

# Role of Natural Landscape in Perception of Ukrainian Sacral Architecture Monuments

Denys Chernyshev<sup>1</sup>, Yulia Ivashko<sup>1</sup>, Dominika Kuśnierz-Krupa<sup>2</sup>, Andrii Dmytrenko<sup>3</sup>  
<sup>1</sup>*Kyiv National University of Construction and Architecture*, <sup>2</sup>*Faculty of Architecture, Cracow  
University of Technology*, <sup>3</sup>*National University "Yuri Kondratyuk Poltava Polytechnic"*

**Abstract.** The article analyses the impact of natural environment on the creation of a Christian church design, as an example, reviews the Orthodox architecture of Ukraine – historical and contemporary one. From time immemorial, Orthodox churches were erected in the most picturesque places – on high hills, steep banks, near rivers and lakes – so that the temple was reflected in the water surface. A typical example is the historical silhouette of the steep right bank of Kyiv, formed by many churches, cathedrals and monasteries located along the edge of the hilly shore. If temples in the urban environment were constrained by the conditions of dense quarterly development (the principal cathedrals and monasteries were an exception), then the peculiarity of the remote suburban monasteries – the hermitages – was precisely the creation of nature and architecture picturesque combination. At the monasteries, parks, gardens and flower beds were created, artificial lakes were arranged. During the domination of the atheistic ideology, temple construction was in decline, most of the cathedrals, churches and monasteries were destroyed or redesigned under the socialist functions of clubs, museums of atheism, schools and storages. The contemporary course in the creation of new Orthodox churches is aimed at restoring the lost sequence in the church building. In this case, particular attention is paid to the natural environment: churches are built in park areas, in forest parks, on the banks of lakes, surrounded by flower beds. The relevance of the study is explained by the presence in Ukraine of a large number of Orthodox churches – both architectural monuments and newly built, which are traditionally surrounded by gardens, parks and flower gardens as symbols of their non-earthly purpose, the image of the Garden of Eden. Therefore, during the restoration and new construction of such objects, it is necessary to understand the features of the church landscape design, which has been formed and improved over the centuries.

**Keywords:** Churches of Ukraine, natural landscape, figurative perception

## Introduction

The landscape of Ukraine has long been amazingly picturesque, steep and gentle banks, mountains and valleys alternated here, and in past centuries a vast territory of the country was covered with forests. Such a picturesque landscape has historically contributed to the construction of a large number of temples and monasteries in a natural setting. Over the centuries, a unique synthesis of nature and man-made objects has been formed – a steep terrain, water, green areas have repeatedly enhanced the aesthetic expressiveness of architecture, and architecture has become the main chord and accent of the landscape picture. The first Christian churches here were built before the official baptism of Kyivan Rus by Prince Volodymyr the Great in 988. Most likely, the traditions of building churches on the most picturesque places of the relief are associated not only with their safety, urban development feasibility and artistic-figurative perception but also with deep, not eradicated Christianity pagan beliefs associated with the deification of natural phenomena, water and trees [1; 2; 14]. It is no coincidence that many temples were built on places where pagan temples were previously placed.



Fig. 1. St. Paraskeva's church in Zarubyntsi.  
Watercolour by Yulia Ivashko

It can be argued that for the population of those territories, a significant factor was the relationship with the natural environment, which is especially noticeable in the example of the rural Orthodox architecture. For the building of the church, most often wooden, the most appropriate place was chosen, it was visible from afar; if a lake or river was nearby, then the church was built near them (Fig. 1) [2; 6; 9; 10; 11; 16].

If the village was large and rich, each of its parts could have own church. For the church, they tried to choose the highest quality wood – oak or pine.

At the same time, the natural environment seemed to demand the main image of the church – for example, on the Left Bank of the Dnipro (Slobozhanshchyna, Poltavshchyna) very tall tower churches were built on the plain, visible from afar and seemed even higher due to the effect of a slight inclination of the outer walls to the central axis and vertical wall siding with boards; in the Carpathians, among the mountains, there was no point in building such high temples, so the churches there are lower and consist of many low tiers, reminiscent of the European Spruces and *smerekas* (*Picea pungens*) surrounding them, and the walls and domes are shared with thin plates – wood shingles.

### Results and Discussions

The theme of Ukrainian Baroque in Ukraine has always attracted domestic scholars, as this period is also called the Second Ukrainian Renaissance and was characterized by the maximum expression of national and regional features in architecture, art and landscape design.

Since the main objects of the Baroque period are monastic ensembles of a high aesthetic level, it is quite reasonable that the best examples of gardens were introduced in the monasteries of this period.

Landscape descriptions made it possible to present the natural surroundings of the church. For example, Hrygorii Pavlutskyi wrote about the cathedral church of St. George in Tarashcha, that the temple is very tall and large in size, stands on a mountain, towering over the whole city [9].

