

CONDITION AND PROSPECTS OF PARKS CENTRAL PART OF THE CITY

Abstract. The necessity of consideration of the central part of Kyiv parks as a single complex. First formulated the problem of further development as optimization problems in the context of a comprehensive software features yet . The method of expert assessment of the state parks on the basis of a systematic approach. The results of a study of parks. The technique of identifying promising style based on multiobjective selection of the main character, which is to emphasize the connection with the city parks . We describe the use of character variants in the design model and design elements Copyright parks are the options for their placement. Suggestions for landscaping parks , planning paths, placing them into relief. An applied dynamic installation of some items. Shows the project proposals that implement recommendations for the development of parks. The technique of evaluating expected.

Keywords: Parks central part of Kyiv , state , style , development of parks.

Statement of the problem . Dnieper slopes and parks are located in the beginning of the Botanical Garden named after M. Grisha and ending landscaped avenue , is an important factor that creates an image of Kyiv . In recent years, around them is quite alarming situation: on the one hand , there are projects Dnieper embankment construction or conversion of parks to tourist area , which fundamentally changes the silhouette of city parks features and requires considerable expenses on the other - there is even a lack of funds to maintain parks in good state (Fig. 1). The situation is aggravated by the fact that because of the proximity to government offices, parks became the scene of many of the protesters share with predictable negative consequences. The threat of losing this charming part of the city is very real. In these circumstances, «traditionalist» proposals for the preservation and strengthening ties with the city and improving existing features and qualities of the parks are important..

Analysis of the problem. Any serious discussion about the future of parks should start with a scientific analysis of the current state x and identify real

problems. The authors proposed evaluation methodology Park [1], based on the theory of self-organization of complex systems [2], and also the work of assessment [3]. Some suggestions for the development of parks have been published in [4]. This work was continued, and it is time to publish all components, adding their new results and proposals.

Forming the purposes of Article . The aim is to describe the methods of evaluation state parks, the identification of weaknesses , study and presentation of proposals for their elimination , improved relations with the city park , expanding their functionality and methods of evaluating the expected result.

The main part. The benchmarking parks. The indicator system should determine how conducive environment parks psychological and physiological comfort, be versatile and flexible enough to be adjusted to the needs of certain groups of people - that include reasonable objective indicators , subjective process of determining objective processing algorithm and interpretation of results .



a)



б)



B)

Figure. 1. Current state park in the center of Kyiv: a) the Mariinsky Palace, B). entrance to landscape alley c) the protesters in front of the Cabinet

The system is based on the theory of self-organization of complex systems [2,3] , which allows to determine the limits of human physiological parameters change , highlighting comfort zone , fatigue, disease, and therefore , to assess the

possibility of recovery park environment. The result is a formalized assessment for " comfort formula " [3]. The technique consists of a table of indicators, assessment procedures , the algorithm processing and presentation of results , interpretation of results.

The following options are to use a table of indicators:

A. Determination of the score for " comfort formula ", which is convenient to give the following form :

$$E = 1 * 0.62 * O1 + 0.24 * O2 + 0.38 * O3 + 0.14 * O4 + 0.06 * O5$$

where E - the total score , O1 - O5 - to assess level. This assessment is used to determine the recreational value of the park ;

B. Evaluation of each of the levels. This allows you to determine the " weaknesses " of the park and decide on the construction or conversion ;

B. Evaluation of individual indicators that allows you to see " weaknesses " concrete solutions that can be the basis for low-cost modifications park. Consider using the following scale scores for individual indicators : 5 - excellent, no flaws , 4 - good, minor flaws , 3 - satisfactory, the shortcomings can accommodate 2 - bad, flaws be corrected , 1 - very bad , it is necessary to radically improve decision; 0 - parameter was not taken into account when designing the necessary decisions for which he would be involved .

These estimates are subject to standard statistical analysis . Results conveniently presented in graphical form , eg, as shown in Fig. 2 , comparing the actual evaluation of the theoretical maximum .

The results of the evaluation. National Botanic Garden of M.M.Hryshka : $1 * 4.1 + 0.62 * 4.2 + 0.38 * 4.7 + 0.24 * 4.9 + 0.14 * 4.75 = 10.34$ of theoretically possible 11.9 .

$$\text{Landscape Park: } 1 * 0.62 + 4 * 4 * 4 + 0.38 + 0.24 * 4.2 + 0.14 * 4 = 9.57 .$$

Park of Eternal Glory : $1 * 3 + 0.62 * 2.5 + 0.38 * 4.1 + 0.24 * 3.5 + 0.14 * 4 = 7.51 .$

Parks Askold's Grave , Mariinsky , City and Groin : $1 * 5 * 4.5 + 0.62 + 0.38 + 0.24 * 5 * 5 + 0.14 * 3.75 = 11.37 .$

Of all the parks, green areas , this complex has received the highest rating , indicating that there is no need of extensive renovation .

$$\text{Vladimir Hill} : 1 * 5 + 0.62 * 4.5 + 0.38 * 4 + 0.24 * 3.5 + 0.14 * 4 = 10.60 .$$

Consider, for example, more landscaped walkway . Conceived as a one time inspection for historic district , now it has become a playground for the first Ukrainian park of modern sculpture and installations, parking , children's recreation area .

