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Revitalization of regular landscape compositions of the park-monument of landscape art «Sharivskyi»

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ABSTRACT

Introduction. The perception of the landscape as a space for living has led to the formation and development of a special group of anthropogenic landscapes, namely garden and park landscapes, which are characterized by a wide range of functions from utilitarian to aesthetic and spiritual. Currently, approximately 30% of cultural heritage sites are in disrepair, and 80% require serious restoration work. Therefore, the revitalization of the landscape structure of historical garden and park landscapes is an urgent scientific problem and meets two sustainable development goals (goal 11 Sustainable cities and communities and goal 15 - Life on land).

The purpose of article. To substantiate the concept of revitalization of regular landscape compositions of the park-monument of landscape gardening art of national importance "Sharivskyi" and to provide a graphic 3D model of architectural, planning and volumetric-spatial solutions of the proposed concept of revitalization of regular compositions of the studied landscape.

Research methods. Method of historical analysis: with a focus on the period of the highest embodiment of the artistic compositional intent of the restored space, when the estate belonged to the successful sugar producer Leopold Koenig. The graphic presentation of architectural, planning, and three-dimensional solutions of the proposed revitalization concepts for the studied landscapes was achieved through the use of QGIS 3.28.3-Firenze 2022-08-31, Sketchup, and Realtime Landscaping Architect software tools.

Main findings. In order to preserve the original idea and characteristics of the landscape compositions, the concept of revitalization of the White Garden was proposed, which was suggested by the "Genius loci" of the historical landscape of Sharivsky Park. Using the QGIS geographic information system, OSM standard map and Google Satellite Hybrid map, the 3D authentic relief of regular landscape compositions of the Sharivsky Palace and Park Complex was modeled. Using the Sketchup 2020 software tool, a graphical representation of the architectural, planning, and three-dimensional solutions of the studied historical landscape was made. The Sketchup 2020 software tool was also used for the graphic 3D reconstruction of numerous architectural details that adorn the palace, including balustrades, windows, doors, and towers decorated with ornaments. The dendrological plan was developed using species and cultivars of ornamental plants with identified historical and aesthetic value to ensure the continuity of new and preserved plant elements of landscape compositions.

Scientific novelty and practical value. The proposed vision of preserving the sustainable features of the place, the selection of plants with identified historical and substantiated aesthetic value can be used in the complex reconstruction of regular garden and park landscapes of the Sharivskyi Park, a monument of landscape gardening art of national importance.

Keywords: sustainable communities, life on land, landscape, ecotourism, recreation, ecological revitalization, monument park, landscape art, Sharivskyi, geoinformation modeling, 3D modeling, graphic reconstruction, dendrological plan, ornamental plants.

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Statement of the problem. There are approximately 130,000 state-registered cultural heritage sites in Ukraine, of which 9,562 are monuments included in the State Register of Immovable Monuments of Ukraine. In particular, 10% of the monuments listed in the State Register of Immovable Monuments of Ukraine are located in the Kharkiv region [1].

Historical sites reflect our social, national, and state identity. The historical heritage reflects the cultural code and identity of the entire nation, a particular region, city, or locality. The nation's self-identification is based on historical achievements, perceiving, rethinking and transmitting them into the future, thereby achieving continuity and continuity of the existence of the country, community, and

family [2].

But currently, about 30% of cultural heritage sites are in disrepair, and 80% require serious restoration work. The "Great Restoration" project, which is planned as part of the presidential program "Big Construction" by 2025, envisages the reconstruction and restoration of about 150 cultural heritage sites, including castles, fortifications, theaters, architectural and historical reserves, and other cultural monuments [3].

