been formally adopted, its core ideas—universal accessibility, sufficient coverage, and quality urban nature—are increasingly shaping the city's policy goals. This lays the foundation for further harmonisation of local strategies with global standards for sustainable and inclusive cities in the future.

The development of Belgrade's green infrastructure over the past two decades has drawn on scientific research and critical professional analyses. Although none of these explicitly reference the 3-30-300 rule, their essence and objectives can be clearly linked to its three core principles: increasing the number of trees visible (3), ensuring a minimum level of canopy coverage (30%), and universal accessibility to parks or green spaces within 300 m.

The Atlas of Landscape Typologies of Belgrade, prepared by the University of Belgrade – Faculty of Forestry in cooperation with the Secretariat for Environmental Protection of the City of Belgrade, is one of the few documents that approaches the city from the perspective of landscape resources and their potential for sustainable development (Univerzitet u Beogradu - Šumarski fakultet, 2020). Based on the methodology of the European Landscape Convention, the Atlas provides a detailed typology of Belgrade's landscapes—from the Sava and Danube rivers, through the forested areas of Avala and Košutnjak, to agrarian landscapes and urban zones. Its value lies in enabling the systematic mapping and identification of a city's natural and green resources, as well as monitoring changes over time. This cartographic and typological database is crucial because it provides tools for measuring the extent and distribution of green areas, which is foundational for operationalising one of the three pillars of the 3-30-300 concept: achieving 30% canopy coverage in the urban fabric. Beyond quantification, the Atlas has strategic importance as it highlights urban fragments where green cover is underdeveloped, directly linking to the accessibility criterion of ensuring that every resident has a park or natural area within 300 m. Thus, even though the concept itself is not explicitly applied, the Atlas lays the groundwork for its future implementation, offering a methodological framework for measurement, monitoring and planning.

Documents and Key Links to the 3-30-300 Concept

Document	Year	Key Objectives and Content	Link to 3-30-300
Afforestation Strategy for the Belgrade Area	2011	Increase forest cover across the wider territory of the city; focus on the ecological functions of forests.	Indirectly relates to the goal of “30% canopy cover” through vegetation expansion, but without an explicit urban focus.
General Regulation Plan for the Green Space System of Belgrade (GRP-GSSB)	2019	First integrated document on green infrastructure; introduces typologies of green spaces; establishes rules for protection and development; connects large and local green areas.	Emphasizes equitable access to greenery → aligned with the principle of “300 m to the nearest park.”
Climate Change Adaptation Action Plan (with Vulnerability Assessment)	2021	Focus on climate resilience; promotes blue-green infrastructure; sets a target of 25 m ² of public green space per capita.	Provides a quantitative framework aligned with the goals of “30 trees” and “30% canopy cover”; indirectly linked to “300 m accessibility.”
Green City Action Plan (GCAP) – Belgrade	2022	Identifies shortages and uneven distribution of greenery; proposes pocket parks, Green Space Cadastre, and priority projects.	Most directly supports the principle of “300 m to green space” through proposals in the densest urban areas.
Belgrade Green Infrastructure Development Strategy 2025–2035 (BGIDS)	2024 (adopted)	Positions green infrastructure as a separate pillar of urban development; emphasizes connecting large parks with micro-greenery; promotes biodiversity and resilience.	Closest philosophy to 3-30-300: an integrated green network with both quantitative and qualitative accessibility goals.
General Urban Plan of Belgrade 2041 (Draft)	In procedure (2025)	Strongest legally binding planning instrument; foresees green corridors, minimum greenery percentages, and new parks.	Enables implementation of quantitative targets; provides the institutional foundation for operationalizing the 3-30-300 principle.

In contrast, the publication *Green Infrastructure in Urban Planning*, prepared by the Ministry of Space collective (Institute for Urban Politics), adopts a different but equally important perspective in relation to the 3-30-300 concept (Stojić et al., 2024). Rather than providing analytical or cartographic data, it offers a critical study of the legal, planning, and political treatment of green infrastructure in the city. The publication shows how planning documents and laws remain insufficiently harmonised, how green infrastructure lacks a consistent definition or binding status, and how it is frequently undermined by the conversion of public land for commercial purposes. It emphasises the problem that some key documents, such as the 2019 GRP-GSSB, while technically well-prepared, were reduced to orientation guidelines rather than binding acts during the adoption process. This critique underscores the most important connection with the 3-30-300 principle: the publication insists that universal access to green areas is a basic public good that must be legally guaranteed, aligning with the 300-meter principle. It also stresses the need to increase the overall surface of greenery and its proportion within the urban fabric, which directly corresponds to the 30% coverage target. Furthermore, through its recommendations and analysis of citizens’ perspectives, the publication highlights the importance of micro-greenery, street trees, and greening of blocks and courtyards—all in line with the principle that every resident should have three trees in view. Although not a formal planning act, the document clearly articulates a philosophy identical to the 3-30-300 and serves as a valuable advocacy tool for its implementation.

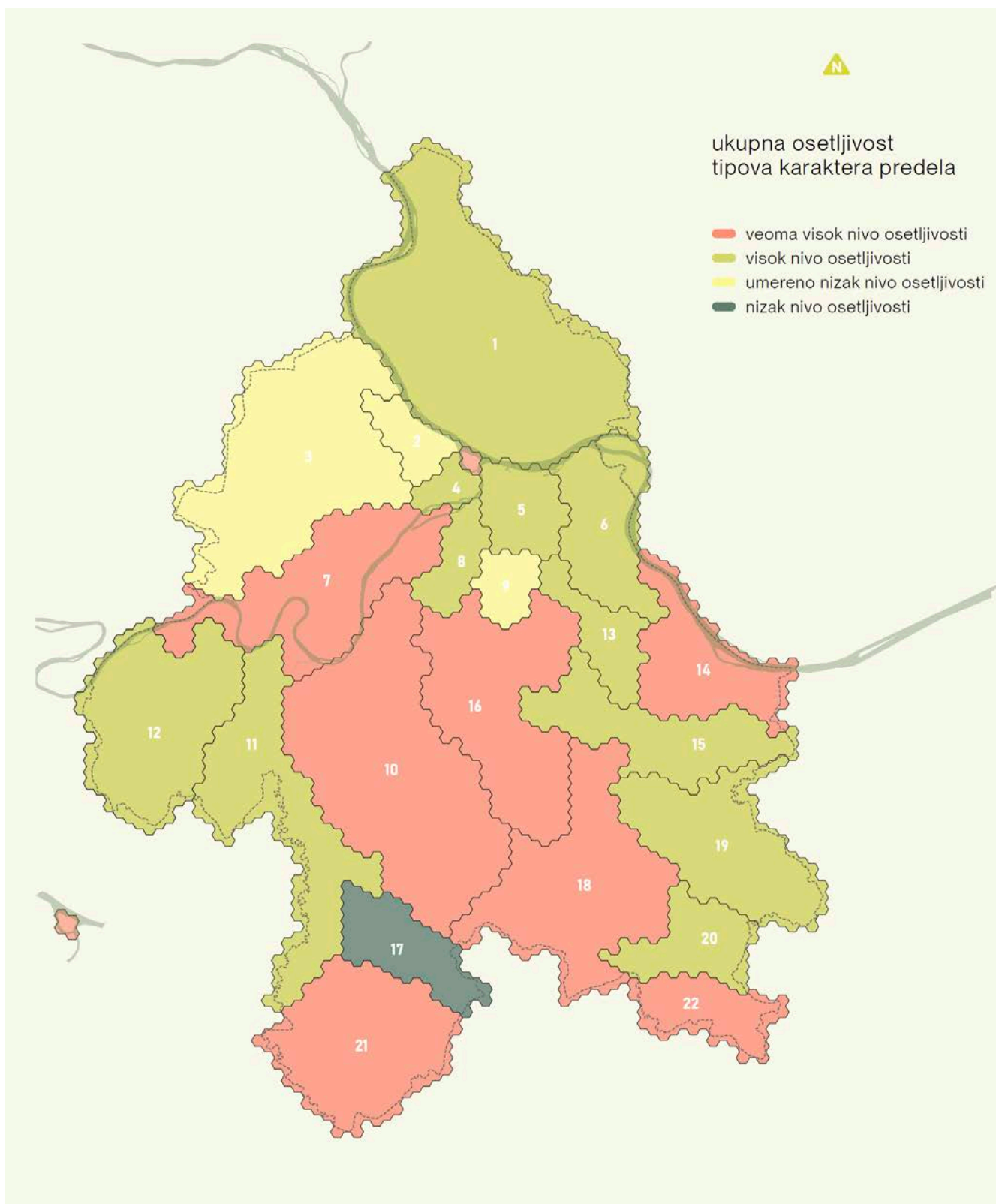
Together, the Atlas of Landscape Typologies and Green Infrastructure in Urban Planning represent two complementary dimensions necessary for applying the 3-30-300 concept in Belgrade. The Atlas provides the scientific, methodological, and cartographic basis—measurement, typologization, and quantification—needed to determine where greenery exists and where coverage and accessibility gaps are located. The Ministry of Space publication, on the other hand, provides a critical framework and political-strategic recommendations—explaining why green standards must be binding and how citizens should have the right to equal access to green areas in their immediate surroundings. Combined, these two documents not only supplement official city plans and strategies but also bridge professional and academic communities on the one hand and civil society and citizens. Their synergy is crucial: they demonstrate that Belgrade, even without formally adopting the 3-30-300 rule, already possesses both the analytical instruments and advocacy arguments necessary to operationalise and adapt the rule to local specificities in the future.

TOWARDS GREENER, HEALTHIER, AND MORE EQUITABLE CITIES

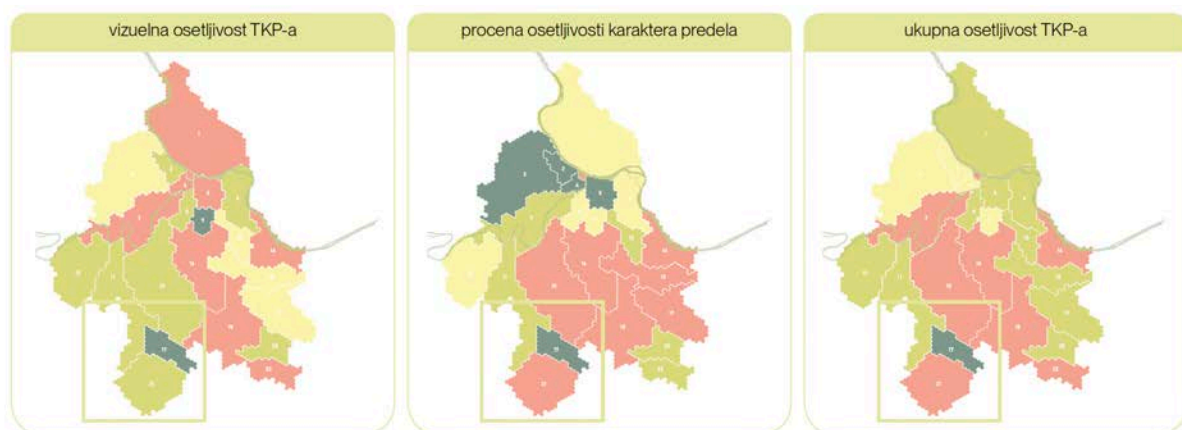
The 3-30-300 rule represents a simple yet powerful framework that clearly connects scientific evidence to the everyday needs of citizens. Its value lies in its ability to unify three key dimensions of urban greenery—visibility, quantity, and accessibility—and translate these into concrete, measurable goals. This provides a universally applicable tool for improving public health, social cohesion, and climate resilience in cities.

Cities such as Barcelona, Melbourne, and Toronto have demonstrated that the implementation of this rule is possible through a combination of strategic planning, innovative methods, and community engagement. Their results confirmed that greening not only brings aesthetic or ecological benefits but also directly improves the quality of life and equity among residents. Simultaneously, critiques related to universal applicability, the balance between quantity and quality, and the risk of green gentrification remind us that the rule must be understood as a flexible framework adaptable to local contexts.

In Belgrade, although the 3-30-300 concept has not yet been formally adopted, numerous strategic documents, plans, and research initiatives show that its principles are already present in local policies and practices. Scientific instruments and critical tools of civil society also provide a basis for further operationalisation of the concept. This represents a significant opportunity for Belgrade to join the global movement towards greener, healthier, and more equitable cities, ensuring that the benefits of urban nature are accessible to all residents.



Atlas of Landscape Typologies of Belgrade. Overall sensitivity of landscape character types



predeono - oblikovna pravila

Unapređenje rekreativne funkcije šume formiranjem sistema staza.



Zelena infrastruktura



Očuvanje brdskih vodotokova koji odgovaraju morfologiji terena i pošumljenih padina.



Hidrografiska struktura



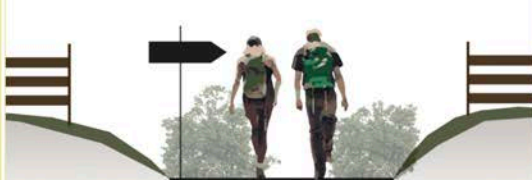
Očuvanje prepoznatljivih mikroambijentalnih poljoprivrednih celina pašnjaka i livada sa ostacima šuma.



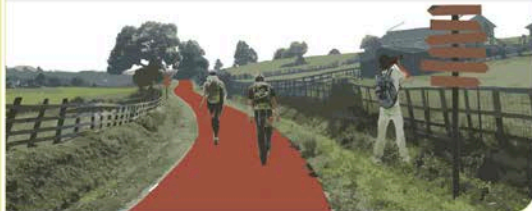
Poljoprivredna struktura



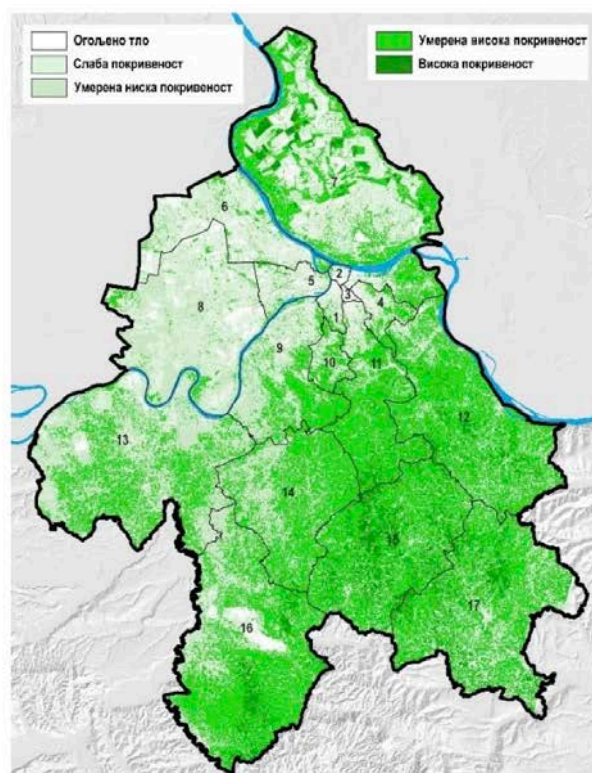
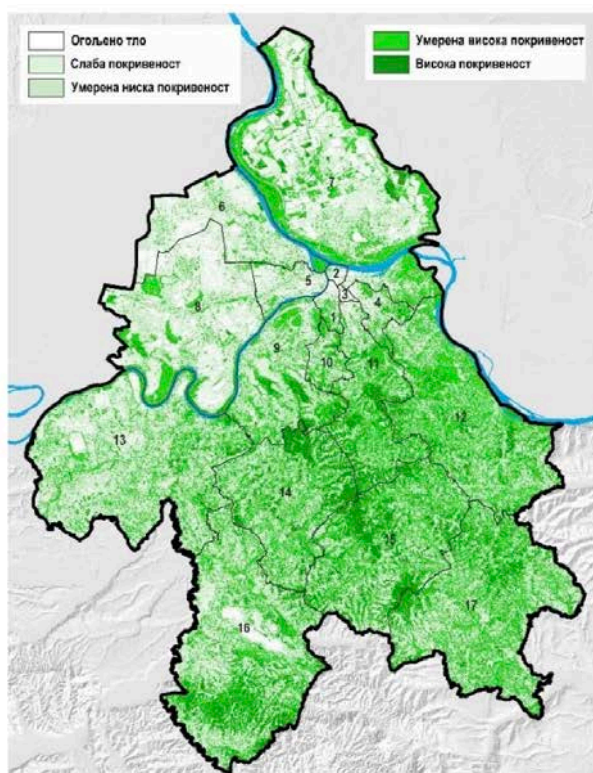
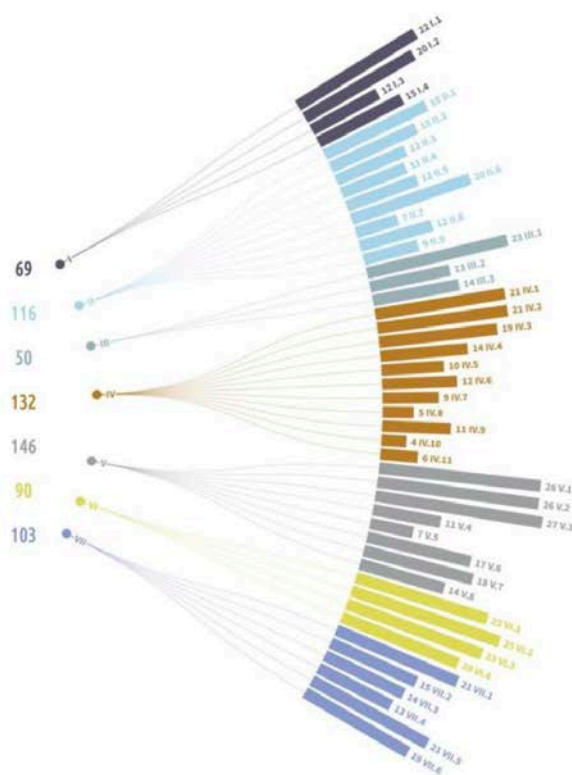
Formiranje sistema kulturnih staza u cilju povezivanja karakterističnih ruralnih ambijentalnih celina.



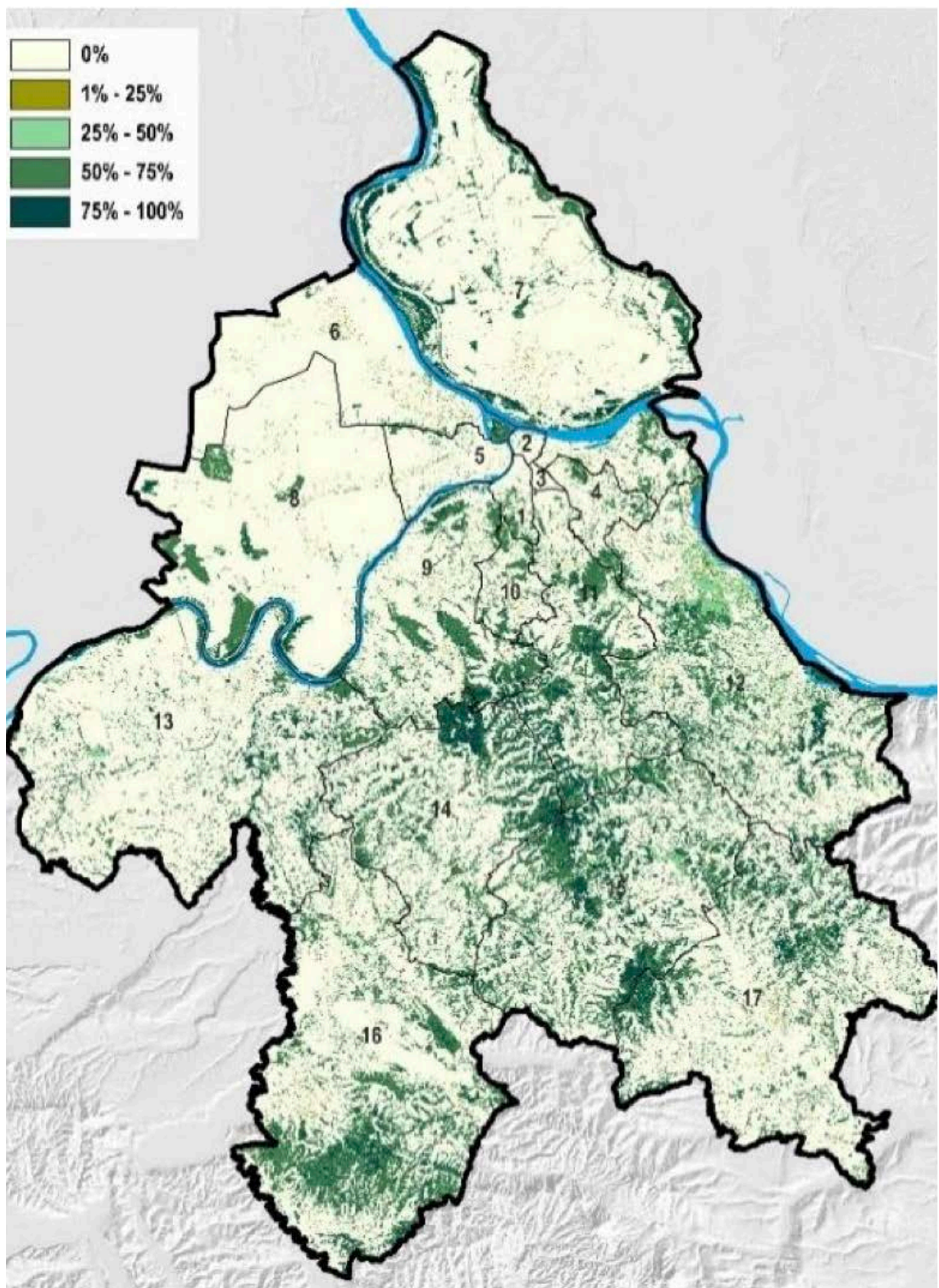
Izgrađena struktura



- I Правни оквир као основ примене концепта зелене инфраструктуре 69
- II Организација и процедуре у контексту зелене инфраструктуре 116
- III Очување постојећих елемената зелене инфраструктуре 50
- IV Планирање зелене инфраструктуре 132
- V Пројектовање и изградња зелене инфраструктуре 146
- VI Одржавање и управљање зеленом инфраструктуром 90
- VII Свест и знање о зеленој инфраструктури 103



Belgrade Green Infrastructure Strategy. Problems/solutions and NDVI values across vegetation categories 2017 and 2022



INSIGHTS

URBAN NATURE IN PRACTICE: BORIS RADIĆ

Following the presentation of the theoretical foundations and main principles of the 3-30-300 concept, the second phase of the Roadmap was dedicated to exploring the views of experts in landscape architecture and urban planning on the possibilities of its application in the local context. The aim was to gain a deeper understanding of the potential, limitations, and challenges associated with introducing such an approach to planning and managing urban nature in Serbia.

As part of this phase, an interview was conducted with Professor Boris Radić, Full Professor at the University of Belgrade – Faculty of Forestry, Chair of Planning and Design in Landscape Architecture, and lead author of the Belgrade Green Infrastructure Development Strategy. His perspective is particularly valuable as it bridges academic insight with practical experience in shaping the city's planning and regulatory framework. His views shed light on the importance of the 3-30-300 concept under local conditions, highlight barriers in practice, and open possibilities for improving urban nature through contemporary approaches and regional best practices in the future.

How familiar are you with the 3-30-300 principle, and what is your opinion of it?

I am familiar with the principle and consider it a good methodological framework for integrating the ecological and social benefits of trees and greenery in urban settings. Its most significant value lies in providing measurable targets, making it practical for implementation and monitoring both the quality of urban life and the state of urban nature.

However, the proposed standards cannot always be fully achieved in practice, as the urban environment is highly complex. This discrepancy is precisely where the value of the principle lies—it makes clear how valuable existing urban nature is and how difficult it is to replace once it has been lost.

What does our planning and legal framework look like, and what role does it play in the regulation of urban forests and nature?

In Serbia, there is a national Sustainable Development Strategy, and cities adopt their own local strategies that comprehensively address issues of nature and biodiversity. For instance, Belgrade recently adopted a Green Infrastructure Development Strategy.