Rates: Level 1 - 4 (negative for an uncertain input) Level 2 - 4.5 (inconsistent sculpture is not enough space for a review), level 3 - 4 (no toilets and eating areas) Level 4 - 4.9 (not vidremontovanist buildings cluttered space) level 5.6 - 4.75 .

$$\text{Overall Rating} : 1 * 4 + 0.62 * 4.5 + 0.38 * 4 + 0.24 * 4.9 + 0.14 * 4.75 = 10.2$$

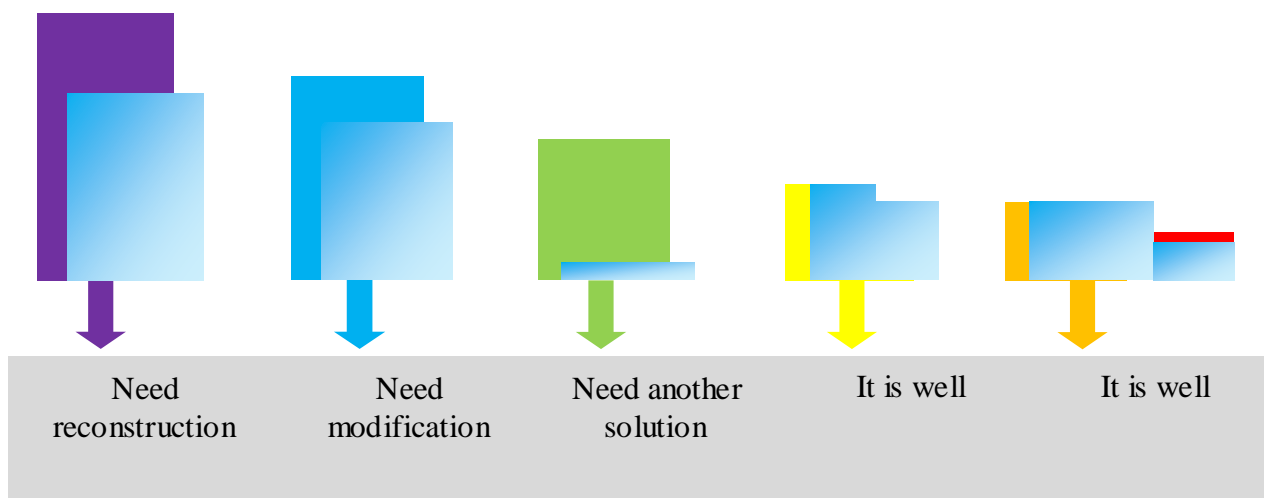


Figure. 2. Presentation of results and recommendations

Thus, the main idea of the future development Peizazhnaya Alley is returning its role as an overview , but preserving features contemporary sculpture park (which correlates with located near St. Andrew's Descent - a place Kiev artists) and children's area. For this purpose :

1. Continue walkway around the perimeter of the upper terrace Starokyivskaya and Castle Mountain (with the ordering of the old monastic cemetery at last) and reconstruction of access to the St. Andrew's Descent .

2. Get below the hill two parallel avenues that you can use as a children's park and placing of contemporary sculpture .

3. Renovate the existing slope to historical tracts Potter and tanners build several such runs .

4. Making duly incoming group ends alley.

5. Place Dining , toilets, benches.

6. Prohibit construction in the vicinity of the alley and entering vehicles.

Search stylistic decision parks. Requirements for decisions and their correlation weights are given in Table. 1.

Table 1.

Performance evaluation

Levels	Channels of interaction with the environment	psycho	Requirements	The weights
1	intuition	A balanced personality; viewer	Contact Kyiv popularity	1
2	ego	egoist	Unity Park, awareness, expressiveness	0,618
3	will / prudence	fighter	variation of application	0,38
4	mind	enterprising researcher	Ordering the use of space-time	0,24
5-6	organs of sensation	bohemian personality	A variety of colors, flavors, textures, creating acoustic comfort, protection from sunlight, drafts, etc	0,14

Consistently considered possible ideas design concept by checking whether they satisfy given in Table. 1 requirements with regard to their weights. Elected and ones that receive the most appreciated. According to the first of requirements, based on stylistic decision has to be an element that is uniquely identified with Kyiv and is quite popular. Theoretically , this could be the emblem of Kyiv ,

images of historic areas , listed building and so on. Added to this is desirable in order to element was neutral with respect to political, religious or cultural preferences , as in parks - Recreational - do not place the characters can cause conflicts.

