Historical traditions and cultural and economic tenability of the modern landscape design of the Residence of Bukovinian and Dalmatian Metropolitans

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Abstract. The article is devoted to the analysis of the history of creation of the Residence of Bukovinian and Dalmatian Metropolitans in the city of Chernivtsi, where the Yuriy Fedkovych Chernivtsi National University is now located. A part of this ensemble is a park, the uniqueness of which is due to the combination of three types of parks at the same time – the Italian garden, the French regular park and the English landscape park. The periods of creation of the park, participation of landscape designers and clergymen are covered in detail, landscape techniques and their correspondence to the three above-mentioned types of parks are analyzed. The range of problems of the park's existence and measures for its arrangement are described. Proposals for the creation of a unique Bible garden with the symbolic meaning of landscape sceneries are described separately. The proposed measures are substantiated in terms of creating a new tourist attraction.

Keywords: Residence of the Metropolitans of Bukovyna and Dalmatia, historical traditions, restoration, modern landscape design, Bible Garden

Introduction

The purpose of the article is to identify historical traditions and formulate the principles of landscape design, as well as justify their integration into modern solutions in implementing the strategy of sustainable development of new landscape sites (Biblical Garden) and rehabilitation of historic park areas of the unique ensemble of the Residence of Bukovinian and Dalmatian Metropolitans (hereinafter – the Residence) in Chernivtsi, where the Yuriy Fedkovych Chernivtsi National University is now located). In 2011, at the 35th session of the UNESCO World Heritage Committee (hereinafter referred to as the UNESCO WHC), the Residence of Bukovinian and Dalmatian Metropolitans was included in the UNESCO World Heritage List and became the third Ukrainian cultural heritage site. Since 1963 the park and park structures are the monuments of national importance.

The study used scientific methods: graphical-and-analytical, historical analysis, inductive. The methods of historical allegory (based on Bible) and experimental design were used in the design of new sites.

The unique ensemble of the Residence covers an area of 8 hectares, which houses the Metropolitans' Palace, two "outbuildings", ancillary buildings with courtyards, as well as a unique landscape park, the planning structure of which became the subject of this study.

The landscape park is located in the northern part of the site and occupies most of the entire ensemble territory (80 %). It continued the widespread traditions of historicism era parks, which in turn are inherited from the traditions of parks and gardens of previous eras: it is worth mentioning that for centuries parks and gardens have been a significant element of monarchical and aristocratic residences and even church ensembles. If we talk about the importance and image of parks at the residences of the clergy and secular authorities, the period of formation of the landscape design foundations should be called the Renaissance, and in later centuries these traditions improved, developed and changed in relation to changing tastes of society.

The landscape park of the Residence was laid after the completion of the construction of the main buildings in 1876–1878. There are up to two thousand trees and shrubs of 85 species, of which coniferous evergreens are 30 %.

For all the uniqueness of the ensemble as a whole, let us pay attention to the continuity of monastic traditions of landscape design, because since the appearance of monasteries as separate architectural complexes, the garden has become an integral part of them as a personification of paradise for solitude, prayer or religious discussions. The monastery garden was never intended for the general public.

It should be noted here that such traditions were not unique to the gardens of Christian monasteries – both Orthodox and Catholic. The monastic gardens of the Eastern religions – Taoism, Shinto, Buddhism – were also intended for meditation, solitude and inner concentration and were closed to the general public. In Orthodox gardens, the names of landscape sceneries were allusions to biblical names – for
example, Sinai, Eleon, Cedar Stream in the garden of the Feofaniivska Heritage. The personification of the Zen Buddhist philosophy of Japan became the so-called "dry gardens", or "rock gardens", aimed at solitude and meditation. This indicates that, despite the differences in beliefs, there was a commonality between different religions in the separation of sacred territory from secular life, and the garden was an integral part of the sacred territory, and therefore also the bearer of sacred functions. In particular, the separation of what was secular from what was "sacrum territory", as he calls it, said the famous Polish researcher Piotr Gryglewski, noting that the line of walls separated the two spaces as a symbolic spiritual boundary of another world.

**Matherialers and Methods**

The chronological boundaries of the study cover the period from the end of the 19th century to the present. The author's research began during the preparation of a nomination dossier for the inclusion of the architectural ensemble of the Residence of Bukovinian and Dalmatian Metropolitans in the UNESCO World Heritage List in 2009.

The specifics of the research tasks led to the choice of certain scientific research methods. The graphical-and-analytical method was used in the implementation of field surveys and photo-fixation and processing of archival sources and iconographic materials.

Archival and historical sources were used for the research. The basic for the study were archival materials, which are published for the first time and were processed by the authors – these are primarily archival documents of the State Archives of Chernivtsi region [24; 25].

Since some features of the Residence Park are allusions to the eastern gardens, which also took place in the inherited English parks, Chinese sources on the canons of traditional Chinese gardens have been studied [3; 9; 11; 17; 18; 19].