It is important to emphasise that such strategies do not have the status of binding legal documents; they provide guidelines, standards, and visions for approaching sustainable development and the UN Sustainable Development Goals. Binding regulations are created only through spatial and urban plans, as well as action plans derived from these strategies. Therefore, the realisation of new green areas or the revitalisation of existing ones is directly linked to local legislation and the work of municipal administrations.

Can you provide examples of good strategies for dealing with urban nature in the region?

Examples of good practice can be found in cities such as Sofia, Sarajevo, and Zagreb, which have recognised the importance of urban nature in their strategies and developed methods for improvement.

In your opinion, what are the main obstacles to a better understanding of the importance of urban nature and the application of the 3-30-300 principle?

The biggest problem is the differing interpretations of complex urban green ecosystems. The professions of landscape architecture and forestry have one perspective, while urban planners have another. Simultaneously, municipal land management offices often use outdated administrative definitions and “classification codes” that fail to reflect contemporary challenges. This creates a gap between professional typologies and legal or planning practices.

Additionally, land ownership presents a serious obstacle. In Belgrade, a significant portion of land that functions as forest is privately owned, while large park and forest areas in municipal ownership are often classified as “construction land.” This situation complicates the establishment of continuity in green zones and the adaptation of new approaches, including the 3-30-300 rule.

How can cities in the region stimulate afforestation and increase the number of trees in public spaces?

Solutions can exist at multiple levels. At the neighbourhood level, through the joint actions of citizens and associations. At the economic level, tax incentives and subsidies are available for urban nature projects on private land. At the urban planning level, parts of the 3-30-300 principle can be integrated as mandatory elements of new plans and projects.

Managing existing green areas is equally essential; digital technologies can contribute to creating high-quality databases on the condition of trees, canopy cover, and biodiversity, which in turn enables better planning and maintenance.

BETWEEN VISION AND PRACTICE

The conversation with Professor Radić shows that the 3-30-300 principle can be viewed as a compass for the development of healthier and greener cities, but also as a reminder of how precious existing natural resources are. Although its standards are not always easy to implement in complex urban conditions, they clearly indicate the direction cities should follow.

His views make it evident that progress requires better alignment of professional definitions, legal regulations, and ownership structures, as well as more substantial citizen involvement in the processes of creating and preserving green spaces. Professor Radić's perspective—shaped also by his leadership in developing the Belgrade Green Infrastructure Development Strategy—confirms that the future of urban environments depends on how seriously we treat urban nature as essential infrastructure, rather than merely as an addition to space.

Ultimately, this interview reminds us that the path towards more sustainable and resilient cities is possible only through collective action, uniting professional expertise, institutional support, and citizen initiatives.

GREEN PLACEMAKING: MILENA IVKOVIĆ

Placemaking Western Balkans (PWB), co-founded by architect Milena Ivković, develops activities focused on improving public spaces in the Balkans and Southeast Europe, with particular attention to sustainable micromobility, pedestrian areas, climate adaptation and cultural heritage. PWB positions itself as a platform for knowledge exchange between international and regional experts through research, strategic consulting, education, and citizen participation in co-design processes and citizen science projects.

As an integrated approach to the renewal of public spaces, placemaking involves not only design and planning but also development policies and the transformation of brownfield sites into spaces of public importance. Within this framework, the concept of green placemaking has emerged, encouraging cities to adapt to climate change and improve their quality of life through the development of urban nature. In the European context, green placemaking has been recognised as a strategy applied at both the systemic and neighbourhood levels. At the systemic level, examples such as Rotterdam and Utrecht illustrate how the transformation of infrastructural zones—from railway stations to entire districts—can create new green networks. For instance, Rotterdam's Climate Adaptation Plan allocated €200 million over the next decade to transform grey infrastructure into green infrastructure. At the neighbourhood level, practices from cities such as Oslo and Rotterdam highlight the value of co-creation and small-scale initiatives—ranging from community gardens to temporary green markets—that revitalise public spaces and bring nature into the everyday lives of communities.

However, in the regional context, the challenges are particularly complex. Cities in the Balkans face uncontrolled urbanisation, excessive densification, the reduction of green areas, and a lack of capacity for implementing integrated planning and design practices. These problems are exacerbated by the effects of urban heat islands, high levels of pollution, degradation of existing urban nature, and the shrinking of outdoor living space. In this sense, green placemaking in the region emerges as a key strategy for revitalising urban nature, developing urban forests, and integrating contemporary concepts, such as the 3-30-300 principle, into local planning practice.

Planned activities within the Agenda 3-30-300 for 2025 are precisely directed at connecting these dimensions, through the design competition “3-30 Ideas” for young public space designers, a series of interviews with experts and researchers, a workshop as part of the international Places and Technologies conference in Belgrade, and a final exhibition and publication “Roadmap: Agenda 3-30-300.” In this way, the principles of green placemaking are not seen only as inspiration drawn from European practice but as a framework for generating innovative and applicable solutions in local and regional contexts.

AGENDA 3-30-300

Agenda 3-30-300 is a multi-phase research and educational project developed by PWB as a regional framework for understanding and applying the 3-30-300 principles in local contexts. The project brings together academia, students, professionals from different disciplines, and citizens to explore how simple yet powerful greening rules can become part of real-world practices in Serbia and the wider region.

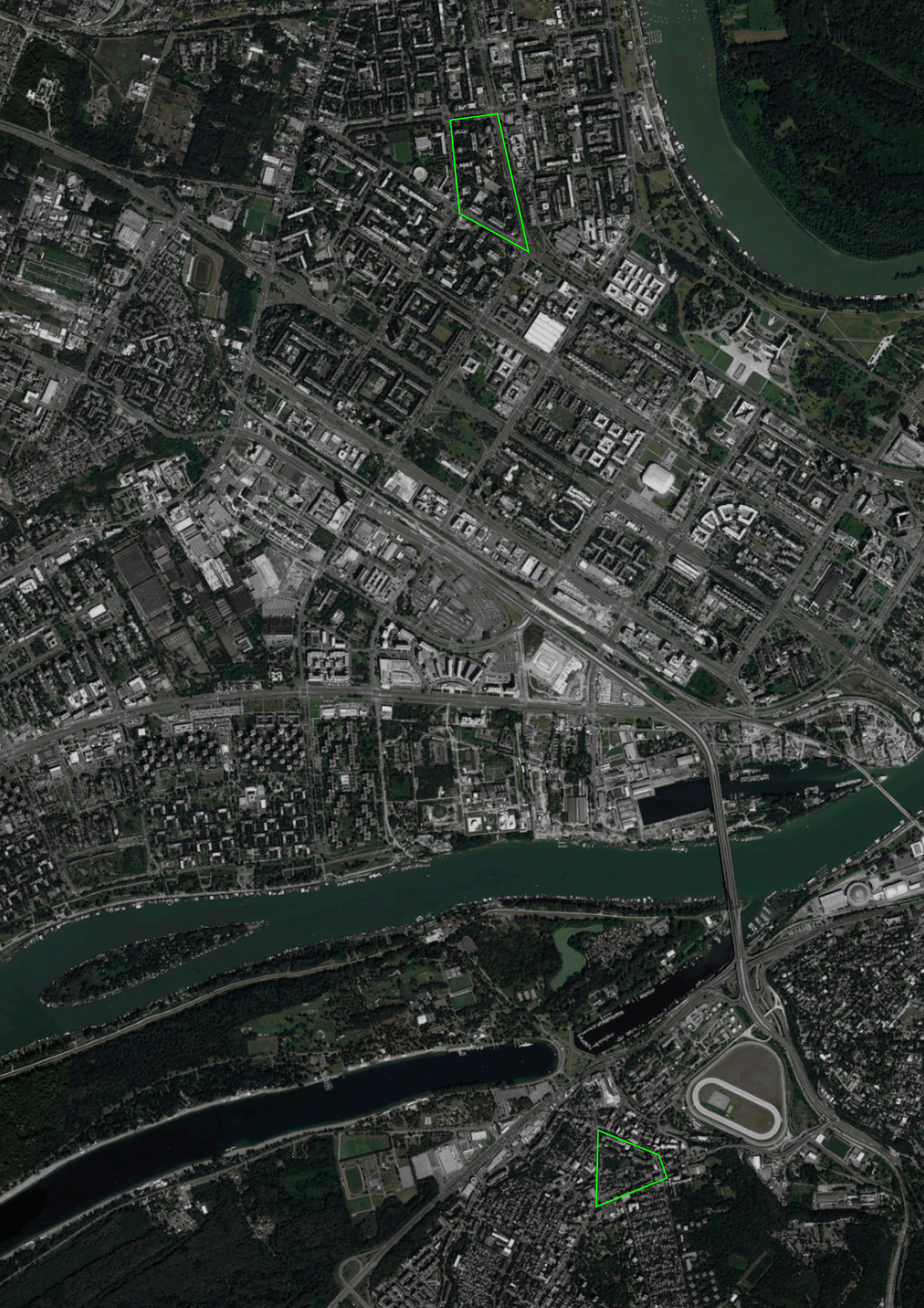
Through this project, PWB developed the Agenda 3-30-300 Roadmap, a document and process combining several complementary activities:

- theoretical mapping and explanation of the principles,
- interviews with relevant professionals (e.g., professors and regional practitioners),
- student workshops and competitions providing creative neighbourhood-scale applications,
- public exhibitions and publications for broader dissemination,
- field research and pilot testing in different parts of the city.

The Agenda 3-30-300 also serves as a platform for knowledge exchange, connecting European examples (Rotterdam, Utrecht, Oslo) with Balkan realities, where problems of accelerated urbanisation, shrinking green areas, and weak institutional capacities are particularly acute. Thus, PWB positions itself as a bridge between European policy and local planning, promoting green placemaking and participatory methods as key tools for climate adaptation.

The project also has a strong educational dimension, involving students in the creation of new solutions, and through workshops and competitions, fostering a generation of professionals who understand and advocate for the concept of urban nature. Simultaneously, through public events and community engagement, the project raises awareness among citizens about the importance of green spaces and natural areas in the city.

Thus, Agenda 3-30-300 is not only a theoretical elaboration of a principle but also a dynamic process of research, learning, and creating applicable models for the improvement of public spaces in Belgrade and the broader region of Southeast Europe.



LOCATIONS



LOCATION 1: VRAČAR

Boundaries: A cluster of blocks defined by Boulevard Kralja Aleksandra to the northeast, Kralja Milana Street to the southwest, Beogradska Street to the southeast, and Resavska Street to the northwest.

From an urban and architectural perspective, the area outlined in the figure represents a typical segment of Belgrade's historical urban fabric, developed in the late 19th and the first half of the 20th centuries. They are distinguished by street-front buildings arranged in a dense pattern of residential and public structures. These multistory buildings span various periods, from academic and Art Nouveau styles to functionalist designs and later interpolations, organised within a relatively regular street grid. In contrast to modernist blocks, one observes a continuous system of closed blocks, where the interior typically comprises smaller courtyards adapted to the existing lot structure.

Two major educational institutions—the “Vladislav Ribnikar” Elementary School and the Third Belgrade High School—are situated in the central part of this area, underscoring its historical role as an educational and cultural hub. The surrounding buildings reflect diverse stylistic epochs: older buildings often feature ornamental façades and a classical distribution of design elements, whereas more recent additions generally exhibit a minimalist aesthetic characteristic of postwar functionalist principles. In some instances, upgrades and interpolations disrupt the original roofline continuity, yet illustrate how the urban structure has evolved to meet growing needs.

Green spaces within this zone are primarily concentrated in smaller courtyards or complexes of public institutions. In contrast, more expansive parks (such as Tašmajdan and Pionirski Parks) are located on the perimeter or in the immediate vicinity. This configuration contributes to the relatively high building density, with peripheral parks serving as the principal “green lungs” in this part of the city. Major thoroughfares, such as Bulevar Kralja Aleksandra and Kralja Milana Street, traverse the area, reinforcing its status as a hub for administrative, educational, and cultural activities. Overall, this locale epitomises a district where historical development converges with contemporary needs, its traditional block system, diverse architecture, and key educational institutions, forming a well-recognised identity within Belgrade.



The Vračar location was centred around the Vladislav Ribnikar Elementary School

LOCATION 2: NOVI BEOGRAD

Boundaries: Situated in the immediate vicinity of the Municipality of Novi Beograd, which Bulevar Maršala Tolbuhina delimits to the north, Pariske Komune Street to the south, Bulevar Mihajla Pupina to the east, and Otona Župančiča Street to the west, the block takes on a trapezoidal shape, with its longer side measuring approximately 650 m, shorter side measuring approximately 440 m, and a width of approximately 250 m. It typifies the “open block” concept, with rectangular and square building forms arranged in a free composition.

The chosen location clearly exhibits the influence of modernist urbanism, characteristic of Novi Beograd. Multistory residential buildings erected in the latter half of the 20th century were spaced to allow ample room for green areas, walkways, and playgrounds. This arrangement follows the “city in a park” concept, aspiring to balance intensive construction with a high quality of life, focusing on a healthy environment and everyday accessibility of communal amenities.

This approach is evident in the gentle transitions between residential sections and adjacent boulevards, where rows of trees and lawns extend inwards. Flat-roofed buildings with primarily simple façades highlight the functionalist principles in Yugoslav architecture of that period, intended to ensure well-lit apartments, multiple orientations, and optimal ventilation through rational designs. Ground floors often accommodate shops, hair salons, service providers, and other commercial facilities, enabling residents to fulfil their basic daily needs without extensive reliance on vehicular transport.

Convenient connections to key city thoroughfares further reinforced the notion of segregating pedestrians from vehicular traffic: within the block, footpaths and landscaped areas prevail, whereas vehicles move along perimeter streets. Such an organisation, typical of modernist planning, creates semi-private zones where residents congregate around playgrounds and small parks, yet still enjoy immediate access to central boulevards and public transit. This block stands out as an attempt to harmonise functionality, open spatial layout, and abundant greenery—a notable attribute of Novi Beograd, which is recognised as the largest purpose-planned urban area in this region.



Novi Beograd, a block near the Municipality of Novi Beograd

LOCATION 3: **BANOVO BRDO**

Boundaries: A block delineated by Zrmanjska Street to the northeast and east, Požeška Street to the south, Dobrinovićeve Street to the west and southwest, and Kirovljeva Street to the east.

The block bounded by Zrmanjska Street (to the northeast and east), Požeška Street (to the south), Dobrinovićeve Street (to the west and southwest), and Kirovljeva Street (to the east) features a mixture of residential structures from multiple eras. This clearly demonstrates the evolution of the neighbourhood from earlier low-rise buildings to more modern, multistory slab housing developments. Its morphology comprises relatively narrow streets with numerous small, individual houses built in courtyards or semi-atrium layouts, interspersed with noticeable “interruptions” in the form of taller structures erected during subsequent phases of urban development. Consequently, the building line is irregular, especially along Zrmanjska and Dobrinovićeve streets, where older homes and more recent slab buildings directly abut each other.

Within the block, green areas and courtyards of various sizes offer a basic level of outdoor recreational space and help alleviate the heat island effect. Although sometimes informally landscaped, these interior courtyards and lawns lessen the impression of density and aid ventilation. Požeška Street, serving as the main traffic artery, features heavier traffic and more intensive commercial ground floor spaces. In contrast, the other perimeter streets are predominantly residential and provide access to the block’s interior.

The types of housing ranged from single-family or smaller multi-family residences from the early 20th century, characterised by traditional architectural elements and courtyard design, to slab-based, multistory, and tower buildings from the socialist period, constructed under the principles of functional, cost-effective housing. Such heterogeneity frequently yields inconsistent façade treatments and urban coherence, a typical attribute of Belgrade areas that have experienced incremental development over the past several decades. Nevertheless, the central portion of the block retains a measure of continuous green space, which, together with an internal network of access roads and pedestrian walkways, helps maintain essential standards for a more liveable environment.



A block in Banovo Brdo near the University of Belgrade's Faculty of Forestry

COMPARATIVE OVERVIEW OF SELECTED LOCATIONS

When examining these three chosen locations—Vračar (a historically compact block system), Novi Beograd (a modernist “open block”), and Banovo Brdo (a heterogeneous mix of single-family and multistory housing)—through the lens of the 3-30-300 Agenda, their complementary value emerges for comparative analysis and the creation of future nature-based solution (NBS) strategies aimed at enhancing urban greenery.

The 3-30-300 Agenda, which seeks to ensure

- that every resident can see at least three trees from their home or workplace,
- a minimum of 30% tree and green coverage in each neighbourhood, and
- access to a quality green space within a 300-meter radius,

is particularly well-suited for comparing these three types of urban morphology.

VRAČAR

In Vračar, with its classic street fronts and closed-block pattern, ensuring sufficient tree and green coverage in a densely built core is a notable challenge. Constrained by historical lot divisions and an elevated degree of construction density, blocks primarily rely on larger parks located around their perimeters (for example, Tašmajdan Park and Pionirski Park). Consequently, implementing the 3-30-300 Agenda requires exploring innovative greening approaches, such as rooftop gardens, courtyard landscaping, and vertical greenery, and improving connectivity to existing parks, thereby allowing all residents to access a green space within a 300-meter radius.

NOVI BEOGRAD

The modernist urban fabric of Novi Beograd, characterised by spaced-out multistory buildings and an open plan, generally facilitates meeting the goals of the 3-30-300 Agenda more readily. More extensive green spaces between buildings increase the likelihood that residents can see trees from their apartments, and parks and playgrounds are typically located within 300 m. However, challenges can arise from inadequate maintenance or repurposing of green areas (e.g. converting lawns into parking lots), thereby undermining the planned level of tree and greenery coverage. This location illustrates how a rational urban plan can achieve high standards concerning greenery and underscores the importance of ongoing care and investment.

BANOVO BRDO (ČUKARICA)

The Banovo Brdo location epitomises a transitional style of development, where older single-family homes and lower-scale buildings coexist with slab-based multi-story housing

from the socialist era. Such structural heterogeneity produces wide variations in tree and greenery coverage, with some segments benefiting from well-preserved courtyards and older ones. In contrast, others, particularly those near major thoroughfares and newer buildings, featured less extensive greening. Thus, multiple models for landscaping and green area management can be observed here, reflecting the complex ownership and built form of the neighbourhood.

COLLECTIVE SIGNIFICANCE IN COMPARATIVE ANALYSIS

Differences in housing typology, building density, and historical progression across these three locations yield a broader perspective on the opportunities and obstacles inherent to the 3-30-300 Agenda's implementation in Belgrade. While Vračar represents a densely developed historical core, Novi Beograd highlights the strengths and weaknesses of a planned modernist model, and Banovo Brdo underscores the challenges and potential of a mixed neighbourhood with an evolving structure. Studying these cases reveals specific issues, such as preserving existing trees and strategically managing open spaces, and highlights various potential solutions, ranging from targeted planting to innovative greening methods.

Hence, each of these locations complements the others and offers representative insight into how diverse urban morphologies can address the requirements of the 3-30-300 Agenda, simultaneously suggesting avenues for improvement through nature-based solutions (NBS) adapted to the particular conditions of each spatial context.

STUDENT WORKSHOP

Authors

ANJA ANTIĆ
ANJA GVOZDENOVIĆ
EMA STANKOVIĆ,
JELENA NEŠIĆ
JOVANA SAVIĆ
JOVANA TANASKOVIĆ
LUKA MIJATOVIĆ
MARINA DŽAFERI
MARTA RADOVANOVIĆ
MILICA RAKIĆ
NAĐA MIJATOVIĆ
NEVENA KESIĆ
PANAGIOTA GERASIMIDOU
TARA ĐUKIĆ
VASILIKI THEODORAKAPOULOU
VELJKO POPOVIĆ

INTERNATIONAL STUDENT WORKSHOP

The workshop team consisted of 16 students from five universities and three countries (Serbia, North Macedonia, and Greece), giving the group a strong international and interdisciplinary character. Most participants came from the University of Belgrade—particularly from the Faculty of Forestry, Department of Landscape Architecture and Horticulture, with contributions from the Faculty of Architecture—alongside students from Union University (Architecture and Urbanism; Construction Management), the University of Niš (Faculty of Civil Engineering), Ss. Cyril and Methodius University in Skopje and the Aristotle University of Thessaloniki (Department of Architecture). This diversity was not just “on paper”; it was evident in how the teams approached space through a combination of design, ecology, hydrology, and feasibility.

Participants: Anja Antić, Anja Gvozdenović, Ema Stanković, Jelena Nešić, Jovana Savić, Jovana Tanasković, Luka Mijatović, Marina Džaferi, Marta Radovanović, Milica Rakić, Nađa Mijatović, Nevena Kesić, Panagiota Gerasimidou, Tara Đukić, Vasiliki Theodorakapoulou, and Veljko Popović.

In practice, architecture and urbanism students provided a clear vision of how space functions and how it should look, while their colleagues in landscape architecture and horticulture carefully elaborated on planting compositions, layering strategies, and microclimate design. Civil engineering students contributed an understanding of water and substrate conditions (permeable surfaces, drainage, and rain gardens), while construction management kept ideas grounded in implementation—phasing, costs, and maintenance. Thanks to this combination, every sketch went through an immediate “reality-check”: where a tree could realistically provide shade, where rainwater would flow, who would maintain the space after the first season, and how the proposal could be implemented with minimal barriers.

Landscape architects served as the workshop’s “ecological compass”: they connected landscape ecology principles with practical green infrastructure solutions. In their diagnostics, they “read” the terrain fabric—where water accumulates, how tree canopies are distributed across blocks, and where microhabitats and gaps in green corridors occur. In design development, they translated this knowledge into concrete actions: layered planting (tree–shrub–ground cover), proposals for rain gardens/bioswales, and permeable pavements to keep stormwater on-site, and linking “green nodes” into corridors for shade and biodiversity. They considered species resilience (to heatwaves and drought), root volume requirements, safe distances from infrastructure, and maintenance plans (particularly during the first three years of establishment). In addition to aesthetics, this ensured measurable effects: more shade and cleaner air, slower and “smarter” stormwater runoff, and stronger ecological connections between the courtyards, streets, and nearby parks. In the language of 3-30-300, they increased the number of visible trees (“3”), expanded canopy cover where most needed (“30”), and created shaded, green connections to the nearest public space (“300”).

Horticulturists fine-tuned the living material by selecting resilient species (drought- and heat-tolerant), designing layered planting (tree–shrub–groundcover), and accounting for phenology (flowering/leafing times), allergen potential, soil quality, and irrigation regimes. Thanks to their input, the proposals were not only aesthetically appealing but also realistic under urban conditions, designed to provide shade, retain water, and enhance the biodiversity.

Architects were the “directors of space” within the workshop: they analysed street networks, intersections, and pedestrian flows, observing how people actually moved and lingered, and then translated these patterns into clear sequences of movement and gathering. Their task was to transform the broad ideas of the 3-30-300 principle into tangible interventions in plans and sections: where to widen sidewalks, where to create a pocket square or parklet, how to position tree rows to shade pedestrian routes and “frame views” (supporting “3”), how to connect canopy lines into continuous shaded corridors (“30”), and how to design a legible, safe, and shaded path to the nearest park (“300”). They also considered ground-floor uses (small shops, libraries, workshops) that animate the street, barrier-free access, tactile guidance, lighting, and seating elements to make the space accessible, legible, and comfortable. They emphasised durable materials, permeable pavements, smartly placed street furniture, and tactical, fast interventions that could be tested and scaled (e.g. temporary green islands and pilot tree lines). In short, architects combined spatial logic, daily habits, and microclimate into simple, implementable moves, so that proposals were attractive, practical, and feasible.

Civil engineers were the “masters of ground and water.” Their focus was on making space function: where water accumulates, where it drains, and how to return it to the soil rather than to sewers. They proposed permeable surfaces, rain gardens/bioswales, curb cuts, proper slopes and profiles of streets and pavements, and sufficient soil volumes for tree roots beneath sidewalks. These measures ensured long-lasting plantings, reduced flooding, and mitigated the summer heat. In 3-30-300 terms, they supported “30” (real increases in canopy with adequate planting infrastructure), “300” (safe, dry, shaded routes to green spaces), and “3” (precisely positioned tree pits to ensure visibility from homes, schools, and streets).