In order to create effective conditions for the development of the cultural heritage, protection and use of the cultural heritage of architectural monuments, and to involve the active public in the protection of monuments, the Kharkiv Regional Council approved the Regional Program for the Preservation of Architectural Heritage in the Kharkiv Region for 2018-2023 [4]. The activities of this program are planned to assess the prospects for the development of further use of the architectural heritage and attracting investment, developing preliminary concepts of architectural proposals for their preservation and development. The program prioritizes outstanding architectural ensembles - architectural monuments of national importance, among which the palace and park ensemble "Sadyba" stands out for its architectural and artistic qualities [5]. It is planned to restore not only the palace, but also to restore the park balustrades, strengthen the retaining walls of the terraces, restore drainage systems, clear the park of clutter and dry trees, clean the lakes, and

arrange recreation areas [6].

It is proposed to create a modern ethnopark and tourist eco-complex on the basis of the Sharivskyi ensemble, which will be located near a significant historical and cultural heritage site and will contribute to the creation of different conditions for recreation: by duration of stay: short-term and seasonal recreation, by social choice: for different age groups, by the variety of tourist activities: health tourism, scientific and educational tourism, eco- and ethnotourism [4, 5].

The first stage of the program is the restoration and rehabilitation of the palace and park complex in the village of Sharivka, which is an architectural monument of national importance. The second stage is the construction of buildings and structures necessary for the organization and recreation of recreationists. The entire territory of the palace and park ensemble, ethnopark and tourist complex is a single zone of constant creative activity. Music and theater festivals, periodic and permanent exhibitions are planned here. Workshops of artists, designers, and sculptors will be open on a permanent basis on the territory of the complex [4, 5]. The current state of the palace and park complex is shown in Fig. 1.

The focus is on the sustainable development and productive use of historical garden and park landscapes, where heritage is seen as a "resource source" and a driver of development, especially a value niche in the structure of the socio-cultural space of the region [2].



Fig. 1. Current state of the palace and park complex [7]

Objective. To substantiate the concept of revitalization of regular landscape compositions of the park-monument of landscape art of national im-

portance "Sharivskyi" and to provide a graphic 3D representation of architectural, planning and volumetric-spatial solutions of the proposed concept of

the studied landscapes using the software tools SketchUp and Realtime Landscaping Architect.

Results and discussion. Substantiation of the concept of revitalization of regular landscape compositions of the park-monument of landscape art "Sharivskyi". The perception of the landscape as a space for living has led to the formation and development of a special group of anthropogenic landscapes - garden and park landscapes. This is a harmonious, constructive and complementary landscape system that combines natural components and small architectural forms. These landscape complexes are rich in various cultural artifacts, have significant associative and historical aspects, and are the so-called landscape and cultural identifiers of the respective regions. The fulfillment of the functions that garden and park landscapes had and still have is ensured through a constructive combination of natural components and elements and appropriate types of anthropogenic landscapes and landscape technical systems. Garden and park landscapes are an example of the constructive organization of the anthropogenic environment, the proper use of natural conditions and resources [8, 9].

The study of the history of the park, its architectural features and landscape plan allows us to understand the original ideas and concepts on which it was created.

The Sadyba Palace and Park Ensemble is located in the village of Sharivka, Bohodukhiv district, Kharkiv region. This complex was formed over a long historical period under the influence of economic and cultural activities of all its owners. The name of the estate - "Sharivka" - comes from the name of the village in which it was founded. The village was founded in 1700 by Matvii Sharii, the ensign of the Okhtyrka Cossack regiment. The large-scale construction of the estate, which was started by its owner, Sava Olkhovskyi, in 1836 and continued by his son, Petro Olkhovskyi, in the 40s of the 19th century, is subject to the great influence of the landscape direction of landscape organization, the characteristic features of which are the maximum use of the natural conditions of the territory within which the garden and park landscapes were organized; multifunctionality [8, 9]. The landscape structure is formed by natural landscape elements and anthropogenic landscapes and landscape technical systems: a house or a distillery being built. Over time, the garden and park landscape further acquires the features that characterize the development of this trend in the late 19th century. The new owners, brothers Christian and Fedir Gebenstrein. laid a garden and a park around the manor house. Through the efforts of Christian Gebenstrein, the garden landscape was organized as an arboretum, which was typical for the time; the park was filled with rare specimens of ornamental plants, and the skill of their cultivation was appreciated. In the 90s of the nineteenth century, the Gebenstreins sold the estate to the "sugar king" Leopold Yagorovych Koenig. In 1995, Leopold Koenig began the construction of a new palace in Sharivka; at the same time, a greenhouse, stables and a riding arena, carriage and automobile garages, and a power plant were built.