Landscape traditions of Japan were studied according to the monographs of N. Nikolaeva [13; 14] and the Ph.D. thesis of S. Mostovoy [12]. Elaboration of the relevant source base allowed to cover more comprehensively the landscape features of the unique park of the Residence in Chernivtsi and to determine the range of issues that need to be studied.

The method of historical analysis allowed us to trace the history and stages of development of the landscape park at the Residence, the peculiarities of figurative perception, and so on.

Graphic materials for the planning of Renaissance gardens, Baroque and English parks were used as source material in the historical analysis.

Using the inductive method, the constituent elements of park planning and the degree of influence of narratives of European garden architecture on the creation of planning and compositional structure of the landscape park of the Residence of the Metropolitans of Bukovina and Dalmatia were studied. The works of P. Cornaglia, M. Ferrari [2], V. Gostev, M. Yuskevich, D. Likhachev [10], L. Rubtsov [20; 21], O. Mykhailysyn were used as a source base.

The researches of Chernivtsi scientists S. Rudenko, O. Ivasiuk, S. Kostyshyn, M. Shcherban, devoted to the plants of the Holy Scripture [22], were used in designing the area for landscape planning of the biblical garden by the method of experimental design. The work by G. Biger and N. Livshitz on plants characteristic of Israel was also used [1].

The applied research methods allowed to investigate the historical narrative of the formation of the landscape park and to create an evidence base for the obtained scientific conclusions and results of experimental design.

**Results and Discusson**

**History of the Residence Park creation**

As mentioned above, the landscape park of the Residence was founded in 1876–1878 under the direction of Martin Wilhelm, a senior engineer of the Imperial-Royal Regional Administration. Documentary evidence of his direct involvement in the planning of the park is the "Consistory Extract on the activities of senior engineer Martin Wilhelm on the construction of the Metropolitans’ Residence" of October 18, 1880 [24], which states that Martin Wilhelm worked on the building committee for the construction of the Residence for 15 years. He became a member of this committee by order of Bishop Eugen Hackmann and with the consent of the Imperial-Royal Presidium of the Regional Administration on October 18, 1863.

From this document we learn about his responsibilities as the chief landscape architect, and in 1871– as the administrator of the park construction: it is the control of stone and sculpture works, management of works with marble, alabaster,
limestone. It is significant that he retained his leading role even after the dissolution in 1872 of the building committee and building administration and the formation of a new building committee and building inspection under it. In this building inspection, he was listed as a senior engineer, and he was in charge of supervising the construction work. It is noteworthy that due to the illness of Josef Hlávka and the inability of senior engineer Feliks Księżarski to perform the necessary work on his own, senior engineer Martin Wilhelm also took over the artistic direction of the construction of the Residence.

M. Wilhelm headed the building commission to abolish the building committee in 1878 due to the completion of construction work on a number of buildings and the transition to a new stage of construction. His task was also to supervise the completion of certain construction works.

The period of liquidation of the next building committee coincided with the formation of the building inspection for construction and other works in the park of the Residence: drawing up plans, estimates, warranty acts, etc. In this commission, senior engineer M. Wilhelm was appointed responsible for all technical issues.

His activities during this period covered a wide range of tasks, including, in addition to event management, direct development of cost-effective projects for planning the garden of the Residence, gardener's house, greenhouse, outbuildings at the Residence (laundry, wood warehouse, poultry yard and chicken coop, bath, cellar). M. Wilhelm worked not only as a landscape architect, engaged in design work on the ensemble in general, including the layout of the courtyard, the territory of the House Church (chapel), the House for visitors, and also developed engineering schemes for all buildings – external and internal water supply and sewerage networks. Thus, it can be argued that the ensemble of the Residence was not only impressive in terms of appearance or landscaping of the park at the residence, but also in terms of engineering equipment as at that time, because then not all buildings had water supply and sewerage.

Information about the participation of Martin Wilhelm in the planning of the landscape park and the whole ensemble is documented. In particular, the following was reported. "In 1874, F. Księżarski (who at that time was in charge of architectural construction instead of J. Hlávka) was transferred to the National Administration of Galicia in Lviv. Engineer Martin Wilhelm was in charge of completing the work at the Residence..." An excerpt from the Consistory's Report on the Activities of Senior Engineer M. Wilhelm on the Construction of the Metropolitan's Residence of October 18, 1880 states: "... M. Wilhelm, a senior engineer, took an active part in the construction for 15 years."

Traditionally, the bishops themselves took part in the planning of the territories of the residences of the higher clergy, including the gardens and parks at the residences, and the Residence in Chernivtsi was no exception. From archival documents it follows that an active role in the landscaping of the park was played by Bishop Eugen Hackmann: "... the buildings of the Seminary and economic territories should be fenced off from the front yard, and the garden, instead of the designed light fence, should be surrounded by a deaf fence" [25]. His proposal was approved at a meeting of the section of the Ministry of Religion and Education in July 1871, and according to it, senior engineer Martin Wilhelm drew up design documentation for the construction of the fence wall of the Residence Park. He supervised the construction of the wall, 3 meters high.

