

The art of creating the landscape and green architecture of a million city for the harmonious development of personality

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Abstract. Active modern construction in cities with millions of inhabitants, such as Rostov-on-Don, requires strict compliance with construction standards to ensure the safety of all aspects of urban space formation in compliance with the needs of the population and to harmonise the urban architectural and landscape environment along with the existing natural landscape. This process should be carried out within the framework of ecology, videoecology, and an artificial environment created by human hands, harmonising the formation and development of a inhabitants' personality. Includes a historical cross-section of the urban environment, that is, the preservation of historic buildings since the city's foundation. They are not only the history and pride of our native land, but also the basis of civic and patriotic education. Separate districts of the city and suburbs have historically formed in the commonwealth of two peoples, Russian and Armenian, who have lived in friendship and harmony all this time. Rostov is the gateway to the Caucasus. With the development of construction, the urban population is increasingly replenished with the migration of new people from the south of the country. At least a video-ecological comfortable environment that does not irritate a person is of great significance. Every visitor, if he has decided to become a resident of our city, should also feel comfort and tranquility in terms of his social security. A significant role in this is played by the videoecological psychophysiological environment of the city. Beautiful green architecture and a beautiful landscape with trees and bushes, colourful flower beds that not only please the eye, but also form a modern harmonious living space of the city, which is especially important in a digital society.

1 Introduction

Modern high-rise buildings with their deviations from the criteria for a comfortable urban environment require special control from the regional administration. Landscape and green architecture play a significant role, if not leading to the perception of the city by an ever-increasing population. Reduced green spaces require a fairly large number of additional green landscape areas. We all perfectly understand that man appeared in nature more than a million years ago. Natural landscapes are a natural comfortable environment for his physiology and

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mental development. Urbanization brought people to the cities. The construction of high-rise buildings, which in Moscow are already at least unpopular, as well as abroad, deprives people of natural harmonious living conditions. In case of non-compliance with the requirements of video ecology for the landscape and architectural space of the city, the conditions of human existence are violated and leads to irreversible consequences of the negative impact, both on individuals and in general on residents of the city. Visible aggressive fields of the social environment consist of a large number of homogeneous elements so actively used in modern construction: tiles, windows, lattices, cages, mesh structures, glossy surfaces, etc., without decoration. "In urban conditions, often one aggressive field is imposed on another, for example, a wall of a house with hinged rusts behind metal bars. In an aggressive and homogeneous environment, fundamental mechanisms of vision cannot fully work. For the brain, this is a huge tension: it goes through thousands of options and cannot stop at anything. The result of the impact of such a field on a person is discomfort, unpleasant sensations, even nausea." [1] In a homogeneous and aggressive space, which is enough in modern urban buildings, a person feels at least uncomfortable. Crime may increase, public health may deteriorate.

In addition to this problem of the city, there are others related to the minimization of the green zone and digital technologies, as well as equipment that negatively affects the health of people and not only. Ecological world cataclysms and changing weather conditions, which differ from the climatic conditions of the last century in our region, make us pay attention to the innovative circumstances of the formation of the urban and rural environment of the 21st century - the digital age. To understand how to solve this problem, it is necessary to determine the impact of all aspects of digital society on the environment of living and becoming a person of any age, especially the younger generation, which does not yet have existing socio-cultural attitudes. The virtual environment on the Internet and the entire digital environment of a city or rural area requires a special attitude towards it in terms of the risks of negative impact on people. And not only from the possible influence on the actions or in general the formation of a person. Scientists of the country are concerned about this in various areas and areas of activity. The Russian Society of Sociologists conducts a survey of young people throughout the country. Students of universities in the country are invited to participate. The questionnaire spells out multi-level risks: from negative impact on a person to social, dangerous for the whole society. The 21st century is a time of new technologies and you need to know exactly what can be used for the development of society, and where special control is needed for every person, society as a whole and human rights organizations within the framework of new legislation related in this case to the human environment. The questionnaire spells out the risks of such content that have an individual impact "The growth of total control over a person using digital technologies... Re-engineering the biological nature of man, editing genes, creating hybrid species of living things... Introduction of nanodevices into the human body to control/correct human health...." The impact at the level of social risks is "the transition of control over the life of society to artificial intelligence systems... The rise of total human control through digital technology." (ROS study, 2023) These guidelines, voiced by the scientists of Russia, require a thorough verification of the conditions of security and future prospects for the development of society. This is one of the sides of social innovations that cannot be avoided. It is necessary to work on their prevention and prospects for society in a digital society. Russia has a law adopted in 2016 in the Rosstandart system and created the Technical Committee for Standardization TK 366 "Green" technologies of the living environment and "green innovative products"... "On the basis of the Federal State Budgetary Educational Institution of Higher Education." [2]

