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CONDITION OF RECREATIONAL SPACES IN VOLGOGRAD AT THE PRESENT STAGE AND THEIR INFLUENCE ON SOCIO-CULTURAL LIFE OF THE CITY

In the urban environment all elements are closely interconnected and constantly change as a result of the natural phenomena and human activities. Irrespective of it, consciously or unconsciously, the person fixes his surrounding, it influences positively or negatively on his psychophysical condition and behaviour stereotype.

There is a sharp question of shortage, degradation, pollution of the territories used or potentially suitable for the use in cities recreation of the population in Volgograd. This problem is aggravated with gradual deformation of a cultural city landscape, increase in number of the urban population, specificity of nature-climate conditions.

It is necessary to make actions for stabilization of an ecological situation at the expense of consecutive restoration and optimal distribution of natural environment components in the system of the transformed city territories. It is essential to solve problems of not only the performance of all complex of works connected with a current building, but also with planting reconstruction in places of building last years.

K e y w o r d s : ecology, “garden-city”, recreational territories, open spaces, recreation, behavioral stereotype, linear structure, axial system, landscape architecture, landscape design.

In einer städtischen Umgebung sind alle Elemente eng miteinander verflochten, sich ständig als Folge der Naturerscheinungen und menschlichen Tätigkeiten verändernden. Unabhängig davon, bewußt oder unbewußt, beheben die Menschen ihrer Umgebung. Es wirkt sich positiv oder negativ auf die psychische und physische Zustand und Verhalten des Menschen.

Die Frage ist Mangels, Bodendegradation, Verschmutzung der Flächen, verwendet oder potentiell geeignet für den Einsatz in städtischen Gebieten für die öffentliche Erholung in Wolgograd. Dieses Problem wird durch die schrittweise Verformung der kulturellen Stadtlandschaft, Zunahme der städtischen Bevölkerung, besonderen klimatischen Bedingungen verschärft.

Muss die Vorkehrungen für die Stabilisierung der ökologischen Situation auf Kosten der konsequenten Wiederherstellung und optimale Verteilung der natürlichen Komponenten im System transformiert städtischen Gebieten zu machen. Um Probleme zu lösen, muss man nicht nur alle für die Arbeit mit den aktuellen Bau- und Landschaftsmaßnahmen, sondern auch mit Wiederaufbaumaßnahmen in den Bereichen Konstruktion der Vergangenheit verbunden.

S t i c h w ö r t e: Ökologie, “Garden-Stadt“, Erholungsflächen, Freiflächen, Freizeit, Muster, lineare Struktur, axiale System, Landschaftsarchitektur, Landschaftsplanung.

For the first time the theme “person-environment” became a subject of discussion at the UN General Assembly 1969, which had declared that the life on the Earth is in danger, that the nature destruction threatens the existence of the person as well as a nuclear war.

The role of architecture in prevention of the possible catastrophe, in restoration of attitude between person and nature is great, as the city is knot of the processes which have caused a destruction of these attitudes. At the end of the XIXth — at the beginning of the XXth century the idea of the garden-city which established in England swayed the minds of many architects of that time: Englishmen Parker and Unvin, French interpreters of this doctrine Fovill, Luke, Cheysson. The experimental building of the garden-city in Hellerau, near Dresden, had made a big impression upon Le Corbusier, who made in May 1914 made the project of

an inhabited suburb garden for the Chaux-de-Fons. Already here the prototype of the unified inhabited ensembles is felt. There are very picturesque, located among a park landscape.

In those projects more than a hundred years ago the architects tried to solve problems of the cities. Their streets deprived of pleasure and poetry became gloomy of a hellish noisy, dirty, poisoned air and constant danger to people life.

And now instead of improving person is actually happening deformation and degeneration of his physical and intellectual condition. Just now people begin to realise the gravity of consequences current crisis state in the environment. But even Le Corbusier searched for conformity of architecture to physiological and psychological requirements of people, searched for the abilities of architecture to support conditions of biological existence and development of the person, developed the principles of reappearance genetic affinity between person and nature. The nature is a biological environment of people as inexhaustible source, from which it is possible to borrow the rules necessary for a creation of the objective world. All architectural archetypes are concentrated in the nature and to create the form means to search and to open these archetypes.