The function of the fence is not limited to protection, its inner part has a much lower height due to the fact that the fence also restrains the volume of soil, which creates a difference from the top of Dominic Hill to the level of the surrounding sidewalk, i.e. plays the role of retaining wall (the difference in the marks of the earth's surface is from 20 cm to 2 meters in different parts of the wall).

However, despite the prominent role of Martin Wilhelm in the planning of the ensemble of the Residence in general and the landscape park in particular, there were other landscape architects who made their own efforts to create the park. Among the authors of the landscaping of the Residence of Bukovinian and Dalmatian Metropolitans Park are the names of gardeners Victor Pauli and Herman Langer.

In the final version, the area of the park was 4 hectares. The unique park is located on the north side of the palace and closes the main longitudinal axis of the architectural ensemble of the residence. In the very principles of planning we see the common features with the monastery gardens in the Kyiv-Pechersk Lavra or Mharsky monastery, which, although completely different in the organization of green space and planned by the monks themselves, not specialized professionals, but were also isolated from the surrounding "secular" space with a deaf stone fence, up to 3 meters high. We observe the same in the case of the Residence Park, where, in fact, the ancient monastic principle of separating the sacred territory from the secular territory, i.e. the city streets, is embodied. This indicates that, despite changes in the architectural and landscape traditions of monastic ensembles and residences of the higher clergy, they partially preserved the ancient principle of isolation of the sacred territory.

The second similarity between the park in the Residence and the ancient gardens at the monasteries and hermitages is the use of accent forms of relief for its creation – steep banks of rivers, hills, slopes, etc.
A large park of the Feofaniivska Hermitage was created according to this principle, the gardens of the Kyiv-Pechersk Lavra are located on the edge of the high right bank of the Dnipro, and the Park of the Residence in Chernivtsi is located on the highest part of Dominic Hill. Suffice it to say that the difference in planning marks on the height of the relief from the metropolitan palace to the center of the park is 7 meters, and there is an assumption that this difference in relief was artificially created for better composition of the park. Thus, we come to the conclusion that in ancient times when arranging gardens at monasteries and residences of metropolitans used existing accent forms of natural relief, while in the 19th century such relief could be created artificially to enhance the image of the garden.

By the way, such techniques have been used by many peoples. Suffice it to say that the relief played an accentuating role in the ancient oriental gardens – Chinese and Japanese, where artificially created small copies of real mountain landscapes. In Chinese landscape design, a specific term “urban mountains and groves” was even formed, and in the case when the garden area was flat, artificial hills were added.

**Landscape characteristics of the Residence Park**

Compared to the traditional layout of monastic gardens of previous centuries, the park of the Residence of Bukovinian and Dalmatian Metropolitans was a work of professional landscape design, as it was created not by the monks themselves, but by specialists, so it combined the achievements of three most prominent European schools Renaissance, regular parks and gardens of the period of absolutism and English landscape gardens and parks of the so-called "free" planning. Taken together, this testifies to the gradual evolution of the so-called Orthodox sacred garden, which gradually absorbed, along with local monastic traditions, the best features of European gardens and parks, including secular ones, at monarchical residences.

Thus, the park at the Residence has features of three styles of garden and park landscape design: Italian style, French style and English style, where the most pronounced features of the Italian garden and English park.

We will analyze the main features of Italian, French and English styles and their embodiment in the landscape paintings of the Residence Park.

The Italian landscape has the following main features:

- continuity of traditions with ancient Roman private gardens, which consists in regular planning with clear geometric shapes, straight, stone-paved paths and the location in the center of the garden pond of the regular geometric shape with a beautiful fountain;
- relatively small, compared to the flat parks of France, a garden or park near the house;
- separation of the garden (park) by a stone wall or a trimmed hedge;
- the regular geometric outlines of flower beds (oval, circle, square) are planted according to certain drawings, where a low-cut box trees (**Buxus sempervirens**) is often used as a border;
- combination of ground plants and plants in pots or containers made of terracotta, in large tubs at the stairs connecting the terraces;
- formation of tree crowns and shrubs in the form of a cube or ball, an ancient column, an exotic bird;
- presence of sculptures at the fountain, pond, grotto, flower beds;
- use of properties of a garden on an active relief by creation of terraces, erection of retaining walls for the maintenance of soil, the device of the beautiful stairs connecting separate zones of a garden.