The manor park is located in the lower part of the ensemble, on the slopes of a large beam adjacent to the Merchyk River bed. The compositional center of the park is a palace house located high on a hill. Regular compositions of the landscape garden are a "garden on relief" and a garden-terrace. The regular part included a parterre with a fountain in front of the main house and three wide terraces with a grand staircase that led down to a small pond. The regular pool, arranged at the foot of the terraced garden, had two fountains with jets about 15 meters high. Short alleys of pyramidal oaks ran between the lower terrace and the pond. A stone arched bridge spanned the pond. The terraces of the stairs and the bridge are decorated with a stone balustrade. A network of ponds was created between the slopes, and then it connects to the forest. The surrounding landscape was conducive to the creation of the landscape park, as an age-old oak forest and a small pond in the lowlands made it possible to create it. At the beginning of the twentieth century, the park's area already amounted to 70 hectares [10, 11].

The engineer K. S. Scholz and the German architect Jacobi participated in the creation of the architectural ensemble. The landscape designer Georg Kufaldt worked on further improvement of the park [10]. It was their efforts that masterfully organized the subordination and unity of the spatial parts of the park, its compositional elements and landscape paintings.

The sense of history that preserves the historically developed garden landscape harmoniously connects the past and the present. This is an image of a meeting that is built on the connection of two worlds: the world of glory and decline of noble historical landscapes and the world of modern social demand for emotional impressions from visiting historical gardens. It is important that the meeting is filled with a special kind of experience that is supported by the architectural, artistic, and semantic context.

The status of the historical landscape is within the frame of understanding the impossibility of being carried away by the diversity of ornamental plants, the flashy color of regular compositions, the excessive use of modern park sculpture and hard surfaces.

The design code is based on the geometry of

forms, materials, and color architectural dominance characteristic of the historical landscape, which determines the choice of ornamental species and cultivars for landscaping.

Landscape revitalization as art involves not only the ecological restoration of natural components, but also the preservation and giving a new sound to the sustainable features of the place protected by the Genius loci, which has a huge potential for emotional impact. In the context of this perception, Genius loci acts as a metaphorical subject, inspirer, and co-author of the concept of ecological and aesthetic revitalization of the cultural landscape, which encompasses its natural individuality, the direction of historical development, and the organic incorporation of modern functions and forms [12].

Each project of revitalization of the historical cultural landscape is a haute couture project, where the genius of the place is a great couturier who opens unique, inimitable, unforgettable spaces that the cultural audience is eager to visit.

The "genius of place" of Sharivskyi Park manifests itself in the maximum artistic expressiveness of the regular landscape compositions of the foreground and the naturalness of the landscape park, suggests the proportions of open and closed spaces, which creates the depth of the landscape perspective and thus reveals the expressive possibilities of the landscape.

Our focus is on approaches to revitalizing park regular compositions that do not violate the International Charter for the Protection of Historic Gardens (the Florence Charter), which was adopted by the International Committee on Historic Gardens of the International Council on Monuments and Sites (ICOMOS) in December 1981 [13]. In particular, the Florence Charter defined that "a historic garden is an architectural and plant composition of historical or artistic interest. As such, it is considered a monument" [13, 14].

The process of revitalization of historic cultural landscapes should adhere to the principle of continuity, which, as a matter of course, preserves the memory of the historical past of the spaces being transformed, revives and preserves their unique natural basis. At the 16th General Assembly of the International Council on Monuments and Sites (ICO-MOS), which took place in Quebec City (Canada) on September 29 - October 4, 2008, the Quebec Declaration on the Preservation of the Spirit of Place was adopted. The spirit of place is defined as tangible (buildings, landmarks, landscapes, routes, objects) and intangible elements (memories, stories, written documents, rituals, celebrations, traditional knowledge, values, textures, colors, smells, etc.), i.e. physical and spiritual elements that give meaning, values, emotions and mysteries to places. The Declaration defines principles and recommendations for preserving the spirit of place through the protection of tangible and intangible heritage, which is considered an innovative and effective way to ensure sustainable social development around the world [14, 15].

