PUBLIC SPACES AS ONE OF THE FACTORS OF A CITY OF SHORT DISTANCES.

Vitková Lubica - Suchánková Zuzana

ĽUBICA VITKOVÁ, , PROF. ING. ARCH. PHD.

Faculty of Architecture and Design
Slovak University of Technology in Bratislava
Nám. Slobody, 19, 812 45, Slovakia

lubica.vitková@stuba.sk

ORCID iD: 0009-0004-4199-5275

Ľubica Vitková is architect, planner, PhD and professor of the Faculty of Architecture, STU Bratislava. Her pedagogical, research and creative activity focuses on the area of urban design and urban planning with an emphasis on the monitoring of qualitative and quantitative aspects of urban structures. She is a member of the Management boart of the EUI EUliST Project Steering Committee and a senior researcher of domestic and international projects at STU.

ZUZANA SUCHÁNKOVÁ, ING. ARCH. PHD.

Faculty of Architecture and Design
Slovak University of Technology in Bratislava
Nám. Slobody, 19, 812 45, Slovakia

zuzana.suchankova@stuba.sk

ORCID iD: 0009-0005-5623-3924

Zuzana Suchánková is an architect with experience in architectural studios in Europe and China. She is an assistant professor at the Faculty of Architecture and Design of the Slovak University of Technology in Bratislava. In her scientific and creative work, she focuses on the issue of the overlap between urban planning and architecture (urban structures and architecture of various types of buildings) with an emphasis on public spaces, verification of the quality and effectiveness of urban structures.

ABSTRACT: Sustainable transport is one of the important factors contributing to urban resilience and sustainability, given the fact that transport is responsible for a quarter of all carbon dioxide emissions in the EU. Road transport contributes to these emissions by over 70 percent. Therefore, increasing attention is being paid to concepts for reducing car traffic in favour of public and bicycle transport and, in particular, supporting pedestrian movement.

The paper presents the basic concepts of urban transformation based on the principle of sustainable transport with an emphasis on tools for transforming urban neighbourhoods and their public spaces, applied to the real conditions of Bratislava. The paper focuses on the presentation and evaluation of proposed concepts, as well as implementation of interventions. It presents strategies for the development of public transport, concepts for sustainable neighbourhoods based on the principle of the city of short distances, as implementation of the transformation of the city's public spaces.

The Faculty of Architecture and Design (FAD) of the Slovak University of Technology in Bratislava is working intensively on this topic together with the Metropolitan Institute Bratislava (MIB - a conceptual institute in the field of architecture, urban planning, participation and strategic planning). The teachers and students are verifying the set strategies and concepts on model solutions for urban districts, as well as on the possible transformation of public spaces through research and student projects. A joint FAD and MIB project was submitted within the framework of the POO for research into the issue of reducing the carbon footprint of transport.

KEYWORDS: sustainability and resilience of cities; sustainable transport; city of short distances; public spaces for people

INTRODUCTION

Sustainable transport is one of the important factors contributing to urban resilience and sustainability, given that transport is responsible for a quarter of all carbon dioxide emissions in the EU. Road transport accounts for over 70 percent of these emissions. The situation is similar in Slovak cities. Car transport accounts for 50% of the total transport capacity, and it is still growing. The reason is the long-standing and persistent functionalist principle of development of Slovak cities, recently reinforced by extensive territorial development. This is manifested both in the growth of cities in width and in intensive suburbanization. This is present not only in the vicinity of larger cities, but is also manifested in less developed regions.

The preference for the car mode of transport is environmentally, economically, and spatially unsustainable in the long term. Therefore, more and more attention is paid to concepts of reducing car transport in favor of urban mass transport, cycling and supporting pedestrian movement.

Concepts that develop and support sustainable urban development include: the city of short distances, the compact city, the Ecocity concept, which have been developed by many authors

All of the above concepts of development, or rather the transformation of cities, are based on the principle of sustainable transport, on the optimization of the density of urban structures, or the mixing of functions. The quality of public spaces plays a significant role in the above concepts, given their social, economic, environmental, or cultural significance. Public spaces also play an important role in regeneration and development programs.

In the context of focusing on the topic of sustainability and reducing the carbon footprint of transport, the contribution is focused primarily on their environmental significance and their role in the transformation processes of cities.

