

*Peoples ' Friendship University of Russia,
115093, Russia, Moscow, street Podolskoe Shosse, 8/5, Faculty of Ecology
vg44@mail.ru*

VARIOUS WAYS OF FORMING URBAN LANDSCAPE ZONES IN IMPROVING THE ECOLOGY OF URBAN AREAS*

Key words: urban spaces, green Park areas, urban development, landscape architecture, environmental.

Today, interest in the formation of a comfortable environment in urban settlements has grown. In megacities of developed countries, such as Paris, New York, London, Moscow, the trend of creation of new pedestrian zones continues, parks of culture and rest are updated.

The history of urban development, its centralization is described in detail by contemporaries, architects and preserved in the form of cultural heritage. In the idea of decentralization of urban settlements promoted today, one can see the concept of a «city of broad horizons» developed by Frank Lloyd Wright in the 1930s [1]. Much of his ideas today can be seen in the buildings of large cities of the world [2].

The creation of the «garden city» and the construction of «high-rise buildings in the Park» can also be seen in the ideas of Ebenezer Howard and Le Corbusier [1].

This situation is not accidental; it is a consequence of the modernist planning principles of the 1960s, focused on the separation of functions and scale-up. The attitude of architects to landscape architecture has led to the emergence of large areas of free green spaces. In most cases, it is surrounded by traffic green areas that are poorly visited because of the distance from residential buildings, shops and other points of activity. Many people find them unattractive, which exacerbates the decline of territories, increasing the feeling of boredom, emptiness and danger [1].

Green areas of the city today have great potential for socialization. In this case, the standard approach to the improvement is not enough, it is necessary to study the possibility of development of the territory in the whole area, as only residents will be able to make them lively. The real number of areas occupied by green spaces is really large.

In Russia, the idea of the need to create large parks in cities was implemented in the form of parks of culture and recreation, for example, «Park of culture and recreation. M. Gorky» appeared in Moscow in 1928 and his model was built in the postwar years across the country. This success is due to several factors – the location in the city center, active advertising events, designed for attendance with a double margin, and being inside the Park of culture and entertainment [2].

Such a way of development involves a high recreational load on the Park and green spaces, so areas with valuable vegetation need a different approach to the use of citizens. A balance is needed between «liveliness» and «emptiness» [2].

*The publication was prepared with the support of the Program «5–100».

© Rodionova O. M., Glebov V. V., 2018

A huge contribution to the understanding of urban space was made by Jane Jacobs – an American journalist, author of the book «Death and life of big American cities», written in 1961 [3]. Based on own her observations, Jacobs argued that the townspeople come to the parks «for a particular specific need» associated with the need for interaction between man and nature.

The interaction between Man and Nature in the city can develop in different ways, but it will always be associated with the peculiarities of human perception of the surrounding environment, where information occupies an important place in modern life. It serves as an assessment of efficiency, an indicator of public recognition that distinguishes us from others and forms a strong mutual dependence in a person [1].

The trend towards an increase in the number of green Park areas is noted in all ongoing projects of «smart cities and green building» and this is due to their important role in human life, for example, urban Park areas can now be the hallmark of the city, as for Moscow was VDNH – Exhibition of Achievements of National Economy.

Also, a promising direction in the world's megacities will be the direction associated with the «green regeneration of the city» – projects of parks and squares in industrial zones, former landfills, for example, in New York, it is planned to implement a grandiose and technically complex project of the underground Park Lowline [1].

The Park will be located underground in tunnels and station premises of the abandoned metro station, solar panels and mirrors are planned to be used for lighting.

Existing restrictions (for example, water resources, Finance, little space, geological complexity of the area) should inevitably lead to planting in urban parks of the metropolis of cultures suitable for specific climatic conditions and reflecting the national and cultural values of the country [1].

Another important turn in the field of green building is the reorientation of financial flows not in the «gray» (engineering), but in the «green» infrastructure (parks, squares) of the city, which helps to adapt urban areas to global climate change, for example, to help protect urban areas during heat waves or to withdraw and quickly absorb storm water [1].

Of course, green Park areas in large cities are becoming tools to combat environmental problems, such as air and water pollution, reduction of biodiversity, reduction of thermal pollution, which was successfully implemented in Mexico City (Mexico), where the quality of urban air was significantly improved by increasing the number of green spaces [1].

One of the latest trends in the life of megacities is urban agriculture. The use of urban parks for food production will contribute to the provision of food to residents of megacities and create additional jobs.

Life in big cities is fraught with stress; people are prone to depression and aggression. Therefore, green spaces become multifunctional, having a unifying and educational character [1].

Conclusion. Thus, the eco-urban development of urban spaces and parks at the present stage of human development is significantly changing. The main trend in this development is the decentralization of urban settlements, the creation of

«garden cities» and the construction of «high-rise buildings in the Park». This is important because the green areas of the city today have great potential for socialization and comfort of citizens.

References

1. *Gehl J.* Cities for people // Transl. from engl. A. Toktonov. M. : Krost, 2012. 276 p.
2. *Gehl J.* Moscow on the way to the city for people: Public spaces and public life. Moscow: Institute of the General Plan of Moscow, 2013. 128 p.
3. *George J.* The death and life of great American cities. M. : New publisher, 2011. 460 p.

УДК 631.4

P. P. Kochetkov^{1,2}, V. V. Glebov¹, V. E. Abramov²

*¹Peoples' Friendship University of Russia,
115093, Russia, Moscow, street Podolskoe Shosse, 8/5, Faculty of Ecology,
vg44@mail.ru*

*²Federal State Budgetary Research Institute «K. I. Scriabin All-Russian
Research Institute of Fundamental and Applied Parasitology
of Animals and Plants»
117218, Russia, Moscow, Bolshaya Cheremushkinskaya str., 28, p. 11a,
pkochetkov@gmail.com*

ASSESSMENT OF HEAVY METALS AND PESTICIDE CONTAMINATION OF SOILS IN THE MOSCOW REGION

Moscow region is one of the most economically developed regions of the Russian Federation. Active human economic activity has a negative impact on the environmental situation in many areas of the Moscow region [1]. On a functional purpose on the territory of Moscow region is dominated by forest lands – 1834,2 thousand hectares (of 40%) and agricultural land – 1750,5 thousand hectares (38,2%). A significant share of the Moscow region is occupied by land settlements – 538,2 thousand hectares (11,8%), including land rural settlements – 328,7 thousand hectares. The main substances that pollute the land of the Moscow region are garbage (solid and liquid waste), oil products, pesticides, chemical fertilizers, heavy metals [2].

According to the level of pesticides in the soil in the first places are Mytishchi, Lyubertsy, Taldomsky, Balashikha areas (more than 5 kg/ha) [3].

Also, the unfavorable situation is seen in Yegoryevsk, Noginsk, Zagorsk, Odintsovo, Dmitrov, Sergiev Posad districts. About 40% of the Moscow region's land is occupied by soils contaminated with heavy metals. Among heavy metals, tin, molybdenum, tungsten, silver, copper, mercury, lead, strontium, zinc, barium, cadmium, predominate. The Average content of heavy metals in the Moscow