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RECREATION AND TOURISM ORGANIZATION ISSUES IN MODERN URBANIZATION CONDITIONS

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Abstract.

The study examines the value of recreation in terms of urbanization and the issues of recreational areas organization. The analysis of world trends concerning the development of tourism and recreation areas reveals the main features of degrading area organization in the objects of recreation. The integration of natural components into the structure of buildings may be carried out in various ways, for example through the development of vertical space. The combination of natural and anthropogenic conditions determines the value of a territory in the taxonomic hierarchy. On the basis of the studied experience the article proposes the classification of recreation and tourism areas at various hierarchical levels. They considered the types of functional and planning structure for recreation and tourism areas. It is proved that with the development of urbanization on a territory some measures are needed to preserve the ecological balance and physical and mental health of citizens.

Keywords. Recreation, tourism, urbanization, green areas, vertical gardening, degrading areas.

Introduction. Urbanization and technological progress are two interconnected processes. One of urbanization manifestation is the growth of large cities, the concentration of industry, housing and maintenance within these cities. Urbanization is a global and an irreversible process [1]. The development of cities will inevitably lead to the changes and complication of functional, spatial, aesthetic, and other relations of citizens with an artificial and a natural habitat. The deterioration of a microclimate, the saturation of a city area with chemical and mechanical waste of human activity makes a negative impact on a human body and on its psycho-physiological state in general [2]. The degree of city natural resources degradation increases proportionally to the intensive growth of modern cities. This leads to the disruption of a city ecological sustainability as a natural and anthropogenic system and the reduction of areas suitable for the recreational use [3].

The rapid urbanization rates are conditioned by two factors - the demographic explosion of the second half of XX-th century and scientific and technological revolution in all spheres. Even today, in many countries, especially in the economically developed one, the proportion of urban population reaches 85-90% or more. At present, the most urbanized countries (excluding those city-states such as Singapore and Hong Kong) are the United Kingdom (92% of the population lives in urban areas), Kuwait (91%), Israel (90%), Australia (85%) and Sweden (83%). The lowest indicators of urbanization (7-10%) are observed in Africa and South Asia. According to UN data, the Earth population reached 6 billion people at the turn of XX-th and XXI-st century. The share of large cities with with the population of 1 million or more makes about 30% of the total urban population in industrialized countries and less than 10% in developing countries. At present time the urban population increases by 59 million people annually, 89% makes the growing urban population in developing countries [4].

The peculiarity of the current urbanization stage is the growth of cities, the merger of closely spaced cities and towns into one giant urban complex - metropolis. Modern cities need recreational areas, that is, the places of townspeople rest, who must make at least 10-15% and up to 50-60% of their total land area [5]. However, the recreational areas are not enough in the majority of modern large cities within the conditions of high density development. Another serious problem for the organization of recreation in an urban environment is the deterioration of air quality and water basin pollution, which makes it difficult to organize a full-fledged high-quality environment in general and recreation in particular.

Under these conditions, the urban population tends to rest in a natural environment. In this regard, the need of rest in a natural environment instead of an urban one comes to the forefront [6]. The recreational loads on natural systems increase. It is obvious that each area has its own recreational capacity and a permissible environmental load, depending on the environment capacity to assimilate hazardous waste and restore the natural resources and the availability of an effective environmental infrastructure [7]. In this regard, the optimization of the interaction between an anthropogenic and a natural system, the calculation of optimal recreational loads, the harmonization of architectural and natural environment are the important tasks for urban planners and environmental experts.

Main part. Within the framework of urban policy one of the solutions to this problem may be the technique of ecological zoning for recreation areas. The areas are highlighted by the mode of use. Less valuable zones in relation to recreational areas arte allocated for the places of recreant and enterprises mass concentration according to their livelihood (accommodation places, parkings, sports facilities, commercial enterprises, public catering network, and so

on). The non-recreation functions can be combined here with recreational ones. The most valuable and unique areas are reserved for strictly recreational activities (excursions, fishing, hunting, recreation in nature). Ecological zoning defines two different types of a landscape - of an intensive and of an extensive use. Ecological zoning allows to divide a recreational space into the zones with different degrees of environmental, scientific and aesthetic value.

