Mobility in Public Spaces of Small Towns in the Czech Republic

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Abstract. The aim of this paper is to provide information about Mobility in public spaces of small towns in the Czech Republic. This text will not describe the history of the development of public space either on a global scale or on the scale of the Czech Republic or the scale of the small towns. There are several reasons. The first two areas have been described many times by world and domestic experts. Therefore, it would be impossible to bring new knowledge to them in a short time, which is defined. Their summation would also be very comprehensive, or conversely, so concise that it would not be an asset. In the third area – the history of public space in small towns of the Czech Republic, we come across another barrier. This is the fragmentation of development trends of inclusion in regions and the location of the seat in the region, the morphology of the terrain, the historical development of the region and many other factors. An emphasis will be placed on small municipalities of 7,000 to 20,000 inhabitants, which are large enough in terms of having to overcome greater distances, but too small to allow their population to be the commercial operation of local public transport, and with a small budget of the city, to be able to subsidize and maintain this public transport. There will be a meeting with the users of the public space and the transport used by them and their choice of transport around the city or through the city. In conclusion, the findings on mobility in the public space will be summarized based on the current situation of a lifestyle, such as the demands of rapid mobility.

1. Introduction
The relatively significant lifestyle change that has been taking place over the last 30 years places an increasing emphasis on the mobility of the population, in particular the flexibility of their mobility. The current trend requires a person to be willing to commute (for work, education, medical care, services...) and at greater distances. Paradoxically, at the same time as this trend, which increases the population of "on the road", there is a decrease in the supply and frequency of public transport services (bus and rail). This, together, leads to an enormous increase in personal car transport. In public space, this creates excessive spatial requirements not only for its routes but mainly for areas intended for transport at rest.

In recent years, the conceptual solution has focused on trying to replenish the missing parking areas, but the scenario is still under the rule "with food growing in taste" – that is, the more parking spaces were created, the more they were required and there was no room for Reserve. Jan Gehl also observes this trend in his publications and therefore offers the opposite as a solution – restricting access to motorized transport and offering other forms of transport (cycle transport, public transport or walking).
At the same time, the success of these arrangements shows examples of the development of the world’s cities (Copenhagen, Melbourne, Brighton, Paris...).

The current form of public space in small towns is mainly due to its historical development. Several different development scenarios can be traced, which, together with the morphology of the terrain, affected the structure of the street network (e.g. the development of a street network around the square, the development of construction along the main roadway, the development of build-up area of the suburbs, development in the vicinity of the source of employment opportunities, development of housing in the form of a residential satellite, gradual growth or overgrowth of surrounding villages into the construction of the city and others). At the same time, the historical development also influenced the breadth of the street profile – the original medieval streets can not cover the spatial demands of the present and there was no room for greenery, ... In larger cities (e.g. Hradec Králové, Prague, Pardubice, ...), this original structure was disrupted due to development, which was replaced by a new, wider, more direct and clearer structure. However, this situation did not occur in small towns. Here these structures remained largely preserved until the present in unchanged territorial and width parameters, which, for reasons of property law and economic reasons, cannot, as a rule, be possible to change more radically.

Another very limiting factor is the existence of heritage care in historically older parts of small towns. As a rule, the entire original center is protected as a conservation area, a conservation area or territory with a greater accumulation of immovable monuments and their protection zones. This situation also complicates efforts to revitalize and make good use of the public space of these territories. It is desirable to protect historically and architecturally valuable objects and files, but it is always necessary to look for the optimal variant of the solution.

Other aspects of the image of the current public space of small towns are the lack of financial resources for their development and maintenance, the solution of ad-hoc problems without conceptual access, the greater number of laypeople in the ranks of councilors, city management, and officials, "small-town approach" to problem-solving and more. All this together leads to a large extent the dislocated state of most public space of small towns. If the city is not attractive for tourists, it is, for the most part, to be reckoned with the average to the neglected state of public spaces.