The merge nature occurs basically not because of a quivering piety before it, but because of a real necessity. Likening to the nature is not the result of uncomplaining apprenticeship or ecological panic, but dignified realization of natural development of human culture. The nature cannot “consult” or “know”. It is necessary to co-operate with it head-to-head.

In the urban environment all elements are closely interconnected and constantly change as a result of the natural phenomena and human activities. The person co-operates with the environment in three basic directions: health and safety, functional and psycho-aesthetic [1].

Influence of city structural elements affects a health and safety condition of an environment (residential, industrial, communication, engineering-transport, etc.). Such an approach on the nature leads to the reduction of the sizes and integrity of natural complexes, to the formation of the destruction structure and reduce the stability of natural ecosystems. In this connection, the shape of a natural environment changes, it loses individual character, visually-spatial characteristics of a natural landscape worsen, i.e. aesthetic characteristics of environment worsen.

The functional direction of person interaction with the environment consists in available equal processes in separate sites of a city territory (formation of recreational zones of rest, intraquarter planting, planting near highways, rehabilitation of the exhausted earth and etc.).

The system is collapsing at a negative development of one of these factors. Irrespective of it, consciously or unconsciously, the person fixes his surrounding, it influences positively or negatively on his psychophysical condition and behaviour stereotype. Not well-groomed city territories (wastelands, ravines) often becoming dumps and places of the negative phenomena. On the contrary, well-groomed composite city territories having modest art advantages produce a sense of order. Most sensitively in this plan there is an interaction of the person and vegetation.

The Volgograd region is rich in magnificent landscapes with younger and not yet well established traditions of landscape gardening. In the 50—60-ies of the XXth century a good basis for the formation of an original landscape style, which had developed gradually, was created. However, now in Volgograd, the towns and

settlements there appeared a habitual picture for eyes: overgrown with weeds and thickets untended trees are sad “redevelopment” round the majority of houses. Though even during the post-war period, during stagnant times in regional cities there were developed and implemented into practice big landscape projects, for example, Central Park of Culture and Rest, City Park, Central Quay, Gagarin Park in Volgograd, planting system of Volzhsky, etc. However, the general attention to the cultural landscape has been traditionally enough because the landscape design seemed many people a luxury permitted only on “ostentatious” objects.

At the moment there is a sharp question of shortage, degradation, pollution of the territories used or potentially suitable for the use in cities recreation of the population.

This problem is aggravated with gradual deformation of a cultural city landscape, increase in number of the urban population basically at the expense of building of existing recreational territories by inhabited and uninhabited objects, specificity of nature-climate conditions. In the south of Russia there was an aggravation of a continental climate, degradation and destruction of landscapes, especially in large industrial centres. Volgograd was included into a list of the dirtiest cities in the world from the ecological point of view. At the same time, in Volgograd began action environmental optimization of the city environment by converting territories which remain a source of ecological intensity.

In this connection, it is necessary to make actions for stabilization of an ecological situation at the expense of consecutive restoration and optimal distribution of natural environment components in the system of the transformed city territories.

The estimation of recreational potential of territories is offered to be conducted under the following scheme:

revealing of recreational resource potential of city space, its designation on a card by structurally-typological principle (point, zonal. linear objects);

differentiated estimation of resource potential on a hierarchy principle;

density estimation of a recreational resource of city formations;

estimation of recreational appeal of territory according to sociological researches [2].

Last years in landscape formation of a city landscape as a complete spatial system which have received various names in the different countries, is accepted: National-Ecological network (Netherlands), National Trust (Great Britain), Development nature network (France).

In Russia during the last ten years the ideology and methodology of working out of a natural structure is well-founded enough.

One of the main principles of the natural structure is a principle of a continuity of a nature-landscape structure of a city. The natural structure includes areal (high size), linear and dot elements.

