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**CITY PLANNING FEATURES OF THE MOVEMENT STRUCTURE
FORMATION IN THE MODERN CITY****ГРАДОСТРОИТЕЛЬНЫЕ ОСОБЕННОСТИ ФОРМИРОВАНИЯ
СТРУКТУРЫ ДВИЖЕНИЯ СОВРЕМЕННОГО ГОРОДА****Martyshova L. S./ Мартишова Л. С.**

PhD on Architecture/кандидат архитектуры

O. M. Beketov National University of Urban Economy in Kharkiv.

Kharkiv, Marshal Bazhanov str, 17, 61002

Харківський національний університет міського господарства імені О. М. Бекетова,

Харків, ул. Маршала Бажанова, 17, 61002

Abstract. The paper deals with topical issues related to the structure of the modern city movement and aspects that ensure the improvement of the functioning of the city structure, as well as the harmonization of the general concept of the development of a modern urban planning structure. The most urgent are the issues of environmental friendliness and accessibility of the city's urban structure in a mega-city with growing needs and scales, as well as everyday new types of vehicles that need to occupy their place in the transport structure of a modern city.

Key words: urban structure, transport structure, cycling, accessibility and adaptation of the urban environment.

Introduction.

Humanity today is increasingly turning to its origins, trying to regain lost naturalness, disengagement and environmental friendliness. Today, the major cities of the world, megacities, especially those that have a rich historical, compositional and landscape-architectural basis of the town-planning structure, are faced with the problem of its preservation under the conditions of steady growth and development of the city, and therefore its transport structure. The problem is aggravated by the need for accessibility and adaptability of urban planning structures for all groups of the population.

Large cities have complex transport infrastructure, including separate subsystems, usually of several external transport types (railway, sea, river, automobile, air), interacting with internal (urban public and individual) transport in organizing mass passenger and freight traffic. Individual transport today is a growing stream of not only auto and motorcycle and electric transport, but also a variety of alternative (portable) modern types of vehicles, ranging from bicycles, scooters and skates, to hoverboards or gyroboards and different types of mono-wheels.

The main text.

Since its inception, the transport structure of the city has constantly undergone changes due to the gradual increase in passenger and cargo traffic, as well as developing modes of transport. The situation was aggravated with the advent of road transport, and the period of industrial development of cities changed it altogether. The structure of rail transport began to develop actively, a subway appeared, filling the underground space of the city with traffic, and after a while - the monorail "conquered" the above-ground space, revealing the third vertical level of the city's transport system.



Three-level, and sometimes, four-level (air transport, by the way, also actively developed, occupying another vertical "tier") structure captured the minds of futurists around the world, showing to humanity unbelievable for its time transport and space-planning structures. The modern city, which is rapidly developing today, actively develops and uses these once inconceivable ideas.

Today, the most pressing are the issues of environmental friendliness and availability of the structure of the city in a megacity with growing needs and scale, as well as emerging every day new types of vehicles that need to take their own place in the transport structure of the modern city.

From century to century, city planners worked to improve the conditions of the city's transport structure and harmonize urban space, seeking to reduce structural planning differences between transport and the urban environment, protecting natural resources and saving energy and financial resources.

Particularly interesting is the town-planning aspect of the structure of underground and above-ground transport lines, not only in its utilitarian meaning (since it unloads the city's road network), but also in compositional and architectural-spatial. These structural lines not only do not duplicate the motorways of the city, but also enrich its town-planning structure. They not only connect "in another way" already existing composite nodes and public centers of the city, strengthening their importance and improving access, but also create new ones. Simultaneously new nodes and elements of the structure become the basis of a more extensive and complex urban structure.

So, for example, the underground transport structure (metro) connects the existing main composite nodes of the city by the shortest distance due to the fact that they are laid in the underground space. Above-ground structure (monorail transport) - in areas that are often "inconvenient" for laying the city's road network, having an advantage over the "subway" in the form of wide visibility of the opening views of the city from an unusual angle on all sides of traffic due to elevation of transport lines to a certain height.

Along with clear advantages and new rich opportunities for city planners: the ability to overcome steep slopes, high speed and wide visibility, reduced noise and speed of construction, the monorail transport has disadvantages: power consumption, lack of standardization and the potential danger of falling from a height.