Signs of the Italian garden are embodied in the entrance to the palace area of the Residence Park as follows:

- this part of the park following Italian tradition opens under the walls of the palace, from the balcony of the northern facade of the Metropolitan's palace, or from the windows of a spacious gallery on the first floor;
- this part of the park has a regular layout with a symmetrical arrangement in relation to the longitudinal planning axis of the two fountains;
- pebble paths used;
- the traditional principles of flower beds are applied – flower beds and a terrace with the dome of a well wrapped with wisteria and a stone ladder with garden vases under arches of braided roses to the top of park;
- relief and tracing of paths are solved in the form of symmetrical oval "fused" forms (according to the Italian tradition of placing the sculpture in the center of the flower bed in 1937 in the center of this planning composition of the park a bust of the author of the architectural ensemble of the Residence of Bukovinian and Dalmatian Metropolitans – Josef Hlávka, was built (sculptor A. Severin) (Fig.1).
The French landscape has the following main features:

- presence of the front yard-courtyard of honor of the Baroque period (Tuileries, Marley, Versailles parks);
- strict symmetry in planning, circular elements;
- straight wide alleys, strict bosquets of cut trees and shrubs, carpet flower beds that decorate the ground lawns;
- large parterre spaces emphasize the supremacy and architecture of the palace, the dominance of the main compositional axis with the disclosure of long-distance perspective.

The features of the French garden are embodied in the Residence Park as follows:

- the main axis of the main courtyard of the Residence divides its courtyard into two symmetrical parts, limited in space, which end with wings on the right and left sides;
- the Baroque era technique used to extend the axis at the expense of the street to visually reveal the architecture on the remote approaches to it: the axis is a continuation of the Resydentsii Street (now – Universytetska Street), which increases its length by 300 meters;
- technique of visual completion of the axis by an element of the palace: the spatial completion of the central axis is the majestic portal of the Palace of the Residence;
- location on the main axis not only of the central palace, but also the park located farther and thus association of an ensemble compositionally and meaningfully;
- in the center of the courtyard there is an alley of the bishop's procession, covered with small pebbles and lined on both sides with white umbrella acacias of spherical shape (Fig. 2);
- use the principle of lining the ground lawns with box trees with accentuation of yew trees, which retain the bright green color of the crown throughout the year;
- use the principle of bright accent combination of opposite colors to enhance the saturation of each
of them (emerald color of the crown of thuja and red brick walls of the buildings surrounding the yard, two tracks located along it are paved with red sandstone (now partially replaced)); pebble stones also used to cover the rest of the paths: to the seminary building and the Church of the Three Saints, side in front of the Metropolitan’s Palace;

- side paths in front of the main entrance to the Palace create a circle in the plan (in the palaces of monarchs – for the reversals of horse-drawn carriages, but since the arrival of horses on the front yard never took place, it performs purely decorative functions in the Residence, Fig. 3);

- use of bright flowers, artificially formed bosquets and bushes with molded crowns (the centers of bosquets are accentuated by saucer magnolia (Magnolia × soulangeana), Fig. 4, the inner concentric segments of the circle form rows of globular bushes of red weaving rose on metal frames and yucca bushes – evergreen plants red roses, Fig. 5);

- creation of the parterres adjoining to a geometrical circle and the central tract from the figured planned grass lawns upholstered by the cut box trees (Buxus sempervirens);

- distribution for landscaping of the front yard of evergreen plants: local species of yew (Taxus baccota), box tree and thuja, which fix the lawns corners of the ground floor pattern. The dark emerald color of these plants brightly emphasizes the red color of the facades of all buildings surrounding the yard at all times of the year because it is known that red and green colors in combination mutually emphasize the sound of each other (Fig. 6).

The central paths have a firm covering from stone plates. For landscaping the cloister of the Seminary Building used ordinary planting of thuja, which has reached a significant age and provides shade in summer.

The English, or landscape, park has the following main features:

- based on the ideology formulated by philosophers, artists and writers and spread in England in 1710–1730;

- participation of artists in the development of the landscape park concepts, in particular the landscape painter William Kent, who during 1725–1735 laid several gardens, which immediately gained great popularity in England, including the most successful Darmer Park. Its concept of a landscape park is a park on an active relief with the most “natural” character of picturesquely located separate groups from trees and bushes and the considerable areas of green lawns;

- participation of gardeners in the creation of the landscape park concept, in particular Lancelot Brown, who introduced in the planning of smooth lines, park ponds with natural outlines of the shores;

- the influence of Chinese landscape design traditions, in particular the fashion for Chinese gardens, which spread through the theoretical work of the director of the Royal Botanic Gardens Kew William Chambers, which led to the enrichment of parks with caves, grottoes, picturesque ruins;

- lack of continuity with the landscape traditions of previous centuries;

- the symbolism of the English park as the personification of the free development of the individual, where serpentine paths and streams meant free expression of thought, belief and action, fidelity to nature in morality and politics;

- political symbolism of the park: the Whig party as the first source of the landscape garden, the philosophy of rationalism – the second;

- availability of green lawns with pastures for wild and domestic animals and recreation areas;

- antagonism of natural disorder in relation to, correct and symmetrically strict forms of the French regular park, where all nature is subject to artificial frames of geometric shapes.