For the environment and the problems that we voiced in the topic of research, the aspect of comfortable living of mankind in a digital society considered by us occupies one of the main places. We consider a harmonizing environment, often visited by young people, which

can be called practically a work of art created by the work of many people, these are public objects:

- Landscaping of the hall - "Winter Garden" Don State Public Library (DGPB).
- Summer terrace on the fourth floor of the League of Nations business center.
- The building of the regional administration of Rostov-on-Don.

2 Materials and methods

The beginning of the 21st century is associated with many problems of humanity, which usually accompany the transitional periods of society. The time of the technological revolution and the formation of a digital society, in addition to such a global problem as a pandemic, even actualised the emerging technologies that have become necessary. On the other hand, the isolation of people, especially in an urban environment, clearly demonstrated the psychophysiological connection of man with nature. The issue of ecology in the urban environment has become more acute, especially with the increasing number of passenger cars. Eleven-year research of the scientist biologist, Doctor of Sciences V.V. Privalenko showed that the ecological situation in places of large transport interchanges becomes dangerous to human health. He developed a map of the "Ecological comfort of living on the territory of Rostov" based on soil studies in certain areas of different districts of the city. On the map, in different colours: from red, orange, yellow to green, the system of contamination of the territories of Rostov-on-Don is shown, where red - the colour of danger to human life - is located precisely in places of large congestion of transport, these include the territories of railway stations, central city routes. In addition, the danger is associated with the presence of companies in cities. Fortunately, they were brought to the right bank of the Don. Large parts of the urban area are coloured yellow. They are considered uncomfortable, but suitable for life. The green environment (parks, forest parks, zoo, botanical garden, private households with the presence of green spaces) is considered comfortable and suitable for the life of the population. The author indicates either dangerous or uncomfortable zones ("yellow") in the Don capital as a whole. [3]

Modern scientists suggest that in the conditions of the ecological crisis, architecture acquires directions of a more comfortable nature. "Today, under the conditions of the ecological crisis, modern architecture is following the path of stable formation of the concept associated with its consistency with the landscape, its new understanding - "green architecture". This takes into account the links with the artificial, anthropogenic, and man-made environment and their connection with nature and man. These authors have developed "compositional methods of synergy of the structure of the building with the natural environment" based on the licence of Springer Nature Switzerland AG. They suggest using them in the "planning and construction of landscape architecture objects". [4]

Chinese scientists have been researching modern construction and adjacent territories for a long time. They believe that the most relevant urban and rural environment should have an abundance of landscape zones and cultural objects of an ethnic nature. In urban housing design, green construction with landscape design should be used primarily, for example, "plants in the open air in modern architecture". [5]

A slightly different version of greening the urban environment is supposed to use green exhibitions in architecture. That is, the presence of green areas in modern construction as exhibitions of urban gardens to improve the landscape and active landscaping of the urban area. Especially suitable for landscaping urban areas, industrial areas, and new suburban areas. [6]

As part of the use of digital technologies in the development of landscape architecture objects and taking into account the application of environmental justification for the design of objects based on landscape engineering, Chinese scientists are developing electronic

projects for the urban environment. They take into account not only the preservation of the climate in the urban environment but also the quality of soil and water is checked. [7] What was developed by Russian scientists is widely used. We can draw a small conclusion that scientists around the world are busy solving the problem of environmental safety of the people of the world.