A particular aspect of the study is the rural monasteries. Attention to the picturesque natural environment begins to show itself starting from the period that has been called “Ukrainian Baroque” in many Ukrainian scientific sources, as noted by such researchers as Viktor Vecherskyi [12; 13], Serhii Kilessso [4], Hrygorii Logvyn, Tetiana Kilessso, Mykola Orlenko [7; 8], Leonid Pribeha, Olha Sitkareva and many others.

However, the term “Ukrainian Baroque” itself causes a lot of complaints, since it cannot be considered a direct analogue of Western European Catholic Baroque.

Some researchers (H. Logvyn [5], V. Vecherskyi [12; 13]) questioned this term and emphasized the direct connection between the image of stone churches of the Hetmanate period and wooden churches, the origins of the architecture of which were purely folk, formed under the impact of local climatic conditions and traditions.

### Materials and Methods

Given the controversy and versatility of the study, the authors used such scientific methods as the method of literature analysis for the analysis of literary sources, religious documents and mentions of baroque gardens in the fiction of those times, the method of historical analysis to study the origins of Orthodox construction in Ukraine and comparative analysis to identify the features of the interaction of nature and the church and to identify the features of temple landscape design at different historical periods.

The choice of research methods was determined by the selected geographical and chronological boundaries of the study. Examples of gardens at the most famous urban and suburban monasteries of the Baroque period were analyzed.

The main goal was to determine the common and different between the monasteries landscaping techniques in different regions of Hetman Ukraine, the importance of landscape for the perception of architectural objects of Hetman Ukraine and common approaches to designing monastic ensembles and gardens at monasteries.

Despite the large number of scientific publications devoted to the Baroque in the lands of the Hetmanate, the issues of the Baroque period monastic gardens systematization, identification of common and different between them, as well as determination of regional features of monastic landscape design remain unexplored. This became one of the tasks of the presented study.

There was also a common approach to the monastic landscaping of the Baroque period in other nations. This is a scientific novelty of the study.

The study covers geographically – the territory of central and left-bank Ukraine, chronologically – the period of the second half of the 17<sup>th</sup>–18<sup>th</sup> centuries, called the period of the Cossack rule – Hetmanate, when national traditions were maximally expressed both in architecture and in landscape design.

Among the most outstanding objects in the natural environment, the churches of the Kyiv-Pechersk Lavra Monastery in Kyiv, the Holy Trinity Ioninskyi Monastery, the Vydubychi Monastery, the Kytaievo Monastery in Kyiv, the Trinity and Yeletskyi Monastery in Chernihiv, the Mhar Monastery in Poltava region were analyzed in detail.

## Main part

### The church architecture of the Hetmanate period and its touch with natural environment

The unique character of the Ukrainian Orthodox architecture was in a mixture of architectural and constructional and landscape traditions brought in from the border, combined with local customs.

This process was activated due to the invitation of European architects brought up on the traditions of European Catholic Baroque (for example, Johann Baptist Sauer during the construction of the Holy Trinity Cathedral of the Holy Trinity Monastery in Chernihiv and the Saviour-Transfiguration Mhar Monastery; or Johann Gottfried Schaedel during the construction of the Great Lavra Bell Tower and the Zaborovskiy Gate) and sometimes Moscow architects (for example, Dmitrii Aksamitov during the construction of the St. George Cathedral of Vydubychi Monastery).

The peculiarity of the Baroque period temple construction on the areas of the Hetmanate region, which were under Cossack rule, is exceptional attention to the location of the church, a tradition that dates back to pre-Christian times when religious pagan buildings were built on the most beautiful places, on the banks of rivers and lakes.

It was during the Hetmanate period that a specific type of monastery appeared that continued to develop in the following centuries – in the structure of urban buildings or the countryside, occupying a somewhat remote position, surrounded by lavish greenery, with a developed system of gardens and flower beds, on the banks of a natural or artificial pond.

That is how the Upper and Lower Lavra [8], the Holy Trinity Ioninskyi Monastery, the Vydubychi and Kytaievo Monastery in Kyiv, the Holy Trinity and Yeletskyi Monasteries in Chernihiv, the Mhar Monastery and several others are placed often in the system of natural hills, a developed scheme of the underground monastery with temples and cells was gradually created.

The natural factor was often essential in the original development of the monastery: as an example, the caves of the Upper and Lower Lavra in Kyiv, the Anthony Caves in Chernihiv, that is, the first cave settlements could be in the depth of the hills starting from pre-Christian times or the first years of Christianity in Kyivan Rus [15].

The attractiveness of such places for settlement was justified by several positive reasons, such as the protection factor (upland, underground passage system), the provision of water and food (fish), transport accessibility, the availability of good soil and climate for farming (there were always gardens in the system of monasteries, plots, apiaries, which gave food for the brethren of the monastery and their products were sold).