This principle implies the priority of environmental problems at all stages of landscape and urban planning organization of recreational areas: during the zoning of a territory, the prediction of recreational pressure and the intensity of recreational use, functional organization, the choice of landscaping means and beautification. The area division takes place by the levels of anthropogenic load, by the reconstruction of restricted areas, the degree of natural landscape components transformation into artificial ones; the delineation of spaces with different functions, nature and use intensity; the delineation of spaces with heavily conflict functions.

World trends of recreation and tourism areas development.

Currently recreation and tourism occupy a significant place in the economy of most countries. The development of tourism can improve the economic situation and indirectly contribute to the environment protection [8]. Modern tourist industry is one of the most profitable industries in the world economy. The indicators of tourism profitability growth dynamics are far ahead of income growth dynamics in other sectors of economy. According to a study of UNWTO "Tourism-panorama 2020", it is predicted to perform the global increase of tourist arrivals more than two times during 2000 - 2020. Another important trend of tourist activity is that 1.18 billion of tourists (76%) will travel within their macro-regions and 377 mln. of people will travel to other regions of the world. These predictions are used and taken into account by the national tourism administrations of most countries to determine and implement the state policy in the sphere of tourism. Nevertheless, the characteristic feature of the prediction period is that the long trips to other regions of the world will grow faster than the travels within their regions and the relationship between intra-regional and inter-regional travels will be changed from 82:18 in 1995 to 76:24 in 2020. At that it is expected that the Asia-Pacific region will take second place (397 million of tourists) after Europe (717 million of tourists), and will be significantly ahead of America (282 million of tourists). Together these three regions will serve 89.4% of the global tourist market. This prediction assumes that Russia will be the ninth in the world by the number of tourist visits in 2020 [9]. Another important trend is the more dynamic increase of travel volumes for the purpose of recreation in comparison with the volumes of business tourism. If during the 70-ies of the twentieth century business segment dominated in international tourism market, nowadays this ratio changed toward recreational tourism: 60% of

tourists travel for leisure, and only 40% travel for business purposes [10]. Considering the world trends in the development of recreation areas and tourism, the main trend nowadays is a numerous amount of recreants who prefer secluded places. Such a trend emerged in recent decades, i.e. the distancing of recreation places from the centers of recreational demand. This phenomenon can be called a centrifugal one.

New trends also include a special attention to ecology among tourists. This focus on the environmental component explains the increased attention to the visit of places with unaltered or slightly altered natural environment during recent years. The surveys of tourists show that among the motivations of tourist travel the desire of people to communicate with nature comes to the forefront. Due to the changes of living conditions in metropolitan cities population starts to be further away from nature. The residents of big cities often suffer from nervous disorders and all sorts of nervous system diseases. Based on the analysis of tourist and recreational area historical development, we can observe that the inclination of people to nature is almost always found in historical settlements. For example, these are the undeveloped floodplains and terraces, hillsides, etc. People's view about green spaces, suitable for high-grade recreation, changed constantly, reflecting the inevitable changes in the form of a citizen life. The population of modern cities seeks to "introduce" the nature in a living space again. This trend is supported by government subsidies and is expressed not only in the protection and the restoration of old buildings or plantings, but in general environmental recovery of an area [11]. The problem appears before the architects and planners: the creation of new recreational areas in densely built-up cities. The most common types of recreational city areas in modern major cities are various parks of urban values, embankments, woodland parks, etc. One of the most significant modern trends in the organization of recreational areas within an urban environment has become the trend of park development on the territories disturbed by anthropogenic activity (former industrial areas, the areas disturbed during the development of mineral deposits by an open or an underground method; during waste storage and disposal). One striking example of a landfill territory transformation into a recreation area is the park in Caen, France. Since 1923 up to 1973 that territory had the municipal landfill "Bird Hill" to dump solid waste and metallurgical production waste. In the early 1990-ies the production was transferred to Southeast Asia. Landfills were transformed into the place of rest for the population. Another example of disturbed land transformation in a park environment is a quarry garden project at the Botanical Garden of Shanghai, embodied in life by THUPDI studio of Tszynhua Peking University (Tsinghua University). An abandoned quarry on the outskirts of Shanghai turned into a garden, and became a new landmark and a symbol of the city. Its capabilities are fully reflected on the basis of environmental and cultural reconstruction. One