Signs of the English garden are embodied around the perimeter of the Residence Park as follows:

- directly near the wall with a fairly dense ring in 3–4 rows with a bandwidth of 20 meters are groups of endemic trees (beech, hornbeam, oak, linden, maple), which create a barrier to northwest winds;

- arranged grotto and pond-elliptical pond with a bottom in the form of a bowl, up to 1.5 meters deep, with a fountain-slide, typical of European dendrological parks, with one stream, 1 meter above the water surface in the center of the reservoir and a waterfall from the north-east side. If we compare the ratio of "Italian" and "English" parts, the part of free planning prevails in the general territory of the arboretum (freely delineated park alleys with a classic peripheral bypass).

When planning the Residence Park, these two stylistically different parts of the park are visually separated: the English part, based on rethinking the English traditions of the landscape park, starts right behind the Italian garden: behind the terrace with stairs, 1.5 meters high, a local alley leads to a decorative pond.

It is no coincidence that we constantly compare European and Eastern landscape traditions, as China in the period of the Chinoiserie style and Japan in the period of historicism and modernism directly influenced the trends of contemporary European landscape design. In particular, in the Residence Park, the pond in the English part was previously stocked with ornamental goldfish,
Carassius auratus, a species of Chinese silver carp (*Carassius auratus gibelio*), many species of which were exported to Europe from China, bright red-gold, yellow and pink colors and one of the most beautiful aquarium fish – veiltails, which were bred in Japan more than 400 years ago.

The pond was planted with algae that grew in special boxes installed on the bottom and water lilies of several varieties. The influence of the gardens of China and Japan is also felt in these landscaping techniques. Such an influence can be considered the arrangement on the southern shore of the reservoir, with park benches around, a small waterfall flowing from the wreckage of an ancient vase.

The combination of a quiet splash of water, smooth movements of bright fish in the water and the rustle of tree leaves provided a silent communication with nature, which in China and Japan was considered the highest embodiment of beauty and harmony. If we mention the atmosphere of Chinese and Japanese gardens, then traditionally Chinese gardens were considered gardens for pleasure, and more ascetic Japanese – for solitude, introspection, inner improvement and knowledge of perfect harmony in simplicity. From this point of view, the Park of the Residence is still closer to the philosophy of the Chinese garden than to Japan, because it has a large number of components and accents.

The pond is surrounded by weeping willows, surrounded by saucer magnolias (*Magnolia × soulangeana*) with bright purple-red on the outside and white petals on the inside, the flowers of which are somewhat reminiscent of the sacred Buddhist lotuses, and catalpas. From here, alleys with asymmetrical planting of trees, open lawns, cozy baskets diverge in different directions.

At the same time, the park at the Residence not only repeats the traditions of Italian gardens and English landscape parks, but is also an allusion to the local Bukovinian landscapes: in particular, the shady northeastern part of the park resembles natural Bukovinian forest (Fig. 7). We can say that different parts of the park create a different mood – contemplation of bright Chinese fish – peace and harmony (here we can recall that in China on the shores of reservoirs were built traditional gazebos for fish watching – such gazebos are in the traditional gardens of Suzhou, registered UNESCO World Heritage Site), staying in the "forest" northeastern part of the park – a feeling of tension and concentration, anticipation of the unexpected. So, thanks to the skill of gardeners, a person during a walk in the park can get a lot of impressions and mood swings. And again, the main principle of the traditional Chinese garden is remembered – it is a constant change of landscape sceneries and hence the mood as the embodiment of the cycle of phenomena in the Universe and seasonality.

Such constant allusions to the eastern garden during the analysis of landscape paintings of the English garden are another proof of the organic inclusion of the eastern component.

An important place in the organization of the Residence Park was played by careful selection of trees and plants to create landscape paintings, in arranging crowns in shape (mien), shades of green, as well as color and shape of leaves (large, up to 40 cm, medium 10 – 20 cm, small – up to 10 cm).

The picturesque nature of landscape paintings is achieved due to the selected combination of trees and plants with small garden and park architectural forms, including: fountains, ponds, grottoes, benches, as well as with the outlines and originally ceramic crumb covered paths (now the paths are paved). The selection of the historical type of pavement was conditioned by the fact that ceramic crumb created a unique red color of the paths, which accentuated the pastel greenery of the spring park, emerald greenery of the park in summer and bright yellow leaves in autumn.

To form the plant compositions of the park, trees with monopodial and sympodial branching were taken, the seasonality of flowering of spring and summer species, as well as the duration of flowering were also taken into account. This also shows a direct allusion to Chinese gardens, where landscape pictures of a certain seasonality were immediately conceived, some plants bloomed in spring, some in summer, and there were also evergreen areas.