The revitalization of historic landscapes is carried out with a focus on the period of the highest realization of the artistic compositional intent of the restored object. The "Genius loci" persistently suggests the theme of the revitalization of the historic garden - the "White Garden". The hint provided by "Genius loci" carries many meanings and connotations [16]. Thus, the theme of the "white garden" "spreads the wings" of the historical and cultural connotation "White Swan" of the Sharivskyi architectural and artistic ensemble. A reference to that historical period of prosperity, when the estate belonged to the successful sugar manufacturer Leopold Koenig, who spared no expense on a luxurious estate with a palace and a park and filled them with the most exotic plants, the acclimatization of which was taken care of by the landscape architect Georg Kufaldt, fuels the theme of revitalization of the "white garden". Leopold Koenig's wealth came from the huge sale of white "sugar heads" that resemble huge spectacular hydrangea inflorescences, a favorite plant of old manor parks [7, 11, 16].

It is the "White Garden" that is the missing fragment of a musical landscape phrase, the sound of which will cause the awakening of the great past of the historical landscape [16].

Thus, in order to preserve the spirit of the place "Genius loci" of regular park compositions, the concept of the "White Garden" and the use of species and cultivars of ornamental perennials with high resistance to adverse abiotic and biotic factors with identified historical and substantiated aesthetic value are proposed. In particular, the finest balance of preserving the historical landscape is achieved by using panicle hydrangea and tree hydrangea cultivars in plant compositions, which are one of the oldest garden plants, and at the same time, being a real gem of a landscape composition due to the unsurpassed decorative effect of inflorescences, are always in the focus of attention, timelessly [16].

This balance cannot be achieved without the reconstruction of rose plantations, which have a historical and well-founded aesthetic value for the Sharivska estate. During its heyday, the estate land-scape was decorated with magnificent rose gardens with a large number of roses, which were grown in the estate greenhouse and planted with flowering bushes.

Research methods. Geoinformation modeling is a powerful tool for analyzing, planning and visualizing landscape compositions of the park. It allows collecting, organizing, and analyzing geographic data, such as satellite images, aerial photographs, topographic maps, and other geospatial data, to create an accurate and detailed image of the park's territory. The geospatial image of the regular landscape compositions of the Palace and Park Complex is shown in Fig. 2.

To create a three-dimensional relief of the study area, an area of 52098 m² was selected on the SRTM satellite image.

Coordinate system: WGS 84 / Pseudo-Mercator EPSG:3857.

Using the QGIS geographic information system, OSM Standard map, and Google Satellite Hybrid map, the 3D relief of regular landscape compositions of the Sharivskyi Palace and Park Complex was modeled, which is shown in Fig. 3.

Sketchup 2020 and Realtime Landscaping Architect 2023.02 as software tools for graphical presentation of architectural, planning, and three-dimensional solutions. The next step was the use of a computer modeling tool such as Sketchup 2020, into which aerial photographs of the object under study were loaded to perform graphic restoration of



Fig. 2. Geospatial image of the palace and park complex, [by the authors]

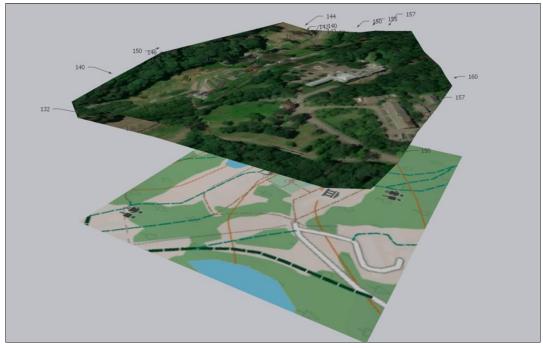


Fig. 3. Modeled with the help of the QGIS geographic information system, OSM standard map, and Google Satellite Hybrid 3D map of regular landscape compositions of the Sharivsky Palace and Park Complex, [by the authors]

the project's landscape compositions on the OSM standard QGIS terrain forms already created.