dangerous, difficult and abandoned land was transformed into a tourist oasis for visitors who wish to see a natural landscape and learn about the history of the local mining industry [12]. The garden is divided into three parts - the lake, the playground, and a deep pool the center of which has an abandoned quarry. The review begins with an upper deck which demonstrates the mirror plane of the lake. Then the visitors find themselves at the foot of a three-level platform, "outlined" by a copper-colored facade and new green plantings. This monolith is a kind of a maze of corridors, leading to the panoramic terrace with a miniature garden and a water tower by different ways. Then, a visitor gets to a pool - a deep natural dam with a water surface area of 10 thousand square meters and with the depth of 20-30 m. This site of the quarry was conceived as a complex route by THUPDI designers: it is necessary to pass on a wooden floating bridge, a steel trestle, an arcuate road that circles the mountain ridge and through the monolithic tunnel 150 meters long to climb an upper platform at the lake. On this way the impressive views open on the cavity from the most different angles, which allow visitors to appreciate the beauty and the power of a natural mountain landscape. Here, anyone can join the Eastern culture of nature understanding. Despite the danger and the inaccessibility, the quarry was successfully converted into a recreational area. The concept of a green transformation - "the parks instead of the former industry" - was confirmed repeatedly in international practice over the past half-century. Paris parks de la Villette and Citroen is a direct confirmation of this. They embodied the new ideology of the park - a space of choice freedom concerning recreational activities and a permanent intellectual development. Both parks emerged on the site of former industrial areas and were transformed into a fertile environment for recreation. Among the most recent examples we can mention new Superkilen in Copenhagen, designed by BIG team. This project offered an alternative interpretation of a park environment on the former industrial areas. In most cases, parks as the part of a new green city strategy became a logical result of a deliberate planning policy concerning the transformation of the former industrial and storage areas into the vital element of natural infrastructure, as close as possible to the places of residence of a large number of people and it contributes to the normalization of the ecological situation there. Not only the wasteland, but also the territories which previously had quite a contrast functionality are transformed in parks, for example, former railways [13]. A striking example of such a transformation a the Highline Park in New York City (English The High Line - lit. "High Line"). Until 1980, the rails over the streets of Chelsea district had freight trains, and then the railway line was not used anymore. In the 1990-ies the owners decided the issue of the railway dismantling together with the overpass, but it was decided to transform the ways in a park alley. The authors of the railway overpass transformation project into a park, the landscape

architect James Corner and his Field Operations bureau, the architects Diller Scofidio + Renfro and the famous landscape designer Piet Oudolf, aimed to preserve the character of flora and fauna that developed on the overpass in 20 years, passed after its closure. Besides, the rails were left in the former place in order to remind about the history of this building. Currently, the Highline Park is very popular among residents and tourists. Another noticeable trend in the organization of recreational areas in the urban environment was the development of a vertical space. After the implementation of Citroën and La Villette parks in Paris, when the composition of the recreational landscape successfully embodied the idea of a two-level space, it became clear that one can well develop green technologies vertically, creating new park space on several levels during the XXI-st century. At the obvious shortage of urban areas suitable for conversion into new natural oases within the existing urban environment, they started to use this spatial resource. In the area of Neu Oerlikon in Zurich, the architects and experts in the organization of a modern landscape, performing the reconstruction of the former industrial area, offered to build a vertical, essentially a multi-level park named MFO for the first time (the first letters of the plant name for the production of Maschinen Fabrik Oerlikon engines) (Fig. 1) [13]. Under the local recreation areas we usually mean the space dedicated to a building or a group of buildings. Currently, there is the trend of the environment greening, the introduction of natural components into the structure of residential and public buildings on the level of building design. The integration of natural components into the structure of buildings may be carried out in various ways:

1. The buildings are integrated into a terrain;

2. The natural components are included in the interior spaces of buildings;

3. The use of a vertical resource is the creation of gardens on the roofs of buildings (one of the most popular ways to organize recreational spaces in high density development of large cities);

Modern green roofs depending on the method and the type of planting and an operation type can be divided into two basic types: intensive and extensive ones. Intensive green roofs are a garden in the full sense of the word. Their landscaping includes small plants, shrubs, and trees. At the intensive landscaping a building structure must be capable of 150 - 750 kg per square meter., which imposes severe restrictions on this method use. At extensive landscaping they use only grass cover or plants are placed in special containers with soil substrate. Such a landscaping does not require a special care. Plants use ground covers, those that tolerate well the temperature difference and the lack of moisture. The roof surface is protected from plant roots with a special film, which prevents the destruction of a roof by the roots.