The analysis shows that as the main element of style can be selected " generic " chestnut - and as the emblem of the Soviet period , and how beautiful and distinct plant. To ensure variation application (symbol chosen to not become too intrusive) can be used not only offer letter chestnut , but the flower, fruit , and , finally, all the tree - or heraldic stylization. The presence of variability is a prerequisite for the orderly use - you can emphasize the individuality of each of the parks , choosing a particular image of chestnut in accordance with the basic function and image of the park. In addition, as the chestnut tree has some life cycles , among which we distinguish the daily and yearly , which expands the stylistic decision at the time. Chestnut has various means of influencing the sensory feelings (color , texture , etc.), planting trees can protect from drafts or excessive solar radiation corresponding to the last requirement.

Elements of stylistic solutions include common elements and facilities , products for individual projects. The former include : labeling , logos, individual parts , which played up chestnut leaf shape . They can be used in all the parks in tickets, flyers, brochures, marking paving slabs etc. . Second are the fences, benches, dorohovkazy , urns, swing for children. For each of the parks facilities should be the same , but may vary from park to park , changing shape, material and textures within the image of chestnut. Articles on individual projects include sculptures , fountains, entrance groups. Here are some examples of their use for landscape alley (Fig. 3). The arrow shows the slopes on terraces and connections to St. Andrew's Descent and hem , point - the location of the fountain, chevrons - entrances.



Figure 3. Reconstruction Peizazhnaya alley

The idea of cyclicity inherent in many cultures. The metaphor suggests the idea of chestnut dynamic installations. Morning, noon and night stylistic elements

look different . You can enhance this effect by using lights , harmonuyuchy musical works from fountains or streams of fireworks, associate city holidays to the annual cycle of chestnut. Rituals holidays can include fireworks , concerts , singing, playing melodies, perhaps specially designed ceremonies. These days you can coincide thematic tours , rewarding the best students and others.

Results evaluation design concept. Expert assessments painted by the group or single indicators. Further defined levels and indicators affected by the proposed innovations. Using computer simulations performed visualization. Visualizations and photos taken at the same scale and with the same angles, placed experts. The difference otsinkahdozvolyye assess the effect achieved . If negative or close to zero should find the best stylistic decisions .

Conclusions. The methods are described and the assessment of parks and grounds of promising style options designed items offered accommodations plants, sculptures and entrances. A dynamic application of stylistic elements. The method of assessment of the expected effect.

Prospects for further research. It is planned to develop a methodology for evaluating the impact of dynamic installations for certain psychological types and their possible implementation in home interior design.

Literature

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Анотація.

Ковальов Ю.М., Косаченко В.Ю., Шинкарчук І.В. Стан та перспективи розвитку парків центральній частині Києва. Обґрунтована необхідність розгляду парків центральної частини Києва як єдиного комплексу. Вперше сформульовано проблему їх подальшого розвитку як оптимізаційну задачу у контексті забезпечення усебічного комфорту відвідувачів. Описано методику експертного оцінювання стану парків на основі системного підходу. Наведено результати дослідження стану парків. Обґрунтовано методику визначення перспективного стилю, засновану на багатокритеріальному відборі основного символу, який має підкреслювати зв'язок парків з містом. Описані варіанти застосування символу при розробці типових і авторських елементів дизайну парків, наведено варіанти їх розміщення. Сформульовано пропозиції по озелененню парків, плануванню доріжок, розміщенню їх на рельєфі. Запропоновано застосовувати динамічні інсталяції окремих елементів. Наведено проектні пропозиції, які реалізують рекомендації по розвитку парків. Обґрунтовано методику оцінювання очікуваного.

Ключові слова: парки центральної частини Києва, стан, стиль, розвиток парків.

Аннотация

Ковалев Ю.Н., Косаченко В.Ю., Шинкарчук И.В. Состояние и перспективы развития парков центральной части Киева. Обоснована необходимость рассмотрения парков центральной части Киева как единого комплекса. Впервые сформулирована проблема их развития как оптимизационная задача в контексте обеспечения всестороннего комфорта посетителей. Описана методика экспертного оценивания состояния парков на основе системного подхода. Приведены результаты исследования состояния парков. Обоснована методика определения перспективного стиля, основанная на многокритериальном отборе основного символа, призванного подчеркнуть связь парков с городом. Описаны варианты использования символа при разработке типовых и авторских элементов дизайна парков, приведены варианты их размещения. Сформулированы предложения по озеленению парков, планировке дорожек, размещению их на рельефе. Предложено использовать динамические инсталляции отдельных элементов. Приведены проектные предложения, реализующие рекомендации по развитию парков. Обоснована методика оценивания ожидаемого.

Ключевые слова: парки центральной части Киева, состояние, стиль, развитие парков.