In Russia, there is a set of rules that apply to urbanistics, planning, and construction of urban and rural settlements and require responsible implementation. [8]

It is noteworthy to review the risks in the landscape environment of cities and villages associated with the use of digital equipment due to the aggravation of environmental problems, as well as the interest of Russian sociologists in the issue of the impact of the digital environment and artificial intelligence (AI) on the younger generation.

Understanding the natural environment within the framework of environmentalism methodology, specifically in the video ecology of artificial real and virtual environments, reveals grounds for understanding the presence of significant social risks and threats. Some manifest themselves in unprofessional actions of antisocial orientation and violation of the requirements for construction and its video ecology. Others are based on the attitude toward the preservation of the historical architecture of the city. Still, others seem to be the problem of preserving the video-ecological part of the old city with a residential private sector, in which the green zone of the city is present and protects residents from accumulations of carbon compounds.

Using the example of the city of military glory of Rostov-on-Don, we will consider these circumstances. Rostov-on-Don was founded by the decree of Empress Elizabeth Petrovna on December 15, 1749. The visualisation of the history of the city in historical objects deserves attention - the oldest of them in 2024 could be only 275 years old. The role of green architecture and landscape with many plants increases with each new building, with each demolition of historical buildings that are comfortable for people to perceive and the appearance of new aggressive and homogeneous buildings.

Brown and even almost black bricks are increasingly being used in new buildings. Builders order dark colours for the bricks from experts, which will be used in building materials and new construction sites. Such buildings create aggressive colour fields that harm the human psyche, especially the younger generation.

All the beautiful, historically developed videoecological, wholesome for human psychophysiology, and significant for the patriotic and civic education of the younger generation, causing respect and admiration for our city among visitors, should be restored. For example, the presence of active construction of high-rise residential buildings in the historical centre of the city.

3 Results

We have already considered the preferences of scientists from different countries, possible options and aspects of creating a green architecture and landscape. All authors consider it important to comply with environmental requirements in urban planning, by introducing necessarily green zones into urban space, both on the buildings and interiors themselves, and expanding landscape objects, along with preserving existing natural ones. We selected three objects in the city of Rostov-on-Don, which interested us in connection with the declared topic.



Fig. 1. "Winter Garden" Don State Public Library of Rostov-on-Don

Figure 1. The "Winter Garden" in the Public Library of Rostov-on-Don is part of a unique association of its kind: architecture, its interior of a public building, representing a cultural center filled with literary sources: scientific, materials of local history, with art exhibitions and events. The history of the library itself began long before the appearance of this unique object. The relocation of the old scientific library of the city of Rostov-on-Don to a new building, which we describe, took place in 1994 from the building of the scientific library named after K. Marx, located on the street. Serafimovich The winter garden is a very beautiful object, harmonious, uniting three floors of the inner space of the Public Library of the city of Rostov-on-Don, pleasing with a combination of coolness from fountains and pools, the configuration of planting working recreation areas in combination with greens and flowers of beautiful plants. The center of the Winter Garden of the Public Library is an art object - an original work of art, symbolizing the movement of mankind and scientific thought in the form of a wheel of historical progress. The art object is a diagonally rotating composition in a circle - a globe in the middle of the wheel. Figures of people - women and men, founders of various world sciences rely on the globe. The library was also dedicated at its opening. The icon is located on the wall of the second floor of the Winter Garden. The conservatory covers three floors. Its main zone is the 1st floor zone: sofas, chairs, benches with tables form workplaces for library readers. They are organized around the perimeter of the green zone and fit perfectly into the general composition. Furniture, floor, swimming pools look like a single basis of the garden composition, combined with the architecture of the levels of the internal space of the library not only with simple shapes: rectangles and squares that emphasize the shape of the hall and green area. The built-in furniture is located as separate compositions: a central group of wooden furniture under an art object on a pedestal covered with plant greens. All other objects and groups of the work area are located parallel to the walls and geometrically emphasizing the shape of the hall. Materials for finishing walls, floors and furniture were chosen from marble stone slabs. The gray color of slabs with a small pattern was used for furniture and central inserts into walls in the form of vertical panels. Cream and pink shades interspersed with gray slabs were laid on the floor, creating additional zoning of the Winter Garden area. Several fountains and water bodies create a great atmosphere for recreation and work. It also hosts meetings with actors and concerts of opera singers. The Biblio Night event attracts jazz lovers. The microclimate created by the efforts of excellent specialists creates favorable conditions for tropical plants growing in the Winter Garden. I would like to pay special attention to the garden itself, consisting of plants that perfectly combine with architecture and with each other, not only the shape, foliage configuration, color and flowers. The list of green spaces with multi-