THEORETICAL BASIS

The compact city model is based on the principle of economic and social activity around centres of different hierarchies (Vitková, 2008). The urban structure is organized around multifunctional centres of gravity with higher density of development, which serve the territories within the parameters of commuting. The territory of the city is thus divided into coherent territorial units organized into rings based on differentiated effective accessibility, from neighbourhoods around local centres within walking distance, to more complex units with higher intensity of development and representation of amenities accessible by public transport, or by bicycle connection (The Urban Task Force, 1999; Lozano, 1990). Compact urban development is based on inner-city development with an emphasis on recycling the territory and on reducing traffic, especially automobile traffic. It takes into account the economic, social and environmental aspects of development.

Urban development concepts applying the compact city model are based on the application of contrasting and diverse development in terms of its intensity, functions and forms. The intensive multifunctional structure is naturally concentrated around centres of various importance and important urban corridors and axes (Vitková, 2008). Many authors was developed the theory of the compact city since the 1960s. Pioneers in this theory were Jacobs (1965), De Roo (1998), Krier (1998), and The Urban Task Force (1999). The concept of compact cities has become an important part of development strategies at both the global (Peters, Novy, 2012; UN-Habitat, 2014), and national levels (Mazúr Ján, et al., 2022).

The Ecocity model represents the most complex ecological model of sustainable urbanism. Eco-city cities are based on minimizing demands on energy resources, or consumption of areas and materials. The model is based on the creation of a healthy and habitable environment using renewable resources. The model therefore emphasizes inner-city development through the recycling of territories and existing urban struc-

tures, through the valorisation of unused areas while supporting efficient transport. The model is based on the polycentric principle, the formation of distinctive urban districts and the principle of the city of short distances (Coplák, et al., 2009; Komrska, et al., 2005).

The model of the traditional city (theory of New Urbanism) is based on traditional compact and multifunctional forms of urban structures - on the application of traditional building elements of the city, such as streets, squares, city blocks. The concept of the traditional city was developed in the works of Katz, (1998), Kostof (1992), Krier (1998) and other authors active in the Congress for the New Urbanism (2006).

The concept of the 15-minute city represents an urban theory and an urban model, which is based on the proximity of individual functions, necessary for ensuring the daily needs of city residents, such as housing, work, services, education, healthcare, culture and leisure. The model that was formulated by the urban planner Moreno (2024) works with the distribution of the above functions within a 15-minute walking or cycling distance. The model consistently follows the principles of economic, environmental and social sustainability.

Public spaces play an important role in models of sustainable cities, due to their social, economic, cultural and environmental significance. The importance of public spaces for the functionality of the city, especially for its social contacts, is fundamental. In the theoretical works of Jan Gehl (2010), as well as in their practical application for a large number of cities. Public spaces fundamentally affect to the quality of the urban environment and life in it. Equally important for the quality of the urban environment is their environmental function, as part of the green-blue infrastructure of the city - public spaces as the lungs of the city, as its green oases or lines. According to Carmona (2010), public spaces are also a significant economic phenomenon. They play an important role in urban or commercial regeneration and development programs.

Public spaces are the basic building elements of a city of short distances. Street design in particular plays a crucial role in reducing the carbon footprint of automobile transport. Promoting sustainable forms of transport and improving the quality of public spaces should therefore be part of the overall concept of urban transformation (Kasralian, Maat, Van Wee, 2019; McCann, 2017).

APPLICATION OF SUSTAINABLE CITIES MODELS IN SLOVAKIA. CASE STUDIES FOR BRATISLAVA

Slovak cities and towns are beginning to reflect the requirements of sustainable development in their strategic materials and social and economic development plans. However, these requirements are no longer reflected in the spatial plans of Slovak cities, as they are mostly outdated. Out of inertia, they persist in applying functionalist and extensive development. The above-mentioned situation is largely suitable for commercial development activities. These are concentrated mainly in mono-functional zones (trade, administration, or warehouses) or in suburbs. This represents an increased traffic load between individual functional systems (housing and work, housing and amenities), which is mainly provided by passenger car transport. The situation is further aggravated by the fact that the spatial plans of settlements, as well as zones, reflect the requirements of the valid traffic standard, which set high demands on static transport capacities and road parameters.

Cities do not specifically apply the principles of a compact city, a polycentric city, or a city of short distances. This requires rethinking urban development strategies and reflecting them in their spatial plans.