The high size elements, such as natural and partial reserves, state and natural parks, nature monuments, water reservoirs, special-use territories of high ecological activity — “kernels” of the natural structure.

Linear elements — valleys, beds and floodplains, flows, protective forest-parks — are serve as “ecological corridors”, that provide a possibility of migration of plants.

Dot elements — miniparks, parks, parkways, quays, houses adjoining spaces, interior planting — are form “knots environmental activity”.

The natural structure acts is as essential part of landscape-planning structures of a city [3].

As basis of the composite decision and organization of a cultural landscape of Volgograd, the system of longitudinal (parallel to the Volga) and transverse axes, that have been developed historically, is carried out.

In the 20th years of the XXth century N.A. Milyutin offered a theory of development lay-out of linear city which he developed for example of Stalingrad. Milyutin attached a special significance to a functional zoning of a city and treated it in the form of stripes of an extended linear type. The city looked like the multilayered linear structure consisting from the Volga, of parallel stripes: park, inhabited, green and industrial on which border the railway passed. According to Milyutin's scheme the industrial zone was transferred to the depth of the built territory, from the Volga to railroad tracks. This idea of a lay-out of the city in the 20th was brought into life while erecting an insignificant part of the northeast territory of Stalingrad in Krasnooktyabrskij district. Milyutin's ideal scheme contradicted already existing arrangement of the industry along the coast of the Volga and consequently had not been completely realized.

The basis, core of a town-planning composition of Volgograd is the axial system of a city where the highway — the First Prodolnaya (Lenin Avenue, Raboche-Krestyanskaya street), parallel to it Second and Third Prodolnaya line are built. The First Prodolnaya (Lenin Prospect and Raboche-Krestyanskaya), cross the territory of the city, “strings” its separate parts and connects the central part with the northern and southern districts. A part of this system is the Volga along which there is a fine Quay, a favourite place of citizens. Along a high coast the continuous system of green areas (city centre) used for placing of a regular park, walking parkways at different levels is created. In files of coastal plantings coniferous and deciduous breeds of trees, green slopes landscaping lawns in a combination with the bright rectangular lawns located on a main esplanade and near monuments are skilfully combined.

The Quay is major functional element and powerful tool of urban development with the river space that gives a unique originality and expressiveness to an architectural image of a city.

The centre Quay leads the Heroes Alley conducts, which divides the Lenin Avenue in two parts, the each of which has its character and heroic sense. This is the scenario of a formation of recreational spaces of the central part of Volgograd. Since here a clearly expressed system of axis has been created. There is good the reviewed of streets and squares of centre. The greater a choice of recreational activity, the greater a social effect is many-sided development of the person, improvement of physical health, strengthening of a family and social communications, patriotic education etc. [4].

A creation of a pedestrian parkway in Lenin Avenue connects important composite elements of the centre: Lenin Square; student zone which is located between the Pedagogical and Technical universities; square opposite to Gorky Library; Heroes Alley; administrative zone; poetic zone with monument to Margarita Agashina and monument in honour of the 400th anniversary of a city. The pedestrian road is solved in the form of a park avenue with benches for rest. From here the adjacent green areas is visually perceived, perspectives for the interesting parts of the building open. To protect pedestrians from the sun during the hot time trees with high trunk that doesn’t interfere with the view, planted. Placed along the avenue groups

of trees and bushes and rectangular flower beds, with changing colour, depending on a functional zone, give the avenue the necessary picturesqueness and individuality. However a pedestrian road along the building is planted by elms with the transparent crown which do not give a necessary shade, so desired in the second half of a summer day, that leads to an overheat both the facades of buildings and asphalt covering. To decide the problem of a thermal discomfort, optimization of the air atoin building with the green plantings with spreading and dense crown can help. The same drawback is inherent to almost all communications of the city, so, tools of reorganization of green zone of large linear city the projects of a lay-out, which mean a rationalized use of the recreational space, are become. It is necessary to pay a special attention to changes of a dendrology structure and organization of a solid line of multitiered landing along runway and transport. Planting system, being one of the most considerable functional-spatial systems of a city, in many respects defines the quality of the city environment.