colored leaves and their various configurations pleases the look, palm trees, asparagus, ficus, monster, lemon and orange tree flowering Chinese rose with an abundance of buds, symbolizing a new flowering nature. Heterogeneous samples of tropical nature are planted here. A striking representative is the sheffler, thanks to its foliage, it has gained great popularity, while it is easy to look after it. The original royal flower, a favorite of artists, also grows here. Some plants repeat the shape of water movement in fountains. Creating an additional combination of forms from different elements and materials. The combination of plants in vases and zoned flower beds, compositions with water and objects made of stone creates a peaceful feeling from such a wonderful recreation area in a scientific space filled with technology, printed publications, works of art, since art exhibitions are constantly held here. In such an environment, you clearly will not want to stay idle on the Internet for a long time or dissolve in a virtual environment, when the real environment artificially created by the work of a person - people of different professions: architects, landscape designers, biologists, library workers, artists and other professions can be so beautiful. The library is visited not only by readers, but also by guests of the city and passing travelers who have several hours to get acquainted with the sights of Rostov-on-Don.



Fig. 2. Summer terrace on the fourth floor of the League of Nations business center

On Figure 2. The summer terrace on the fourth floor of the League of Nations business center presents level landscaping on the site of the building owned by the Pokrovsky concern. It attracts the attention of passers-by and visitors to the Pokrovsky Park. The site is an area between buildings of several dozen square meters at the level of the 4th floor. On it, along the edge of the site at the facade of the building and at the walls of adjacent buildings, there are zones with plants in the form of landscape groups. Where in the center of the composition one or more large trees: coniferous, deciduous and shrubs. They create a green frame of the level zone - a platform on which you can rest during breaks for employees of organizations located in these buildings. Events are held here: design training sessions, parties, concerts and others. From this object there is a wonderful view of the city park "Pokrovsky," in which the oldest church "Pokrovsky" of the city of Rostov-on-Don is located right in front of the building. Behind it you can see the musical theater, the pride of the city.



Fig. 3. Presents the building of the Government of the Rostov Region with the surrounding landscape.

"The building of the Government of the Rostov Region is located in the city of Rostov-on-Don, in the area of the Square of Soviets. The eight-story building was built in the late 1950s according to the project of Soviet architects V.I. Grigor and E.E. Grigor. The initial project, developed after the end of World War II, provided for the construction of a neoclassical building, similar in style to the building of the State Bank located nearby at the beginning of the 20th century. According to the project, the building was supposed to be decorated with tiered pilasters, ornamental friezes and powerful cornices, however, according to the decree "On eliminating excesses in design and construction," the project had to be simplified. Nevertheless, even despite numerous simplifications, the monumental building of the regional administration is a worthy and vivid example of a regional-level government building. In 1972, the administration was installed, the author of which was the famous." [9]