Positive examples include the activities of the Capital City of the Slovak Republic, Bratislava. The City of Bratislava has been involved in many international projects aimed at sustainable urban development. In order to support the theoretical and methodological basis, the projects focused on the city's readiness for climate change RESIN (2014-2020), or the ATELIER Project (2019-2026) within the EU Horizon 2020 scheme. Experience from international projects was reflected in the city's strategic and methodological materials (Hudeková, 2014; Streberova, Reháčková, Kučáková, 2017), as well as in the actual implementation of measures to mitigate the impacts of climate change.

Bratislava has developed a strategic document Bratislava 2030 (Fajta, Ciranová, Sidorová, 2022), the City Development Program 2022 – 2030 (Mazúr, et al.,, 2022). Important materials in the context of sustainability include the Public Spaces Manual (Žitňanský, et, al., 2021). It represents a tool that sets out the overall concept, principles of renewal and creation of public spaces in terms of increasing their quality and reducing the carbon footprint. These materials were processed by the Metropolitan Institute of Bratislava (MIB). MIB is the city's expert institute for architecture, spatial planning, participation and strategic planning. It prepares model studies of the development of selected urban zones based on the principle of a city of short journeys.

It is worth mentioning the activities of Bratislava and MIB aimed at the renewal of streets. The projects include increasing their quality, mainly through the reorganization and calming of traffic, adding greenery, replacing surfaces or furniture. Streets thus become not only a communication corridor, but also a pleasant place for social contacts and spending free time. Other implementation activities include the transformation of selected public neglected spaces under the common name "Living Places". The aim of the program is to revitalize selected areas of the city so that they create a system of inclusive, functional and attractive places for spending free time for its residents and visitors. These include squares, parks, areas in front of schools and etc.

The Faculty of Architecture and Design of STU was involved in this process through student work.

Research at the Faculty of Architecture and Design of the Slovak University of Technology has been devoted to the issue of sustainable cities for a long time. The topic of sustainable city and regional development was developed within the framework of many international projects in cooperation with local governments. The Ecocity (EU 5RP project), DANUrB, DANUrB 2 (Interreg, DTP), Creative Danube (Erasmus+ K2) projects focused on the concept of a sustainable city. In all projects, theoretical principles of a sustainable city were developed and applied to specific cities in a positive confrontation with the experiences of partner institutions and cities abroad. The main goal of the Ecocity project was to verify the concept of a compact and polycentric city model with an emphasis on sustainable transport. The project was focused on harmonizing urban structures with the needs of pedestrians and cyclists and on building efficient public transport systems. The DANUrB and DANUrB + projects were oriented towards the sustainable development of small and medium-sized cities through sustainable tourism (Kádár, Vitková, 2019). The transformation of the mentioned cities was also based on the application of the city of short journeys - supporting local communities and complex urban areas. High-quality public spaces and sustainable transport were an integral part of

the strategies and model solutions of the Štúrovo city (Joklová, Kristiánová, 2019) and of the Komárno city (Šeligová, Smatanová, 2018).

An important part of research at the Faculty of Architecture of the Slovak University of Technology is research by design. In studio assignments, we verify the application of the short-distance city model together with students in cooperation with local governments. The most active is cooperation with the Bratislava City Hall, specifically with its conceptual department - the Bratislava Metropolitan Institute. At the Faculty of Architecture and Design of the Slovak University of Technology, in cooperation with the aforementioned institute, we verify the possibilities of transforming selected city locations on the principle of a short-distance city. The verification studies will serve the Bratislava Metropolitan Institute as a basis for preparing a new spatial plan. One of the important challenges and possibilities of applying the short-distance city principle, which has not yet been sufficiently applied in the concepts of the development of the city of Bratislava, is the more significant integration of rail transport into the urban public transport system. Several studies are underway proposing possible routings for new tramlines, as well as studies evaluating the possible use of existing railway lines for servicing development areas. The aforementioned studies on the use of rail transport are intended to support the inner-city development of the city at the expense of intensive suburbanization in the Bratislava region dependent on individual car transport.