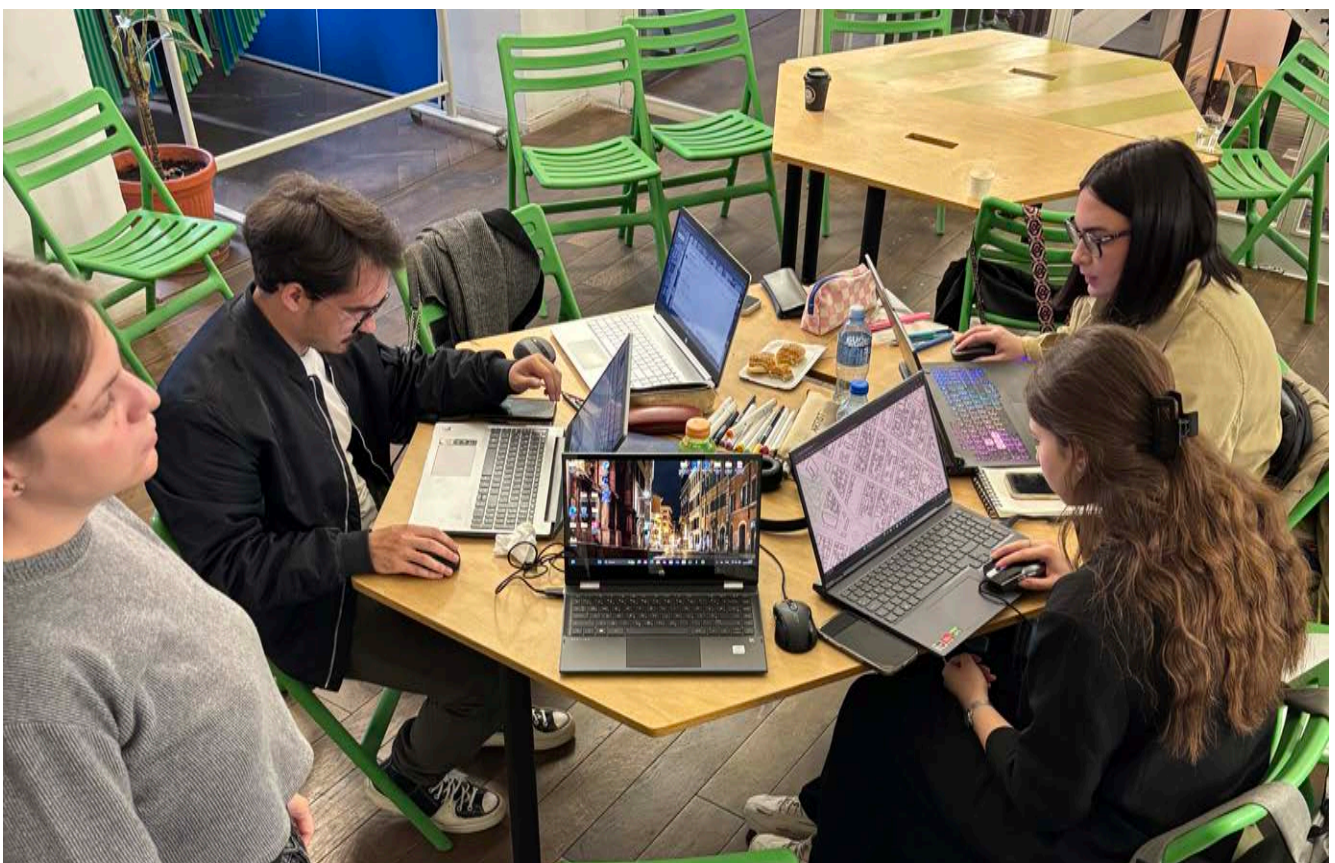
Construction management ensures that proposals are implemented intelligently, quickly, and sustainably. They thought about phasing (what can be done tomorrow, what in 6–12 months), cost estimation, procurement, and tactical interventions delivering quick wins (a parklet, tree line, or small infiltration garden). They also considered safety during construction, site organisation (temporary signage, protection of existing greenery), and maintenance plans for the first three years (watering, mulching, pruning, and responsible institutions/partners). Within the 3-30-300 logic, management safeguarded “30” and “300” through realistic planning of resources and partnerships, ensuring that routes remain maintained and canopies grow rather than fail.

This interdisciplinary dynamic directly supported the application of the 3-30-300 rule. Architecture and landscape disciplines precisely addressed “3” (visibility of trees) and “30” (canopy coverage), while engineering and management strengthened “300” (safe, shaded routes to the nearest green space) and overall feasibility. Simultaneously, the regional exchange of experiences, from Belgrade, through Skopje, to Thessaloniki, opened discussions on the common challenges of Southern European cities: heatwaves, stormwater management, and the need for small, innovative interventions that quickly improve daily life.

In short, the group was compact, international, and practice-oriented: every idea was reviewed from multiple perspectives, and solutions were shaped to be legible, climatically effective, and realistically sustainable—precisely the kind of proposal cities need most today.



International student workshop - Day 01. Tutors: Milena Vukmirović, Boris Radić and Milana Mijatović



International student workshop. Day 01. Team Vračar



International student workshop Day 01. Team New Belgrade and team Banovo Brdo

TEAM VRAČAR

The starting point was a dense historic fabric with enclosed blocks and larger parks at the periphery (Tašmajdan, Pionirski), which makes it challenging to provide shade within the “core” of the neighbourhoods and requires creative ways to bring greenery closer to residents’ everyday routes. The team therefore looked “from the inside out”: courtyards, roofs, façades, and street edges, combined with improved pedestrian-friendly corridors leading to larger parks.

The team developed the concept of a “green block”: combining multiple types of greenery within one urban unit—pocket park + green roofs + vertical greenery—to simultaneously provide shade, green views, and places for gathering. The idea was to achieve a visible and measurable impact at the block scale through small targeted interventions.

Their proposals consistently include four key components.

- **Linear greenery along street corridors** (tree rows, shrub belts, grass strips, and even “green walls” along sidewalks) – to make routes to school or work shadier and to ensure that “three trees” are more often visible from apartments, classrooms, or sidewalks.
- **Green roofs and vertical greenery on façades** – to “raise” greenery where there is no room for trees, while ensuring direct visual contact for residents through windows and terraces.
- **Micro-parks and block parks** – small, accessible “pockets” offering shade and seating in dense streets, complementing the larger recreational areas nearby.
- **“Floating” green infrastructure and community gardens** – pergolas with climbing plants in areas lacking shade, and shared gardens as places for encounter, learning, and small-scale urban food production.

The ultimate goal was a “green neighbourhood”: a network of roofs, façades, pocket parks, and tree rows that lowers temperature, filters air, and retains rainwater instead of sending it immediately into the sewer system—in practice, a natural infrastructure for shade and stormwater management serving everyday life.

To make the proposals measurable and comparable, the team documented the basic effects of each intervention on ecosystem services (shade and air quality, water retention and infiltration, biodiversity, and social and aesthetic value), as well as the level of urban integration (links with adjacent spaces and proximity to public transport). In this way, the proposals systematically addressed hydrology (retention/filtration, runoff regulation), climate regulation (UHI mitigation, temperature, air quality), social use, and cultural/economic benefits, all summarised in a clear profile card for each element.

In the “language of 3-30-300”, their package of measures aimed to:

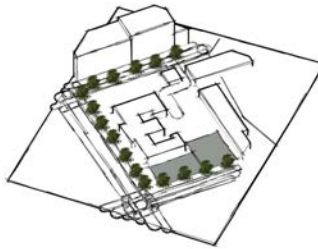
- Strengthen **“3”** through new tree rows and vertical/roof greenery directly visible to residents and students.
- Advance **“30”** by expanding canopy cover where possible (streets, block parks) and adding “equivalents” of canopy on roofs and façades in the densest areas
- Reinforce **“300”** by inserting small, pleasant green nodes within walking distance and creating shaded, continuous connections to the larger parks on the periphery.

Team Vračar demonstrated how, even in the densest part of the city, a mosaic of small-scale green interventions can be “assembled” into a legible, usable, and climate-responsive block, bringing shade and greenery closer to people without waiting for large or costly projects.



International student workshop - Day 02. Team Vračar

**LOCATION 01
VRAČAR**
TYPE 1 - LINEAR GREENERY



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Linear green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

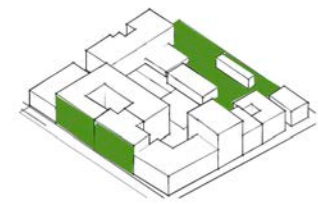
Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

Linear greenery often refers to green infrastructure or vegetation that is organized in a linear pattern, often along the pathways and transport corridors. It can be trees, shrubs, grass, green walls etc.

**LOCATION 01
VRAČAR**
TYPE 3 - VERTICAL GREENERY



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Vertical green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

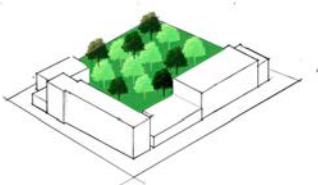
Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

Vertical greenery also known as green walls refers to vegetation grown vertically on building surfaces. For this example plants grow upward or along vertical surfaces and it can be installed outdoors or indoors.

**LOCATION 01
VRAČAR**
TYPE 4.3 - Residential block parks



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Linear green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

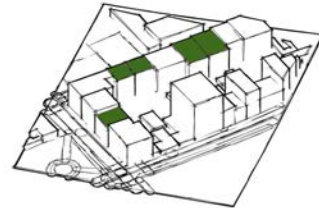
Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

Residential block parks are small to medium - sized parks located within a residential block or neighborhoods. They are designed to serve the recreational and social needs for residents, families.

**LOCATION 01
VRAČAR**
TYPE 2 - GREEN ROOFTOPS



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Linear green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

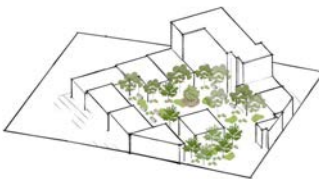
Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

Green rooftops also known as green roofs are surfaces on the top of the buildings that are covered with vegetation, partially or completely. A typical green roof includes vegetation layers for example shrubs, plants and grass.

**LOCATION 01
VRAČAR**
TYPE 4: PARK
TYPE 4.1 - POCKET PARK



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Linear green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

A pocket park is a small, publicly accessible green space, usually located within urban or densely developed areas. It is designed for local community use (e.g. shade, seating areas, play areas).

**LOCATION 01
VRAČAR**
Type 4.4 - Transitional vegetation/edge



**AGENDA
3-30-300**

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Linear green elements

Ecological Role
Ecological connectivity

Complexity and Composition
Linear green elements

Hydrological Function
Water collection and infiltration
Mitigation of surface runoff and erosion

Climate Regulation
Mitigation of urban heat island effect
Reduction of air pollution and noise

Social Value
Accessibility to the public
Recreational use

Aesthetic Value
Visual quality and landscape enhancement
Recreational use

Economic Impact
Increase in property value
Promotion of urban integration

Degree of Urban Integration
Integrating to urban public space

DESCRIPTION:

Transitional vegetation, also known as an edge in landscape design, refers to the zone of plant life that exists between two distinct environments. For example, between a forest and a field, a park and a building.

TYPE 5 - FLOATING GREEN INFRASTRUCTURE

GREENER
LEADERSGREENER
LEADERS

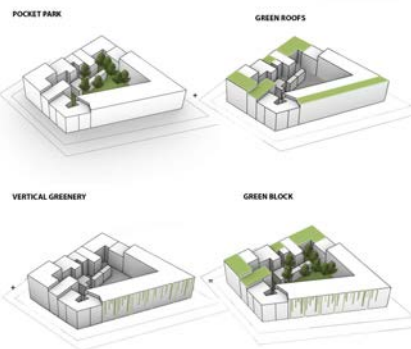
Green Infrastructure Element	Green spaces Wildland and rural/open greenery
Ecological Role	Ecological connectivity
Complexity and Composition	Type of vegetation
Hydrological Function	Water retention and purification Infiltration and regulation of surface runoff Peak mitigation, regulation
Climate Regulation	Reduction of urban heat island effects Mitigation of temperature extremes Improvement of air quality and humidity and pollution mitigation
Social Value	Accessibility to the public
Aesthetic Value	Visual quality and landscape improvement Recreational attractiveness
Economic Impact	Influence on property values Potential for local economic development

DESCRIPTION:
Green shades awning is a shading structure that has vegetation cover such as vines and creepers or hanging plants. It provides natural shade by blocking direct sunlight.

A COMBINATION OF 3 TYPES OF GREENERY THAT GIVE ONE DESIGNED BLOCK

GREENER
LIVING

GREENER
LIVING

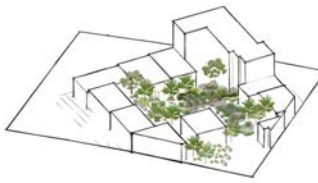


DESCRIPTION:
This is an example of a block that, through the addition of various types of greenery, improves both its appearance and the environment in which it is located.

TYPE 6 - COMMUNITY GARDEN

GREENER

GREENER

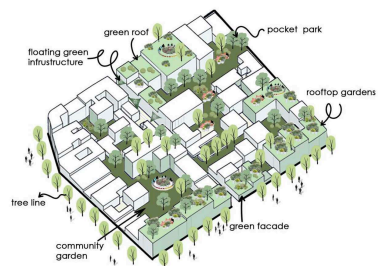


Green Infrastructure Element <i>Green space</i>	Ecological Role <i>Enhances connectivity</i>
Complexity and Composition <i>Type of vegetation</i>	Hydrological Function <i>Water storage and regulation Infiltration and reduction of surface runoff From impervious capabilities</i>
Climate Regulation <i>Reduction of urban heat island effect Reduction of temperature extremes Air quality improvement and pollution mitigation</i>	Social Value <i>Access to the public Recreation and amenities</i>
Aesthetic Value <i>Good quality and landscape experience Recreational characteristics</i>	Cultural Value <i>Educational potential</i>
Economic Impact <i>Increases property values Recreation for tourism and development</i>	
Degree of Urban Integration <i>Connectivity to other public spaces</i>	

DESCRIPTION:
A community garden is a green space where individuals or groups from a community collectively grow plants, flowers or herbs. It is typically located in urban areas and managed by the members of the community.

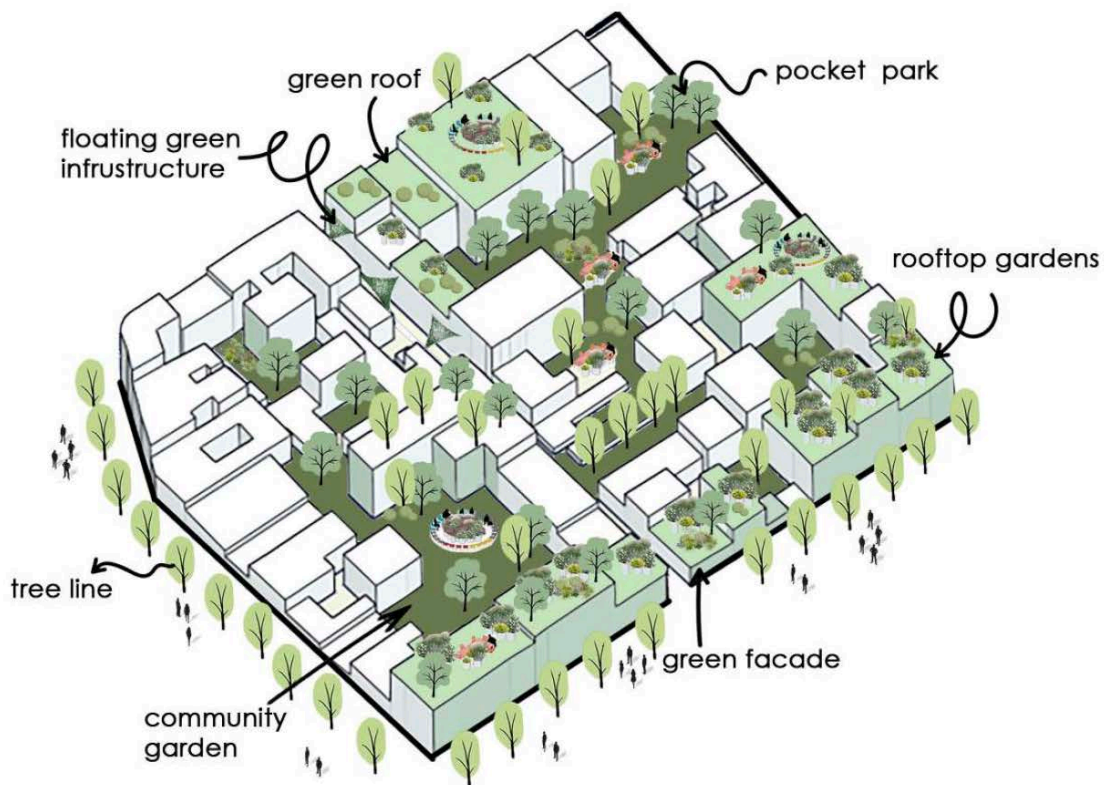
GREENER
URBANGREENER
URBAN

The green neighborhood



DESCRIPTION:
A green neighborhood integrates sustainable elements like green roofs, rooftop gardens, and green facades to enhance urban biodiversity and reduce heat. It features pocket parks, floating green infrastructure, and tree-lined streets that provide shade, improve air quality, and manage stormwater naturally. Community gardens foster local food production and social interaction, creating a healthier, more resilient urban environment.

The green neighborhood



DESCRIPTION:

A green neighborhood integrates sustainable elements like green roofs, rooftop gardens, and green facades to enhance urban biodiversity and reduce heat. It features pocket parks, floating green infrastructure, and tree-lined streets that provide shade, improve air quality, and manage stormwater naturally. Community gardens foster local food production and social interaction, creating a healthier, more resilient urban environment.

LOCATION 01 VRAČAR

**AGENDA
3-30-300**



LEGEND:

	park		pocket park		residential park
	green roof		recreational park		linear greenery
	public square		community garden		green shades awning

TEAM NEW BELGRADE

The starting point was the typical modernist image of a “city within a park”: large distances between buildings, expanses of lawns and pathways, but also overheated, unshaded pedestrian routes, parking lots fragmenting green areas, and surfaces where rainwater had no place to infiltrate. In many spots, the “three trees” were already visible, and parks were often within 300 m, but the tree canopies did not always provide meaningful shade. Therefore, the team sought to elevate the existing green matrix by expanding canopy cover where it was most needed, making routes to parks shaded and legible, and “lift” greenery onto roofs and façades—where space could be used to achieve a great deal with relatively small interventions.

Their vision, which they called “City in a Park 2.0,” was based on three layers of greenery working together:

- **Roof and vertical greenery** on the upper levels and façades,
- **Parks and green pockets** on the ground,
- **Linear greenery** along streets and parking areas, tying everything into a shaded pedestrian network.

Roofs were imagined as the “invisible reserve of space”: extensive green roofs providing lightweight vegetation that boosts the “30” (canopy share) and cools the building, while intensive, walkable roofs would function as small community gardens—complete with trees, shrubs, and seating—essentially acting as miniature parks in the sky. Vertical greenery, introduced as wall panels and façade gardens, was envisioned as an extension of canopy cover and as “green portals” at entrances, turning thresholds into landmarks and cooler points of arrival.

At ground level, the team proposed three clear types of parks to fill the voids between buildings: resting zones with water features to improve the microclimate, recreational parks with lawns, playgrounds, and urban furniture, and transit parks—linear green corridors that shorten and shade pedestrian routes to public transport stops and larger green areas. Together, these typologies redistribute shade more evenly across the blocks.

Linear greenery became the backbone of their plan: tree rows, shrub belts, and bioswales along streets and parking areas, filtering water, casting shade on sidewalks, and breaking down large expanses of asphalt. Even a single row of trees with permeable strips between parking spaces could have an immediate impact: less heat, fewer puddles, and more shade. Low vegetation filled the edges of lawns and leftover spaces, adding to biodiversity while reducing maintenance challenges.

In the “language” of 3-30-300, these interventions collectively aimed to:

- Strengthen “3” by introducing more visible trees through green roofs, vertical gardens, and continuous tree rows
- Enhance “30” by providing shade in areas previously bare, using both canopy and its equivalents on façades and rooftops;
- Reinforce “300” by creating shaded, logical, and pleasant pedestrian routes to larger parks and transport stops.

New Belgrade already had the space; what it needed was a calibration. By layering roof and vertical greenery with three types of parks and linear “green spines” along streets and parking lots, the team reimagined the “city in a park” as a city of shade—measurable on the ground, comfortable to walk through, and manageable to maintain.



International student workshop - Day 02. Team New Belgrade

**LOCATION 02
NEW BELGRADE**

TYPE 1.1.
Rooftop greenery - extensive

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Rooftop greenery

Ecological Role
Biodiversity

Complexity and Composition
Type of vegetation

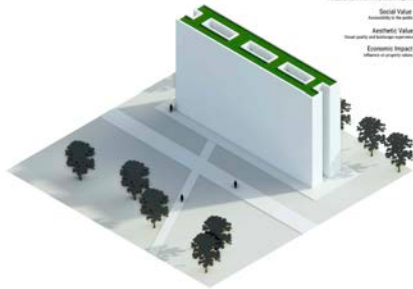
Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents

Aesthetic Value
Visual quality and building integration

Economic Impact
Increase in property value



DESCRIPTION:

Extensive green roofs contribute to the 30% green space target by providing permanent, functional greenery on rooftops. They are a key part of urban green infrastructure and they meet the requirements of the agenda 3-30-300.

**LOCATION 02
NEW BELGRADE**

TYPE 2.1.
Vertical greenery - vertical wall

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Vertical greenery

Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Type of vegetation
Height of planting

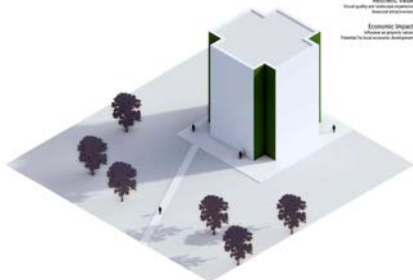
Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents

Aesthetic Value
Visual quality and building integration
Reduced air pollution

Economic Impact
Increase in property value
Reduced energy consumption



DESCRIPTION:

Vertical green walls help meet the 30% urban greenery target by maximizing green space in dense areas where horizontal space is limited. They enhance visual greenery, improve microclimates, and support biodiversity, alongside with the agenda 3-30-300.

**LOCATION 02
NEW BELGRADE**

TYPE 3.1.
Park - relaxation zone with water features

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Green area
Park features

Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Type of vegetation
Height of planting

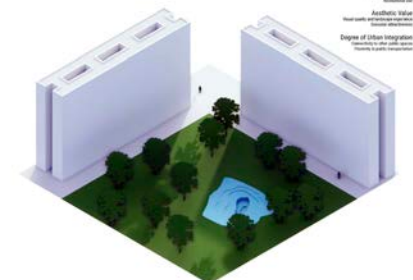
Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents
Recreation

Aesthetic Value
Visual quality and building integration
Reduced air pollution

Economic Impact
Increase in property value
Reduced energy consumption



DESCRIPTION:

Parks for relaxing with water features combine green and blue infrastructure, supporting biodiversity, stormwater management, and the 30% green space goal. Their design ensures free visibility from buildings, aligning with the agenda 3-30-300 and improving the urban microclimate.

**LOCATION 02
NEW BELGRADE**

TYPE 1.2.
Rooftop greenery - intensive

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Rooftop greenery

Ecological Role
Biodiversity

Complexity and Composition
Type of vegetation
Height of planting

Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents

Aesthetic Value
Visual quality and building integration

Economic Impact
Increase in property value
Reduced energy consumption



DESCRIPTION:

Intensive green roofs help meet the 30% green space target by providing accessible, multifunctional areas that support trees, shrubs, and public use. As functional extensions of ground-level parks, they are part of agenda 3-30-300 in this block.