As a whole, in the main streets of Volgograd (width from 40 m and more) the planting on average occupies 10…18 % from the general width at the recommended 25 %. On narrow steets (width 40 m) a relative density of plantings is equal to 15 % (20 % recommended), in streets with the parkways a relative density of plantings reaches 25 % (48 % recommended), on quays of 42 %. It is necessary to raise plantings in streets to 7.5…9 m² on the inhabitant. It will make in the sum nearby 780.0…900.0 hectare of plantings for general using in streets and parkways. Now this indicator changes in regions from 4.0…5.0 m² on the inhabitant.

The area of recreational territories of Volgograd is 1292.82 hectares, that is, necessary on the average 10.8 m² for a person, whereas the standard indicator averages 25 m² on the person. It is already known that green plantings improve a microclimate and contribute to recovery of the city environment, they change a thermal behavior, humidify, clear the air, enrich it with oxygen, protect from a solar radiation, winds, city noise, absorb harmful gases and kill pathogenic microorganisms; green planting, volalite production and ability to ionize the air and thus they influence the human psyche and body.

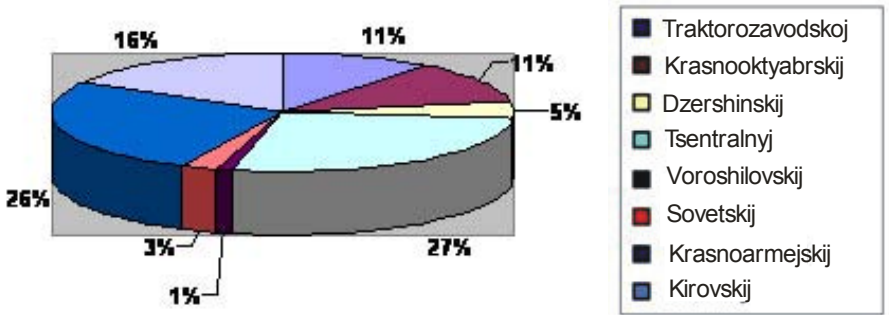
At present, the discrepancy of the area of existing recreational territories concerning existing standard indicators in Volgograd is revealed, where the norms of gardening are below standard indicators in 2…5 times.

Nature protection and a rational use of natural resources including land resources, creating cost-effective in the construction and operation, building of cities, convenient for a person life leads to the necessity of an intensive use of the earth for needs of the town-planning which should not lead to the reduction of general sizes of the open and green spaces. Now there are 12389 hectares of the planted territories, among them 1292,82 hectares of plantings of the general use, including 852,0 hectares — of the territories, which have been planted before 1965 have been planted. [5] About 80 % there occupy the territories with old-growth plantations with pronounced drying processes. In 70 % of cases existing territories for rest are in a bad, not well-groomed condition, their placing in the city occurs non-uniformly: by radial principle from the Volga through administrative centre. The middle age of trees and bushes vegetation is about forty years with the expressed process of moisture evaporation 70 %.

A doubtless minus of city gardening is a non-uniformity of the distribution of green plantings along the city territory which is presented in the table.

Providing with green plantings of the general using in the city districts

District	Standard providing sq. m./people	Fact providing sq. m./people	Area of planting of general use, hectare
1. Tsentralnyj	25	27,9	370,0
2. Voroshilovskij	25	4,9	54,4
3. Sovietskij	25	4,0	76,0
4. Dzerzhinskij	25	6,0	200,1
5. Traktorozavodskoj	25	7,8	110,42
6. Krasnooktjabrskij	25	11,4	172,5
7. Kirovskij	25	12,2	113,5
8. Krasnoarmejskij	25	12,2	195,9
Total in the city:		10,8	1292,82



Distribution of orchards and park areas on the city

As it is seen from the presented data, the formation of large sites of planting is not equally in districts. The inhabitants of Dzerzhinskij, Sovskij, Voroshilovskij districts are almost deprived of resting places in the recreational zones.