In general, one of the most important urban planning tasks of a modern city today is the improvement of transport accessibility conditions, the unification of urban space, and the reduction of structural-planning contradictions. Town-planning structures of large cities have an integrated infrastructure uniting separate subsystems: compositional, functional, transport, etc. The transport structure, combining several types of external transport (railway, sea, river, automobile, air), with urban public and individual transport in the organization of transport, becomes the main connecting element of the whole structure into a single harmonious whole.

One of the most interesting examples of an affordable, ecological, economical and widely used vehicle, since its invention in the early 19th century, is a bicycle. For two centuries, this type of transport was at the peak of popularity and then almost completely lost it. Today, the bike experiencing another peak of popularity, he has



become one of the top priority vehicles in Europe and the leading countries of the world. The bicycle infrastructure is improved annually; decisions are made to increase bicycle and pedestrian zones instead of highways; bills on comprehensive support for cycling are lobbied at the state level. Copenhagen, Bogota, Montreal, Portland, Berlin, Paris have been improving the conditions of cycling in the city for decades, and the famous Amsterdam has more than half a century proudly bears the title of the “bicycle capital of Europe”.

A city convenient for cyclists is a comfortable city for all people, because it is primarily a barrier-free city. Convenient for the elderly, parents with children, people in wheelchairs and people who temporarily move on crutches. In addition, convenient conditions for cyclists to move provide for reducing the speed of vehicles, and thus increase the overall traffic safety in the city. Thus, the main problem is the adaptation of the existing, often valuable historical urban environment, not designed for such use, to new requirements and new opportunities. Transformed urban environment acquires new qualities, gets a new reading and information content, and most importantly it becomes more and more comfortable for human life, because in the end architecture and urban planning is exactly the art of creating space for human activity.

As for the accessibility and adaptability of the environment today, the issue of social adaptation for the less mobile groups of the population (LMGP) is being updated in the world. The category of LMGP includes pregnant women, parents with wheelchairs, elderly people, and people with disabilities. According to the World Health Organization, more than one billion people have some form of disability, which accounts for 15 % of world's population. Therefore, we will consider in more detail the socialization of the people with disabilities, because everyone of us can be included into this group at least once during our lifetime, for example, after trauma, or during pregnancy, or when we become young parents or elderly retired people.

Not many of us are familiar with the “prose of life” of the people with disabilities. These people seem not to exist for us, healthy people, until we get any disability for at least a short time. In this case, to go down the stairs, visit a the store or use the city transport becomes for us a whole event or insoluble problem. Today, when Ukraine has adopted European values and standards of development, society is gradually solving the problems associated with the socialization of people with disabilities, using a comprehensive approach and involving various groups of specialists: architects, doctors, sociologists and others.

Thus, since the creation of a harmonious environment is a priority in shaping the structure of the modern city, the issues of its movement, the creation of conditions for the use application of new features, as well as the accessibility of all its elements of the city come to the fore.

Summary and Conclusions.

The article reviewed several topical issues that actualize today a closer look at the structure of the movement in the modern city. Urban structures of large cities with an integrated infrastructure that unites individual subsystems into a harmonious and harmonious urban organism, combines a number of types of transport, the number and diversity of which becomes the main connecting element of the entire



structure into a single harmonious whole.

The most urgent are the issues of environmental friendliness and availability of the structure of the city in a megacity with growing needs and scale, as well as emerging every day new types of vehicles that need to take their own place in the transport structure of the modern city. New, modified urban environment acquires new qualities, new “reading” and information content, and most importantly it becomes more comfortable for human life, because architecture (urban planning) is the art of creating space for human activity.

Анотація. У роботі розглядаються актуальні питання пов'язані зі структурою руху сучасного міста і аспекти, що забезпечують поліпшення функціонування міської структури, а також і гармонізацію загальної концепції розвитку сучасної містобудівної структури. На сьогоднішній день найбільш насущними є питання екологічності та доступності структури руху міста в умовах мегаполісу зі зростаючими потребами і масштабами, а також виникають щодня все нових видів транспортних засобів, які потребують того, щоб зайняти своє, певне місце в транспортній структурі сучасного міста.

Ключові слова: містобудівна структура, транспортна структура, велосипедний рух, доступність і адаптація міського середовища.

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