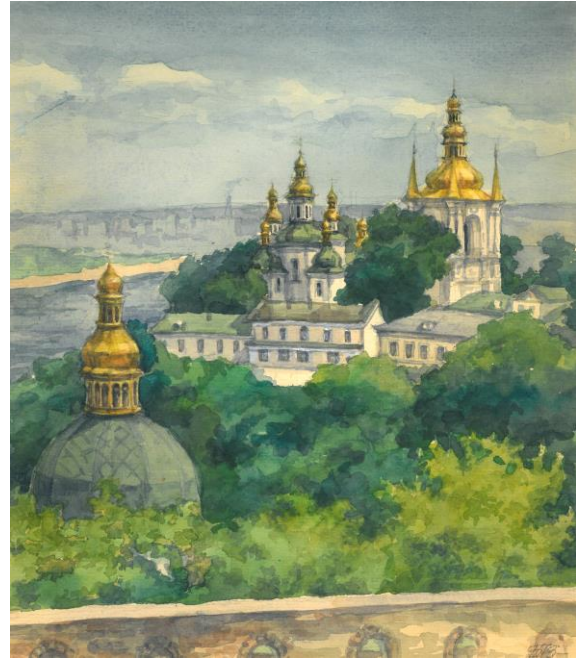
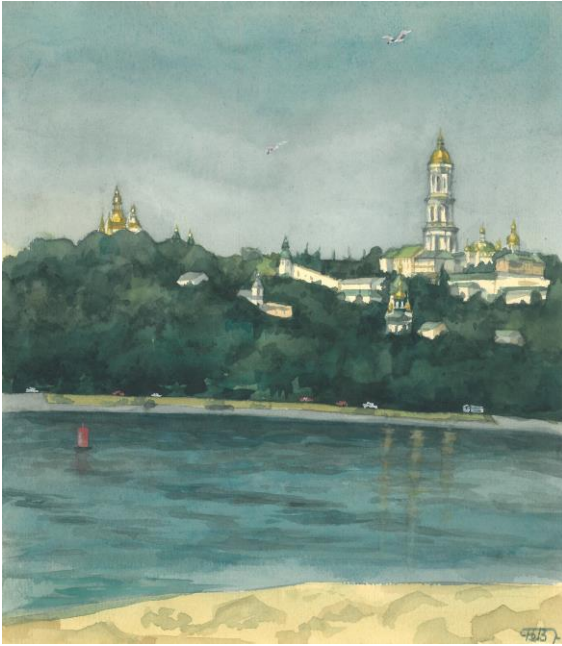


Fig. 2. The territory of Lower Lavra.  
Watercolour by Yulia Ivashko

Catherine II began to pursue the secularization policy which was aimed at the confiscation of the farming acreage and finances of the monasteries to the state treasury. Up to that time, the monasteries were the richest landowners that ran not only their gardens and vegetable plots for their own needs but also arable lands, hayfields and lakes [12; 13].

The monastic life in the most famous Kyiv-Pechersk Monastery in Kyiv was subordinate to the charter of Saint Theodore of Stoudite; this fact also affected the layout of the monastery territory, which was especially manifested during the Hetmanate period, when the system of the monastery buildings arrangement in the concentric circles appeared. In the centre, in the most prestigious zone, the central cathedral of the Assumption of the Mother of God was built; next to it was the refectory the oldest monastery garden and spring, thereby combining architecture and natural surroundings [8].

Therefore, nature at that time was interpreted as a significant element that complements the principal architectural structures. To the west of the refectory, the buildings of the "Archimandrite Chambers" were placed, and behind them, around the territory of the Upper Lavra, there was the Archimandrite Garden, which was interpreted not only as a recreation but primarily as a sacred symbol of the heaven on earth, the biblical Eden, because plants and trees planted in it expressed the specific dogmatic meaning and symbolized the Christian honesty (Fig. 2). During the Hetmanate era, the monastery gardens in their images corresponded to the detailed architecture, which is known as "Cossack Baroque" or "Ukrainian Second Renaissance".



*Fig. 3. View from the Dnipro river to the territory of the Kyiv Pechersk Lavra. Watercolour by Yulia Ivashko*



*Fig. 4. The Big bell-tower of the Kyiv Pechersk Lavra. Drawing by Yulia Ivashko*

The gardens had systems of terraces, staircases with balustrades between levels and elaborate "view pictures" that helped to the cloistered praying and thinking about eternity.

In the design of the monastery gardens, the scrupulous and considered work of gardeners was observed; there were the openings of the most picturesque views from the terraces and sightseeing

platforms. The entire landscape compositions were created from plants and trees; with the buildings, they were connected by the galleries and passages.

An engraving of 1702 depicts the Church of the Exaltation of Holy Cross of the Kyiv Pechersk Lavra on the terrace of the southern slope of the Lavra Hill [15]. Back in the days of Athanasius Kalnofoiskyi, the gardens were planted on the hillsides adjacent to the church.