The square located in front of the administrative building in the form of a rectangle, divided symmetrically into five parts with a central zone where the famous monument "Monument to the First Windows" by sculptor V. Vuchetich is located, attracts the attention of nonresident visiting residents of the city. The main character of which is located on a horse - the prototype of Marshal Budyonny S.M. Trees are planted along the perimeter of the square - coniferous and deciduous, decorating the square, which is divided by horizontal lines parallel to the facade of the building and diagonals - lines of exit to the streets, intersections of B. Sadovaya, Socialist streets, Voroshilovsky Avenue and per. Sokolova. On the left side of the square is the historical building of the State Bank of Rostov-on-Don, built in 1914 in the neoclassical style according to the project of architect M. M. Peretyatkovich. "The building of the state bank was built in 1915 in the neoclassical style. It is decorated with majestic columns and sculptural compositions - a two-headed eagle and figures of Roman gods on the sides of it. Initially, the facade of the building was supposed to face the main street of the city, but in this case many houses would have to be demolished. Thus, it was decided to deploy the building "facing" the avenue. At the moment it has the status of an object of cultural heritage of regional significance." [10] On the right is a historical building that changes its appearance and status. On the ground floor there is an art gallery - "Victory Gallery" by Vladimir Ilyich Nekrasov." All this, historically developed in different years, the architectural environment has its own architectural, construction and artistic history, which implies interest in getting acquainted with the culture of the city or local history. The described buildings and the entire green environment are environmentally friendly. Visitors to the park or passers-by get positive emotions and a positive mood from such a historical architectural environment. The green area of the square with flowers on the flower beds, in spring it is decorated with flowering tulips, in summer a multi-colored rose garden pleases the eyes with a variety of trees and flower beds. At different times of the year, the color

scheme of the square is painted in different ways, acquires shades, respectively, of the time of year. Comfortable benches, beautiful vases, tiles on the ground, stone tiles in the fence of green areas create harmony in the combination of the materials used. The sculptural composition "Sleeping Lions" in front of the State Bank building is popular and loved by visitors.

Table 1. Assessment of perception of urban architecture objects and their equipment with a landscape zone

Denomination	Architecture (meeting the criteria of video ecology)	Materials, surfaces	Territory dimensions	Landscape	Green spaces, objects	Visual acceptability	Assessment
Building of the Government of the Rostov Region	Pre-war period in the style of constructivism, after the war in the spirit of Soviet neoclassicism	Stone	City quarter B. Sadovaya/Sokolova/Socialist/Voroshilovskiy	Square	Green spaces, lawns, flower beds	5+	5+
Summer terrace on the fourth floor of the «League of Nations» business center	Modern developments	Steel structure, glass, slabs	"League of Nations," site	Green areas	Green spaces, lawns, flower beds, furniture	5+	5+
"Winter Garden" Don State Public Library	Modern developments	Steel structure, glass, slabs	3 floors	Green areas	Green spaces, lawns, flower beds, fountain, reservoir	5+	5+

The table shows the objects of the city we selected for a comfortable green zone, video ecological architecture of the building and a green zone: "Winter Garden," Don State Public Library of Rostov-on-Don, Government of Rostov Region of Rostov-on-Don, Summer terrace on the fourth floor of the League of Nations business center with the name of materials of architectural structures, texture of construction and facing surfaces, filling of territories with landscape zones for analysis of factor video ecology of human perception of existing landscape-architectural forms of each selected object of the city. Analysis of video ecology is carried out in two right-hand columns: 1 - visual perception for compliance with theoretical analysis on video ecology of architectural and landscape objects; 2 - assessment of independent examination of students and citizens. The requirements for video ecology coincide with the assessment of independent experts.

4 Discussion

We studied the green architecture of the city, landscapes, the green zone of the city center, interior landscaping of public cultural buildings. All these objects are beautiful and pleasing to the eye from different points of view. Their condition is fine, but the situation around such "light cities" is still quite complicated, there are not enough such video ecological objects in a multinational city.

In Rostov and the region "there is a municipal program" Prevention of terrorism and extremism, harmonization of interethnic relations, "which is very important in the context of the SVO. It is aimed at maintaining stable interethnic relations, interaction with national-cultural, religious, Cossack associations and the prevention of extremist activities. This year 1.3 million rubles were allocated from the city budget for the implementation of the program." About 150 nationalities live in Rostov, while there are 20 national-cultural associations. [11]