A graphical representation of the architectural, planning, and three-dimensional solutions of the studied landscape, which was made using the Sketchup 2020 software tool, is shown in Fig. 4.

Sketchup is one of the most popular 3D modeling programs in use today [22, 23]. This is due to its user-friendly toolbar and the ability to interact in the creative industry. The open-source software library has helped provide a large selection of 3D models, and hundreds of users have created their own plugins to not only solve problems unique to each version, but also to fully utilize their tools [17, 24-26].

SketchUp makes it easy to create three-dimensional models of urban planning in the form

of accessible illustrations and animations. It easily demonstrates alternative design scenarios and exports videos [18].

Fig. 5 shows an image of the graphic reconstruction of the elements of regular landscape compositions of the garden and park complex directly on the relief using the Sketchup 2020 software tool.

The Sketchup 2020 software tool was also used for the graphic 3D reconstruction of numerous architectural details that adorn the palace.

Figure 6 shows an image of a 3D model of the Sharivsky Palace created using the Sketchup 2020 software tool.

After collecting and processing geospatial data, the next step is to visualize it. Realtime Landscaping Architect software allows you to create a digital mo-

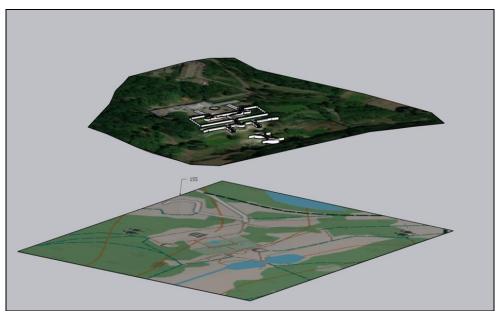


Fig. 4. Graphical representation of architectural, planning and volumetric-spatial solutions of the studied landscape, made using the Sketchup 2020 software tool [by the authors]



Fig. 5. Image of the graphic reconstruction of regular landscape compositions of the garden and park complex on the relief using the Sketchup 2020 software tool

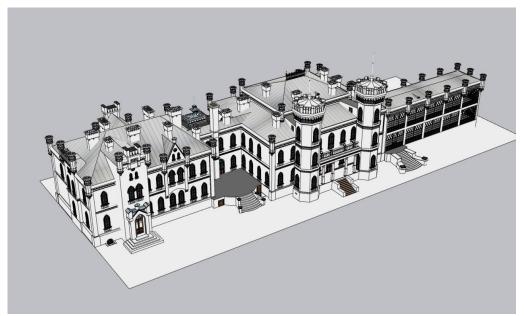


Fig. 6. Image of the 3D model of the Sharivskyi Palace created using the Sketchup 2020 software tool

del of the space, including information about landscape elements, architectural structures, water bodies, and other important attributes [19].

This software allows to develop optimal plans for the graphic reconstruction and restoration of regular landscape compositions of the Sharivskyi garden and park complex.

Development of a dendrological plan for regular park compositions. The parterres of the regular landscape composition of Sharivskyi Park are conditionally numbered, their inventory characteristics are given in Table 1.

 ${\it Table~1}$ Inventory characteristics of the parterres of the regular landscape composition of Sharivskyi Park

Parterre, № 1	Parterre, № 2	Parterre, № 3	
Area, m ²	Area, m ²	Area, m ² Perimeter, m	
Perimeter, m	Perimeter, m		
<u>654</u>	<u>1038 м²</u>	<u>868 м²</u>	
104 м	148,86	138,49	
30,89 m 1 31,26 m	22,4 m 1 220,07 m 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	20,24 m 16,98	