The unique figurative perception of the ensemble of the Near Caves, is mostly determined by the accentual hostile terrain since from the territory of the Near Caves, a beautiful view of the Dnipro and its steep bank can be seen (Fig. 3, 4).

The rugged terrain also determined the principles of the location of the buildings of the Far Caves on two natural terraces on a high hill. Initially, the wooden staircase with balustrades was built to walk into the Far Caves along a steep slope; it was replaced by a covered gallery by 1695.

Since the natural environment becomes one of the principal factors in the placement of an Orthodox church or a monastery, if the natural environment was insufficient (for example, there was little greenery, there were no water bodies), gardens or forest parks were established and a system of artificial ponds was established based on the existing natural sources (the examples are Kytaievo and Holosiivskyi heritages – suburban cloisters).

Founded in 1716, Kytaievo Monastery arose on the site of prehistoric settlements of the 3<sup>rd</sup>–1<sup>st</sup> millennia BC. Later there was an ancient Slavic settlement at the foot of Kytaievo Mountain and the fortified Kyivan Rus Kytaievo settlement of the 10<sup>th</sup> century. It is with the period of Kytaievo settlement that researchers most often attribute the emergence of the developed system of the underground passages in the thickness of the mountain. The main temple of Kytaievo Monastery was the Holy Trinity Church, built during the Hetmanate era, however, the buildings were added in the 19<sup>th</sup> century.

As mentioned earlier, during the Hetmanate era, the synthesis of architecture and picturesque natural surroundings becomes the characteristic feature. In the case of suburban monasteries, a symbol of the salvation of monks from the futility of life in cities, the symbolism of the natural elements manifested itself most clearly, because they were not dominated by the strict rules of regular urban development. So, in Kytaievo Monastery, such symbolic natural elements with a deep sacred meaning were Kytaievo Mountain – the local symbol of the ancient Greek mountain Athos, a birch with three trunks near the principal church – the symbol of the Trinity, etc.

The picturesque monastery ensemble was enlarged by the system of artificial lakes above which the monastery stands, lush natural greenery,

steep paths leading from the lakes along the hillside to the caves. From different levels, beautiful view paintings open up, in which architecture, complex terrain, water bodies and landscaping are merged. The oldest Kyiv oak, whose age is more than three hundred years, is preserved here. All view pictures seemed to be divided into three levels: paintings of the lower level, from lakes to a high mountain with caves and steep paths and to the opposite bank with a temple and monastery buildings; the middle-level views – from the wooden staircase to the caves, to a system of artificial ponds and the opposite bank with the principal emphasis of the Holy Trinity Church; the pictures of the upper level – from the platform in front of the entrance to the caves, opening only to the opposite bank, where the temple and buildings could be watched from above, on the domes, while most of the buildings are hidden in greenery.

The similar principles were applied in the Feofaniia Monastery, which was previously out of Kyiv, and now it is a part of the city. The Feofaniia Monastery arose later, at the beginning of the 19<sup>th</sup> century, on the initiative of the vicar of the St. Michael's Golden-Domed Monastery Feofan Shiyarov as his suburban residence for solitude. When planning the territory, the principal argument for placing the monastery in this place was the presence of a complex picturesque relief with alternating hills and lowlands. At the highest point of the hill, the central Panteleimon temple was built, which is visible from different points from afar, and at the foot of the hill, there is a system of lakes on one side and a valley with a natural stream on the other. During Feofan Shiyarov, to the left of the central road to the temple, a large oak grove was planted and it has been preserved to this day. The oak grove like a curtain, backstage that opens up a magnificent panorama of the mountain and the distance with the majestic temple of St. Panteleimon.

The perception of the central churches in Kytaievo and Feofaniia Monasteries is fundamentally different: in Kytaievo, there is no such overview of the entire territory from distant points, the heritage from different sides was surrounded by high hills with dense vegetation, which mostly "hides" the buildings. On the contrary, in Feofaniia, the emphasis is precisely on revealing architecture and distant view perspectives, the green massif "recedes", not obscuring the development, but only supplementing it. The paths to the left of the temple lead to the oak grove and a system of lakes in which the temple is reflected spectacularly, to the right – to a picturesque natural area with alternating hills, natural streams and springs with healing properties.

Just as in Kytaievo Monastery there are natural symbols – carriers of the sacred meaning (Kytaievo

hill, a triple tree), there are such symbols in the Feofaniia Monastery. This romantic area reminded Feofan Shiyarov of the biblical places he had visited, so he immortalized these places in his suburban residence: there is the Kidron Valley stream, the Valley of Josaphat, Mount Tabor, Elyon. Comparing the two historical heritages, two various methods of architecture and landscape combination are identified – the first, without the possibility of viewing architecture from distant points due to the surrounding hills covered with trees, the second – with the feasibility of viewing architecture and its dominance over natural elements – hills, valleys, water bodies and landscaping.