**LOCATION 02
NEW BELGRADE**

TYPE 2.2.
Vertical greenery - vertical garden

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Vertical greenery

Ecological Role
Biodiversity

Complexity and Composition
Type of vegetation
Height of planting

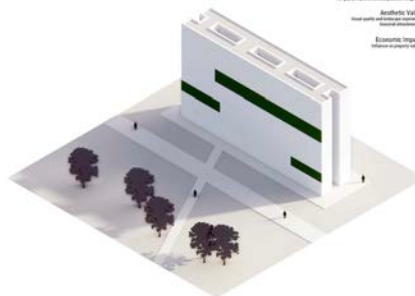
Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents

Aesthetic Value
Visual quality and building integration
Reduced air pollution

Economic Impact
Increase in property value
Reduced energy consumption



DESCRIPTION:

Vertical gardens on residential buildings contribute to the 30% green space goal by offering semi-private or communal areas that enhance urban livability and biodiversity. They increase access to greenery, support local vegetation, and align with the agenda 3-30-300 for resilient, healthy neighborhoods.

**LOCATION 02
NEW BELGRADE**

TYPE 3.2.
Park - recreative purpose

**AGENDA
3-30-300**

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Green area
Park features

Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Type of vegetation
Height of planting

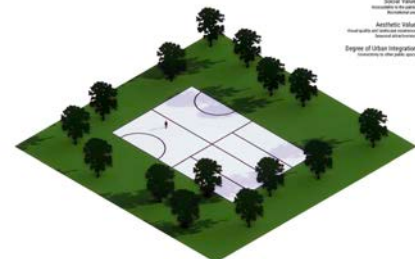
Hydrological Function
Water retention and infiltration
Water evaporation and cooling
Rainwater harvesting

Climate Regulation
Reduction of urban heat island effect
Reduction of greenhouse gas emissions
Air quality improvement and carbon sequestration

Social Value
Accessibility for residents
Recreation

Aesthetic Value
Visual quality and building integration
Reduced air pollution

Economic Impact
Increase in property value
Reduced energy consumption



DESCRIPTION:

Recreational spaces within urban blocks support the 30% green space target by offering accessible areas for activity, socializing, and relaxation. With features like lawns and playgrounds, they improve well-being, foster community ties, and align with the agenda 3-30-300 by ensuring visible greenery from buildings.

LOCATION 02 NEW BELGRADE

TYPE 3.3.
Park - transitional purpose

AGENDA 3-30-300

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Green space

Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Plant composition
Plant structure

Hydrological Function
Retention and infiltration of surface runoff
Water regulation capabilities

Climate Regulation
Reduction of urban heat island effect
Reduction of atmospheric carbon dioxide
Air quality improvement and public engagement

Social Value
Recreation and leisure
Recreation and leisure

Aesthetic Value
Visual quality and landscape improvement

Degree of Urban Integration
Proximity to public transportation



DESCRIPTION:

Transitional parks support the 30% green space target by creating flexible areas that connect urban spaces with nature through meadows, landscaping, and water features. They boost biodiversity, offer recreation, and ensure tree visibility from buildings, aligning with the agenda 3-30-300.

LOCATION 02 NEW BELGRADE

TYPE 5.1.
Linear greenery - linear barrier

AGENDA 3-30-300

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Linear green barrier

Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Plant composition
Plant structure

Hydrological Function
Retention and infiltration of surface runoff
Water regulation capabilities

Climate Regulation
Reduction of urban heat island effect
Reduction of atmospheric carbon dioxide
Air quality improvement and public engagement

Aesthetic Value
Visual quality and landscape improvement



DESCRIPTION:

Linear greenery in the streets within residential blocks enhance connectivity between green spaces, provide shade, and support the 30% green space target. As part of the 3-30-300 framework, they improve air quality, promote walkability, and make nature more visible from homes.

LOCATION 02 NEW BELGRADE

TYPE 4.
Green areas - low vegetation

AGENDA 3-30-300

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Green space

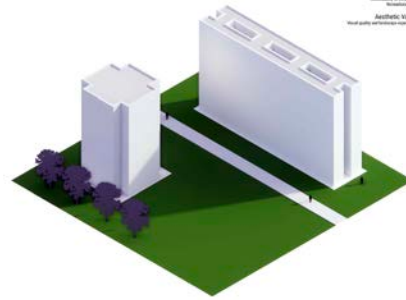
Ecological Role
Biodiversity

Hydrological Function
Retention and infiltration of surface runoff
Water regulation capabilities

Climate Regulation
Reduction of urban heat island effect
Reduction of atmospheric carbon dioxide
Air quality improvement and public engagement

Social Value
Recreation and leisure
Recreation and leisure

Aesthetic Value
Visual quality and landscape improvement



DESCRIPTION:

Green areas with low vegetation within residential buildings enhance local biodiversity, reduce heat, and support the 30% green space target. By bringing greenery closer to residents, they align with the agenda 3-30-300 and contribute to a healthier urban microclimate.

LOCATION 02 NEW BELGRADE

TYPE 5.2.
Linear greenery - parking lots

AGENDA 3-30-300

GREENER
URBAN
ENVIRONMENT

Green Infrastructure Element
Linear green barrier

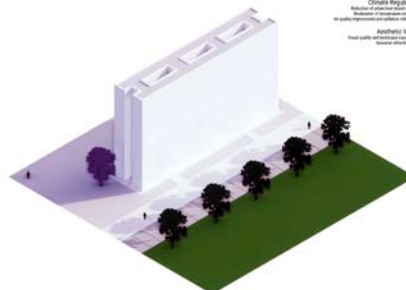
Ecological Role
Biodiversity
Ecological connectivity

Complexity and Composition
Plant composition
Plant structure

Hydrological Function
Retention and infiltration of surface runoff
Water regulation capabilities

Climate Regulation
Reduction of urban heat island effect
Reduction of atmospheric carbon dioxide
Air quality improvement and public engagement

Aesthetic Value
Visual quality and landscape improvement



DESCRIPTION:

Linear greenery alongside parking areas helps reduce heat, manage rainwater, and soften the visual impact of paved surfaces. By increasing tree cover and visibility of nature, it supports the agenda 3-30-300 and contributes to the 30% green space target.

LOCATION 02 NEW BELGRADE



LEGEND:

Zoning:

Typologies:

1.1. Rooftop greenery - extensive	3.2. Park - recreative purpose
1.2. Rooftop greenery - intensive	3.3. Park - transitional purpose
2.1. Vertical greenery - vertical wall	4.1. Green areas - low vegetation
2.2. Vertical greenery - vertical garden	5.1. Linear greenery - linear barrier
3.1. Park - relaxation zone with water features	5.2. Linear greenery - parking lots

TEAM BANOVO BRDO

The starting point was a heterogeneous hillside neighbourhood with older houses and smaller buildings mixed with later mid- and high-rise blocks, forming an uneven building line and varying quality of greenery across the area. Such diversity meant that shade and safe pedestrian connections were inconsistent, while on the steeper streets, rainwater quickly ran off without infiltrating the ground. Therefore, solutions are needed that can simultaneously address shade, water, and walkability.

The team worked on a block framed by Zrmanjska, Požeška, Dobrinovićeve, and Kirovljeva streets, with Požeška as its busiest axis and numerous everyday pedestrian crossings. Their idea was summarised as “shade down the slope” and “green thresholds” along daily routes. They envisioned a sequence of small but interconnected interventions that would cascade down the slope in shaded corridors, punctuated by green thresholds at the entrances, transit stops, and intersections.

To achieve this, the team combined a variety of elements, including extensive and intensive green roofs, green roofs on bus stops, permeable and vegetated parking spaces, and even a “green railway” corridor along the tram line, complemented by parks, groves, courtyard greenery, sports grounds, tree rows, and grassy islands.

Streets became the “cool spine” of the neighbourhood through new tree rows and planted islands that provided shade on sidewalks, softened street views, and created legible green traces leading to parks and playgrounds. Along the tram corridor, the team introduced a vegetated strip to reduce glare and heat, while aiding drainage. Simultaneously, public transport stops were designed with green roofs—visible “green markers” within the everyday network of movement that provided both shade and visual greenery where the street was most exposed.

Inside the blocks, courtyard greenery was reinforced and linked to sports grounds and micro-playgrounds. **Courtyards were envisioned as the “lungs” of the neighbourhood**—spaces for shade, cleaner air, and everyday use—that also created short and pleasant connections between streets and larger green areas. Roofs were activated as working green surfaces: extensive green roofs provided stable, low-maintenance vegetation that cooled buildings and reduced runoff, whereas intensive roofs on selected structures offered semi-public gardens with small trees, shrubs, and seating. In both cases, greenery was lifted into the residents’ everyday visual frame and relieved the pressure from the paved ground level.

Parking areas were redesigned as “smart lots”, with permeable strips and tree buffers separating cars from vegetation. Small grassy islands were strategically placed at entrances, shopfront corners, and crossings towards stations, offering shade and seating in areas where people lingered the most.

In terms of the 3-30-300 principle, the interventions are collectively:

- Increased **“3”** by making more trees visible through tree rows, courtyard greenery, and green roofs on buildings and transit stops.
- Strengthened **“30”** by expanding canopy cover through a combination of street trees, courtyard planting, roof gardens, and pocket parks that filled gaps in the green matrix;
- Enhanced **“300”** by providing shorter, safer, and shadier routes to parks and transit through the green tram corridor, shaded stops, and a chain of small “green thresholds” along daily pedestrian paths.

These moves were particularly well-suited to Banovo Brdo because of its sloping terrain and mixed urban fabrics. The neighbourhood requires interventions that can operate both at the edges—along busy streets—and inside, in courtyards and on rooftops, while simultaneously managing water, creating shade and improving connectivity. The proposed package of small, interconnected, and easily phased measures achieves precisely this: it transforms the experience of streets and courtyards from overheated corridors into shaded “green steps” descending the hillside.

Team Banovo Brdo demonstrated how, in a mixed hillside neighbourhood, a mosaic of tree rows, courtyards, green roofs, and vegetated public transport infrastructure can be woven into a legible and functional everyday network so that the 3-30-300 principle is not only measured on maps but genuinely felt in daily walks.



International student workshop - Day 02. Team Banovo Brdo

LOCATION 03 BANOVO BRDO

1. Rooftop greenery

1.1 Garage green roof



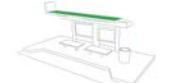
1.2 Residential rooftop park



1.3 Rooftop community gardens



1.4 Living bus stop roof



DESCRIPTION:

Green roof can play an important role in supporting urban pollinators like bees, butterflies, and other insects. By planting native, pollinator-friendly vegetation on the roofs of buildings and of bus shelters, we make stronger community engagement by promoting sustainable urban living, relaxation and recreation and enhance the quality of life. By offering green spaces for residents, we can also make a larger network of ecological stepping stones.

AGENDA 3-30-300

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Green roof
Green wall
Green facade
Green balcony
Green terrace
Green parking
Green street
Green sidewalk
Green canopy
Green awning
Green pergola
Green screen
Green fence
Green gate
Green gatepost
Green gatepost cap
Green gatepost finial
Green gatepost ornament
Green gatepost finial ornament
Green gatepost finial ornament ornament

Climate Regulation
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

Social Value
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

LOCATION 03 BANOVO BRDO

4. Green neighborhood areas

4.1 Private area



4.2 Residential area



DESCRIPTION:

We left private gardens untouched to respect residents' personal spaces and maintain the character of the neighborhood. These gardens often reflect individual care and local biodiversity, contributing to the overall green footprint. We added greenery to the residential area to enhance the environment and improve residents' well-being.

AGENDA 3-30-300

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Green roof
Green wall
Green facade
Green balcony
Green terrace
Green parking
Green street
Green sidewalk
Green canopy
Green awning
Green pergola
Green screen
Green fence
Green gate
Green gatepost
Green gatepost cap
Green gatepost finial
Green gatepost ornament
Green gatepost finial ornament
Green gatepost finial ornament ornament

Climate Regulation
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

Social Value
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

LOCATION 03 BANOVO BRDO

2. Linear Greenery

2.1 Single row linear greenery



2.2 Double row linear greenery



DESCRIPTION:

In the case of Banovo Brdo, it was observed that there was a noticeable absence of linear greenery. Linear greenery helps reduce urban heat islands, improves air quality, and supports biodiversity by creating continuous green corridors for small wildlife and pollinators. Additionally, it contributes to stormwater management by absorbing rainfall and reducing runoff.

AGENDA 3-30-300

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Green roof
Green wall
Green facade
Green balcony
Green terrace
Green parking
Green street
Green sidewalk
Green canopy
Green awning
Green pergola
Green screen
Green fence
Green gate
Green gatepost
Green gatepost cap
Green gatepost finial
Green gatepost ornament
Green gatepost finial ornament
Green gatepost finial ornament ornament

Climate Regulation
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

Social Value
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

LOCATION 03 BANOVO BRDO

3. Lawns

3.1 Green tram tracks



3.2 Permeable parking



3.3 Roundabout greenery



3.4 Vegetable planters



DESCRIPTION:

Permeable parking design significantly reduces the risk of flooding and erosion while replenishing groundwater supplies, while also reducing accidents happening due to saturation. Permeable surfaces also filter pollutants from water, helping improve overall water quality. At this location, there were too many parking spaces to eliminate entirely, so we retained them but introduced a greener, more sustainable solution instead.

AGENDA 3-30-300

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Green roof
Green wall
Green facade
Green balcony
Green terrace
Green parking
Green street
Green sidewalk
Green canopy
Green awning
Green pergola
Green screen
Green fence
Green gate
Green gatepost
Green gatepost cap
Green gatepost finial
Green gatepost ornament
Green gatepost finial ornament
Green gatepost finial ornament ornament

Climate Regulation
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

Social Value
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

LOCATION 03 BANOVO BRDO

5. Parks

5.1 Open parklands



5.2 Court side greenery



DESCRIPTION:

At Banovo Brdo there already exist two parklands, the Arboretum of the Forestry Faculty and Banovo Brdo park, but we also propose a new park in the Sugar factory area. Parklands support biodiversity, offer space for physical activity and social interaction, and help cool urban environments. Court side greenery refers to the planting of trees, shrubs, or green borders around court-yards or inner blocks of buildings, and creates a more pleasant, natural atmosphere for residents.

AGENDA 3-30-300

GREENER URBAN ENVIRONMENT

Green Infrastructure Element
Green roof
Green wall
Green facade
Green balcony
Green terrace
Green parking
Green street
Green sidewalk
Green canopy
Green awning
Green pergola
Green screen
Green fence
Green gate
Green gatepost
Green gatepost cap
Green gatepost finial
Green gatepost ornament
Green gatepost finial ornament
Green gatepost finial ornament ornament

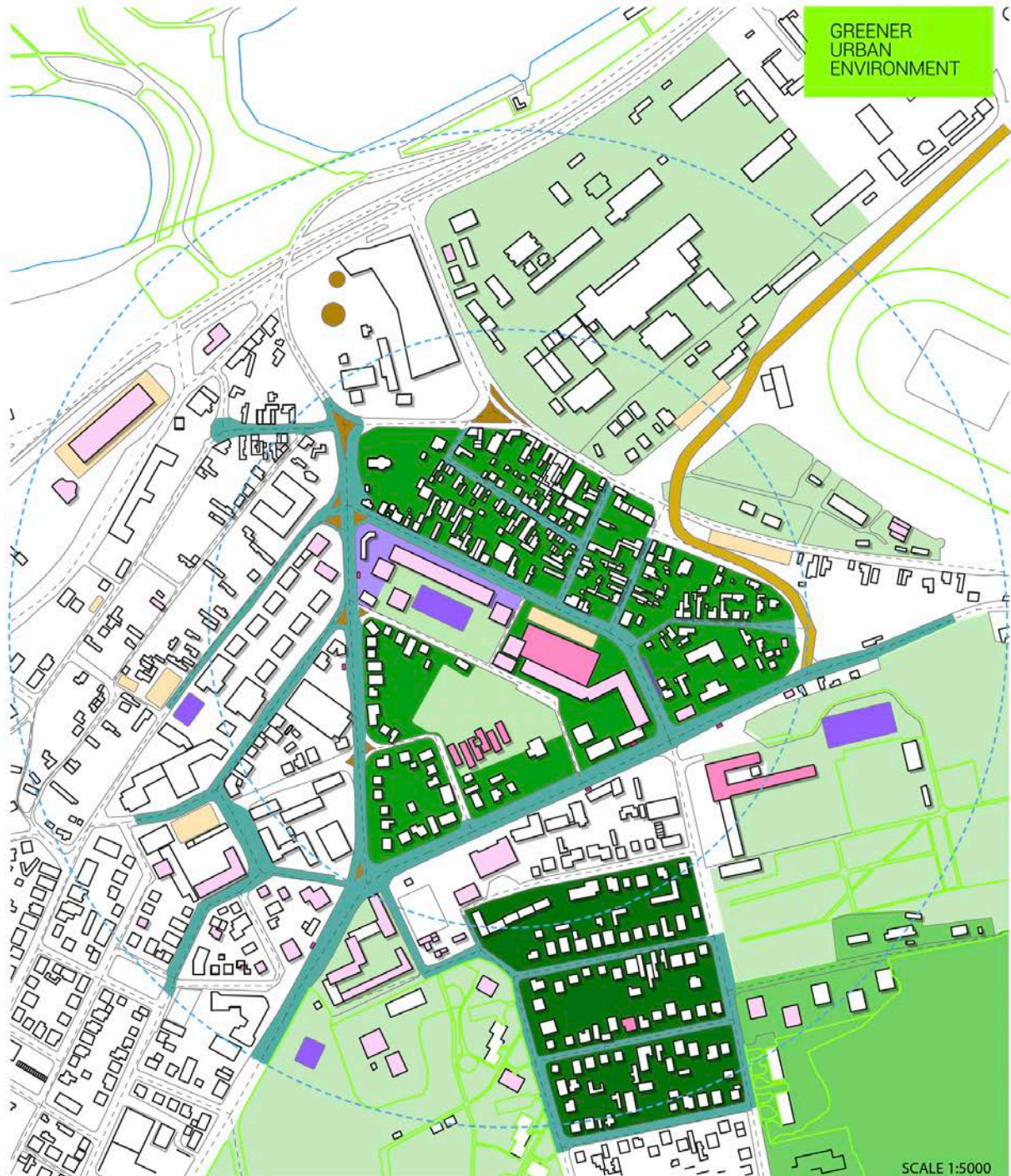
Climate Regulation
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

Social Value
Reduction of urban heat island effect
Reduction of air pollution
Reduction of noise pollution
Reduction of water runoff
Reduction of carbon footprint
Reduction of energy consumption
Reduction of greenhouse gas emissions
Reduction of global warming potential
Reduction of global warming potential potential

LOCATION 03
BANOVO BRDO

AGENDA
3-30-300

GREENER
URBAN
ENVIRONMENT



LEGEND:

- | | |
|---|---|
| Extensive green roof | Parks |
| Intensive green roof | Woodland areas |
| Bus stop green roof | Courtyard greenery |
| Green parking spaces | Private green spaces |
| Green railway | Sports courts |
| Road island lawns | Tree lined street |

Team Banovo Brdo. Typology distribution map

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

EXHIBITION

GREENING THE CITIES. THE 3-30-300 PRINCIPLE IN ACTION

The exhibition “Greening the Cities – The 3-30-300 Principle in Action” represented the next stage of the project following the completion of the international student workshop. Its purpose was to translate the workshop outcomes—site analyses, proposals for green infrastructure elements, and expected impacts under the 3-30-300 principle—into a straightforward and publicly accessible narrative. The exhibition thus addressed a broad audience of residents, students, planners, policymakers, and practitioners. The installation was created after a careful re-analysis of student proposals and their visual reinterpretation using contemporary AI tools, which made the intent of each intervention more legible, verifiable, and comparable across the three contexts.

CURATORIAL CONCEPT AND DISPLAY METHODOLOGY

The concept of the exhibition was built upon two complementary ambitions: (1) to preserve the scientific and professional grounding of the student proposals (base maps, green infrastructure element cards, 3/30/300 diagnostics), and (2) to enhance the clarity of key outcomes through AI visualisations—illustrating shading during the day, stormwater infiltration potential, continuity of tree lines, and improved pedestrian connections to the nearest green spaces. AI was used as an interpretative aid, not as a tool for “inventing” the content. Visual simulations were generated from real site data, measurements, and contextual layers, serving to translate the intent of the solutions into a language accessible to the public.

STRUCTURE OF THE EXHIBITION AND CONTENT STANDARDISATION

The exhibition was organised into three sections corresponding to the workshop sites: Vračar (compact historic fabric), New Belgrade (modernist “city in a park”), and Banovo Brdo (heterogeneous hillside neighbourhood). Each section included:

- a 1:5000 base map with 3-30-300 diagnostics (tree visibility, indicative canopy cover, accessibility to green space),
- standardised element cards (type, location, planting composition, hydrology, microclimate, social value, urban integration),
- AI visualisations illustrating the proposed interventions (shade, water, pedestrian connections),
- a concise impact statement highlighting the expected benefits for people (shade, leisure, safe routes), nature (biodiversity, microclimate, water), and neighbourhoods (spatial quality, more equitable access).

This standardisation allowed for comparability across the three contexts. It conveyed a clear message: small, contextually tailored interventions—tree rows, parklets, rain gardens,

green roofs, and vertical greenery—can measurably improve both the everyday life and ecological performance of neighbourhoods.

NARRATIVES OF THE THREE LOCATIONS

In Vračar, strategies focused on inserting greenery into the compact urban fabric: pocket parks, vertical and rooftop greenery, and tree-lined key pedestrian routes. The goal was to increase the number of “trees in view”, enhance street-level shade, and improve pedestrian access to larger parks in the area.

In New Belgrade, the exhibition emphasised upgrading existing potentials: three park typologies (rest/water, recreation, transit), linear greenery along streets and parking areas, and rooftop and façade greenery. The focus was on shaded, logical routes to parks and public transport stops, as well as keeping stormwater on-site rather than sending it directly to the sewers.

In Banovo Brdo, the concept of “green steps down the slope” was highlighted: tree rows and grassy islands along streets, green roofs on transit stops, infiltration gardens, and a vegetated corridor along the tram line. These interventions simultaneously addressed heat, water, and walkability, thereby creating a legible network of shaded thresholds along the daily routes.

THE EXHIBITION IS A PUBLIC TRANSLATOR OF RESULTS

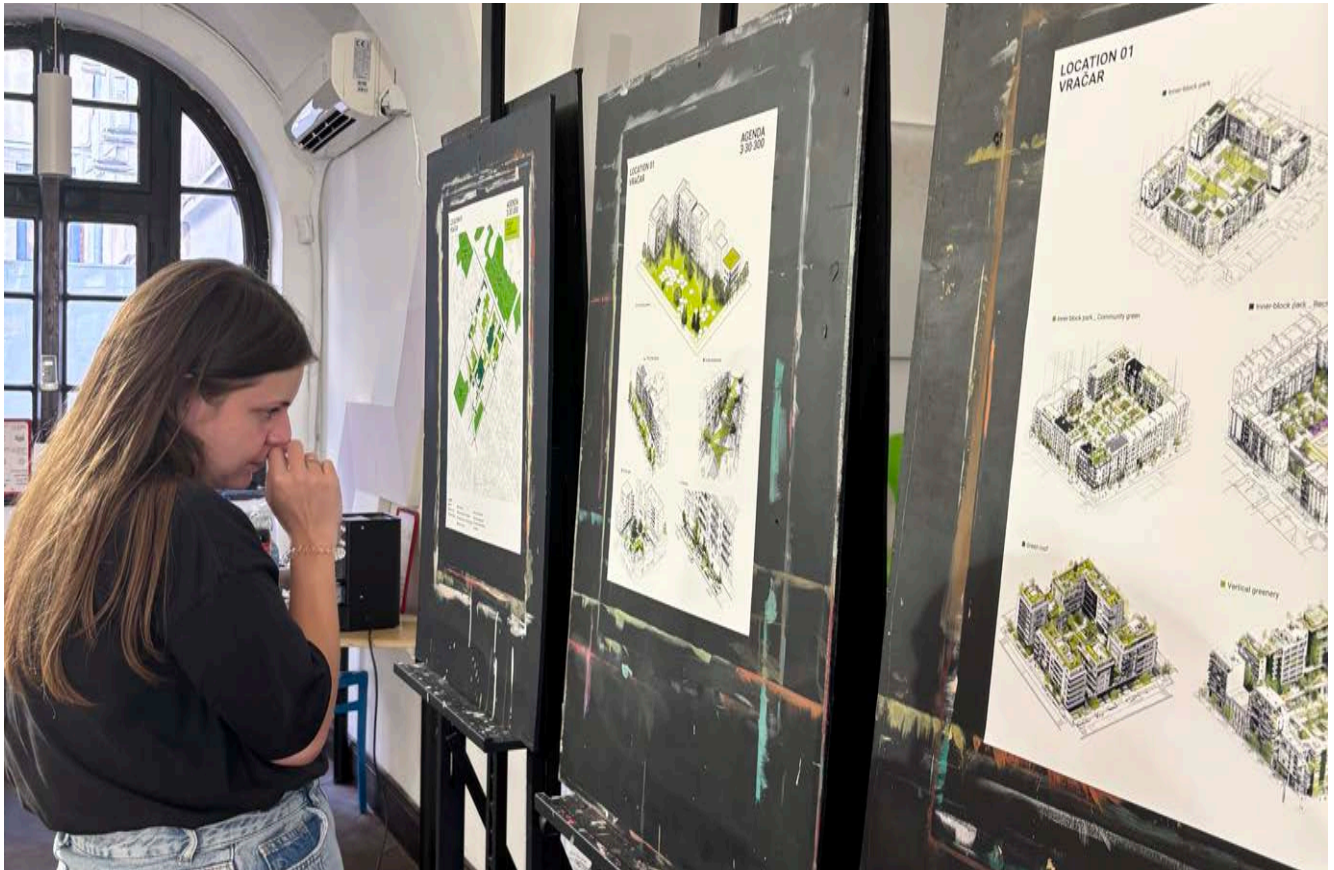
The exhibition translated workshop findings into the public domain: professional maps and cards were reimaged as clear visual narratives, while key 3-30-300 parameters became transparent and verifiable messages—more shade on pedestrian routes, increased canopy cover in critical zones, and shorter and more pleasant access to green spaces. During the opening and guided tours, dialogue with the audience emerged—questions on feasibility, phasing, maintenance, and partnerships—which ensured that student ideas were combined with the lived experiences of the residents and professional expertise.