On the first terrace in front of the central southern façade of the palace, there is a parterre with a fountain in the center. It is framed by two rings of trimmed boxwood, inside of which white hydrangeas 'Annabelle' are planted, which look especially impressive in summer, giving the plant a large and sophisticated appearance. Along the second outer ring of boxwood, an evergreen Iberis is planted. Iberis flowers are a great element to use in the park, as they provide decorative color and natural elegance that complements the entire landscape composition. Further along the perimeter, white roses 'Bouquet Parfait' are planted, which have peony-shaped flowers, white and cream in color with a yellow center and a pink border of petals. Everything is enclosed

with boxwood of an unusual rectangular shape and white Argut spirea planted in the corners. In spring and summer, this bush is covered with long earrings of flowers, giving the plant a spectacular bridal look; the bush is compact and tall, resistant to sudden changes in temperature. The dendrological plan of regular parterre compositions is shown in Fig. 7.

The symmetrically located observation decks, framed by a white solemn balustrade, offer panoramic views of the park's slopes, which attract the eye, fascinate, and give a visual representation of the impeccable beauty of the flowering parterres. At the bottom of the first terrace, down the stairs from the observation deck, there are two flower beds, this is the second terrace. They are decorated in the same

style (see Fig. 7).

Below the observation deck, a flower garden of delicate pastel double roses 'Swani' was made. The rose is a sun-loving plant, so it was planted in a well-lit place without strong winds. Between the bushes of this rose grows Perovskaya swan, an ornamental shrub of blue-lilac color. When you touch the leaves, a wonderful aroma spreads in the garden, somewhat similar to the scent of sage. This white

rose and the pale blue shrub go well together and are ideal for creating such a composition. A hedge of brilliant cotoneaster is planted on both sides of the path. This shrub attracts attention with its brightness, in autumn it can have shades of yellow or orange, and in summer its leaves turn fresh green. In autumn, it blooms with small white flowers in the form of spikelets, and in summer, red fruits are formed, which give the plant a wonderful decorative



Fig. 7. Dendrological plan of regular compositions of Sharivskyi Park, [by the authors]

effect. The cotoneaster is cut in a rectangular shape, which emphasizes the regularity of the park's parterre. In front of it grows an evergreen Iberis, which forms snowdrifts covered with white flowers from April to May, the foliage is green throughout the year, which is important for a park of continuous flowering.

Behind the cotoneaster are bushes of the tree hydrangea 'Anabel', with large white balls that look like snowballs or sugar slides, which were so beloved by the wife of the former owner of the estate, Leopold Koenig.

On the side of the stairs are bushes of the white spirea 'Arguta', which bloom profusely in early summer. The cascade of white shoots, like an avalanche of snow, has cap-shaped inflorescences that harmoniously blend into the landscape. On the other side, it is proposed to plant one of the brightest double varieties of lilacs - lilac 'Madame Lemoine' with a paniculate rounded inflorescence, light creamcolored flowers with a heady aroma.

On the left side there is an alley of small-leaved linden trees cut in the shape of neat rectangles, un-

der which there are bushes of white forsythia, an ornamental shrub with an unusual flower color. It is unpretentious and resistant to various diseases. At the end of winter, forsythia is abundantly covered with white flowers, densely strung on the branches. The leaves are green in spring, a bright accent after the winter period, and in autumn they turn yellow and crimson. 'Iceberg' roses flaunt in front of it, so snow-white that they resemble snow clouds. The flowers of this landscape rose are semi-double, gathered in large inflorescences that bloom for several weeks. It blooms brightly and continuously. Resistant to high temperatures and various pests.

The main characteristic element of the terraced garden is the central pattern, namely asymmetrical shapes created in the form of sugar granules, which emphasize the beauty and harmony of the natural landscape (see Fig. 7).

The form is planted with boxwood in two rows: the lower and the upper. In the middle, broad-leaved lavender was initially planted along the contour, which blooms in small inflorescences similar to an ear of spikelets. This species is unpretentious in its

care and resistant to large temperature changes. Then a number of 'Tranquility' roses were planted, which are white in color and have a creamy color in the center of the buds. They bloom constantly throughout the season and have an unusual aroma of ripe apples. And in the very center are roses 'Winter Lodge', densely double white-cream flowers with a green tint on the outer petals, similar to airy clouds. In the left corner of the arrangement is a magnolia 'Sulanja', with pale beige flowers that impress with their beauty and fragrant aroma from early spring to early summer. It is framed by an Iberis ring.