Doctors conducted studies of the effect of an aggressive visual environment on human performance. Tests were carried out in the presence of aggressive fields: to detect performance - a decrease of 26%; for irritability - 15% passed the test, in the absence - 45%; on the color and shape of objects "83 y. unit was defined for a black lattice paper stand. For a dark striped grille of a heating device, the aggressiveness factor is 71 y. unit, for a blank of a document with a bold black discoloration, this index was 45 y. units. The results of the initial stage of the experiment made it possible to formulate the following conclusions: exposure to an aggressive visual environment causes a person to reduce the time of clear vision; increased number of errors, absent-mindedness, fatigue, fatigue; irritability and aggressiveness, which affects the effectiveness of the work performed." [12] Based on the theory of Filin V.A. and the medical research carried out, we can conclude that urban buildings of the last years of the 21st century, containing aggressive and homogeneous fields, introduce a negative video perception into the urban environment. Its presence in the city requires more landscape filling, protecting residents moving along these homes from this impact on the lower floors - the level of human review. Planting trees, shrubs and flower beds will remove the destructive effects of this development. With such developments, it is necessary to break down squares and parks in order to also reduce the presence of carbon compounds in the areas of the city.

Every year there is less and less historical buildings of private and urban buildings, on which there were beautiful gates, carved, forged grilles. Which carried in their appearance the artistic meaning, the historical and stylistic basis of the construction, the type and processing of materials used at that time or in post-war reconstruction. All these unique objects, created by the hands of creative people, carry heat into the souls of residents, fill the pride and happiness of possessing historical rarities of local residents. It remains to ask us questions that we are now creating a unique, significant and important for history in order to be preserved by descendants. The environmental problems of the spring-summer period made us think again about the causes and consequences of natural disasters. How we protect by our work and actions on the hometown and its population from negative actions or illegal. What impact of all risk situations described in the article will subsequently affect the appearance of the city. How can a person be protected from an aggressive environment, from video environmental problems of construction activities from other risks of the digital environment. How to shape the personality of a developing young generation. this is a big and now difficult task, in the solution of which they can contribute to art, it helps a person to recover at any age. There is an art therapy technology, where with the help of art classes any person is restored, a creative personality is formed. It is desirable that this problem be less. It is better to create conditions for comfortable living of people in urban and rural environments.

The task of architects, builders, designers to create their objects with green architecture and landscape with a guide to the positive impact of its results in relation to residents and the younger generation. [13] Students go to the open air, admiring the appearance of the existing artifacts of the city, old courtyards, greenery of fruit trees, houses with ladders in the courtyards on the second, third floors, covered with greenery of weaving plants. [14]

The temples of the city, surrounded by a green area of trees, shrubs and beautiful flower beds, are impressive. The historical center pleases with historical objects, low-rise buildings

and the landscape for comfortable perception and creation of creative artistic compositions. [15].

5 Conclusions

We studied the materials on the stated topic and conducted a study of the presence of interesting objects in the landscape environment and the green architecture of the city. We checked the existing risks of the urban environment in ecology and the problematic aspects of video ecology. The national emphasis in the city is mainly placed on the objects of religious buildings and is manifested on the days of national holidays of different peoples. At this time, you can observe the ethnic clothing of the nationalities celebrating. Some nationalities wear their ethnic costume in everyday clothes. In terms of peaceful living in a multinational city, the government's programme is working successfully.

Regarding the preservation of the historic centre of Rostov-on-Don, the intervention of the federal authorities may be required for the reconstruction and restoration of old funds and the preservation of historical monuments. An important thing in preserving the face of the city is the preservation of the private sector, both in the city centre and in other areas. With a comfortable stay in a beautiful green city, the creative development of young people will be successful. The fewer negative influences and risks of aggressive effects on people of harmful fields - visual or digital - the healthier and more creatively active the residents are. All the more opportunities for Rostov-on-Don to become a garden city again or an advanced city as the capital of the Southern Federal District and the gateway to the Caucasus. [16]

Students of art specialities, designers, and architects participate in competitions and exhibitions organised by the Russian Academy of Arts. [17] We are waiting for the appearance of new objects created by the creativity of designers, architects, sculptors, and other specialities, beautiful works of art and professionalism that can decorate our city and delight its residents.

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