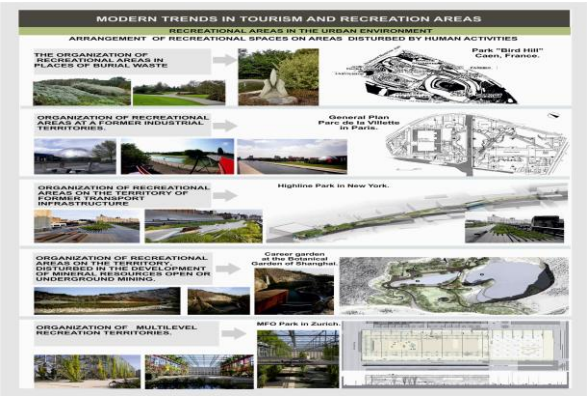

Fig.1. Modern trends of recreation and tourism areas development in the urban environment. Compiled by Krushelnytskaya E.I.

An extensive landscaping is the most common method. It is often used in European countries. Due to the greening of roofs it is possible not only to create additional recreational spaces, but also to maintain the microclimate which will be comfortable for a person and complement the architectural solutions of a building by the expressiveness.

The territories of recreation and tourism in a suburban environment

Nowadays the recreation and tourism areas in the suburban environment are represented by different types of spaces: natural parks, as well as by small forest, meadow and water parks, beach areas and other types of recreational territories for the rest of the population of nearby large cities. One of the most significant global trends of recent decades is the process of suburbanization, evolving as the response to the increasing paces of urbanization in the world. The population of large and largest cities, tends to move to the suburbs, the recreational load in the suburban recreation areas increases. One of the interesting demonstration proposals for the organization of recreational spaces in suburban areas is the competitive project «Europa City» ("The city of Europe") for the suburban areas of Paris from the Danish company BIG. The project proposal combines the dense development and the rural atmosphere of Paris suburbs. The convenience of city life is combined with the advantages of living close to nature. During the project development, the architects chose a radial-beam layout. Public transport in the project is combined with the metro and the railway, and preference is given to pedestrian paths and cycle tracks. The project provides the construction of a large «Europa City» shopping and entertainment mall, which should become the center of rest for Paris citizens. The project of the facility «Europa City» proposed a large-scale green roof, through which the facility should become the area landscape. The facility project applied the energy-efficient technologies. It is assumed that the facility will be divided into five thematic areas, representing European cities and will have its own landscape and recreational spaces in the form of parks and alleys, playgrounds and the objects of temporary accommodation of visitors (about 10 hotels) (Fig. 2).

Fig. 2 «Europa City» Project. BIG company presentation.

Hierarchical structure of recreation and tourism territories

The combination of natural and anthropogenic conditions determines the value of the territory in the taxonomic hierarchy. Taxonomy is a systematics section dedicated to the interpretation of volumes and a mutual subordination of taxonomic, systematic groups, or categories (taxons), which allow to systematize complexly arranged regions of reality with a hierarchical structure [14].

The taxonomic sign determines the place of this recreational formation in the hierarchy of entire recreational structures. The hierarchical structure is characteristic of a complex recreational system in which has the division of its constituent elements sets into the subsets of different levels - the subsystems that have the property of integrity, a certain degree of self-regulation and the related multi-stage relationships of certain level subsystem subordination to other ones - higher ones [15].

There are different classifications of recreation and tourism areas on a hierarchical basis. The study proposes to subdivide the tourist and recreational areas into:

1. The areas for recreation and tourism of national importance;
2. The areas for recreation and tourism of regional significance;
3. The areas for recreation and tourism of agglomeration level;
4. The areas for recreation and tourism of city level;
5. The areas for recreation and tourism of city environment level.