Both of these methods differ from the previously mentioned the third one, illustrated on the examples of Kyiv and Chernihiv, when most of the central cathedrals and monasteries are located on the upper edge of the high bank of the river, and in this case, the perception of architecture in combination with the landscape is most vivid due to the maximum identification of natural qualities of such accentual forms of the landscape as mountain slopes, precipices and ravines.

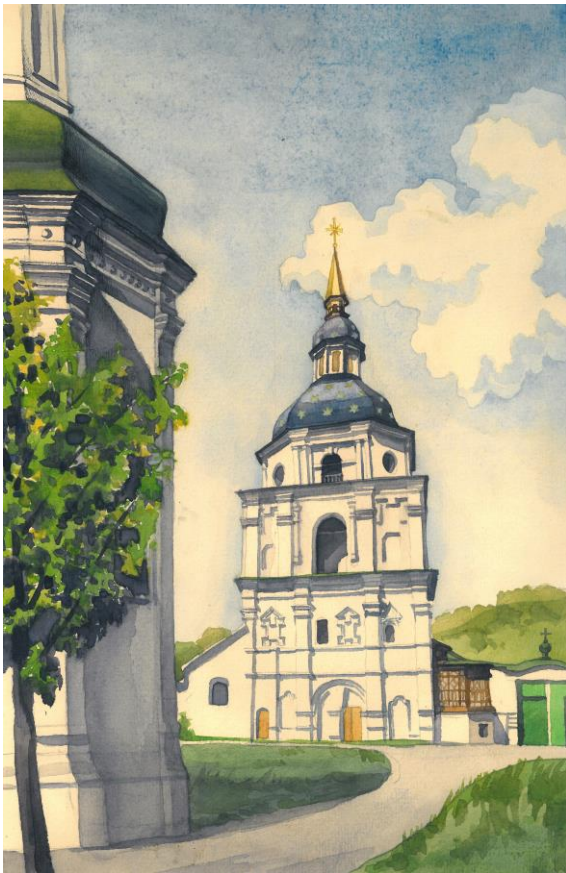
That is how the constructions of the Holy Trinity Ioninskyi Monastery, the Upper and Lower Lavra, the St. Michael's Golden-Domed Monastery, the St. Andrew's Church in Kyiv, the Yeletskyi Dormition Monastery and the Holy Trinity Monastery in Chernihiv are perceived [7; 8]. In particular, in case of the Kyiv Pechersk Lavra, one can speak of a terraced hillside development with the simultaneous development of the monastery ensemble at several levels throughout the high slope, observing the principle of buildings location hierarchy.

The most significant Assumption Cathedral – the Mother of God Church, the Big Bell Tower, the Refectory – are placed on the upper sites, with the possibility of their comprehensive review from distant points, less significant – on the slope in the direction from top to bottom (Fig. 4).

An example of placing the monastery on the upper edge of the hill is the most advantageous, however, there are known cases of placing the monastery not on the mountain, but at a specific height from the water, when a higher mountain rises behind it. An example is the Vydubychi Monastery in Kyiv (Fig. 5, 6). This historical monastery, founded in Kyivan Rus times, experienced a period of decline during the time of the Uniates and a heyday starting from the Hetmanate era. The central temple of the monastery is the St. George's Cathedral, which is rightfully considered the most harmonious decision of the five-dome cross in terms of a tower-type church built during the period called "Ukrainian Cossack Baroque".



*Fig. 5. View from the New Botanical Garden to the Vydubychi Monastery. Watercolour by Yulia Ivashko*



*Fig. 6. Territory of Vydubychi Monastery near St. George Cathedral. Watercolour by Yulia Ivashko*

Placing churches and monasteries along the upper edge of the high right bank of the Dnipro river gave aesthetic, urban planning and compositional advantages, but it created the principal difficulty of construction on subsiding landslide soils. So, the church of the Archangel Michael, built in Kyivan Rus times, was located directly on the edge of the slope, which as a result of landslide processes led to the collapse of its eastern part with an altar and a dome. Even the retaining wall built by the Kyivan Rus architect Petr Miloneg could not prevent it. It is known that the Assumption Cathedral of the Kyiv Pechersk Lavra, the St. Michael's Golden-Domed Cathedral of the St. Michael's Golden-Domed

Monastery, St. Andrew's Church constantly suffered from these problems. The problem was aggravated by the watering of nearby monastery gardens, plots and flower beds. Thus, the maximum use of the aesthetic expressiveness of accented landforms gave advantages in creating dominants and aesthetic perception of the object. However, ignoring the existence of groundwater, the peculiarities of the subsiding soil and the landslide processes led to problems in the statics of buildings. At once after the construction beginning, cracks appeared in the walls, domes and load-bearing structures because of the subsidence of basis and soaking of loessial soils.