2. The definition of a small municipality in the classification of individual settlements in the Czech Republic

At the beginning of the 3rd century, the first Millennium, the territory of the Czech Republic is divided into 14 regions in terms of an administrative breakdown The regions are further divided into municipalities with extended competence and municipalities with the authorized authority the scope of which individual municipalities fall. These are then defined and further broken down in Act No. 128/2000 Coll., on Municipalities (the Municipal order). In this act, the definition of a municipality is as follows: "the municipality is a fundamental territorial self-governing community of citizens; constitute a territorial unit which is defined by the border of the territory of the municipality.' [1] (Act No. 128/2000 Coll., §1). The division of municipalities according to is in four categories: municipalities, towns, towns and statutory towns. The definition laid down for the city and town by Act No. 128/2000 Coll. in §3 reads Municipality which has at least 3 000 inhabitants or was before 17. 5. 1954 is a city, if the President of the Chamber of Deputies, on a proposal from the municipality, provides for this after the government's comments. The village is a town or was a town before 17. 5. 1954 by the city, if the President of the Chamber of Deputies, on a proposal from the municipality, after the government's comments [1] (quotes are truncated, not literal). Statutory cities are then defined separately in this Act in §4: "Statutory cities are Kladno, České Budějovice, Pisek, Karlovy Vary, Ústí nad Labem, Liberec, Jablonec nad Nisou, Hradec Králové, Pardubice, Jihlava, Brno, Zlín, Olomouc, Přerov, Chomutov, Děčín, Frýdek-Místek, Ostrava, Opava, Havířov, Most, Teplice, Karviná, Mladá Boleslav, Prostějov.
and Třinec. The territory of statutory cities may be divided into districts or districts with their self-government." [1]

For settlements, one of the first criteria pursued is the size, especially the number of inhabitants, which is most currently found in the Czech Republic according to the values reported by the Czech Statistical Office (ČSÚ). According to the Czech Statistical Office, the classification of individual settlements by size or population is divided into 10 groups.

Given the aforementioned division of settlements, they must, therefore, be settlements with the status of the city, a minimum size of the built-up area of at least 1000 m by air (corresponds to approx. 1500 m in the street network; at the speed of walking of a senior or small child 4 km/h corresponds to walking distances over 20 min), without a public transport system covering the bulk of the built-up area including its detached parts (adjacent built-up areas/municipalities). These parameters correspond to cities of 7,000 – 20,000 inhabitants. Smaller settlements (less than 7 000 inhabitants) do not meet the size criterion of at least 1000 m by air and therefore sufficient walking distance and settlements larger (over 20 000 inhabitants) usually have at least partially functioning urban mass systems mobility and pedestrian opportunities are strongly influenced by this factor.

3. Public space

From urban theory and legislation, there are two related concepts in principle – public space and public areas. Not every publication or professional text works with both concepts, and often situations, where they are placed in the role of synonyms, can be encountered. However, depending on how the two terms are defined, some differences in their understanding can be found.

The public space includes, for example, streets, squares, embankments, markets, parks and other publicly accessible spaces in the mansion. Public space can be also understood as a publicly accessible complex physical part of the environment, which, in addition to public spaces, is also publicly accessible space of the exterior of the city, interior blocks and interior space of buildings and public spaces as a physical part of the environment, which is publicly accessible in the area, or the area floor of the city exterior. [2] Public spaces are all squares, streets, marketplaces, sidewalks, public greenery, parks and other spaces accessible to everyone without restrictions, i.e. serving general use, regardless of the ownership of the space. [1] Areas of public spaces shall, as a general rule, include existing and proposed land of each type of public space and other land-related to transport and technical infrastructure and civic equipment, compatible with the purpose of public spaces. For every two hectares of stoppage area housing, recreation, civic furnishings or mixed residential, a related area of public space of at least 1000 m2 shall be with that stoppable area; road shall not be included in this area. [3] The previous analysis shows that all definitions are more or less similar, but they are not identical.

4. Mobility in public space depending on the type of user

All professional texts describing users of public space focus on humans. In the beginning, however, it is necessary to define all users so that some can be preferred over others later (after appropriate justification). The user is anyone who inhabits or uses the public space in some other way and thus places demands on it. First of all, of course, it is human, but it is not possible to forget the fauna and flora that is found in the space. The division of people into individual groups can take place from several points of view. For example, groups: pre-school children, primary school children, teenagers, and young people, adults and workers, men and women, parents or guardians with young children, unemployed, locals, pensioners and the elderly, people with physical disabilities, migrants and other minority national groups and tourists and visitors. [4] It is also possible to divide people by age category and the ability to move is one way of categorization based on age groups and their possibilities of walking, respectively, on their limitation of the possibility of walking and therefore different requirements for quality and dimensional layout of public space. Each of these categories has been determined based on the
individual’s different spatial demands, different speed of walking, surface, and slope adjustment requirements, the clarity of the territory, the location of the signaling and controls, etc.