The prerequisite for the successful introduction and efficiency of rail transport are the parameters of new, or rather transforming, areas in contact with it. The nature of urban structures is essential for the efficiency of rail transport and its profitability - more intensive and compact forms of development, ensuring adequate transport capacities and suitable walking distances to rail transport stops or stations. The optimal connection of intensively populated areas with the city centres (or with secondary centres). Given the fact that the centres of gravity of the tertiary and quaternary sectors are tied to city centres, it is ideal that the highest concentration of these activities be implemented around rail transport hubs, which supports polycentric and inner-city development. Rail transport stops and stations fulfil the role of magnets for territorial development (Peters, Novy, 2012).

Development areas around the traffic stops must, in addition to adequate development intensity and a high degree of poly-functionality other requirements.

They are:

- Integrity of the stop or station and the adjacent area.
- Direct transport connection with several transport systems (public transport - tram, bus lines, cycling and pedestrian routes).
- Optimal location of the stop or station relative to the main urban public spaces (development axes, main pedestrian zones, etc.) and a clear network of public spaces in the development area.
- Emphasis on efficient forms of transport (preference for walking, cycling).
- Richness of functional use – as a catalyst for urban life (shopping, services, leisure activities, job opportunities, temporary accommodation).
- Characteristic spatial solutions of the development area – especially around the centre of gravity
- Flexible locality program.
- Development phasing (Vitková, 2019).

The model locations were several areas linked to existing railway lines in some areas and with existing railway stations, or even functional points of integrated urban transport stops. The aim of the verification studies was to verify the development possibilities of adjacent areas:

- With different characteristics (brownfield, undeveloped area, diverse form and function of existing development, agricultural land).
- In different locations within the city (inner city, peripheral location of the city).
- With different relationships and potential to different hierarchies of centres (city centre, regional, district, neighbourhood centre, local centre).

These were mostly undeveloped areas, or brownfield areas with significant development potential. As part of the verification studies, we focused on fulfilling the necessary parameters of a city of short distances, which were defined in the works of the collective of the Institute of Urbanism and Spatial Planning of the FAD (Vitková, 2008):

- Parameters of intensity and poly-functionality of development.
- Quality of public spaces.

We verified the forms of intensity of development adequate to the importance of the given location and pointed out the fact that the city's spatial plan does not sufficiently take into account the degree of poly-functionality, or rather defines it too strictly without the necessary flexibility, necessary as a reaction to changing market conditions and demand (Vranková, et al., 2007).

Within the framework of model solutions, we emphasized the concept of public spaces as a system of streets, squares and elements of green-blue infrastructure (parks, vegetation and water lines) connecting blocks of urban development. The profiles and form of street spaces were designed with an emphasis on pedestrian, cycling and calm car traffic, optimal availability and accessibility with an emphasis on inclusion. To support orientation in space, especially in strategic locations, emphasis was placed on views, landmarks and lines, or the form and functions of the parterre).

Defining the material-spatial structure is essential for optimizing the development of development areas based on the principle of a city of short distances and tied to local/district, district, regional centres of gravity with rail transport stops (railway station, tram stop). The application of a rational grid based on a network of streets appears to be optimal. The street grid acts as a natural regulator of development. It prefigures a set of criteria and rules that are based on it. It defines the city block by the building line, the height parameters of new development and the conditions of glare of buildings. Other criteria such as the intensity, form and function of development allow for a wide range of options, resulting from both the specific characteristics of the location, but also current and future needs and the state of the economy. The fundamental principle is the application of differentiated density and degree of poly-functionality from the highest in the central positions around stops and rail transport lines with their gradual reduction with increasing walking distance.

Within the framework of the implemented model studies, we verified the stated differentiated density of urban structures. For the urban structure of the inner city in direct contact with the railway station (as part of the district centre), we verified the density of development with density of 2.50 to 3.00 FAR. Within the urban classes, we verified the application of multifunctional development with density of 2.00 to 2.50 FAR. Residential development reached a density of development from 1.00 to 1.8 FAR depending on the walking distance from the proposed centres of gravity.

In the conditions of the outer city, the densities of the urban structure within the framework of the verification studies tied to the railway station ranged from 2.00 to 2.50 FAR. The density of residential structures ranged from 1.25 to 1.8 FAR (for block development) to values of 0.8 to 1.00 FAR (for low-rise development) at the edge of a walking distance.

A significant factor in the success of development based on the principle of a city of short distances is the multifunctional nature of the urban structure. This helps create local communities. This is a necessary mix of functions - housing, services, job opportunities, leisure activities in accordance with local needs and demand within walking distance of residents. The viability of the area also ensures a consistent distribution of housing within the entire development site, naturally with the application of different types depending on the importance and nature of the location. An important principle is the creation of an active parterre in frequented public spaces.