At the present moment there is a consolidation of a city housing estate which has both positive and negative moments. The positive moment consists in the fact that if we receive additional dwelling instead of waste grounds and cloughs, thus, we solve a social and economic problem. The negative moment consists in the fact that if we condense the building by a liquidation of intradomestic spaces, thus, we worsen such standards as distances between buildings, solar illumination, gardening, resting places. On the other hand, a natural inspection of inhabited microdistricts shows that in places where there is a big distance, between the buildings appear waste grounds. One of the reasons of transformation of territory of microdistricts in waste grounds is failure to work on landscaping and planting. Thus, the desire to improve living conditions in a heat by increasing in projects the specific sizes of public green zones does not lead to desirable results. Waste grounds become a source of a dust and additional heat gain. The central part of microdistricts intended for zones of general using, turns into a “dead” unvisited area in summer [6].

The microclimate of a territory trees and shrubs is similar in the characteristics with the microclimate of city park. The research of the microclimate of an environment in a modern many-storeyed housing estate is possible while the applying of well-founded receptions of redevelopment and territory planting, i.e. with a

complete elimination of sites of an open ground which are possible sources of dust. The high culture of an accomplishment the territories demands a ground covering with grassy, cover or little thermal heat capacity and hygienic materials. Thus, a correct and uniform planting of territory is very important, because it does not detain a stream of air, protect from the sun walking paths and places of day care of people.

The social interrogation has shown that out of 133 respondents (inhabitants of an group at the age from 14 till 80 years) 34 % first of all would like to have sports grounds in the counts, planting — 48, parking — 12, illumination — 23, roadways — 16 %.

Apparently, the most number of respondents of inhabited groups is inclined to consider that planting is a priority, then follow sports and illumination, but, the accomplishment of all these components in a complex should become a priority.

Microdistrict territories with trees and shrubs should meet various inquiries of the population. In this connection, the planting of inhabited microdistricts will change not only on a functional structure, but also on a character.

While arranging the realization of national projects "Accessible and comfortable habitation" and "Health" the task is to maintain inhabitants with a comfortable and healthy habitation. However, the concept of the comfort of habitation includes not only an engineering accomplishment, i.e. purely utilitarian problems, but also a safe placing of the house, a presence of the adjoining territories with surrounding green areas. The intradomestic space is should be organized so as to optimize vital functions of living were detected in surrounding people's homes.

Planting and formation of a city landscape should be considered not as a single action, but as a daily, laborious work including the primary organization of green territories, care and maintenance, together with the development and reconstruction in time. Only under these conditions we can receive interesting and original decisions corresponding a functional purpose and enriching architectural shape and tint of city. Therefore, already today it is necessary to solve problems of not only the performance of all complex of works connected with a current building, but also with planting reconstruction in places of building last years. And this feature of the present stage should be considered at the planning of design, civil works and scientific researches.

It is necessary to note a decrease in the level of the formation of a design of landscape territories in the arrangement of Volgograd and other cities of the region, along with successes on the introduction of an ecology-landscape approach at the reorganization of the broken city territories. The lack of finance, absence of the irrigation city waterpipe, insufficient care of vegetation — all this has resulted sharp deterioration of the recreational territories. Therefore, it is necessary to take measures on improvement of ecology of the city environment:

reconstruction of existed objects of landscape architecture — Central park of culture and rest, City park, Gagarin park, etc.;

creation of such a city park which would become a "face" and a pride of citizens;

allocation of small platforms for search projects of landscape design with an unusual stylistics, the settled and new images, signs (such as an experimental garden at the Pedagogical university);

formation of the Volgograd school of landscape art as a direction based on the use of local vegetative forms.

Harmonious development of all elements of green zones of the city is impossible without an accurately developed system of scheduling on planting. It is necessary to draw attention of all city organisations, establishments, the enterprises, all population and to direct their efforts to the decision of this important problem. Because today not everybody understands well great social, hygienic and aesthetic value of green plantings in the formation of a city landscape, in transformation and improvement of the city environment.

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