The influence of landscape traditions of China and Japan can be considered the fascination with the tradition of landscaping parks with exotic trees: for example, the central part of the Residence Park is decorated with exotic plants that appeared on the European continent only in the eighteenth century:
southern catalpa (Catalpa bignonioides), tulip tree (Liriodendron tulipifera), western thuja, originating from Eastern Canada and the eastern states of the USA (Thuja occidentalis), ash maple, or negundo, American maple (Aser negundo – Negundo fraxinifolium), Canadian hemlock (Tsuga canadensis) as Chinese large-flowered magnolia (Magnolia denudata), different types of flowering shrubs: mock-orange (Philadelphus L.), deutzia (Deutzia L.), meadow sweets (Spiraea japonica), tamarisk (Tamarix L.), forsythia (Forsythia suspensa), spiraea vanhouttei, Osage orange (Maclura pomifera), yellow azalea (Rhododendron luteum). Sunny meadows are decorated with ornamental trees of endemic species: 100-year-old red-leaved beech (Fagaceae), Western European larch (Larix desidia), red oak, chestnut.

Amazing “accent” amazing trees were also artificially formed, such as a “tripod” apple tree, created in such a way that the crown of the tree was grafted on two neighboring rootstocks at once.

At one time in the middle of the twentieth century in the park of the Residence walked roe deer, today there are squirrels and birds.

The peculiarity of the green zone of the park was that here on the border of the park and the economic zone of the guest building there was a seed and agricultural laboratory, where the population could get advice on agriculture and horticulture, in particular to check seed germination and soil chemical composition and learn about ways to enhance its fertility.

**Modern problems of the Residence Park existence**

The main problems of today, related to the functioning and condition of the park at the Residence, are as follows. First of all, this is a respectable age, and hence the emergency condition of many trees that need to be replaced. Old trees get sick and are affected by mistletoe, which requires periodic sanitation. Instead of removed trees, seedlings of similar species are planted (except for self-seeded trees that grew during the Soviet era).

When the function of the ensemble of the Residence changed, part of the farmsteads ceased to be used for its original purpose, in particular, the courtyard adjacent to the west wing of the Metropolitan Palace was used for some time as a training ground for the Department of military training.

Now the territory of this yard is tidy, has a grass lawn instead of the removed asphalt, and on October 4, 2013 on the territory the ceremony of laying of the Bible garden took place.

The once important Eastern Upper Courtyard, adjacent to the opposite, eastern side of the Metropolitan's Palace, where on July 8, 1864 (the day after the consecration of the Cathedral of the Holy Spirit in Chernivtsi) a solemn crowded ceremony took place during which Bishop Eugen Hackmann laid the foundation of the House Church (chapel) of St. John of Suceava, which marked the beginning of the construction of the complex of the Metropolitan Residence in Chernivtsi, until 2020 was a cluttered area [18, 137], which is now partially streamlined.

The eastern “Lower Yard”, intended for servicing the House for Visitors, adjoins the Upper Yard on the south side and is separated from it by a stone fence – a retaining wall was also disordered until 2020, although there are archival drawings showing the space and buildings of this yard. The process of revalorisation of its space is underway.

Due to the disorder of the Residence as a tourist attraction during the consideration of the inclusion of the Residence in the UNESCO List at the 35th session of the UNESCO WHC, several remarks were made, the main one being the lack of tourist infrastructure on the territory of the nominated object, it was noted the compliance of the nomination dossier of the Residence, in particular the management plan, the criteria of the Operational Guidelines for the implementation of the “Convention for the Protection of World Cultural and Natural Heritage”, about the inconsistency of functioning within the territory of the Residence architectural ensemble the garage workshops, sheds and warehouses of late stratification (1970s), which have no historical value and are not authentic, of the utility yard, the presence of which does not correspond to and its qualities do not attract, but, on the contrary, repel tourists.

In particular, this was stated in the conclusions of the ICOMOS international expert Mr. Josef Stultz, who in 2010 (during the nomination of the site) on behalf of the UNESCO World Heritage Center, visited the Residence with an expert mission.

The economic crisis has not allowed the university to fully eliminate all the comments made in previous years, they managed to take into account only partially. Management plans of the Residence as a UNESCO World Heritage Site (2011–2015) and an existing site (2015–2020) were prepared, and the issue of creating an appropriate tourist infrastructure based on it was raised. The main remark concerned the removal of the economic function of the yard and its replacement by tourist infrastructure.

The difficulty was the need to move to other areas of commercial and technical premises, but this was the main remark of the UNESCO World Heritage Center and the monitoring mission of the UNESCO World Heritage Center (Paris), the UNESCO Site Management Center (in operation at the university since 2012). As a result of the proposal of the UNESCO Facility Management Center, together with the university management, a collegial decision was made to bring the utility yard to the territory of other educational buildings.

Thus, measures are implemented for the reconstruction of the utility yard, buildings and ancillary facilities: warehouse and garage-workshop with a change of function and implemented plans to create in their place components of the tourist infrastructure.
Project stages

Scientists of Yurii Fedkovych Chernivtsi National University together with the Center for Management of UNESCO, began work on a comprehensive scientific survey and preparation of design documentation, which is divided into two stages.