For this reason, we verified a flexible interval of multifunctionality, able to respond to changing market demand. For the district centres in the inner city, we considered various combinations of commercial, equipped and residential functions in the range from 60 to 40%. For the housing structure in the inner city, we verified a combination of amenities and housing in the range from 20 to 80%. For the structure of the outer city, a range of commercial and residential functions of 30 to 70% was verified for the local centre. We combined the residential environment for the outer city in the range from 10 to 90% between amenities and housing.

We paid great attention to the street profile. City avenues, boulevards, a system of service and residential streets. As part of the model solutions, we verified a hierarchical system of linear spaces based on the XL, L, M, S principle. Linear public spaces in our models are following:

- Streets XL are presented as boulevards up to 50 meters,
- Streets L are presented as main axes with dimensions up to 35 meters,
- Streets M presented service roads and residential streets up to 24 meters,
- Streets S sized presented residential streets and pedestrian zones up to 12 meters.

The development of areas around railway stations and

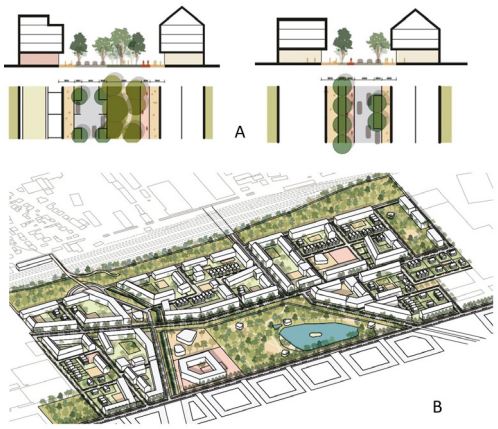


Fig. 2.: Concepts for the development of the "Šajby" area around the Rača railway station based on the principle of a city of short journeys, implemented within the GLOCAL studio (Vitková_Suchánková). Author: E. Benčíková A: overall design; B: Design of street profiles with traffic calming; C: Scheme of a differentiated hierarchy of the public space system based on the grid principle.

Fig.. 1.: Concepts for the development of the "Šajby" area around the Rača railway station based on the principle of a city of short journeys, implemented within the GLOCAL studio (Vitková_Suchánková). Author: E. Benčíková, Laura Ožvaldová, Katarína Mindová

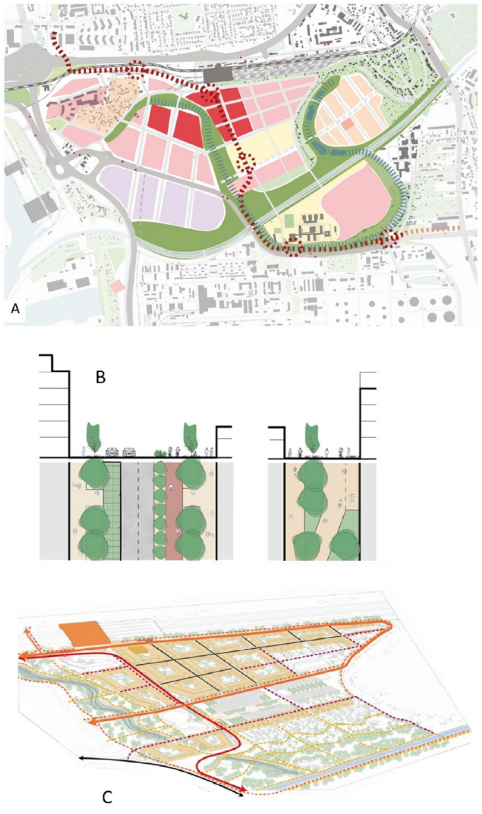
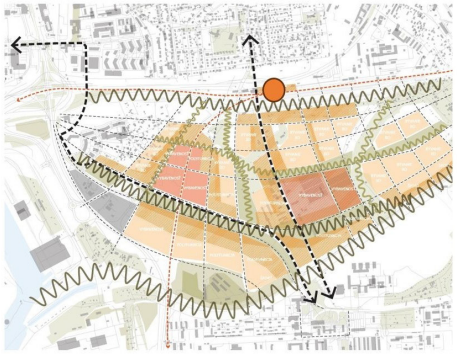
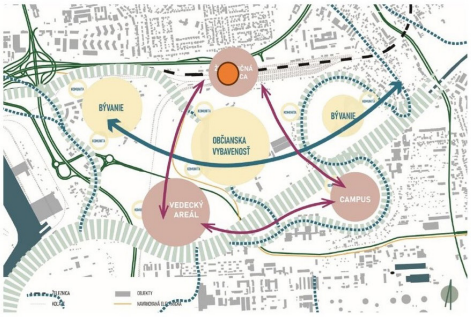