IMPACT AND NEXT STEPS

The audience perceived the exhibition as a clear, measurable, and applicable demonstration of how three simple numbers 3, 30, and 300 can transform daily life in three Belgrade neighbourhoods. The most significant support was given to ideas offering quick, visible impact: shaded pedestrian routes, pocket parks, rain gardens, and tree rows at critical locations. Visitors requested pilot projects and raised questions about maintenance and costs, whereas professional discussions focused on species selection, hydrology, and phasing. The public concluded that “grey” infrastructure can be gradually and responsibly

upgraded with green interventions, so that every resident more quickly gains access to shade, canopy, and nearby green space.

As a continuation of the project, the exhibition served as a platform for dialogue between academia, citizens, and the city administration. Proposals that were scientifically grounded yet simply explained provided a foundation for small-scale pilot implementations (a tree row along a critical route, a parklet at a “hot spot”, a rain garden near a parking lot), with the possibility of scaling them up at the neighbourhood level. In this way, the exhibition fulfilled its purpose of presenting student ideas to the broader community in an academically rigorous, visually clear, and real-world application-oriented manner.



Exhibition Greening the Cities – The 3-30-300 Principle in Action



Note: All illustrations presented in this work were generated using artificial intelligence via the Midjourney platform (version 7). The visual representations were created based on carefully constructed text prompts authored by Dr. Milena Vukmirovic, aiming to diagrammatically depict various forms of green infrastructure in urban settings. The style is defined as a simplified axonometric CAD-like technical drawing, with only vegetation shown in green, while all other elements remain in black and white. The illustrations are intended as conceptual visualizations and do not represent photorealistic depictions of existing conditions.

**LOCATION 01
VRAČAR**

**AGENDA
3-30-300**

**GREENER
URBAN
ENVIRONMENT**



LEGEND:

- Park
- Green roof
- Public square
- Pocket park
- Inner-block park _ Recreation
- Inner-block park _ Community green
- Inner-block park
- Tree lined street
- Green shade sails
- Transitional greenery
- Parklet

**LOCATION 01
VRAČAR**

**AGENDA
3-30-300**



**LOCATION 01
VRAČAR**

**AGENDA
3-30-300**



Location 01: Vračar

**LOCATION 02
NEW BELGRADE**

**AGENDA
3-30-300**

**GREENER
URBAN
ENVIRONMENT**



LEGEND:

- Green roof _ Extensive
- Green roof _ Intensive
- Vertical greenery _ Wall
- Vertical greenery _ Garden
- Park _ Relaxation
- Park _ Recreation
- Park _ Transitional
- Park _ Play
- Park _ Water
- Green collective
- Linear greenery _ Barrier
- Linear greenery _ Parking
- Tree lined street _ Multiple lines

**LOCATION 02
NEW BELGRADE**

**AGENDA
3-30-300**



Linear greenery _ Parking

Linear greenery _ Barrier

Green roof _ Extensive

Green roof _ Intensive



**LOCATION 02
NEW BELGRADE**

**AGENDA
3-30-300**

Vertical greenery _ Garden

Vertical greenery _



Green collective

Park _ Water



Park _ Recreation



LOCATION 03
BANOVO BRDO

AGENDA
3-30-300



LEGEND:

- Green roof _ Extensive
- Green roof _ Intensive
- Green roof _ Bus stop
- Green parking spaces
- Green railway
- Road island lawns
- Courtyard greenery
- Private green spaces
- Sports courts
- Woodland areas
- Tree lined street _ Multiple lines
- Green collective
- Garage roof park
- Tree lined street _ One line

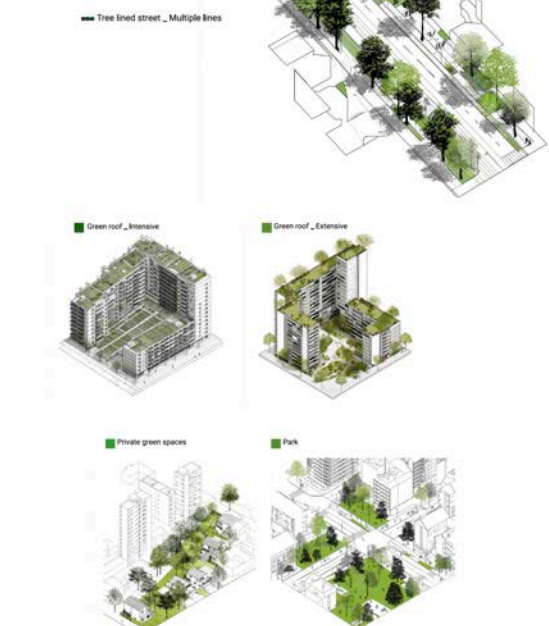
LOCATION 03
BANOVO BRDO

AGENDA
3-30-300



LOCATION 03
BANOVO BRDO

AGENDA
3-30-300



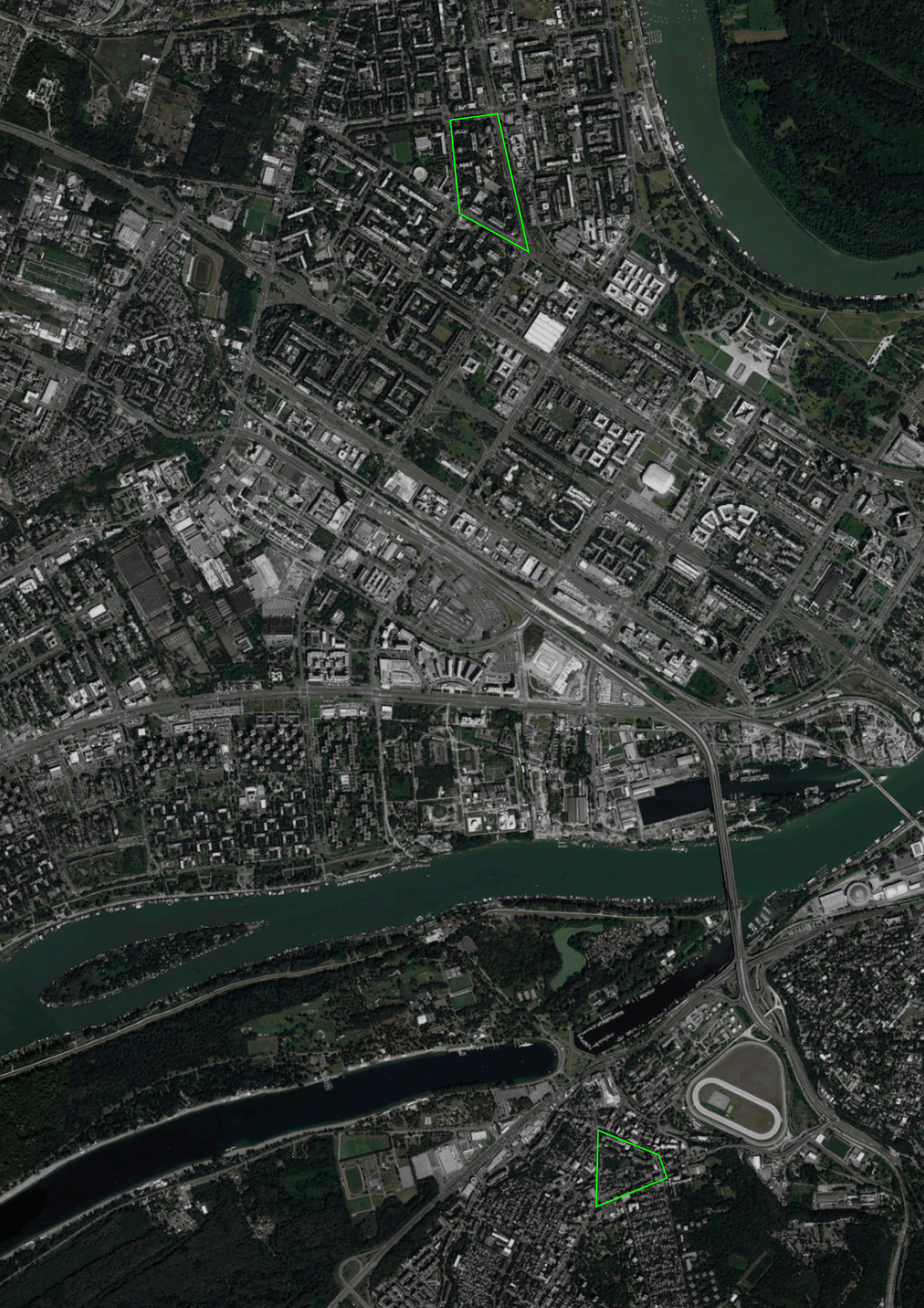
SPATIAL TOOLS. AGENDA 3-30-300

At the core of the publication lies a catalogue of green intervention types developed by students within the Agenda 3-30-300 project. This section of the publication is structured to provide an overview of different models for greening and enhancing public spaces, ranging from linear green elements to parks of various scales to rooftop and community gardens.

Each type is presented in a standardised format designed to enable easy comparison and straightforward interpretation. The presentation included the following:

- **Name and type of intervention** (e.g. tree rows, pocket parks, rooftop gardens)
- **Description** – key characteristics, modes of implementation, and spatial contexts in which the intervention is most often applied
- **Ecological values** – role in connecting green corridors, supporting biodiversity, regulating climate, and contributing to hydrology
- **Social values:** accessibility, potential uses, contribution to public health, and community well-being
- **Aesthetic and cultural values** – contribution to place identity and potential for education or cultural programming
- **Economic impact** – effects on housing quality, property values, and the local economy;
- **Degree of urban integration:** how well the intervention fits into the existing urban fabric.

Graphic elements complement each type: maps showing possible application sites, diagrams illustrating dimensions and composition, and visualisations that highlight identity and functioning. In this way, the catalogue becomes a practical guide, not only for professionals in urban planning and design but also for the wider public and decision-makers, providing a clear picture of how the proposed solutions contribute to achieving the goals of the 3-30-300 Agenda.



VRAČAR



TYPE 1.1 TREE ROWS



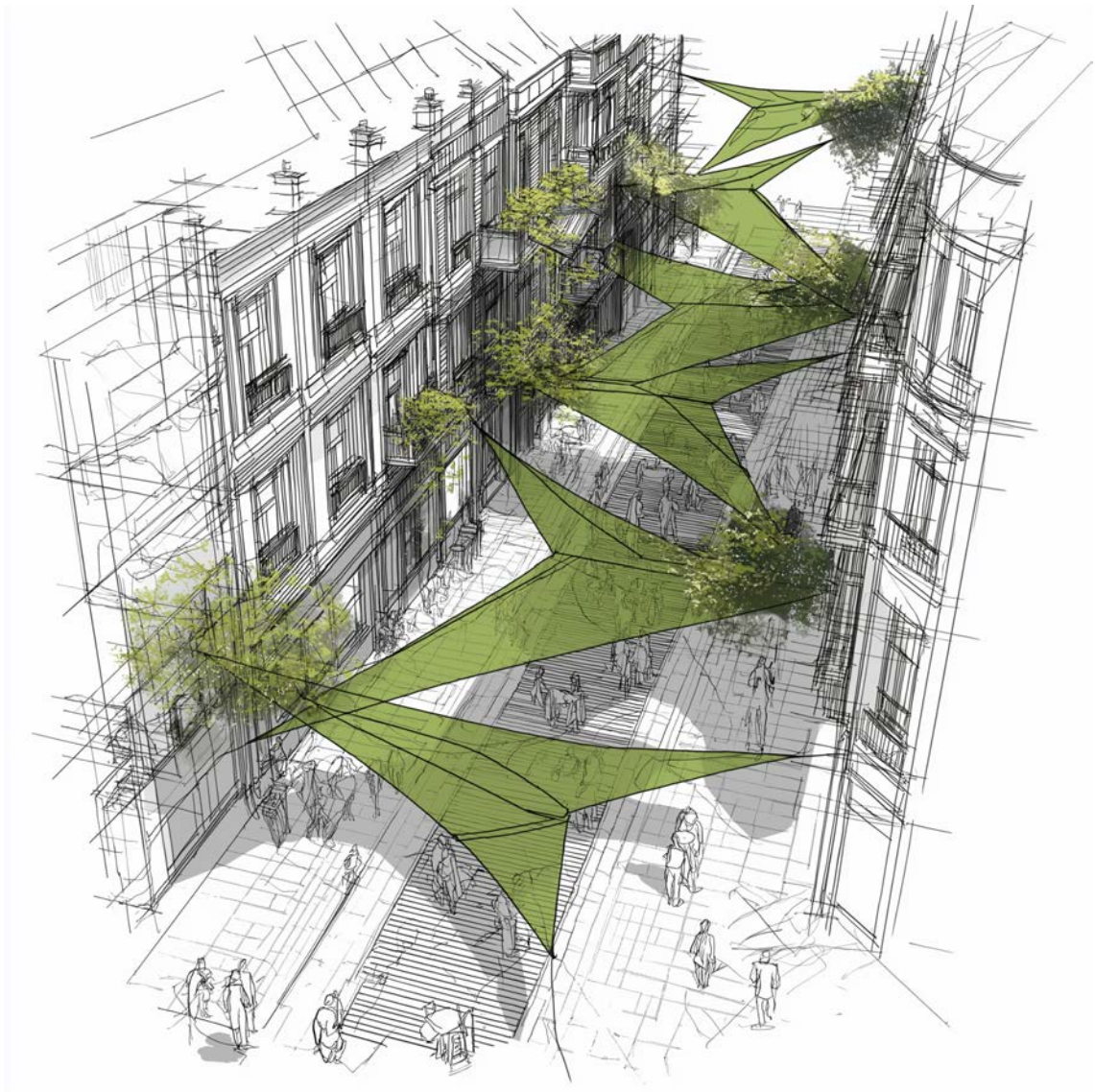
TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.1 TREE ROWS	CONNECTIVITY-CONTINUOUS, HABITAT, INCREASING ENVIRONMENTAL QUALITY,	LINEAR, NARROW	SIMPLE, SINGLE SPECIES ROW + UNDERPLANTINGS	INFILTRATION AND REGULATION OF SURFACE RUNOFF	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.1 TREE ROWS

Tree rows are a fundamental component of linear green infrastructure, serving both ecological and functional roles within the urban environment. Strategically planted along streets, paths, or property boundaries, they form continuous corridors that support the movement and dispersal of urban wildlife. Beyond their ecological connectivity, tree rows enhance biodiversity by offering nesting sites, shelter, and year-round food sources such as nectar, fruits, and seeds. Functionally, tree rows contribute significantly to climate resilience in cities. Their canopies provide shade and reduce the urban heat island effect, while their root systems assist with stormwater infiltration, decreasing surface runoff and improving soil health. By enhancing both environmental quality and the visual character of urban streetscapes, tree rows play a vital role in creating liveable, sustainable cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.1 TREE ROWS	ACCESSIBILITY TO THE PUBLIC	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH- COMPLETELY IMMERSSED IN URBAN FABRIC

TYPE 1.2 GREEN SHADE AWNINGS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.2 GREEN SHADE AWNINGS	CONNECTIVITY-STEPPING STONE, INCREASING ENVIRONMENTAL QUALITY,	LINEAR, NARROW	MODERATE, SEVERAL SPECIES COEXISTING	N/A	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES

TYPE 1.2 GREEN SHADE AWNINGS

Green shade awnings are innovative vertical greening systems that combine lightweight structural elements with hanging vegetation to provide cooling and shading in urban areas. Often installed in plazas, courtyards, parking lots, and other hardscape-dominated environments, they are particularly valuable where in-ground tree planting is not possible due to space constraints or infrastructure conflicts. These systems offer multiple ecosystem services: they reduce localised heat through evapotranspiration and shading, improve ambient air quality, and contribute to aesthetic enhancement and psychological well-being. Ecologically, green shade awnings support urban biodiversity by providing food and habitat for pollinators and beneficial insects, contributing to a more connected and resilient green infrastructure network. Their modular and adaptable design makes them an effective tool for introducing greenery into dense, impervious areas and expanding the reach of ecological benefits throughout the city.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.2 GREEN SHADE AWNINGS	ACCESSIBILITY TO THE PUBLIC	SEASONAL ATTRACTIVENESS VISUAL UNIQUENESS	EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

TYPE 2.1 POCKET PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.1 POCKET PARKS	CONNECTIVITY- STEPPING STONE, HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	SMALL SPACE, UNDER 200 SQM	MODERATE COMPLEXITY, SEVERAL SPECIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.1 POCKET PARKS

Pocket parks are compact, yet impactful green spaces embedded within densely built environments. Typically occupying small, irregular or leftover parcels of land, these parks provide accessible social and ecological benefits at the neighbourhood scale. Despite their limited size, pocket parks serve as important ecological nodes- supporting urban biodiversity through the inclusion of native vegetation, pollinator-friendly plantings and shaded microhabitats. Socially, they offer inclusive spaces for rest, play, and informal gatherings, fostering community interaction and improving neighbourhood well-being. Functionally, pocket parks contribute to urban climate resilience by mitigating heat island effect through shading and evapotranspiration, improving air quality, and capturing stormwater runoff. Their strategic placement throughout the urban matrix enhances walkability, strengthens green connectivity, and transforms underutilised land into valuable public assets that support both environmental and social sustainability.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.1 POCKET PARKS	HIGH- ACCESSIBLE TO THE PUBLIC; REPRESENTS A GATHERING POINT	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

TYPE 2.2 RECREATIONAL PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.2 RECREATIONAL PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM TO LARGE SPACE, OVER 1000 SQM	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.2 RECREATIONAL PARKS

Recreational parks are designed to support active lifestyles and promote community well-being. Typically, larger in scale than neighbourhood or pocket parks, these spaces provide a diverse range of amenities—such as sports fields, walking and cycling paths, playgrounds, open lawns, and event spaces—that accommodate various age groups and recreational needs. Ecologically, recreational parks serve as habitat patches that enhance urban biodiversity, particularly when integrated with native plantings, wooded areas, and water features. Functionally, these parks contribute to climate resilience by absorbing rainfall, reducing stormwater runoff, and mitigating the urban heat island effect through extensive vegetative cover. They also improve air quality, support mental health through access to nature, and foster social cohesion by providing inclusive spaces for physical activity, cultural events, and relaxation. Strategically distributed across the urban landscape, recreational parks play a key role in enhancing quality of life and creating healthier, more resilient cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.2 RECREATIONAL PARKS	HIGH-ACCESSIBLE TO THE PUBLIC; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	N/A	MODERATE IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, ACTIVITIES	MODERATE, PARTIALLY INTEGRATED – BUFFER ZONE IN FORM OF OTHER GREEN OR GRAY SPACES PRESENT

TYPE 2.3 RESIDENTIAL PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.3 RESIDENTIAL PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM SPACE, 500 – 1000 SQM RANGE	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.3 RESIDENTIAL PARKS

Residential parks are localised green infrastructure elements embedded within housing developments or residential neighbourhoods, offering accessible and semi-private natural spaces tailored to the daily needs of nearby residents. Typically, smaller and more secluded than public parks, residential parks prioritise tranquillity, shade, and aesthetic appeal over intensive use. They often feature soft landscaping, walking paths and urban furniture, fostering passive recreation and relaxation. Ecologically, these parks support localised biodiversity by incorporating native plant species, tree cover, and pollinator-friendly vegetation. Functionally, residential parks contribute to improved microclimates by reducing surrounding temperatures, enhancing air quality, and aiding stormwater absorption through permeable surfaces. Their proximity to homes encourages regular outdoor use, supports mental well-being, and promotes social interaction among neighbours. By integrating nature into residential settings, these parks enhance liveability, environmental health, and the overall sense of place in urban neighbourhoods

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.3 RESIDENTIAL PARKS	MODERATE-ACCESSIBLE TO THE COMMUNITY; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH-COMpletely IMMersed IN URBAN FABRIC

TYPE 2.4 NEIGHBOURHOOD PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.4 NEIGHBOURHOOD PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM TO LARGE SPACE, OVER 1000 SQM	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.4 NEIGHBOURHOOD PARKS

Neighbourhood parks are mid- to large-sized green infrastructure elements designed to serve the immediate recreational, ecological, and social needs of local community. Strategically located within walking distance of surrounding homes, they provide accessible open space that fosters community interaction and outdoor activity. Ecologically, neighbourhood parks support biodiversity through a mix of tree cover, shrubs, lawns, and low plantings, offering habitat and food resources for birds, pollinators, and other urban wildlife. Their vegetation contributes to climate regulation by providing shade, moderating temperature extremes, and improving air quality. Hydrologically, they enhance rainwater infiltration and reduce surface runoff through permeable surfaces and landscaped areas. Socially, neighbourhood parks are hotspots for relaxation, play, and informal gatherings, accommodating various amenities including playgrounds, benches, walking paths, etc. Aesthetically, they enrich the visual character of the neighbourhood, offering seasonal variety and enhancing property values. In cultural terms, they can serve as venues for small community events or reflect local identity through landscaping themes or public art. Economically, they contribute to long-term urban liveability and can indirectly boost local economic activity by making neighbourhoods more attractive to residents and visitors. By balancing ecological function with recreational and aesthetic appeal, neighbourhood parks play a vital role in creating healthy, cohesive, and resilient urban communities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.4 NEIGHBOURHOOD PARKS	HIGH-ACCESSIBLE TO THE PUBLIC; REPRESENTS A GATHERING POINT REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE TO HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, REDUCTION OF HEAT ISLAND EFFECT, ABUNDANCE OF ACTIVITIES	MODERATE TO HIGH, PARTIALLY INTEGRATED – STREETS COULD BE SEPARATING IT FROM SURROUNDING URBAN FABRIC

TYPE 3.1 COMMUNITY GARDENS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.1 COMMUNITY GARDENS	HABITAT, INCREASING BIODIVERSITY,	SMALL -MEDIUM SPACE, 200 – 1000 SQM RANGE	VARIES- USUALLY LOW TO MODERATE COMPLEXITY; MULTIPLE ANNUAL SPECIES COEXISTING WITH SURROUNDING HIGH TIER VEGETATION W- UNDERPLANTINGS	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION SOIL FORMATION

TYPE 3.1 COMMUNITY GARDENS

Community gardens are multifunctional green infrastructure components that provide shared spaces for residents to engage in small-scale cultivation of fruits, vegetables, herbs, and flowers within urban environments. Typically located on underutilised or vacant plots of land, these gardens foster ecological stewardship, food security, and community cohesion. Ecologically, community gardens enhance urban biodiversity by introducing a variety of plant species and attracting pollinators and beneficial insects. Functionally, they improve soil quality, promote stormwater infiltration, and reduce urban heat through increased vegetation cover. Community gardens also serve important social and educational roles, offering opportunities for intergenerational learning, cultural exchange, and civic engagement. By transforming fragmented urban land into productive and inclusive green spaces, community gardens contribute to resilient, self-sustaining neighbourhoods while reinforcing the social fabric of cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.1 COMMUNITY GARDENS	VALUABLE SOCIAL POINT; PROVIDES FOOD FOR PEOPLE;	VISUAL QUALITY; SEASONAL ATTRACTIVENESS	EDUCATIONAL POTENTIAL; CIVIC ENGAGEMENT;	MODERATE IMPACT ON PROPERTY- KEY FACTORS PRESENCE, ACTIVITIES	HIGH-COMpletely IMMersed IN URBAN FABRIC

TYPE 4.1 EXTENSIVE GREEN ROOFS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
4.1 EXTENSIVE GREEN ROOFS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MODERATE TO LARGE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 4.1 EXTENSIVE GREEN ROOFS

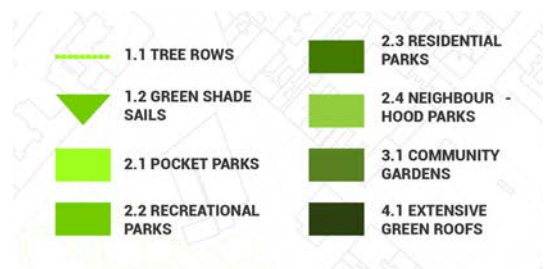
Extensive green roofs offer ecological, climatic, and visual benefits while making efficient use of underutilised rooftop space. Designed with shallow growing media and hardy, low-maintenance vegetation they function as living systems that enhance urban resilience. Ecologically, extensive green roofs provide habitat for birds and pollinators, support biodiversity, and contribute to urban ecological connectivity when implemented across multiple rooftops. Functionally, these systems play a key role in stormwater management by absorbing rainfall and reducing surface runoff, thus alleviating stress on urban drainage networks. They also regulate rooftop temperatures, reducing the urban heat island effect and improving building energy efficiency. Beyond their environmental benefits, extensive green roofs contribute to improved air quality. While not designed for public access, they offer visual relief and seasonal variation to surrounding buildings and improve the aesthetic character of the urban skyline.