The old methods of restoration brought only a temporary effect, and the tangible results were achieved only in our time by using the reinforcement of footings, foundations and walls with piles, especially, the vertical, inclined and horizontal bored piles.

In this case, they considered options for placing monasteries on the high bank of the river, which eventually became part of the city. Another example of this type of placement is a suburban monastery, visually remote from settlements, on the riverbank, amid the river and nature untouched by civilization. A vivid example of such a monastery is the Mhar (Lubny) Transfiguration Monastery, located in the contemporary Poltava region, above the Sula River, on Mount Mhar, surrounded by the Mhar Forest. Like the rest of the Orthodox monasteries, the Mhar monastery did not start from anything, but on the site of an earlier monastery dating from the 13th century, although the official date of its creation is 1619.

Like other famous monasteries (the Kyiv-Pechersk Lavra, the Vydubychi Monastery, St. Michael's Golden-Domed Monastery, etc.), the Mhar monastery experienced a period of the maximum prosperity also during the Hetmanate period, when the main buildings were being built. In 1692, the principal Transfiguration Cathedral and the baroque multi-tiered bell tower were built in the Mhar monastery. Very soon, the monastery became a symbol of isolation in nature, and perhaps this fact is the reason that prompted the Constantinople Patriarch Athanasius to end his earthly path here during his last trip in 1654. According to the legend, he often prayed on a distant hill, where the Annunciation Church was subsequently built, and the monastery landscape garden with flower beds was laid out. One of the peculiarities of monastery life was the maximum use of landscape features. From the first years of the founding of the monastery here, monks were engaged in landscaping the territory of the monastery and the surrounding areas. At the beginning of the 20<sup>th</sup> century, the monastery was decorated with an aisle of limes planted by the Holy Hierarch Joasaph Bilhorodskyi (1705–1754

years of life) when he was prior of the Mhar monastery in 1737. The oak tree was also considered a shrine, in the shadow of which, according to the legend, Patriarch Athanasius prayed. Since the time of Peter I, the monastery became famous thanks to its phyto-pharmacy.

The monastery was in decline during the dominance of the atheistic ideology, starting from the period of independence, its revival began, when in parallel with the restoration of buildings a green zone, flower beds, ponds with turtles, a monastery zoo was built.

An analysis of the urban planning design for the urban and suburban monasteries of the Left Bank and Naddniprianshchyna during the Hetmanate era is represented by two principal schemes, the first of which provides for the continuous neighbourhood of courtyards for various purposes, the second "square in square" scheme provides for the allocation of an ceremonial "front" square space inside the fenced monastery territory around the principal cathedral, limited by the main facades of the cells, the refectory and the abbot's chambers, with the economic function of the space between the outer and inner square. There were cases when the features of the existing landscape did not allow making the layout of the square geometrically correct (The Holy Trinity Monastery in Chernihiv).

A comparative analysis of the monastic gardens organization techniques in the most famous monasteries of the Hetmanate of Ukraine in the Baroque period was carried out. In particular, different approaches to landscaping of urban and suburban monasteries were noted.

In urban monasteries, the area of gardens was smaller. Such monasteries, as a rule, originated in ancient times and had a layout structure adapted, including for defence and siege, i.e. gardens were located near the outer defensive walls with towers. As the area of the monastery was limited, it was primarily orchards and gardens with apiaries.

Instead, suburban monasteries and hermitages were not limited by urban requirements and territory, so they form, along with purely functional orchards and gardens, recreational irregular parks with maximum preservation of the natural environment and the inclusion of natural or artificial reservoirs.

It can be said that to some extent such a country monastery park becomes a specific analogue of the Chinese garden, because in both cases localities and reservoirs were given symbolic names (in monasteries – biblical, in Chinese gardens – based on lines of poems, legends or landscape specifics). However, such an approach to the poeticization of landscape design is characteristic of many civilizations and has been known since ancient times.

Unsurprisingly, despite the inconsistency in the image and purpose of the orthodox monastery park of the Feofaniivska Hermitage near Kyiv and the private Chinese garden Zhouzhenyuan in Suzhou, they are based on similar landscape techniques – accent landforms and reservoirs, which are given to the poets. reception of "green screen", when deliberately created the impossibility of viewing the entire garden, and one landscape picture follows another, creating the effect of infinity of space.

In the Zhouzhenyuan Garden, the mountains are made of artificial stone, and there are gazebos, in the Feofaniivska Hermitage, hills are natural, and on the highest of them the Church of St. Panteleimon is placed, which offers unique views of natural ravines and oak forests. However, only the plane in front of the temple is open, on both sides of which there are picturesque groves and ravines with natural streams and winding paths, which seem to be "blocked" by "green screens".