A variety of natural conditions determines the difference in the methods of planning organization for tourist and recreational areas, which is reflected primarily on the relationships of residential and recreational areas. According to the analysis of foreign and domestic historical experience, as well as to the analysis of works written by Lobanov

Y.M., Lukyanova L.G., Bezrukov Y.F., Tverdokhlebov I.T., N.S. Mironenko and other scientists. One may select the following types of functional and planning structure for recreation and tourism areas.

1. Zonal planning structure;

2. Point planning structure (monocentric and comb ones);

3. Spread cluster planning structures (typical for mountain areas with established transport links);

4. Linear planning structures - planning axles, landscape-route corridors or tourism tracks, including roads, surrounding landscapes, recreational areas, river valleys, sea, lake, reservoir coasts (sub-types: a linear, a comb one);

5. Disperse planning structures, the distribution of recreational entities and recreants over a large area, which allows to maintain the natural landscape oo the entire area (Figure 3).

Tourist and recreational areas of urban values, are presented usually in the form of large green spaces (parks, forest parks, meow parks) and the systems of public pedestrian spaces of urban importance (embankments, squares, pedestrian streets). In the cities with the central and peripheral placement of large tracts of green spaces one can trace the system of green "rings", "stains", "wedges" and buildings in the forests; linear-strip and combined systems. The linear placement of large parking zones provides continuous links of residential areas with green areas and allows to create flexible planning structures that may grow with a city. In the developed cities with a dense building the ability to create such continuous subsystems appeared in new areas. One can distinguish the following most common planning structures of tourist-recreational city area systems: wedge-shaped, peripherally-wedge-shaped, circular, core, core and radial, diametrically-linear with a water area, peripherally-linear, linear-wedge, longitudinally-band, cross-band, mesh, background, dispersion and radial-ring one.

Conclusions. During the analysis the problems of recreation and tourism organization in the conditions of modern urbanization the main trends in the development of tourist and recreational areas were identified:

- The relation of recreational and urban systems, when their structural interpenetration takes place and spatial combination;

- Organization of national and natural parks;

- The creation of new forms and types of recreation;

- The reduction of recreational routes and business functioning seasonality, i.e., a year-round commitment to action...

- Recreational recultivation of urban areas (industrial areas, storage areas, transport areas, etc.);

- The development of multi-level recreational spaces;

- The development of multi-functional environment for recreation.

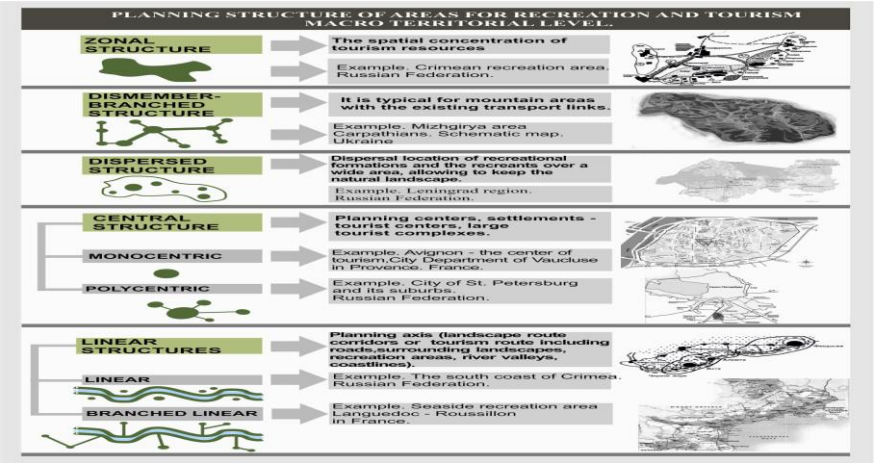

Fig. 3. Planning structures of recreation and tourism areas at macro territorial level. Compiled by Krushelnytskaya E.I.

Summary. After the analysis of foreign and domestic urban design experience, it can be noted that an important role in the life activity of the city population is occupied by recreational areas. With the development of urbanization on the territory the measures are needed to preserve the ecological balance and physical and mental health of citizens. The degraded areas resulting from an anthropogenic human activity are the spatial resource of a city center development on the one hand and the authentic urban environment on the other. The obtaining of the most suitable methods for their revitalization will create both an attractive investment environment, and the current environmentally sustainable urban space demanded by citizens.*

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