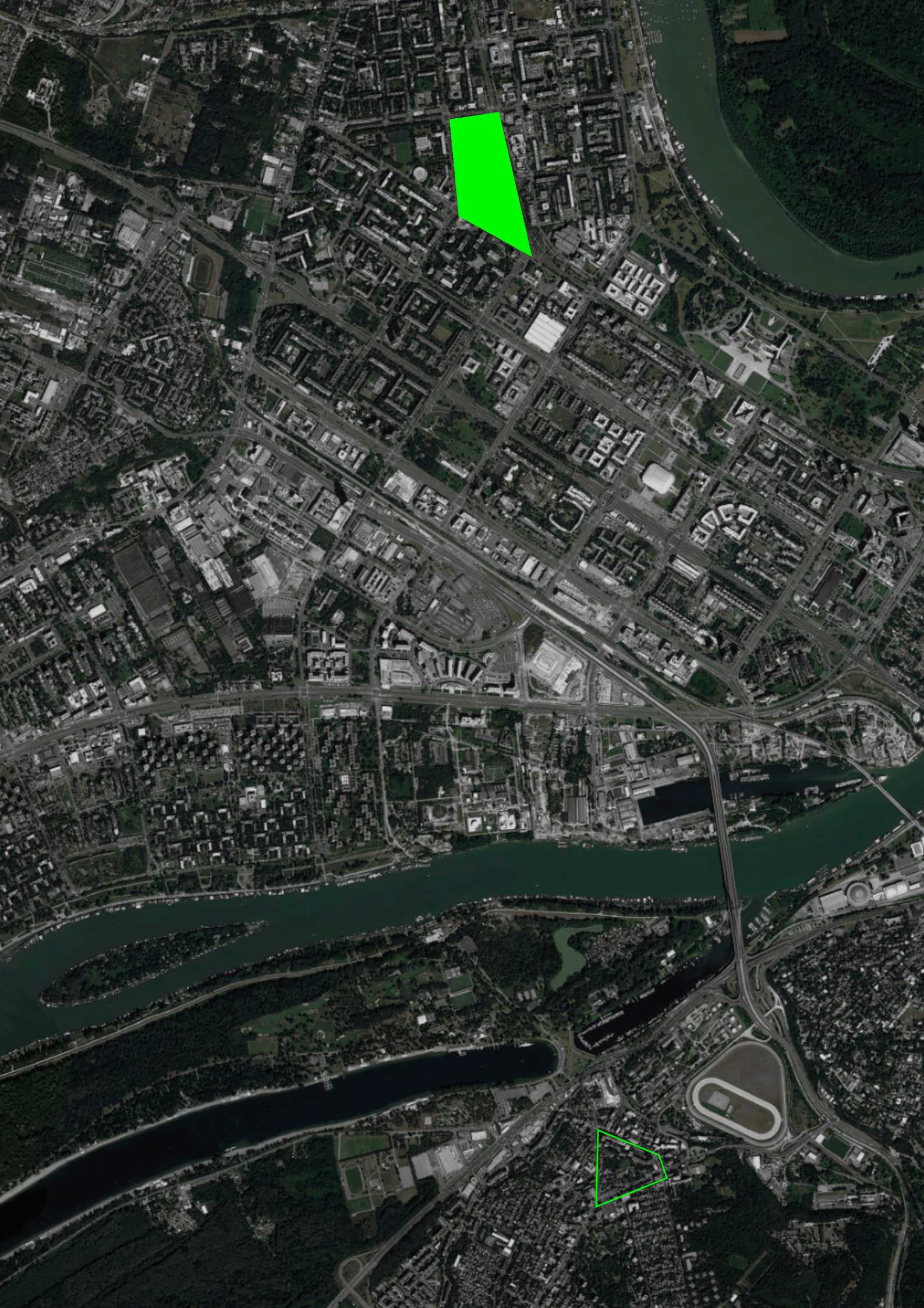
TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
4.1 EXTENSIVE GREEN ROOFS	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED ROOF LIFESPAN,	HIGH- INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

LOCATION: VRAČAR

TYPOLGY OF THE GREEN INFRASTRUCTURE ELEMENTS

	TYPE	SUBTYPE	ECOSYSTEM SERVICES	AGENDA 3 30 300 GOAL CONTRIBUTION	KEY ROLE
1.	LINEAR GREENERY	1.1 TREE ROWS	- cultural (mental and physical health, aesthetic values) - regulating (air quality regulation, climate regulation, water regulation*, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)	3 trees visible from every window 30 percent tree canopy cover in every neighbourhood	- Ecological connectivity, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities,
		1.2 GREEN SHADE AWNINGS			
2.	PARKS	2.1 POCKET PARKS	- cultural (mental and physical health, recreation and eco-tourism, aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)	3 trees visible from every window 30 percent tree canopy cover in every neighbourhood 300 metres from the nearest high-quality public park or other green space	- Ecological destination, - Social destination, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities
		2.2 RECREATIONAL PARKS			
		2.3 RESIDENTIAL PARKS			
		2.4 NEIGHBOURHOOD PARKS			
3.	GARDENS	3.1 COMMUNITY GARDENS	- cultural (mental and physical health, recreation and eco-tourism, aesthetic values) - provisioning (food, raw materials) - regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis, soil formation)	300 metres from the nearest high-quality public park or other green space	- Social destination, - Providing food and shelter for urban wildlife, - Providing food and shelter for people, - Increasing % of greenery in cities
4.	GREEN ROOFS	4.1 EXTENSIVE GREEN ROOFS	- cultural (aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; pollination) - supporting (nutrient cycling, photosynthesis, soil formation)		- Providing food and shelter for urban wildlife, - Increasing % of greenery in cities





NEW BELGRADE



TYPE 1.1 EXTENSIVE GREEN ROOFS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.1 EXTENSIVE GREEN ROOFS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MODERATE TO LARGE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.1 EXTENSIVE GREEN ROOFS

Extensive green roofs offer ecological, climatic, and visual benefits while making efficient use of underutilised rooftop space. Designed with shallow growing media and hardy, low-maintenance vegetation they function as living systems that enhance urban resilience. Ecologically, extensive green roofs provide habitat for birds and pollinators, support biodiversity, and contribute to urban ecological connectivity when implemented across multiple rooftops. Functionally, these systems play a key role in stormwater management by absorbing rainfall and reducing surface runoff, thus alleviating stress on urban drainage networks. They also regulate rooftop temperatures, reducing the urban heat island effect and improving building energy efficiency. Beyond their environmental benefits, extensive green roofs contribute to improved air quality. While not designed for public access, they offer visual relief and seasonal variation to surrounding buildings and improve the aesthetic character of the urban skyline.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.1 EXTENSIVE GREEN ROOFS	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED ROOF LIFESPAN,	HIGH- INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 1.2 INTENSIVE GREEN ROOFS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.2 INTENSIVE GREEN ROOFS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	MEDIUM SPACE, 500 – 1000 SQM RANGE	HIGH, POTENTIAL FOR SEVERAL DIFFERENT PLANT COMMUNITIES TO COEXIST	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.2 INTENSIVE GREEN ROOFS

Intensive green roofs are highly versatile and complex vegetated roof systems designed to support a wide range of plant species, including shrubs, and even small trees, effectively creating a functional garden or park space above buildings. With deeper soil substrates and greater load-bearing requirements than extensive systems, they provide substantial ecological benefits by offering habitat for birds, pollinators, and other urban wildlife, as well as serving as stepping stones in the wider green infrastructure network. Their hydrological function is significant, capturing and retaining large volumes of rainwater, reducing peak runoff, and improving water quality through natural filtration. In terms of climate regulation, intensive green roofs offer excellent insulation, help regulate building temperatures year-round, and contribute to the reduction of the urban heat island effect. Socially, they serve as attractive, accessible recreational and relaxation spaces for building occupants, fostering well-being and community interaction. Aesthetically, they offer high design flexibility, enabling diverse planting schemes, seasonal interest, and integration of amenities. Beyond visual and social value, they hold cultural and educational significance as visible symbols of sustainable urban design, while increasing property value and long-term economic benefits through energy savings and improved building performance.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.2 INTENSIVE GREEN ROOFS	MODERATE-ACCESSIBLE TO THE COMMUNITY; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	EDUCATIONAL POTENTIAL	MODERATE TO HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED ROOF LIFESPAN,	HIGH-INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 2.1 GREEN WALLS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.1 GREEN WALLS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	VERTICAL, MODERATE TO LARGE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.1 GREEN WALLS

Green walls are integrated into building facades, offering a variety of ecological, climatic, and aesthetic benefits. Designed with a range of hardy, low-maintenance plant species, these systems effectively utilise otherwise underused vertical spaces to enhance urban resilience. Ecologically, green walls contribute to biodiversity by providing essential habitats for birds, pollinators, and beneficial insects. When implemented across multiple buildings, they can help form green corridors that promote ecological connectivity in urban areas, especially in environments where horizontal green space is limited. Functionally, green walls play a significant role in stormwater management by capturing rainfall through plant coverage, reducing surface runoff, and improving water quality through natural filtration. They also mitigate the urban heat island effect by providing cooling, which helps regulate building temperatures and reduces the need for air conditioning. This, in turn, contributes to lower energy consumption and improved energy efficiency for the building. Additionally, green walls improve air quality by absorbing pollutants and filtering dust.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.1 GREEN WALLS	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED FACADE LIFESPAN,	HIGH-INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 2.2 VERTICAL GARDENS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.2 VERTICAL GARDENS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	VERTICAL, MODERATE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.2 VERTICAL GARDENS

Vertical gardens on private facades represent a specialised form of vertical green infrastructure that combines ecological function with personal utility. Installed on walls and balconies, include use of climbing plants and edible vegetation to transform vertical surfaces into productive, green spaces. Ecologically, they provide critical habitat for birds, pollinators, and other beneficial insects, helping to increase urban biodiversity. When implemented across multiple facades, they contribute to ecological connectivity by forming green corridors within urban environments. Functionally, these vertical gardens contribute to stormwater management by capturing rainfall through plant canopies, reducing surface runoff, and improving water quality. They also regulate building temperatures by offering seasonal shading with climbing vines, which helps mitigate the urban heat island effect and improves energy efficiency. The edible plants provide a sustainable source of fresh food, making these gardens both productive and practical for urban residents. Beyond their environmental benefits, private vertical gardens improve the aesthetic character of the urban landscape. They offer visual relief from the concrete jungle and introduce seasonal variations in color and texture. While not typically designed for public access, these private green spaces provide a direct connection to nature for building occupants, enhancing their well-being and fostering a sense of ownership. Through their multifaceted role in food production, ecological support, and environmental regulation, private vertical gardens are a powerful tool for creating more sustainable and liveable urban spaces.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.2 VERTICAL GARDENS	ACTIVE ENGAGEMENT WITH GREENERY	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED FACADE LIFESPAN,	HIGH-INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 3.1 BUFFER PARKS



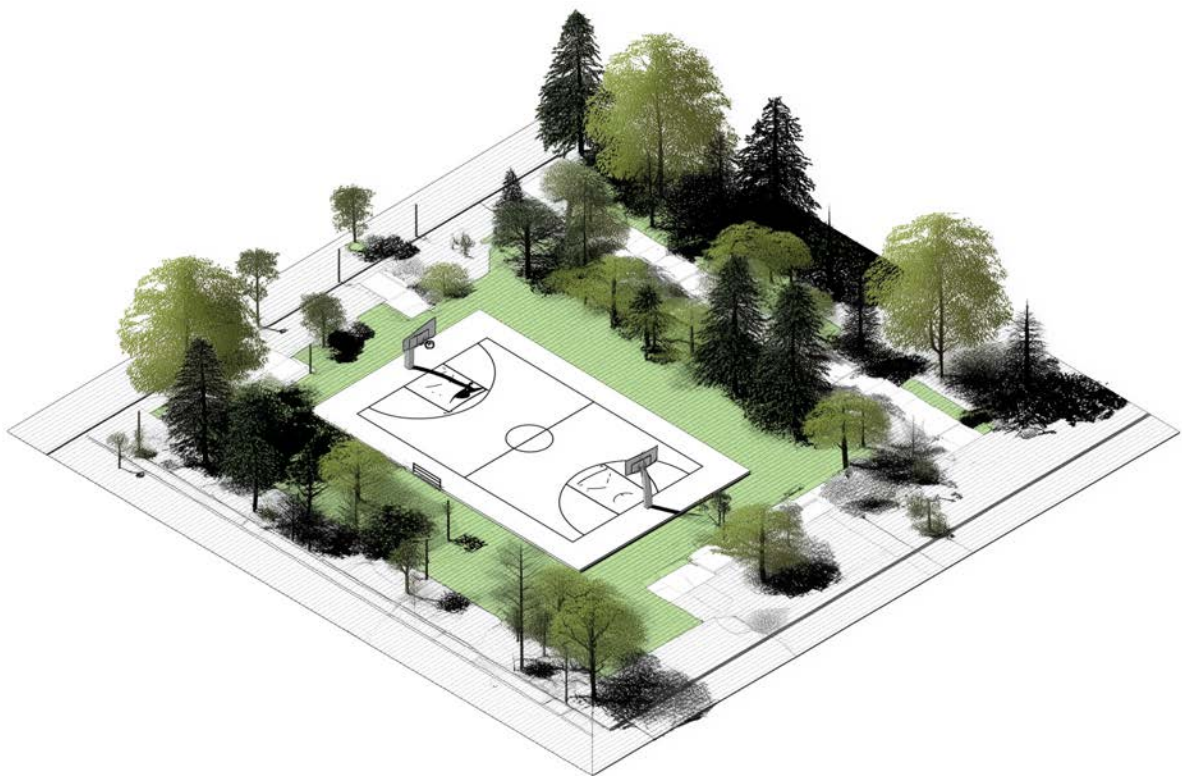
TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.1 BUFFER PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POLLUTANT AND NOISE REDUCTION;	MEDIUM TO LARGE SPACE, OVER 1000 SQM	MODERATE COMPLEXITY, SEVERAL SPECIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.1 BUFFER PARKS

Buffer parks are strategically positioned elements of green infrastructure placed between major roadways and residential areas, serving as multifunctional transition zones that protect communities from the adverse impacts of traffic. Their primary ecological role lies in creating vegetated barriers—often composed of dense tree rows, shrubs, and ground cover—that absorb air pollutants, filter dust, and mitigate noise levels, thereby improving overall environmental quality. Hydrologically, buffer parks assist with stormwater management by increasing infiltration, reducing surface runoff, and capturing contaminants before they enter drainage systems. The vegetation also contributes to climate regulation, with tree canopies providing shade, lowering ambient temperatures, and helping to counteract the urban heat island effect. Socially, these parks enhance residents' quality of life by reducing visual exposure to traffic, creating a sense of separation and safety. Aesthetically, they improve the visual character of otherwise harsh roadway edges through seasonal foliage, flowers, and layered planting structures. Culturally, buffer parks can incorporate public art, memorials, or design elements reflecting local identity, transforming what might otherwise be neglected margins into valued community assets. Economically, they can indirectly boost nearby property values by enhancing liveability, reducing noise and pollution, and contributing to a healthier environment. By combining ecological function, visual enhancement, and human comfort, buffer parks act as vital protective green infrastructure elements within the urban fabric.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.1 BUFFER PARKS	ACTIVE ENGAGEMENT WITH GREENERY	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED FACADE LIFESPAN,	HIGH- INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 3.2 RECREATIONAL PARKS



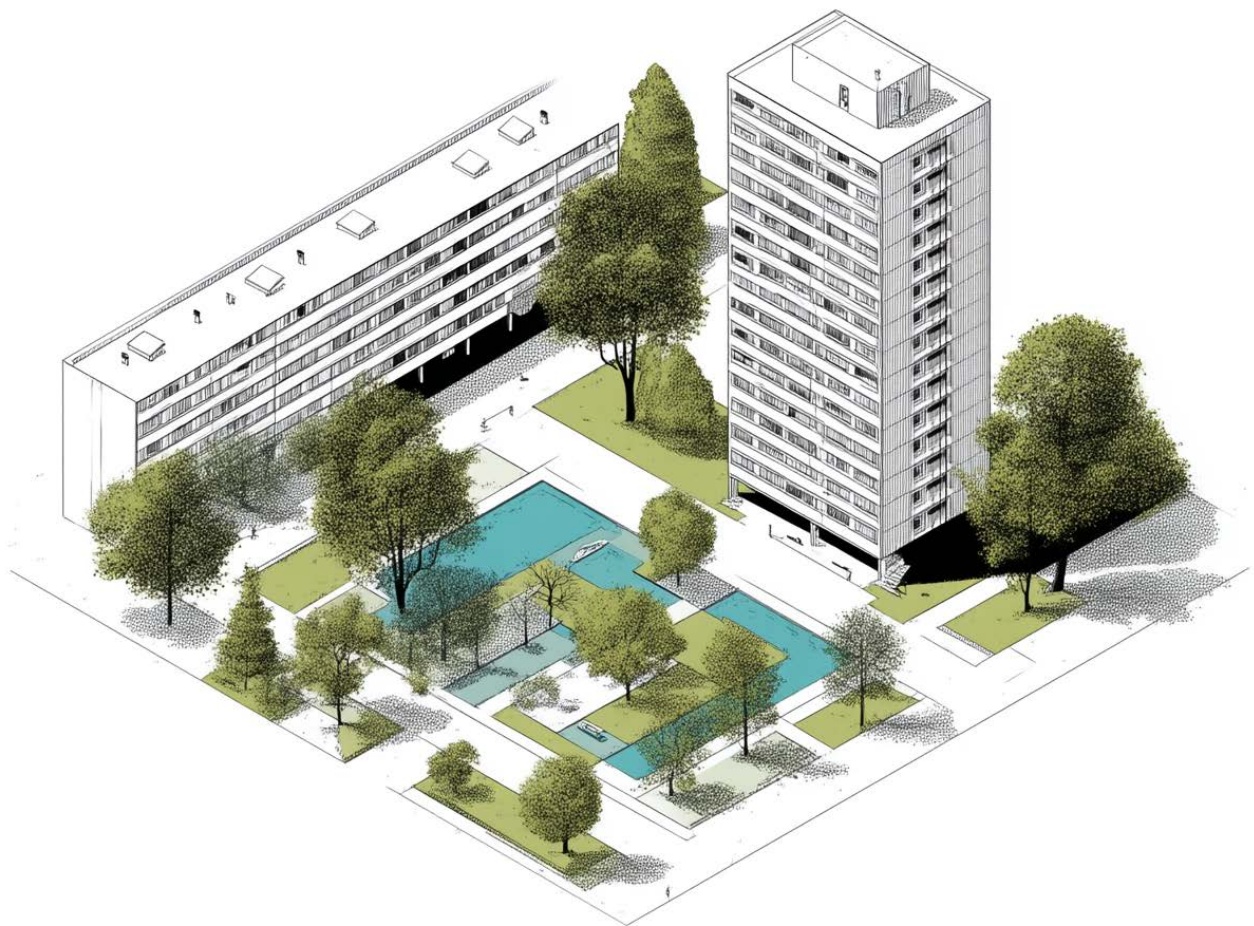
TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.2 RECREA TIONAL PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM TO LARGE SPACE, OVER 1000 SQM	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.2 RECREATIONAL PARKS

Recreational parks are designed to support active lifestyles and promote community well-being. Typically larger in scale than neighbourhood or pocket parks, these spaces provide a diverse range of amenities—such as sports fields, walking and cycling paths, playgrounds, open lawns, and event spaces—that accommodate various age groups and recreational needs. Ecologically, recreational parks serve as habitat patches that enhance urban biodiversity, particularly when integrated with native plantings, wooded areas, and water features. Functionally, these parks contribute to climate resilience by absorbing rainfall, reducing stormwater runoff, and mitigating the urban heat island effect through extensive vegetative cover. They also improve air quality, support mental health through access to nature, and foster social cohesion by providing inclusive spaces for physical activity, cultural events, and relaxation. Strategically distributed across the urban landscape, recreational parks play a key role in enhancing quality of life and creating healthier, more resilient cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.2 RECREATIONAL PARKS	HIGH-ACCESSIBLE TO THE PUBLIC; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	N/A	MODERATE IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, ACTIVITIES	MODERATE, PARTIALLY INTEGRATED – BUFFER ZONE IN FORM OF OTHER GREEN OR GRAY SPACES PRESENT

TYPE 3.3 RESIDENTIAL PARKS WITH WATER FEATURES



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.3 RESIDENTIAL PARKS WITH WATER FEATURES	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM SPACE, 500 – 1000 SQM RANGE	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES; WATER REUSE;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.3 RESIDENTIAL PARKS WITH WATER FEATURES

Residential parks with water features are designed to combine aesthetic appeal, ecological function, and recreational value. Central to their character are ponds, fountains, streams, or other water elements that create a focal point, enhance visual interest, and provide sensory benefits through sound and movement. Ecologically, the combination of vegetation and water supports a diverse range of wildlife, offering habitat for birds, amphibians, and pollinators while improving local biodiversity. Hydrologically, water features contribute to stormwater management by capturing and storing runoff, promoting infiltration, and reducing the burden on urban drainage systems. Vegetation surrounding the water helps regulate microclimates, offering shade, cooling, and air purification, which together mitigate the urban heat island effect. Aesthetically, these parks provide residents with opportunities for passive recreation strengthening neighbourhood bonds and encouraging time spent outdoors. They enhance the landscape with seasonal changes, reflections, and movement, often becoming signature elements of residential developments. Culturally, water features can be designed to reference local traditions, history, or symbolism, deepening the park's connection to its setting. Economically, their presence can significantly increase nearby property values and make developments more attractive to potential buyers or tenants. By uniting functional water management, biodiversity support, and human enjoyment, residential parks with water features create a high-quality living environment that benefits both people and nature.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.3 RESIDENTIAL PARKS WITH WATER FEATURES	MODERATE-ACCESSIBLE TO THE COMMUNITY; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH-COMpletely IMMersed IN URBAN FABRIC