Fig. 3.: Concepts for the development of the "Domové role" area around the Ružinov railway station based on the principle of a city of short journeys, implemented within the GLOCAL studio (Vitková_Suchánková). Author: D. Pamulová A: overall design; B: Design of street profiles with traffic calming; C: Scheme of a differentiated hierarchy of the public space system based on the grid principle.

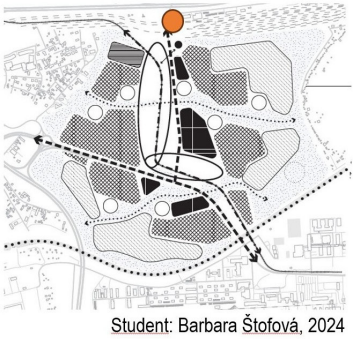


Students: Zuzana Hulecová, Andrea Illešová, 2024



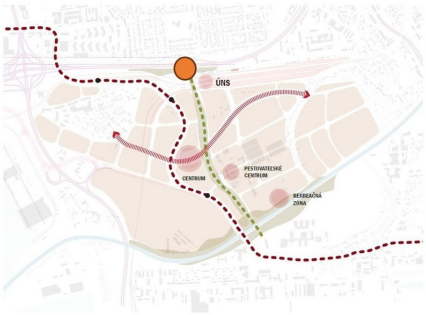
Student: Veronika Vatehová, 2024

Student: Nina Jadrná, 2024



Student: Barbara Štofová, 2024

Student: Dominika Pamulová, 2024



Student: Viktória Maľáková, 2024

Fig. 4.: Concepts for the development of the "Domové role" area around the Ružinov railway station based on the principle of a city of short journeys, implemented within the GLOCAL studio (Vitková_Suchánková).

Location	Position in the city	Význam lokality	Väzba na železnicu/ električku	Forma rozvoja	Density of urban fabric in the /net Measure of poly-functionality *	Density of urban fabric with a predominant residential function/net Measure of poly-functionality **
Petržalka ***New district and district center on the Dunube***	Conection with the city centre	As a part of city centre and district centre for 100 thousand inhabitants	Existing railway and tram line	Brownfield transformation	Floor area index 3,00 - 4,00 Poly-functionality measure interval 80 – 20 %	Floor area index 1,5 – 2,5 Poly-functionality measure interval 20 – 80 %
Nové mesto **New District** **City District Nové Mesto**	Inner city	A new district centre	Existing railway and tram line	Brownfield transformation	Floor area index 2,5 - 3,00 Poly-functionality measure interval 60 – 40 %	Floor area index 1,5 – 2,5 Poly-functionality measure interval 20 – 90 %
Zones Domové role **City District Ružinov**	Vonkajšie mesto	New city district	Existing railway line and planed tram line	New development, brownfield transformation, Connection with existind urban fabric (housing, warehouses, traffic areas)	Floor area index 2,50 - 3,00 Poly-functionality measure interval 50 – 50 %	Floor area index 1,5 – 2,5 Poly-functionality measure interval 20 – 80 %
Zone Šajby **City District Rača**	City periphery	New city district	Existing railway and tram line	New development, brownfield transformation, Connection with existind urban fabric (housing, warehouses, traffic areas)	Floor area index 2,00 – 2,5 Poly-functionality measure interval 30 – 70 %	Floor area index 1,5 – 2,5 Poly-functionality measure interval 10 – 90 %

Note: * Interval of the share of amenity functions and housing; **Interval of the share of housing and amenity functions

Tab. 1.: Evaluation of the character of model areas and a proposal for regulating the density and poly-functionality of their urban structure

rail transport is a long-term process. Correct set phasing is important for the success of the above projects. In addition to its appropriate setting based on the set concept and the importance of individual parts of the area, the economic situation and socio-demographic development are determining factors.