In the right corner, there are two viburnum 'Buldenezh' plants. This is a bushy plant, with medium-sized, pure white flowers, collected in large inflorescences (snow globes), strung in garlands on inclined branches. The flowering is abundant, den-

sely covering the entire bush. Nearby there is a large bush of hybrid garden jasmine, a shrub with straight shoots, which has fragrant white flowers that bloom from June to July. Along the bottom, it is proposed to plant a row of hydrangeas 'Lamlight' in a checkerboard pattern, behind them a hedge of brilliant cotoneaster.

The lawn of our choice is a lawn of slow-growing varieties of white microclover. Due to symbiotic fixation, white microclover enriches nitrogen-poor soils, which is important for creating a dense grass stand with an attractive fresh green color [20]. Periwinkle is planted in another part of the parterre space. Its leaves are dark green, shiny, and remain so throughout the year.

The assortment list of ornamental plants is presented in Table 2.

Table 2
The assortment list of ornamental plants of the regular parterres of Sharivsky Park, [by the authors]

	_		, -
№ №	Name	Name in Latin	Quantity
1	Lavender broadleaf	Lavanda latifiola	179
2	Periwinkle	Vinca	30
3	White clover	Trifolium repens	72
4	White lilac 'Madame Limoine'	Syringa 'Mme Lemoine'	6
5	Hybrid garden jasmine	Jasminum	2
6	Boxwood	Buxus	278
7	Viburnum 'Buldenezh'	Boule de Neige Roseum	4
8	Rose 'Bouquet Parfait'	Rosa 'Bouquet Parfait'	99
9	Rose 'Iceberg'	Rosa 'Iceberg'	18
10	Rose 'Winter Lodge'	Rosa 'Winter Lodge'	38
11	Rose 'Swanee'	Rosa 'Swany'	23
12	Rose 'Tranquility'	Rosa 'Tranquillity'	85
13	Small-leaved linden	Tilia cordata	18
14	White forsythia	Abeliophyllum distichum	20
15	White magnolia 'Sulanja'	Magnolia 'Soulangeana'	2
16	Iberis evergreen	Iberis sempervirens	66
17	Perovskia swan-like	Perovskia atriplicofola	15
18	Cotoneaster brilliant	Cotoneaster lucidus	77
19	Spirea 'Arguta'	Spiraea 'Arguta'	10
20	Tree hydrangea 'Anabelle'	Hydrangea arborescens 'Annabelle'	54
21	Panicle hydrangea 'Lamlight'	Hydrangea paniculata 'Limelight'	29

Conclusions. The park-monument of landscape art "Sharivskyi" requires an integrated approach to its restoration and development. Based on the results of the analysis of historical sources with a focus on the period of the highest embodiment of the artistic compositional idea of the restored space, in order to preserve the original idea and characteristics of landscape compositions, the concept of revitalization "White Garden" is proposed, which is suggest-

ed by the "Genius loci" of the historical landscape and which contains many meanings and connotations that created the spirit of the place of the old manor.

Using the QGIS geographic information system, OSM Standard map and Google Satellite Hybrid map, we modeled the 3D authentic relief of regular landscape compositions of the Sharivsky Palace and Park Complex. Using the Sketchup 2020

software tool, a graphical representation of the architectural, planning, and three-dimensional solutions of the studied historical landscape was made. The Sketchup 2020 software tool was also used for the graphic 3D reconstruction of numerous architectural details that adorn the palace, including balustrades, windows, doors, and towers decorated with ornaments.