TYPE 4.1 LAWNS IN RESIDENTIAL AREAS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
4.1 LAWNS IN RESIDENTIAL AREAS	INCREASING % OF GREENERY IN CITIES, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MODERATE TO LARGE SURFACES	SIMPLE; LOW-GROWING VEGETATION, LIMITED SPECIES SELECTION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 4.1 LAWNS IN RESIDENTIAL AREAS

Lawns in residential areas are expanses of low growing, regularly maintained grass that serve both functional and aesthetic purposes within neighbourhood settings. Ecologically, they provide modest habitat value, supporting small invertebrates and occasional bird foraging, while contributing to localised cooling through evapotranspiration. Their hydrological role is generally limited, though they can assist in stormwater infiltration and help reduce surface runoff. In terms of climate regulation, lawns offer a cooling effect in summer, mitigate some urban heat island impacts, and contribute to air quality improvement through carbon sequestration, albeit on a smaller scale compared to tree-covered spaces. Socially, they create open, accessible areas for informal recreation, gatherings, and play, fostering neighbourhood interaction and visual openness. As simple, flexible, and easily recognisable green elements, lawns in residential areas contribute to the overall liveability and visual cohesion of urban and suburban neighbourhoods.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
4.1 LAWNS IN RESIDENTIAL AREAS	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	N/A	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

TYPE 5.2 TREE LINED PARKING LOTS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
5.2 TREE LINED PARKING LOTS	CONNECTIVITY-CONTINUOUS, HABITAT, INCREASING ENVIRONMENTAL QUALITY,	LINEAR, NARROW	SIMPLE, SINGLE SPECIES ROW + UNDERPLANTINGS	INFILTRATION AND REGULATION OF SURFACE RUNOFF	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 5.2 TREE LINED PARKING LOTS

Tree-lined parking lots are a variation of linear green infrastructure, combining ecological value with urban functionality. Strategically integrated within parking areas, these tree rows create vegetated corridors that extend habitat connectivity across otherwise impervious landscapes. In addition to providing critical ecosystem services such as pollination and pest control, the trees offer year-round ecological benefits including food sources like seeds and fruits, as well as shelter from extreme temperatures. Functionally, tree rows contribute significantly to climate resilience in cities. Their canopies provide shade and reduce the urban heat island effect, while their root systems assist with stormwater infiltration, decreasing surface runoff and improving soil health. By enhancing both environmental quality and the visual character of urban streetscapes, tree rows play a vital role in creating liveable, sustainable cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
5.2 TREE LINED PARKING LOTS	ACCESSIBILITY TO THE PUBLIC	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

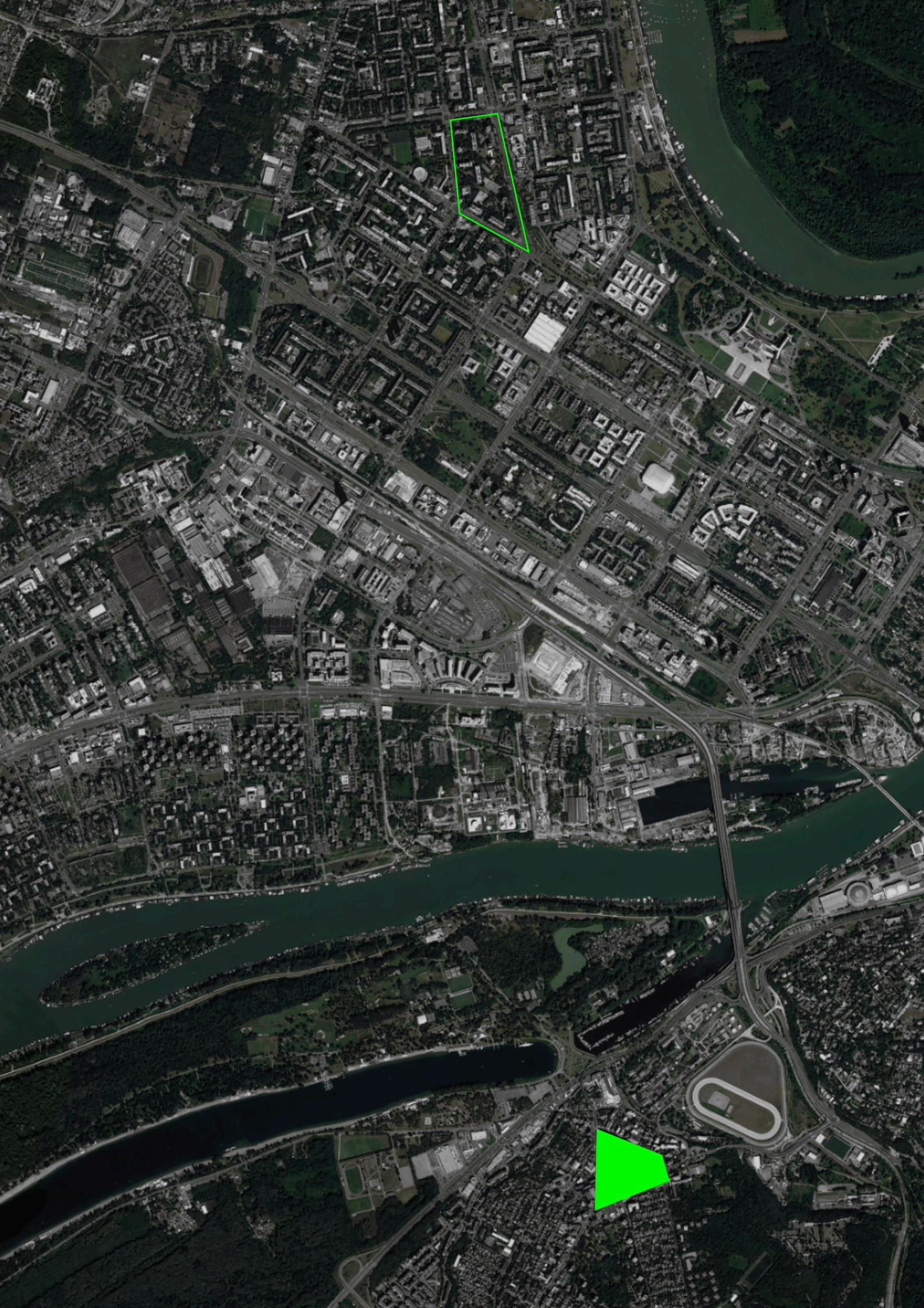
LOCATION: NEW BELGRADE

TPOLOGY OF THE GREEN INFRASTRUCTURE ELEMENTS

	TYPE	SUBTYPE	ECOSYSTEM SERVICES	AGENDA 3 30 300 GOAL CONTRIBUTION	KEY ROLE
1.	GREEN ROOFS	1.1 EXTENSIVE GREEN ROOFS	- cultural (aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; pollination)	3 trees visible from every window (intensive roofs)	- Ecological connectivity, - Providing food and shelter for urban wildlife, - Increasing % of greenery in cities, - Social destination (intensive roofs)
		1.2 INTENSIVE GREEN ROOFS	supporting (nutrient cycling, photosynthesis, soil formation)		
2.	VERTICAL GREENERY	2.1 GREEN WALLS	- cultural (mental and physical health, aesthetic values) - provisioning (food) (vertical gardens)		- Ecological connectivity, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities,
		2.2 VERTICAL GARDENS	- regulating (air quality regulation, climate regulation, water regulation*, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)		
3.	PARKS	3.1 BUFFER PARKS	- cultural (mental and physical health, recreation and eco-tourism, aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)	3 trees visible from every window 30 percent tree canopy cover in every neighbourhood 300 metres from the nearest high-quality public park or other green space	- Ecological destination, - Social destination, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities
		3.2 RECREATIONAL PARKS			
		3.3 RESIDENTIAL PARK WITH WATER FEATURES			
4.	LOW GROWING HORIZONTAL GREENERY	4.1 LAWNS IN RESIDENTIAL AREAS	- regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis, soil formation)		- Heat island effect reduction, - Increasing % of greenery in cities,



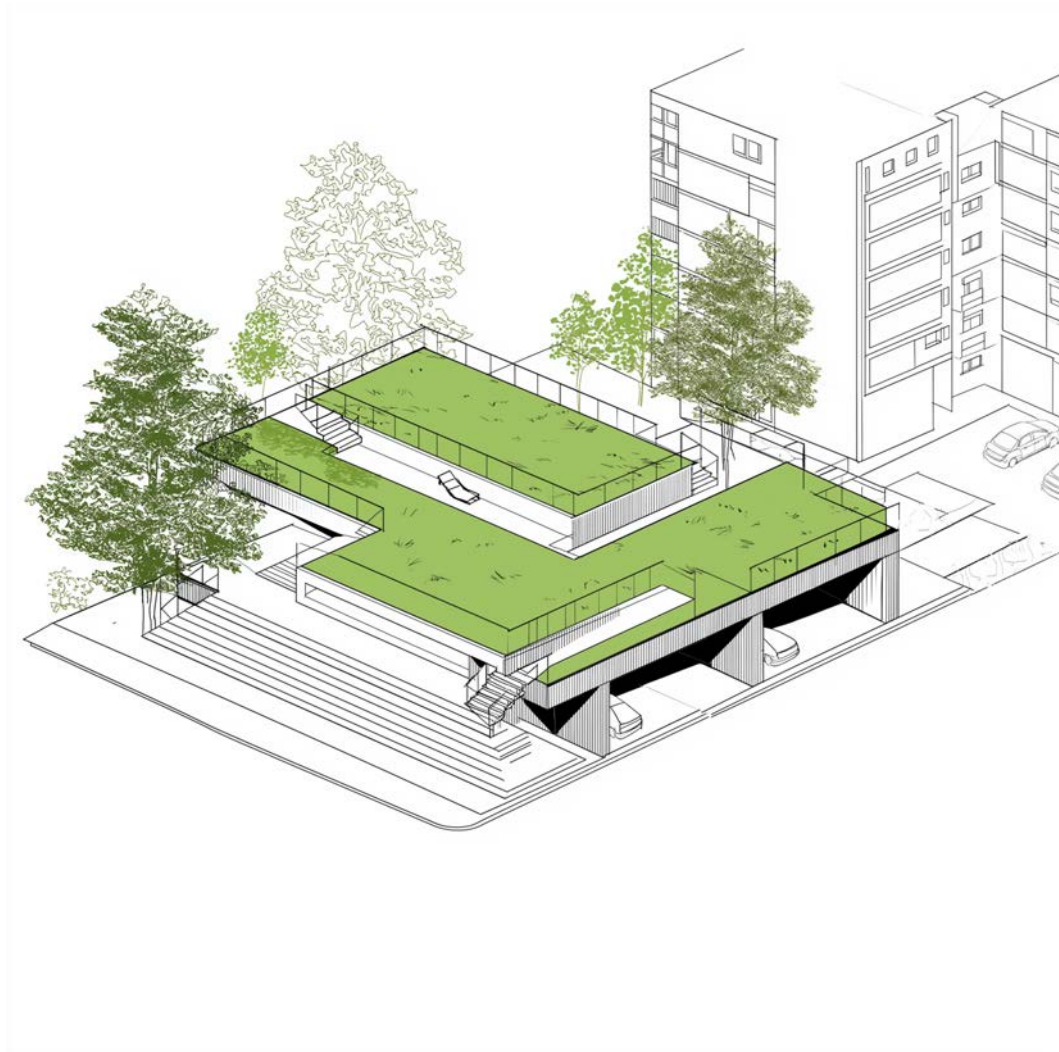
- | | |
|---|--|
|  1.1 EXTENSIVE GREEN ROOFS |  3.2 RECREATIONAL PARKS |
|  1.2 INTENSIVE GREEN ROOFS |  3.3 RESIDENTIAL PARK WITH WATER FEATURES |
|  2.1 GREEN WALLS |  4.1 LAWNS IN RESIDENTIAL AREAS |
|  2.2 VERTICAL GARDENS |  5.1 TREE ROWS |
|  3.1 BUFFER PARKS |  5.2 TREE LINED PARKING LOTS |



BANOVO BRDO



TYPE 1.1 EXTENSIVE GREEN ROOFS ON GARAGES



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.1 EXTENSIVE GREEN ROOFS ON GARAGES	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MODERATE TO LARGE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.1 EXTENSIVE GREEN ROOFS ON GARAGES

Extensive green roofs on garages are a multifunctional urban greening solution that integrates ecological performance with residential and neighbourhood-scale benefits. Installed on flat garage roofs, they support hardy, low-maintenance vegetation that provides habitat for pollinators and other insects, contributing to urban biodiversity. Their lightweight structure allows for efficient stormwater management by retaining and slowly releasing rainwater, thereby reducing runoff and easing pressure on drainage systems. In terms of climate regulation, they help moderate temperature fluctuations, and reduce heat reflection into surrounding areas, contributing to mitigation of the urban heat island effect. Socially, they enhance the visual quality of residential areas, offering a softer, more natural view from upper floors or nearby public spaces. Aesthetically, they transform otherwise unused and unattractive roof surfaces into seasonal green elements, adding texture and colour variation to the built environment. Additionally, they carry educational and symbolic value by demonstrating sustainable building practices, while modestly improving local property appeal and value through enhanced environmental quality.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.1 EXTENSIVE GREEN ROOFS ON GARAGES	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED ROOF LIFESPAN,	HIGH- INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 1.2 EXTENSIVE GREEN ROOFS ON BUS STOPS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.2 EXTENSIVE GREEN ROOFS ON BUS STOPS	INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MICRO SCALE	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.2 EXTENSIVE GREEN ROOFS ON BUS STOPS

Extensive green roofs on bus stops are a compact form of urban green infrastructure that combines ecological function with public utility. Positioned at transit points, they contribute to habitat creation by supporting low-growing, drought-tolerant vegetation that provides food and shelter for pollinators. Functionally, these roofs improve stormwater management by absorbing rainfall, reducing runoff, and filtering pollutants before they reach drainage systems. They also contribute to climate regulation by lowering surface temperatures, mitigating the urban heat island effect, and improving local air quality. Socially, they enhance commuter experience by adding greenery to highly paved environments, creating a more pleasant waiting area. Aesthetically, green roofs on bus stops introduce natural textures and seasonal variation into streetscapes, softening hard infrastructure. As highly visible micro-landmarks, they also carry symbolic and educational value, promoting sustainable design practices and raising environmental awareness in daily urban life.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.2 EXTENSIVE GREEN ROOFS ON BUS STOPS	POTENTIAL LANDMARK IN URBAN LANDSCAPE	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	N/A	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

TYPE 1.3 INTENSIVE GREEN ROOFS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
1.3 INTENSIVE GREEN ROOFS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	MEDIUM SPACE, 500 – 1000 SQM RANGE	HIGH, POTENTIAL FOR SEVERAL DIFFERENT PLANT COMMUNITIES TO COEXIST	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 1.3 INTENSIVE GREEN ROOFS

Intensive green roofs are highly versatile and complex vegetated roof systems designed to support a wide range of plant species, including shrubs, and even small trees, effectively creating a functional garden or park space above buildings. With deeper soil substrates and greater load-bearing requirements than extensive systems, they provide substantial ecological benefits by offering habitat for birds, pollinators, and other urban wildlife, as well as serving as stepping stones in the wider green infrastructure network. Their hydrological function is significant, capturing and retaining large volumes of rainwater, reducing peak runoff, and improving water quality through natural filtration. In terms of climate regulation, intensive green roofs offer excellent insulation, help regulate building temperatures year-round and contribute to the reduction of the urban heat island effect. Socially, they serve as attractive, accessible recreational and relaxation spaces for building occupants, fostering well-being and community interaction. Aesthetically, they offer high design flexibility, enabling diverse planting schemes, seasonal interest, and integration of amenities. Beyond visual and social value, they hold cultural and educational significance as visible symbols of sustainable urban design, while increasing property value and long-term economic benefits through energy savings and improved building performance.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
1.3 INTENSIVE GREEN ROOFS	MODERATE-ACCESSIBLE TO THE COMMUNITY; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	EDUCATIONAL POTENTIAL	MODERATE TO HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, ENERGY SAVINGS, INCREASED ROOF LIFESPAN,	HIGH-INTEGRATED INTO BUILDING ENVELOPES AND URBAN FABRIC

TYPE 2.1 TREE ROWS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
2.1 TREE ROWS	CONNECTIVITY-CONTINUOUS, HABITAT, INCREASING ENVIRONMENTAL QUALITY,	LINEAR, NARROW	SIMPLE, SINGLE SPECIES ROW + UNDERPLANTINGS	INFILTRATION AND REGULATION OF SURFACE RUNOFF	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 2.1 TREE ROWS

Tree rows are a fundamental component of linear green infrastructure, serving both ecological and functional roles within the urban environment. Strategically planted along streets, paths, or property boundaries, they form continuous corridors that support the movement and dispersal of urban wildlife. Beyond their ecological connectivity, tree rows enhance biodiversity by offering nesting sites, shelter, and year-round food sources such as nectar, fruits, and seeds. Functionally, tree rows contribute significantly to climate resilience in cities. Their canopies provide shade and reduce the urban heat island effect, while their root systems assist with stormwater infiltration, decreasing surface runoff and improving soil health. By enhancing both environmental quality and the visual character of urban streetscapes, tree rows play a vital role in creating liveable, sustainable cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
2.1 TREE ROWS	ACCESSIBILITY TO THE PUBLIC	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH- COMPLETELY IMMERSSED IN URBAN FABRIC

TYPE 3.1 LAWNS ON TRAM TRACKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.1 LAWNS ON TRAM TRACKS	INCREASING % OF GREENERY IN CITIES, POTENTIAL FOR CONNECTIVITY	HORIZONTAL, MODERATE TO LARGE SURFACES	SIMPLE; LOW- GROWING VEGETATION, LIMITED SPECIES SELECTION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.1 LAWNS ON TRAM TRACKS

Lawns on tram tracks are a form of horizontal, yet linear green infrastructure that integrates vegetation directly into urban transport corridors, combining ecological, functional, and aesthetic benefits. By replacing conventional ballast or asphalt surfaces with grass or low-maintenance ground covers, they create continuous green strips that enhance habitat connectivity for insects and small wildlife within densely built environments. Hydrologically, they improve rainwater infiltration, reduce surface runoff, and contribute to natural water filtration. Their climate regulation function includes lowering surface temperatures along transit routes, mitigating the urban heat island effect, and improving local air quality by trapping dust and airborne pollutants. Aesthetically, lawns on tram tracks improve the visual experience for commuters and pedestrians, contributing to a calmer, more pleasant streetscape while subtly reinforcing the presence of nature in daily life. By integrating seamlessly with transportation networks, lawns on tram tracks demonstrate how functional infrastructure can double as a green corridor within urban environment.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.1 LAWNS ON TRAM TRACKS	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	N/A	HIGH- COMPLETELY IMMERSED IN URBAN FABRIC

TYPE 3.2 LOW GROWING ROUNDABOUT GREENERY



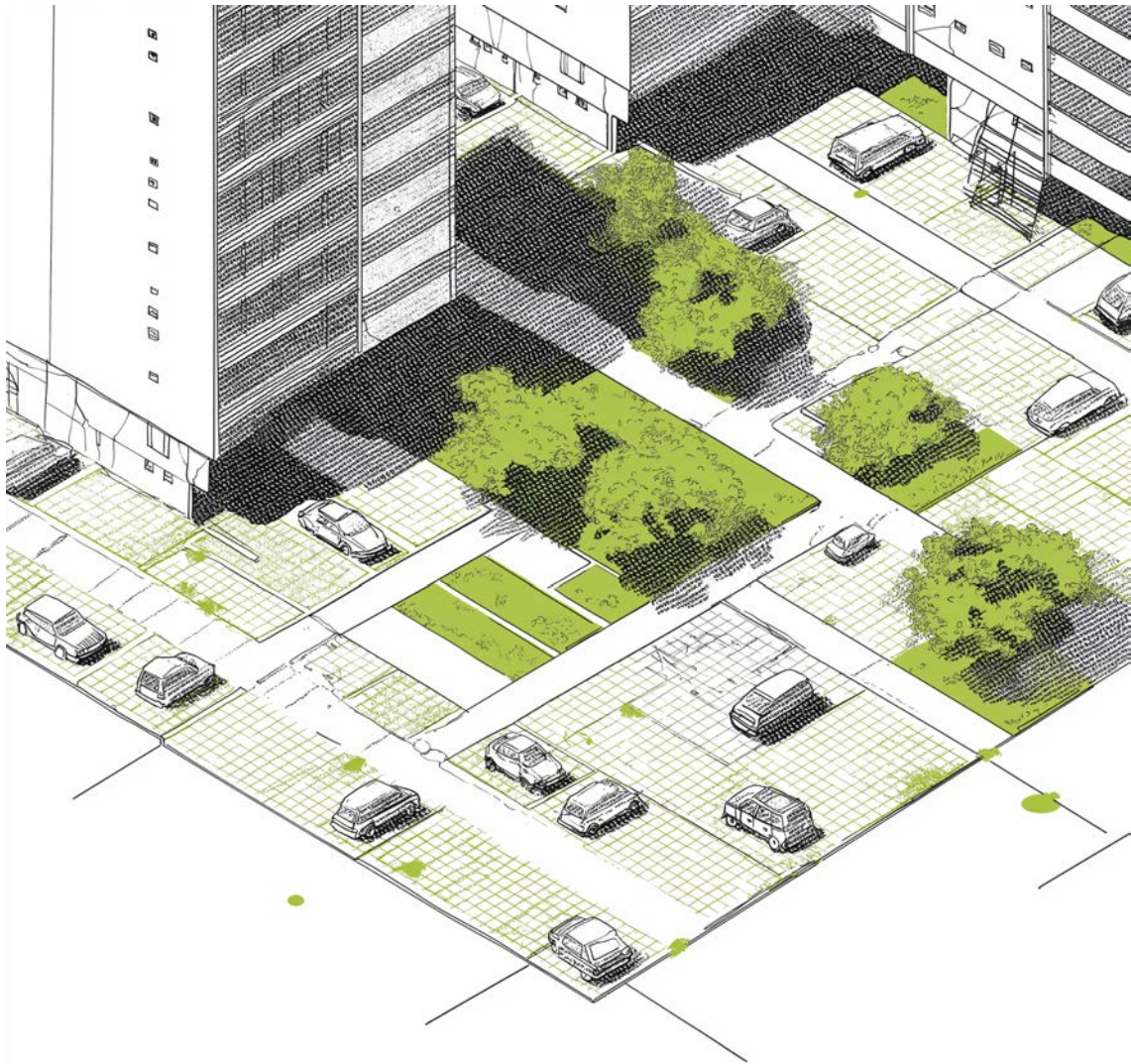
TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.2 LOW GROWING ROUNDABOUT GREENERY	INCREASING BIODIVERSITY, POTENTIAL FOR CONNECTIVITY	HORIZONTAL , MODERATE TO LARGE SURFACES	SIMPLE TO MODERATE; LOW-GROWING VEGETATION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.2 LOW GROWING ROUNDABOUT GREENERY

Low-growing roundabout greenery is a compact form of urban green infrastructure designed to enhance traffic islands and roundabouts with vegetation that remains below drivers' sight-lines, ensuring safety while delivering ecological and aesthetic value. Composed of hardy, drought-tolerant ground covers, ornamental grasses, or low-flowering perennials these areas support biodiversity by providing food and shelter for pollinators and other small urban wildlife in areas dominated by concrete. Hydrologically, they contribute to rainwater infiltration, reduce surface runoff, and help filter pollutants from stormwater. Their climate regulation benefits include cooling surrounding paved areas, mitigating localised heat buildup, and improving air quality through particulate capture. Aesthetically, low-growing roundabout greenery improves the visual quality of road networks, offering brief but repeated green visual relief for commuters and pedestrians. This type of green infrastructure can also provide seasonal colour, texture, and structure, softening the otherwise hard, utilitarian road infrastructure.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.2 LOW GROWING ROUNDABOUT GREENERY	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	N/A	HIGH-COMpletely IMMersed IN URBAN FABRIC