Here it is worth mentioning the common technique of terraces and bridges arrangement, which revealed the landscape, as well as the chamber nature of the country monastic gardens and orchards in Suzhou. Despite the different religious content and cultural differences, such gardens performed the same function – merging with nature, solitude and meditation. This indicates that different civilizations at different times, independently of each other, used similar landscape techniques, although they embodied different species of greenery.

Some similarities can be noted in the landscaping of the Kytaiivska Hermitage near Kyiv and the gardens of Suzhou. As in the park of the Feofaniivska Hermitage, the landscaping around the church is arranged, and around the reservoir that surrounds the ensemble, there are natural mountains with untidy greenery. Thus, it is a local variant of landscape techniques, which in China were called "garden in the garden", i.e. a smaller garden can be seen larger, and "landscape borrowing", when the ensemble includes perspectives of long-range plans behind the monastery. Here the theme of "lake and mountains" is also embodied by local species of trees and on the local steep terrain, although without mythological connotations, the main temple is located above an artificial lake, and hills with caves and steep paths rise above it. From the site in front of the caves in the frame of greenery you can see only the domes, the impression of a picture in the frame, and this technique is also typical of Chinese landscape design, although it is embodied differently. Architecture here does not dominate over nature, but merges with it as much as possible.

In the East, the private garden was the personification of the ideal natural world, in the

monasteries the garden became the personification of paradise on earth. In China, gardens were decorated with certain symbolic flowers and plants, and in monastery gardens, plants and trees were planted that had a certain dogmatic meaning and symbolized Christian virtues.

### Conclusion

Since ancient times, the natural environment was considered as a component that enhanced the quality of Christian architecture. In Ukrainian folk architecture, it happened intuitively, taking into account the deep pre-Christian traditions of the deification of nature and the ineradicable pagan rites and superstitions. In the villages the churches were mostly wooden, they were built on the highest place, if there was a river or lake nearby, then they were also included in the overall composition. The dominance of particular tree species on the territory of different districts of the Kyiv province determined the timber material used in construction and immediately effected the size and durability of the churches being built. The churches on the Right Bank and Left Bank Ukraine were built of quality wood (oak, pine), and that's why they were large in size, tall and durable. The wooden churches against the background of the picturesque nature were described by travellers, poets and writers, depicted by artists.

The poetry and lyricism, peculiar for the Ukrainian people, manifested in the glorifying of nature, was transferred to church architecture, which is considered in the natural environment. Folk traditions were expressed during the period of national revival, called the "Hetmanate era". This period was marked by the flourishing of Orthodoxy, the emergence of new monasteries and churches. On the example of many famous churches and monasteries of the Right-Bank and Left-Bank Ukraine, one can notice that their natural environment was an integral part. The place for temples and monasteries was chosen taking into account many natural factors that contributed to the transformation of temples into urban dominants and formed picturesque species paintings.

Gardens and parks in the monasteries of Hetman Ukraine embodied the poetry on which the architecture of the Ukrainian Baroque is based. The main features of the "Cossack Baroque" in religious buildings were as follows: elegance and harmony of the silhouette, the similarity of the tower tops with domes to tall poplars, the impression of rising, the widespread use of phytomorphic plant decor in ornamentation. That is why slender trees around and lush flower beds were so organically combined with baroque architecture.

Despite the location of monasteries in different regions of Hetman Ukraine, on the Right Bank of Dnipro or on the Left Bank, based on the analysis of typical landscape techniques of monastic gardens

of Hetman Ukraine of the Baroque period, common basic landscape techniques were determined, depending on whether it was an urban or suburban monastery:

1) in urban monasteries – arranged flower beds and gardens of smaller area, mostly with fruit trees, located near the defensive walls or on the steep bank of the river with the possibility of exploring long-term prospects, often without ponds in the garden, terracing gardens and communication through bridges and galleries, from which the best landscapes are revealed. In orchards and flower beds, trees and plants were used mainly with a certain symbolic meaning;

2) in suburban monasteries – arranged orchards, which turn into an irregular park area with alternating landscape paintings with features of maximum naturalness and poetic names and with the inclusion of accent landforms and natural or artificial reservoirs. Trees and plants specific to a particular region were used.

The main techniques of relations between landscape and architecture are highlighted:

1) Architecture dominates the natural environment, the main building is at the highest point and is observed from all sides from a distance, and the natural environment complements its image;

2) Architecture is subordinated to the natural environment, the main building is not in the highest emphasis and is perceived in fragments from different points of view, the main thing is the natural environment, enhanced by the means of architecture;

3) The architecture maximally enhances the accent relief, crowning its upper edge, on the slope natural greenery is placed.