CONCLUSION

The development and transformation of areas around rail transport stops, especially railway stations, are key locations for promoting the compact city model and supporting efficient transport, in terms of promoting the compact polycentric city model, or the city of short distances. It is urban rail transport, due to its transport capacity and efficient and direct routing, that is able to ensure effective connections between individual parts of the city, between coherent and functional urban areas. It has a significant contribution to strengthening inner-city development compared to suburban development and thus also to reducing the carbon footprint of car transport.

A targeted city transport policy is a key tool for achieving sustainable mobility. To be effective and efficient, it must be based on thorough analyses that monitor and take into account population mobility, the state of the environment, socio-economic trends, as well as the wider context of the city. Sustainable development strategies, as well as decarbonization policies, should be based on an understanding of the relationships within the city and within its functional region. Existing relationships and connections within the city and its wider surroundings can be appropriately redirected to other more efficient forms of connections through sustainable development concepts and well-thought-out transport strategies, as well as strengthening the uniqueness of individual parts of cities.

SOURCES/REFERENCES

[1] CARMONA, Matthew - TIESDELL, Steve - HEATH, Tim - OC, Taner. (2010). Public places Urban spaces. The dimensions of urban design. Second Edition, Routledge. p. 77,

[2] CONGRESS FOR THE NEW URBANISM. http://www.cnu.org/charter, accessed on 23 June 2025.

[3] COPLÁK, Jaroslav - PIFKO, Henrich - GREGOROVÁ, Jana - RAKŠÁNYI, Peter - KOVÁČ, Bohumil - KOMRSKA, Ján - ŠABÍKOVÁ, Jana - VITKOVÁ, Ľubica - IVANIČKA, Koloman (2009). Plánovanie ekologických sídlisk. Bratislava, Road. p. 132. ISBN 978-80-88999-37-9.

[4] DE ROO, G. (1998). Environmental Planning and the Compact City a Dutch Perspective. In.: Studies in Environmental Science, edited by T. Schneider, s. 1027–1042, Elsevier.

[5] FAJTA, Zuzana - CIRANOVÁ, Lucia - SIDOROVÁ, Milota (2022). Bratislava 2030, Metropolitný inštitút Bratislava, ISBN 978-80-973834-7-3

[6] GEHL, Jan (2010). Life Between Buildings. Using Public Space. Sixth Edition. The Danish Architectural Press.

[7] HUDEKOVÁ, Zuzana (2014). Stratégia adaptácie na nepriaznivé dôsledky zmeny klímy na území hl. mesta SR Bratislavy. Bratislava hl. mesto SR, p. 48 https://bratislava.blob.core.windows.net/media/Default/Dokumenty/Str%C3%A1nky/Chcem%20vediet/064_Adaptacne%20strategie.pdf, accessed on 23 June 2025

[8] JACOBS, Jane (1965). The Death and Life of Great American Cities. 2 ed. London: Penguin Books.

[9] JOKLOVÁ, Viera - KRISTIÁNOVÁ, Katarína (2019). DANUrB - Impulzy pre Štúrovo, Impulses for Štúrovo. 1. vydanie. Bratislava : Vydavateľstvo SPEKTRUM STU. p. 104 . ISBN 978-80-227-4898-8.

[10] KÁDÁR Bálint - VITKOVÁ, Ľubica (2019). Sustainability options for tourism development. In.: Book on the unexplored cultural heritage in communities by the Danube : DANUrB 2017 - 2019. 1. vydanie. Praha, Česko : Gasset, p. 88-95. ISBN 978-80-87079-63-8.

[11] KASRAIAN, D. – MAAT, K. - VAN WEE B. (2017). The Impact of Urban Proximity, Transport Accessibility and Policy on Urban Growth: A Longitudinal Analysis over Five Decades. Environment and Planning B: Urban Analytics and City Science 46 (6): 1000–1017. https://doi.org/10.1177/2399808317740355, accessed on 23 June 2025

[12] KATZ, P. (1994). The new urbanism: Toward an architecture of community. New York: McGraw-Hill.