TYPE 3.3 PERMEABLE PARKING



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
3.3 PERMEABLE PARKING	INCREASING % OF GREENERY IN CITIES, POTENTIAL FOR CONNECTIVITY	HORIZONTAL , MODERATE TO LARGE SURFACES	SIMPLE; LOW-GROWING VEGETATION, LIMITED SPECIES SELECTION	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 3.3 PERMEABLE PARKING

Permeable parking is a functional green infrastructure element that integrates low-growing vegetation within a concrete raster or grid system, allowing for vehicle access while maintaining ecological benefits. The vegetation, typically hardy grasses or ground covers, grows in the open cells of the permeable surface, supporting basic biodiversity by offering limited habitat for insects and soil organisms. Hydrologically, permeable parking facilitates rainwater infiltration, reducing surface runoff, mitigating localised flooding, and aiding in groundwater recharge. Its climate regulation benefits include lowering surface temperatures compared to conventional asphalt, thereby reducing the urban heat island effect, and improving air quality through dust capture. Aesthetically, permeable parking enhances user comfort by creating a more visually pleasant and environmentally friendly alternative to fully paved lots. By combining vegetation with structural load-bearing elements, permeable parking offers a practical balance between urban mobility needs and environmental performance.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
3.3 PERMEABLE PARKING	N/A	VISUAL QUALITY AND LANDSCAPE EXPERIENCE	LIMITED- POSSIBLE EDUCATIONAL POTENTIAL	N/A	HIGH-COMpletely IMMersed IN URBAN FABRIC

TYPE 4.1 NEIGHBOURHOOD PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
4.1 NEIGHBOURHOOD PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM TO LARGE SPACE, OVER 1000 SQM	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 4.1 NEIGHBOURHOOD PARKS

Neighbourhood parks are mid- to large-sized green infrastructure elements designed to serve the immediate recreational, ecological, and social needs of local community. Strategically located within walking distance of surrounding homes, they provide accessible open space that fosters community interaction and outdoor activity. Ecologically, neighbourhood parks support biodiversity through a mix of tree cover, shrubs, lawns, and low plantings, offering habitat and food resources for birds, pollinators, and other urban wildlife. Their vegetation contributes to climate regulation by providing shade, moderating temperature extremes, and improving air quality. Hydrologically, they enhance rainwater infiltration and reduce surface runoff through permeable surfaces and landscaped areas. Socially, neighbourhood parks are hotspots for relaxation, play, and informal gatherings, accommodating various amenities including playgrounds, benches, walking paths... Aesthetically, they enrich the visual character of the neighbourhood, offering seasonal variety and enhancing property values. In cultural terms, they can serve as venues for small community events or reflect local identity through landscaping themes or public art. Economically, they contribute to long-term urban liveability and can indirectly boost local economic activity by making neighbourhoods more attractive to residents and visitors. By balancing ecological function with recreational and aesthetic appeal, neighbourhood parks play a vital role in creating healthy, cohesive, and resilient urban communities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
4.1 NEIGHBOURHOOD PARKS	HIGH-ACCESSIBLE TO THE PUBLIC; REPRESENTS A GATHERING POINT REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	MODERATE TO HIGH IMPACT ON PROPERTY VALUE- KEY FACTORS PRESENCE, REDUCTION OF HEAT ISLAND EFFECT, ABUNDANCE OF ACTIVITIES	MODERATE TO HIGH, PARTIALLY INTEGRATED – STREETS COULD BE SEPARATING IT FROM SURROUNDING URBAN FABRIC

TYPE 4.2 RECREATIONAL PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
4.2 RECREATIONAL PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM TO LARGE SPACE, OVER 1000 SQM	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 4.2 RECREATIONAL PARKS

Recreational parks are designed to support active lifestyles and promote community well-being. Typically, larger in scale than neighbourhood or pocket parks, these spaces provide a diverse range of amenities—such as sports fields, walking and cycling paths, playgrounds, open lawns, and event spaces—that accommodate various age groups and recreational needs. Ecologically, recreational parks serve as habitat patches that enhance urban biodiversity, particularly when integrated with native plantings, wooded areas, and water features. Functionally, these parks contribute to climate resilience by absorbing rainfall, reducing stormwater runoff, and mitigating the urban heat island effect through extensive vegetative cover. They also improve air quality, support mental health through access to nature, and foster social cohesion by providing inclusive spaces for physical activity, cultural events, and relaxation. Strategically distributed across the urban landscape, recreational parks play a key role in enhancing quality of life and creating healthier, more resilient cities.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
4.2 RECREATIONAL PARKS	HIGH-ACCESSIBLE TO THE PUBLIC; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	N/A	MODERATE IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, ACTIVITIES	MODERATE, PARTIALLY INTEGRATED – BUFFER ZONE IN FORM OF OTHER GREEN OR GRAY SPACES PRESENT

TYPE 4.3 RESIDENTIAL PARKS



TYPE	KEY ECOLOGICAL ROLE	SURFACE AREA AND DIMENSIONS	COMPLEXITY AND COMPOSITION	HYDROLOGICAL FUNCTION	CLIMATE REGULATION
4.3 RESIDENTIAL PARKS	HABITAT, INCREASING ENVIRONMENTAL QUALITY, INCREASING BIODIVERSITY,	MEDIUM SPACE, 500 – 1000 SQM RANGE	HIGH, SEVERAL DIFFERENT PLANT COMMUNITIES COEXISTING	INFILTRATION AND REGULATION OF SURFACE RUNOFF; FLOOD MITIGATION CAPABILITIES;	REDUCTION OF URBAN HEAT ISLAND EFFECTS MODERATION OF TEMPERATURE EXTREMES AIR QUALITY IMPROVEMENT AND POLLUTION MITIGATION

TYPE 4.3 RESIDENTIAL PARKS

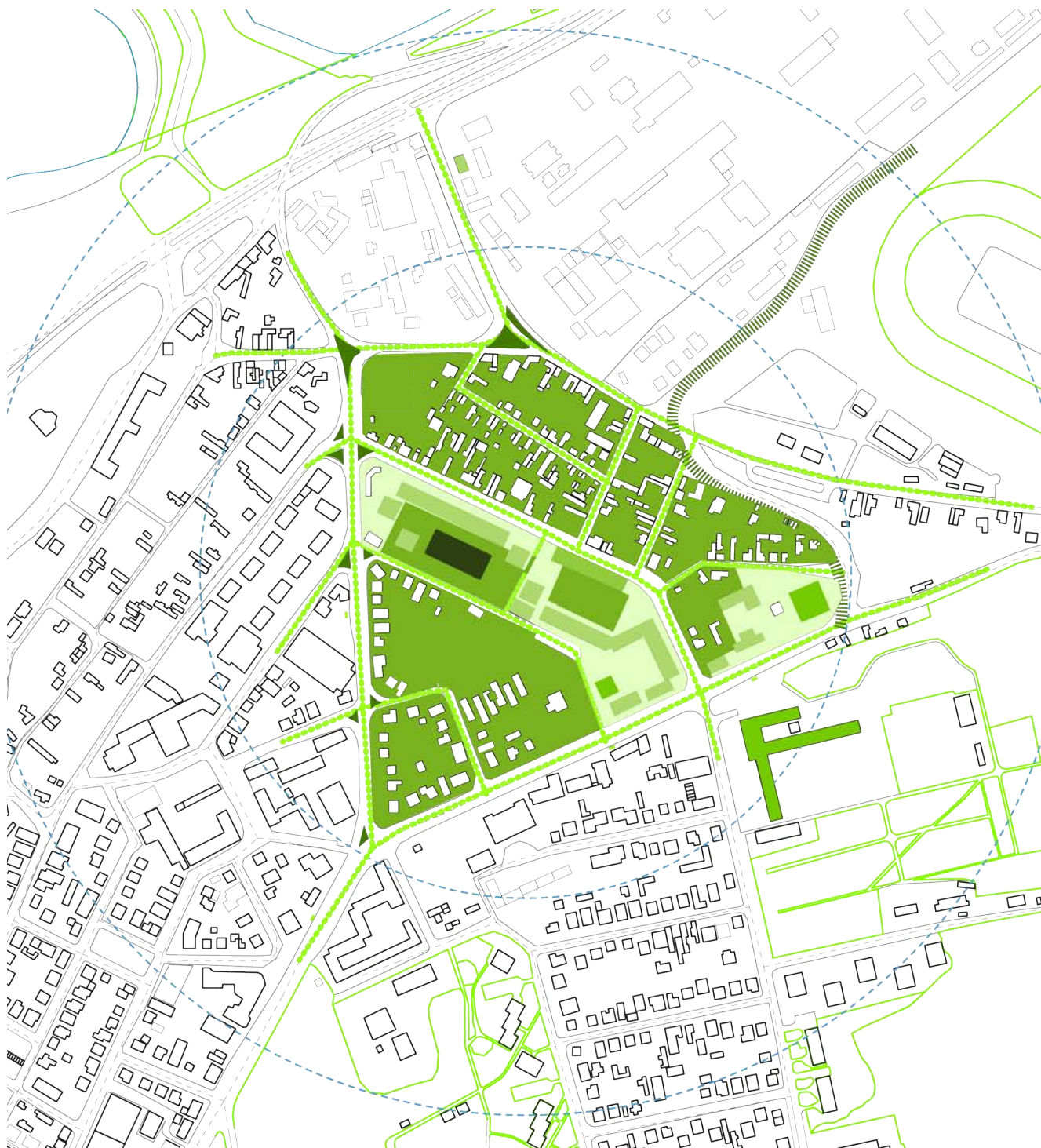
Residential parks are localised green infrastructure elements embedded within housing developments or residential neighbourhoods, offering accessible and semi-private natural spaces tailored to the daily needs of nearby residents. Typically smaller and more secluded than public parks, residential parks prioritise tranquillity, shade, and aesthetic appeal over intensive use. They often feature soft landscaping, walking paths and urban furniture, fostering passive recreation and relaxation. Ecologically, these parks support localised biodiversity by incorporating native plant species, tree cover, and pollinator-friendly vegetation. Functionally, residential parks contribute to improved microclimates by reducing surrounding temperatures, enhancing air quality, and aiding stormwater absorption through permeable surfaces. Their proximity to homes encourages regular outdoor use, supports mental well-being, and promotes social interaction among neighbours. By integrating nature into residential settings, these parks enhance liveability, environmental health, and the overall sense of place in urban neighbourhoods.

TYPE	SOCIAL VALUE	AESTHETIC VALUE	CULTURAL VALUE	ECONOMIC IMPACT	DEGREE OF URBAN INTEGRATION
4.3 RESIDENTIAL PARKS	MODERATE-ACCESSIBLE TO THE COMMUNITY; REPRESENTS A PLACE FOR ACTIVE SOCIAL INTERACTION	VISUAL QUALITY AND LANDSCAPE EXPERIENCE SEASONAL ATTRACTIVENESS	COULD HAVE HISTORICAL, CULTURAL AND RELIGIOUS SIGNIFICANCE EDUCATIONAL POTENTIAL	HIGH IMPACT ON PROPERTY VALUE-KEY FACTORS PRESENCE, SHADE, REDUCTION OF HEAT ISLAND EFFECT	HIGH-COMpletely IMMersed IN URBAN FABRIC

LOCATION: BANOVO BRDO

TPOLOGY OF THE GREEN INFRASTRUCTURE ELEMENTS

	TYPE	SUBTYPE	ECOSYSTEM SERVICES	AGENDA 3 30 300 GOAL CONTRIBUTION	KEY ROLE
1.	GREEN ROOFS	1.1 EXTENSIVE GREEN ROOFS ON GARAGES 1.2 EXTENSIVE GREEN ROOFS ON BUS STOPS 1.3 INTENSIVE GREEN ROOFS	- cultural (aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; pollination) - supporting (nutrient cycling, photosynthesis, soil formation)	3 trees visible from every window (intensive roofs)	- Ecological connectivity, - Providing food and shelter for urban wildlife, - Increasing % of greenery in cities, - Social destination (intensive roofs)
2.	LINEAR GREENERY	2.1 TREE ROWS	- cultural (mental and physical health, aesthetic values) - regulating (air quality regulation, climate regulation, water regulation*, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)	3 trees visible from every window 30 percent tree canopy cover in every neighbourhood	- Ecological connectivity, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities,
3.	LOW GROWING HORIZONTAL GREENERY	3.1 LAWNS ON TRAM TRACKS 3.2 LOW GROWING ROUNDAABOUT GREENERY 3.3 PERMEABLE PARKING	- regulating (air quality regulation, climate regulation, water regulation, water purification and waste treatment; disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis, soil formation)		- Heat island effect reduction, - Increasing % of greenery in cities,
4.	PARKS	4.1 NEIGHBOURH OOD PARKS	- cultural (mental and physical health, recreation and eco-tourism, aesthetic values) - regulating (air quality regulation, climate regulation, water regulation, disease and pest regulation, pollination) - supporting (nutrient cycling, photosynthesis)	3 trees visible from every window 30 percent tree canopy cover in every neighbourhood 300 metres from the nearest high-quality public park or other green space	- Ecological destination, - Social destination, - Providing food and shelter for urban wildlife, - Heat island effect reduction, - Increasing % of greenery in cities



CONCLUSION

CONCLUSION

Greening Belgrade's neighbourhoods: The 3-30-300 principle aims to ensure that every resident enjoys daily contact with urban nature. The Agenda 3-30-300 Belgrade project exemplifies a bold vision for reconnecting city life with nature. At its core is the simple yet powerful 3-30-300 principle: every citizen should be able to see three trees from their home, live in a neighbourhood with 30% tree canopy cover, and be within 300 meters of a green space. By embracing this benchmark, the project provides a much-needed perspective on public space design in a rapidly densifying city, counteracting the ongoing loss of urban nature in Belgrade's neighbourhoods. In essence, Agenda 3-30-300 Belgrade has been about translating the global green cities concept into a locally grounded strategy for urban transformation.

Methodologically, the Agenda 3-30-300 initiative in Belgrade was data-driven, participatory, and design-led. It grounded its proposals in evidence by mapping tree cover, park access, and environmental data to pinpoint the areas where interventions were most needed. Simultaneously, it engaged a broad spectrum of stakeholders to reimagine the future of the city. This included not only experts and local authorities but also young designers and the community at large, whose ideas were harnessed through workshops. By pairing investigative data digging with placemaking design, the project bridged analysis and imagination, ensuring that creative solutions were backed by a rigorous understanding of the city's reality. This approach – merging facts, collective insight, and visionary design – has demonstrated how to move from a compelling concept to tangible proposals for greener streets and squares. The result is a set of strategies and illustrated interventions that make the 3-30-300 principle not just an abstract rule but a vivid and achievable scenario for the neighbourhoods of Belgrade.

Urban quality of life has been at the heart of this agenda. The 3-30-300 principle directly links urban nature to human well-being; achieving these targets in every neighbourhood is associated with cleaner air, cooler microclimates, and better mental and physical health for the residents. In Belgrade, as in many cities, such conditions have not been uniformly met; a recent study revealed that most urban areas globally fall short of the 3-30-300 benchmark because of insufficient tree canopies and patchy green access. This reality underscores the transformative potential of the changes envisioned in this study's findings. By planting more trees, expanding canopy cover, and ensuring that every resident has a park or green refuge nearby, Agenda 3-30-300 Belgrade promises to enhance daily life in a tangible way. Cooler shade on summer days, more inviting public spaces for recreation, and the simple delight of seeing greenery outside one's window are not merely aesthetic upgrades; they are investments in public health, comfort, and happiness. Neighbourhood by neighbourhood, these improvements add up to a city that is healthier, more liveable, and more resilient to climate stressors.

Equally important is the broader impact and replicability of this study. The developments in Belgrade serve as a forward-looking template for other cities and communities to follow.

The 3-30-300 rule has been adopted by hundreds of municipalities worldwide as a benchmark for urban greening. The Agenda 3-30-300 Belgrade contributes to this growing movement by offering a strategic, educational, and design toolkit that others can learn from. Strategically, it lays out clear targets and policy directions that can guide city planners and decision-makers to align urban development with the natural environment. Educationally, it has built local awareness and capacity, engaging students, professionals, and citizens in understanding the value of urban ecosystems and improving them. From a design perspective, it presents visualised solutions and pilot ideas (from pocket parks to tree-lined streets) that can inspire adaptations elsewhere. The publication's format, which combines data analysis, community insights, and illustrative design proposals, makes it a resource that is both technically informative and accessible to a wider audience. In summary, Belgrade's experience becomes a learning model, showing how the 3-30-300 principle can be implemented in practice and how challenges can be overcome through creativity and collaboration.

Finally, Agenda 3-30-300 Belgrade positions itself as part of a broader rethinking of urban ecosystems in the 21st century. It carries the underlying message that the way we shape our cities must prioritise health, climate resilience, and social cohesion as fundamental goals, not afterthoughts. The project's holistic lens sees urban streets, parks, courtyards, and plazas as more than just inert spaces; they are living infrastructure that support community well-being and environmental balance. Ensuring ample trees and green spaces in all parts of the city is not only about beautification; it is about climate adaptation and reducing vulnerabilities (for instance, mitigating urban heat islands and flood risks). It is also about providing people with places to meet, play, and unwind, thereby strengthening the social fabric of the neighbourhood. Greener, walkable surroundings encourage residents to spend time outdoors and interact with each other, fostering stronger community bonds and cohesion. By embracing this philosophy, Belgrade can align itself with the global paradigm shift toward sustainable and inclusive cities. The conclusion of this publication is therefore not an end, but a call to action: an invitation for cities everywhere to imagine a greener future and take confident and concrete steps in that direction. Agenda 3-30-300 Belgrade shows that with a clear vision, collaborative effort, and design ingenuity, the goal of a healthy, green, and socially vibrant urban life is well within the reach of the city.

LITERATURE

- Akcioni Plan Adaptacije na Klimatske Promene sa Procenom Ranjivosti, Službeni list grada Beograda (2015).
- Bayo, L., & Paris, A. (2016). *Trees for life. Masterplan for Barcelona's Trees*. <https://ajuntament.barcelona.cat/ecologiaurbana/sites/default/files/Pla-director-arbrat-barcelona-ENG.pdf>
- City of Melbourne. (2012). *Urban Forest Strategy. Making Great City Greener 2012 - 2032*. <https://mvga-prod-files.s3.ap-southeast-4.amazonaws.com/public/2024-07/urban-forest-strategy.pdf>
- City of Toronto. (2017). *Toronto Ravine Strategy*.
- Delanote, J., Massacesi, L., Rückert, D., & Weiss, C. (2022). "The Green and Digital Twin Transition Across EU Regions" in European Commission *Science, research and innovation performance of the EU 2022 – Building a sustainable future in uncertain times*, Luxembourg: Publications Office of the European Union
- Doolling, S. (2009). "Ecological Gentrification: A Research Agenda Exploring Justice in the City." in *International Journal of Urban and Regional Research*, 33(3), 621–639. <https://doi.org/10.1111/J.1468-2427.2009.00860.X>
- Duinker, P., Steenberg, J., Craig, A., John Barker, M., Burkhardt, R., Ben Kuttner, R., Arnold Rudy, R., Restivo, D., John Fairs, E., Sarah Galloway, H., & Merrilees Willemse, H. (2021). *2018 Tree Canopy Study - Technical Report*, Revised.
- GCAP *Green City Action Plan for City of Belgrade* (2021).
- Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*. Cambridge University Press.
- Konijnendijk, C. C. (2021). "The 3-30-300 Rule for Urban Forestry and Greener Cities." In *Biophilic City Journal*, 4(2).
- Konijnendijk, C., Lind, C., Littke, H., Voets, D., Oudin, A., Ostberg, J., Ågren, K., Nässlander, G., Adamsson, G., Enger, P., Larson, A., Scharin, E., Schoon, P., Thoresen, W., & Vogel, E. (2025a). *The 3+30+300 principle HANDBOOK*. Nordic Council of Ministers.
- Konijnendijk, C., Lind, C., Littke, H., Voets, D., Oudin, A., Ostberg, J., Ågren, K., Nässlander, G., Adamsson, G., Enger, P., Larson, A., Scharin, E., Schoon, P., Thoresen, W., & Vogel, E. (2025b). *Yggdrasil - The Living Nordic City. Implementing nature-based solutions through the 3+30+300 principle*. Nordic Council of Ministers.
- Li, X., Zhang, C., Li, W., Ricard, R., Meng, Q., & Zhang, W. (2015). "Assessing street-level urban greenery using Google Street View and a modified green view index." in *Urban Forestry & Urban Greening*, 14, 675–685. <https://doi.org/10.1016/j.ufug.2015.06.006>
- Maas, J., Verheij, R. A., Groenewegen, P. P., De Vries, S., & Spreeuwenberg, P. (2006). "Green space, urbanity, and health: how strong is the relation?" in *Journal of Epidemiology & Community Health*, 60(7), 587–592. <https://doi.org/10.1136/JECH.2005.043125>
- Martin, A. J. F., Fleming, A., & Conway, T. M. (2025). "Distributional inequities in tree density, size, and species diversity in 32 Canadian cities." in *Urban Sustainability*, 5(1), 1–10. <https://doi.org/10.1038/s42949-025-00210-2>
- MIT Sensable City Lab. (2025). *Treepedia*, MIT Senseable City Lab. <https://senseable.mit.edu/treepedia/>
- Moreno, C. (2024). *The 15-minute City: A Solution for Saving Our Time and Our Planet* (1st ed.). Wiley.

Nowak, D. J., Crane, D. E., & Stevens, J. C. (2006). "Air pollution removal by urban trees and shrubs in the United States." *Urban Forestry & Urban Greening*, 4(3–4), 115–123. <https://doi.org/10.1016/J.UFUG.2006.01.007>

Stojić, B., Andrić, O., & Čukić, I. (Eds.). (2024). *Zelena infrastruktura u urbanističkom planiranju*. Ministarstvo prostora. https://ministarstvoprostora.org/wp-content/uploads/2024/10/Zelena-infrastruktura-u-urbanistickom-planiranju_web.pdf

Strategija Zelene Infrastrukture Grada Beograda, Službeni List Grada Beograda (2024). <https://doi.org/10.2779/54125>

Univerzitet u Beogradu - Šumarski fakultet. (2020). *Tipologija Predela za Potrebe Održivog Razvoja Grada Beograda u Skladu sa Principima Evropske Konvencije o Predelu*. Univerzitet u Beogradu - Šumarski fakultet.

Urbanistički zavod. (2019). *Plan generalne regulacije sistema zelenih površina Beograda*.

WHO. (2016). *Urban green spaces and health*. World Health Organisation _ Regional Office for Europe.

Whyte, W. H. (2001). *The Social Life of Small Urban Spaces*. Project for Public Spaces.

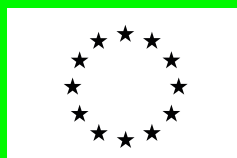
Ziter, C. D., Pedersen, E. J., Kucharik, C. J., & Turner, M. G. (2019). "Scale-dependent interactions between tree canopy cover and impervious surfaces reduce daytime urban heat during summer." in *Proceedings of the National Academy of Sciences of the United States of America*, 116(15), 7575–7580. https://doi.org/10.1073/PNAS.1817561116/SUPPL_FILE/PNAS.1817561116.SAPP.PDF

This publication is realised within the Agenda 3-30-300 project, initiated and led by Placemaking Western Balkans (PWB) and funded by WWF Adria and the EU4You program

Belgrade, 2025



**SAFE
NATURE
CLIMATE**



**#EY
ЗА ТЕБЕ**



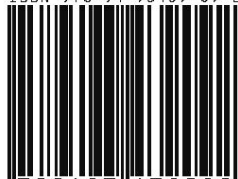
PLACEMAKING
WESTERN BALKANS

AGENDA 3-30-300 ROADMAP



PLACEMAKING
WESTERN BALKANS

ISBN 978-94-93439-09-2



9 789493 439092