During the first stage of works complex scientific works were carried out, in particular researches, photofixation, definition of cultural, historical and scientific value of economic constructions, late extensions and layers were revealed, works on photofixation, measurements, creation of sketch proposals, etc. were carried out. It is planned to remove technical means, trucks and cars, dismantle (demolition) of late and dissonant buildings and structures, initial (preliminary) improvement of the territory and construction of public toilets on the site of two existing warehouses.

At the second stage it is planned to reconstruct the building of the workshop-garage for the object of tourist infrastructure: cafe, kiosks for souvenirs, tourist center; as well as the implementation of landscape transformation of the yard. During 2020-21, design and estimate documentation was prepared. The process of its approval and examination lasted until 2021. Currently, the program of the President of Ukraine "Great Restoration" provides funding for the work.

In October 2013, at the initiative of the Yurii Fedkovych Chernivtsi National University, the National Jewish Fund (Keren Kayemet LeYisrael) (which plans to finance the creation of the Bible Garden), the Embassy of the State of Israel in Ukraine at the Residence of Bukovinian and Dalmatian Metropolitans as part of the Year of the State of Israel in Ukraine, a solemn ceremony of laying the first Bible Garden in Ukraine took place. The distinguished guests solemnly planted the first tree seedlings brought from Israel. These seedlings are symbols of memory of relatives and friends.

On the basis of Yurii Fedkovych Chernivtsi National University by order of the rector – Professor, Doctor of Physical and Mathematical Sciences S.V. Melnychuk, – a working group was established to develop a program to create a Bible Garden and coordinate the stages of planning, communication with international organizations and funds.


In particular, the research team managed to create a catalog of plants of the Holy Scriptures suitable for the climatic zone of Chernivtsi.

The next stage of pre-project development according to the Law of Ukraine "On Protection of Cultural Heritage" included a survey of the territory and technical condition of the buildings and structures located on it. The works were funded by Yurii Fedkovych Chernivtsi National University and performed by the Ukrainian Specialized Research and Restoration Institute "UkrZakhidProektRestavratsiia" in 2012.

The author's team of Yurii Fedkovych Chernivtsi National University teachers under the leadership of I. Korotun developed a sketch project of the Bible Garden. According to the project, the existing gate defines the main visual axis of the garden. The territory of the garden is organized taking into account the simultaneous performance of three functions – education and training of students, excursions and recreation (because the Residence is a prominent tourist attraction), aesthetic and artistic function. According to the proposed conceptual idea of the architectural and planning solution of the Bible Garden in the landscape by means of architectural and landscape techniques, relief, plants (as the main component) embodies the Law of Moses, which forms the first part of the Tanakh – Torah and the first five books of the canonical Bible.

The size of the garden is quite small and is 70 x 83 meters in a rectangular part (Fig.8). The terrain between the two buildings of the Residence, the street separated by a stone fence, and the old park behind a brick wall is quite calm with a slope to the southeast, the total area of the garden is 6165 m². The authors of the concept identified the main factors that influenced the planning structure and determined the main front of the perception of the Bible Garden. The tourist function was defined as the main one, therefore, the garden space should be organized in order to maximize the saturation of the exposition on a relatively small area by means of a certain route of alleys and paths with constantly changing angles and fronts of visual perception and filling with dendrology according to the technical task. In the entrance area with a total area of 900 m², the main information and communication node is formed for the accumulation of visitors. Planning means provide for the division of the territory into 5 sectors.
Sector 1. Dedicated to Bereshit – the book of Genesis, the first book of the Torah, the Old Testament and the entire Bible. It consists of two departments:

A) Creation of the world and all living things, as well as the creation of the first people – Adam and Eve (Chava), the first sin (fall), expulsion from the Garden of Eden.

B) The history of the Flood, the twelve tribes of Israel, the life of Joseph in Egypt and ends with the resettlement of Jacob's family to Egypt.

Sector 2. Dedicated to Shemōt – the Book of Exodus, which tells the story of the Exodus of the people of Israel from Egypt under the leadership of Moses (Moshe). Giving the Torah to the Jewish people on Mount Sinai, wandering in the wilderness.

Sector 3. The third book: Vayikra – The Book of Leviticus – is devoted mainly to the priestly legislation and temple services, the laws of spiritual purity and impurity, including laws of Kashrut, Yom Kippur (Doomsday), etc.

Sector 4. Bemiḏbar – the Book of Numbers describes 40 years of wandering in the wilderness before Israel entered the Land of victory over neighboring nations, access to the borders of Canaan, where the land flows "with milk and honey."

Sector 5. Deuteronomy – Dwari, instructions and prophecies to the sons of Israel for all subsequent generations.