[13] KOMRSKA, Ján - FINKA, Maroš - GÁL, Peter - ŠPAČEK, Robert - PIFKO, Henrich - COPLÁK, Jaroslav - KOVÁČ, Bohumil - VITKOVÁ, Ľubica - GRERORová, Jana - PETRÍKOVÁ, Dagmar - BELČÁKOVÁ, Ingrid - BOBER, O. - PAŠIAK, Ján - STRUSSOVÁ, Mária - RAKŠÁNYI, Peter - JAŠŠO, Matej (2005). Ecocity Trnava. In. Ecocity Book I. A better place to live /2002-2005. Viedeň : Vienna University of Economics and Business,, s.67-72. ISBN 3-200-00421-5.

[14] KOSTOF, Spiro (1992). The city assembled: The elements of urban form through history. London: Thames and Hudson.

[15] KRIER, Leon. (1998). Choice or fate. Windsor, UK, Papadakis.

[16] LOZANO, Eduardo (1990). Density in Communities, or the Most Important Factor in Building Urbanity. From Community Design and the Culture of Cities. In: Urban Design Reader, London, Routledge. p. 680

[17] MAZÚR Ján a kol. (2022). Bratislava 2030, Program rozvoja mesta 2022-2030, Vízia a strategická časť. Metropolitný inštitút Bratislava; https://bratislava2030.sk/wp-content/uploads/2023/03/A-C-Strategicka-cast-Bratislava-2030_032023.pdf, accessed on 18 August 2025

[18] MCCANN, Eugen (2017). Mobilities, Politics, and the Future: Critical Geographies of Green Urbanism. Environment and Planning A, vol. 49 (8), p. 1816–1823

[19] MORENO, Carlos (2024). The 15-Minute City. 2024, s. 350, ISBN 9781394228140

[20] OECD (2012). Compact City Policies: A Comparative Assessment. OECD Green Growth Studies. Paris: OECD Publishing.

[21] PETERS, Deike – NOVY, Johannes (2012). Train Station Area Development Mega-Projects in Europe: Towards a Typology. Build Environment. 38/1, p. 5 – 30.

[22] STREBEROVÁ, Eva - Rehačková, Tamara – Kučárová, Katarína (2017). Akčný plán adaptácie na zmeny klímy hl. mesta SR Bratislavy 2017 – 2020, p. 94 https://mycovenant.eumayors.eu/storage/web/mc_covenant/documents/17/yUYkiS5oqAVN7sNIm-8PQzfFSxCvORHg3.pdf accessed on 18 August 2025

[23] ŠELIGOVÁ, Andrea - SMATANOVÁ, Katarína (2018). Udržateľný rozvoj malých a stredných miest na Dunaji : Vymedzenie území a ich valorizácia v prípadovej štúdii Komárno. In ALFA. Roč. 23, č. 2, p. 18-23. ISSN 1335-2679.

[24] THE URBAN TASK FORCE (1999). Towards an Urban Renaissance. London: Routledge. UN-Habitat (2014). A New Strategy of Sustainable Neighbourhood Planning: Five Principles. Nairobi: UN Habitat.

[25] VITKOVÁ, Ľubica (ed.) (2008). Kvantitatívne parametre urbanistických štruktúr. Zborník príspevkov. Zost. Ľ. Vitková. Bratislava : Road, p. 90 s. ISBN 978-80-88999-35-5.

[26] VITKOVÁ, Ľubica (2019). Železničné stanice ako súčasť koncepcie Smart City, overovacie štúdie pre Bratislavu. In.: Inžinierske stavby. Roč. 67, č. 1, p. 49-51. ISSN 1335-0846.

[27] VRANKOVÁ, Oľga - DROBNIAKOVÁ, Dana - LUNÁČEK, Vladimír - HREŠKO, Peter – DEĎO, Vasil - ŠIMLOVIČOVÁ, Jana (2007): Územný plán hlavného mesta SR Bratislavy, Hl. mesto SR Bratislava. https://bratislava.sk/zivotne-prostredie-a-vystavba/rozvoj-mesta/uzemnoplanovacie-dokumenty/platna-uzemnoplanovacia-dokumentacia/uzemny-plan-mesta-a-jeho-zmeny-a-doplnky/uphm2007, accessed on 18 August 2025

[28] ŽITŇANSKÝ, Roman - NOVÁČEK, Oto - LUKAČOVIČ, Adam - ŠINGEROVÁ, Petra -MARCINOV, Michal (2021). Manifest verejných priestorov, Metropolitný inštitút Bratislava. ISBN 978-80-973834-0-4