The project of revitalization of regular landscape compositions of Sharivskyi Park, in particular, the dendrological plan - developed using species and cultivars of ornamental plants with identified historical and aesthetic value to ensure the continuity of new and preserved plant elements of landscape compositions, such as: *Hydrangea arborescens 'An*nabelle', *Hydrangea paniculata 'Limelight'*, *Iberis* sempervirens, Winter Lodge, Spiraea 'Arguta', Swany, Perovskia Atriplicofola, Cotoneaster lucidus, Spiraea vanhouttei, Syringa 'Mme Lemoine', Tilia cordata, Abeliophyllum distichum, Iceberg, Buxus, Lavanda latifiola, Tranquillity, Magnolia 'Soulangeana', Boule de Neige Roseum, Jasminum, paniculata 'Limelight', Trifolium repens, Vinca, Rosa 'Bouquet Parfait', Rosa 'Winter Lodge', Rosa 'Swany', Rosa 'Tranquillity'.

The revitalization project, namely, the proposed vision of preserving the sustainable features of the place, can be used during the comprehensive reconstruction of the Sharivskyi Park-Monument of Landscape Gardening of National Significance, which will undoubtedly contribute to the integration of cultural heritage into the modern socio-cultural space of Kharkiv region.

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Ревіталізація регулярних ландшафтних композицій парку-пам'ятки садово-паркового мистецтва «Шарівський»

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Сприйняття ландшафту як простору для життя призвело до формування та розвитку особливої групи антропогенних ландшафтів – садово-паркових, які виконують велику низку функцій від утилітарної до естетичної та духовної. Наразі приблизно 30% історичних садово-паркових ландшафтів пам'яток культурної спадщини знаходяться в аварійному стані, 80% – потребують серйозних реставраційних робіт. Тому ревіталізація ландшафтної структури історичних садово-паркових ландшафтів є актуальною науковою проблемою та відповідає двом цілям сталого розвитку (11- сталий розвиток міст та громад і 15 – збереження екосистем суходолу). Мета роботи - обгрунтування концепції ревіталізації регулярних ландшафтних композицій парку-пам'ятки садово-паркового мистецтва загальнодержавного значення «Шарівський» та графічне 3D моделювання архітектурнопланувальних та об'ємно-просторових рішень запропонованої концепції. В роботі використано метод історичного аналізу: з фокусуванням на період найвищого втілення художнього композиційного задуму відновлюваного простору, коли маєток належав успішному цукрозаводчику Леопольду Кенігу. Графічна подача архітектурнопланувальних та об'ємно-просторових рішень досягнута за допомогою використання програмних інструментів QGIS 3.28.3-Firenze 2022-08-31, SketchUp i Realtime Landscaping Architect. За результатами аналізу історичних джерел задля збереження оригінального задуму та характеристик ландшафтних композицій запропонована візія ревіталізації «Білий сад», яка підказана «Genius loci» історичного ландшафту Шарівського парку. За допомогою геоінформаційної системи QGIS, карти OSM standard та карти Google Satellite Hybrid змодельований 3D автентичний рельєф регулярних ландшафтних композицій Шарівського палацово-паркового комплексу. Графічна подача архітектурно-планувальних та об'ємно-просторових рішень виконана за допомогою програмного інструменту SketchUp 2020. Sketchup 2020 також був задіяний для графічної 3D реконструкції численних архітектурних деталей, які прикрашають палац (балюстради, вікна, двері, башти тощо). Дендрологічний план розроблений з використанням видів та культиварів декоративних рослин з виявленою історичною та естетичною цінністю для забезпечення наступності нових та збережених рослинних елементів ландшафтних композицій. Запропонована візія може бути використана під час комплексної реконструкції парку-пам'ятки садово-паркового мистецтва загальнодержавного значення «Шарівський» і буде сприяти підвищенню значимості історичних культурних садово-паркових ландшафтів у формуванні сучасного соціокультурного простору Харківського регіону.

Ключові слова: сталий розвиток громади, збереження екосистем, ландшафт, екологічний туризм, рекреація, екологічна ревіталізація, парк-пам'ятка, садово-паркове мистецтво, Шарівський, геоінформаційне моделювання, 3D моделювання, графічна реконструкція, дендрологічний план, декоративні рослини.

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