Transport in terms of different modes of transport (road, rail, shipping, air transport, cycling, and walking) appears in the public space represented only in the form of road motor transport, cycling and walking. Other modes of transport, for reasons of maintaining safety or the inherent nature of transport, exclude implementation into the public space. Movement and transport are essentially four species from spatial planning – transit, ride, commute and in the place. The transit group contains individuals/transport eves passing through the territory. This group does not usually move on foot in the territory but uses other modes of transport, especially road car or railway. Another group called the ride are individuals who leave the place for work, education, shopping, etc. This group, like the previous one, usually moves on foot at least, because it mainly uses individual road transport. The exception is individuals who use public transport (rail or bus) and therefore move from their place of residence to the station at least from their place of residence. The third group is the commute. This group includes residents of the surrounding settlements, who transport to the place for work, education, shopping, leisure activities, ... This group creates in the territory both demand for parking places (arrived by passenger car transport), or they move around the territory on foot from stops/railway stations. The last solved group is persons moving in the place. They are residents of the city concerned who are transported from point A to point B, regardless of the purpose of the journey. It is therefore advisable to divide this group according to the type of transport it uses for: walking, running, cycling, scooters, skateboards, cars, taxis or the Uber, trucks (movement within employment). The list lacks public transport, suburban buses, regional buses, long-distance buses, railways, shipping and ferries, air transport – domestic and international because these do not apply to local transport of individuals in small towns. From individual modes of transport, spatial requirements are very individual and depend mainly on the size of the transport assembly, the intensity of the operation, the trajectory of movement, the speed of movement, the morphology of the terrain, etc.

5. Conclusions
Cities of selected size span with 7,000 to 20,000 inhabitants are large enough in terms of having to overcome greater distances (e.g. attendance at the authorities, for shopping, for education or leisure activities, ...), but too small to allow their population to be the commercial operation of local public transport, and with a small budget of the city, to be able to subsidize and maintain this public transport. These are cities where public transport is not the realistic mode of transport.

These cities are therefore reliant on the mobility of the population, in particular for walking, cycling, motor road transport in cars or similar modes of transport. Passenger car transport is currently on a big rise, but the zoning breakdown has very high demands in terms of space needs. This is a big problem in the existing small town. The street network is determined by the historical development of the city and without significant and costly changes, especially on the property and economic level, it is not possible to change or expand it. Because small towns do not have the funds to modify the street structure, they solve problems with passenger car transport inanely and with the ad-hoc system. However, this greatly limits the space for other modes of transport, especially walking (for example, the establishment of parking spaces at the expense of the width of the pavements, minimizing the number of pedestrian crossings due to the increase in traffic speed, etc.).

This, together with the lifestyle trends, such as the demands of rapid mobility and the existence of virtual social networks, leads to an overall decline in pedestrians in public space, minimization of contacts and greater alienation. The public space thus gradually loses its basic functions and is transformed into dead areas of weaned technology – a lifeless parking lot. This is a trend of development that needs to be reversed by continuous initiatives.
Large cities such as Prague, Brno, Pilsen, Hradec Králové or Ostrava have been interested in leading experts and other universities for a long time, and this issue is addressed here either in the form of other projects, commercial studies, development strategies or other long-term followed concepts. On the other hand, small towns are on the edge of expert interest for now, because it is not possible to achieve immediate big publicity or large financial gains in solving their problems. At the same time, it is not possible to fully apply the well-known principles of long-term research of major cities and agglomerations – the research base is almost absent here.

Acknowledgment(s)
The research described in this paper has been financed by TAČR - program ÉTA - project TL02000559 Safe and secure cities for pedestrians and senior citizens, (Bezpečná města pro chodece a seniory).

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