In the right part, the site master plan provides the elements of green spaces and landscaping: paving, small architectural forms, vertical planning of the territory. Each of the above sectors corresponds to a specific set of plants. The main visual axis ends with the "Garden of Eden", the direction is fixed by the berceau, above which are collected curly roses, mostly of light shades. The territory of the 2nd sector of the Book of Genesis is also framed in the form of a circle. In its center is the "Oak of Mamre", the passages are organized around the ring. From the side of the street there is a berceau, in the form of the Noah's ship skeleton. Berson is a frame for climbing plants and at the same time – closes part of the visual front on Nekrasova Street. In the course of movement, the relief gradually artificially lowers and reaches the lowest mark in the "Exodus" part, where an artificial reservoir is located, symbolizing the Nile River. In the waters of the reservoir there are molds for reeds and a wicker reed cradle, which is reminiscent of the story of the birth of Moses. The back side of the reservoir, facing the park fence, is formed in the form of two walls-waterfalls that flank the path. This is a symbol of the crossing of the people of Israel through the Red Sea, "marching across the sea, as if on dry land, seeing the pharaoh's army being drowned." The next point is the artificial mountain – the symbol of Mount Sinai. Climbing 50 steps, we find ourselves on a small plateau – an observation deck. The slopes of "Sinai" are open to sunlight and provide a convenient opportunity for planting various herbaceous plants and shrubs (hyssop, tamarisk – a symbol of manna from heaven). At the foot of the mountain is a desert zone – an open area covered with sand – a striking contrast to the lapidary surfaces of "Mount Sinai". In the lower part of the mountain slope, at the level of the raised hand, a source is arranged – a symbol of the source of Moses. In the inner part of the mountain, there is the possibility of constructing various grottoes, caves, as well as technical rooms for managing utilities (spacious basements of adjacent buildings can also serve for these purposes).

The "Book of Numbers" is located in the immediate vicinity of the Metropolitan's Palace. In the center of the platform is a canopy gazebo, signifying the Tabernacle of the Meeting, which is often mentioned in the book. Also, from this part of the garden, a fence is opened and a connection with the existing park is arranged. The surrounding area is planted with biblical grasses, climbing plants and shrubs.

The symbol of Deuteronomy is the central ground that unites all the other books. The straight path is traced in such a way that it allows you to view all areas at the same time, which symbolically illustrates the content of Deuteronomy.

Thus, on a relatively small area of 0.6 hectares, the content of the Torah is revealed by artistic methods, and a complex harmonized space is formed, which provides opportunities for recreation and sightseeing.

The presented draft design represents a small part of the working drawings, which are to be developed in full.

Priceless treasure of nature and a monument of landscape art of national importance – the park of the architectural ensemble of the Residence of Bukovinian and Dalmatian Metropolitans in Chernivtsi has aged since its inception and somewhat lost its former appearance, but retained the atmosphere of charm and comfort that attracts and city dwellers.

It is hoped that the university management, the Chernivtsi community will make efforts to recreate the enchanting beauty of the Residence Park, that its fountains will start working again, the grotto and the pond will be repaired. After all, this is an invaluable part of the city, part of a site included in the UNESCO World Heritage List.

Conclusions

Taking into account the visual perception of the park, relief, visual axes, habitus and plots of tree shadows, the following main areas have been historically distinguished in the Residence Park: terrace palace territory (Italian garden); a French garden, an area of an English park with a pond and a grotto, an economic part, with a greenhouse and greenhouse facilities and housing for staff in the western part of its territory, separated from the park by a green strip of mighty trees.

Thus, the architectural and planning basis of the structure of the main courtyard and park of the Residence of Bukovinian and Dalmatian Metropolitans
combines the achievements of three most prominent European schools of landscape art: Italian regular Renaissance gardens (Villa d'Este, Tivoli; Boboli Gardens at the Pitti Palace, Florence, gardens in the Vatican courtyards by Bramante), regular parks and gardens of France in the period of absolutism (Versailles, Vaux-le-Vicomte, associated with the name of the famous park master Lenotre) and English landscape gardens and parks of so-called “free” planning.

Previously, the central alley of the main courtyard of the residence on the great religious holidays was a procession, in particular at Easter and Christmas. Now, at the beginning and at the end of the academic year, thousands of students of the Yuri Fedkovych Chernivtsi National University gather here to accept the initiation of freshmen into students and to receive diplomas.

It is also a favorite space for various flash mobs, in particular, for the first time in Ukraine, a celebration of Ukrainian embroidered shirt was held here.

Today, with the work of arranging the old park and starting work on the creation of the Bible Garden, this unique object acquires a modern sound and becomes a tourist attraction.

Due to the fact that the Bible Garden is laid out on the territory of the World Cultural Heritage site, special requirements are imposed on the procedure for the development of documentation and execution of work. The documentation is undergoing the procedure of finalizing the nuances and details and, in accordance with the current legislation of Ukraine and international regulations, will be submitted for preliminary approval at the UNESCO World Heritage Center, at the National Commission of Ukraine for UNESCO and the Ministry of Culture of Ukraine.

References

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