Landscape techniques that, in addition to Ukraine, were used by other nations are identified:

1) "garden in the garden", when behind a smaller orderly garden a larger unorganized one is placed;

2) "borrowing the landscape", when distant perspectives are included in the figurative perception of the object;

3) "screen technique", when green areas are deliberately blocked by specially planted trees and shrubs to make it impossible to view the area from a distance and create the effect of changing landscape pictures and the infinity of space;

4) "landscape as a picture in a frame", when the landscape is perceived in the gap between the trees;

5) "Hidden meaning", when a planted plant or tree actually expresses a certain philosophy, dogma or human virtues (this is facilitated by the poetic, sacred or poetic name of the building in its natural environment or landscape painting, which suggests certain analogies and emotions).

This indicates that different peoples in different ways came to the introduction of similar techniques of landscape design.



## References

1. **Yurchenko, P.** *Wooden architecture of Ukraine*. Kyiv: Budivelnyk, 1970, 191 p.
2. **Killeso, S.** *Kyiv-Pechersk Lavra*. Kyiv: Budivelnyk, 2004, p. 111–114.
3. **Lohvyn, H.** *Across Ukraine: ancient art monuments*. Kyiv: Mystetstvo, 1968, 463 p.
4. **Nechui-Levytskyi, I.** *Works (in 2 volumes)*. Kyiv: Dnipro, 1977, vol. 1 – 518 p, vol. 2 – 518 p.
5. **Orlenko, M.** *The St. Michael's Golden-Domed Monastery: methodological foundations and chronology of reproduction: Scientific publication*. Kyiv: Hopak, 2002, 160 p.
6. **Orlenko, M.** *The Dormition Church of the Kyiv-Pechersk Lavra: methodological foundations and chronology of reproduction*. Kyiv: Phoenix, 2015, 832 p.
7. **Pavlutskiy, H.** *Antiquities of Ukraine. Part 1. Wooden and stone temples*. Kyiv: Printing House of Saint Vladimir Royal University, 1905, 124 p.
8. **Shcherbakivskiy, V.** *Wooden churches in Ukraine and their types*. Lviv, 1906. 23 p.
9. **Taranushenko Stepan.** *The monumental wooden architecture of the Left-Bank Ukraine*. Kyiv: Budivelnyk, 1976, 376 p.
10. **Vecherskiy, V.** *The architectural and urban planning heritage of the Hetmanate era. Formations, research, protection*. Kyiv, 2001, 350 p.
11. **Vecherskiy, V.** *The heritage of Urban Planning of Ukraine: Theory and Practice of Historical and Urban Planning monument protective Researches of Populated Places*. Kyiv, 2003, 560 p.
12. **Vovk, Fedir.** *Studios on Ukrainian ethnography and anthropology*. Kyiv: Mystetstvo, 1995, 336 p.
13. **Zakrevskii, N.** *Description of Kiev: newly processed and significantly multiplied edition. With pictures and drawings*. Moscow, 1868, 980 p.
14. **Zavada, V.** *Features of the formation of the Baroque style in the monumental wooden architecture of Polissia. The architectural heritage of Ukraine. Issue 1*. Kyiv: Research Institute of History and Theory of Architecture and Art, 1994, p. 113–123.

## AUTHORS:

**Denys Chernyshev.** A specialist in a sphere of ecological architecture. Vice-rektor, Doctor of Technical Science, Professor, Kyiv National University of Construction and Architecture, 31, Povitroflotskyi Avenue, Kyiv, Ukraine. E-mail: denis01011978@ukr.net

**Yulia Ivashko.** A historian of architecture and landscape architect. Doctor of Architecture, Professor, Nostrified doctor habilitatus, Kyiv National University of Construction and Architecture, 31, Povitroflotskyi Avenue, Kyiv, Ukraine. E-mail: yulia-ivashko@ukr.net

**Dominika Kuśnierz-Krupa.** Architect and Landscape Architect, Architectural historian, Doctor of Engineering (Architecture, 2010), Associate Professor at the Faculty of Architecture (2015), Head of the Chair History Architecture, Urban Design and Art., Cracow University of Technology; Podchorążych Street no 1, Cracow, Poland. E-mail: dkusnierz-krupa@pk.edu.pl

Author of 5 monographs and about 100 scientific articles. Member of Association of Monument Conservators, ICOMOS, International Planning History Society and Urban History Association.

Topical Editor (history of urban design, cultural landscape) of *Wiadomości Konserwatorskie – Journal of Heritage Conservation*. Expert of The Minister of Culture and National Heritage (protection of historic urban layouts and cultural landscape).

**Andrii Dmytrenko.** An urbanist and landscape architect. Candidate of Technical Sciences, Associate Professor. National University "Yuri Kondratyuk Poltava Polytechnic", Educational and Scientific Institute of Construction and Architecture, 24, Pershotravnevyi Avenue, Poltava, Ukraine. E-mail: metr5555@ukr.net

**Kopsavilkums.** Rakstā analizēta dabiskās vides ietekme uz kristīgās baznīcas dizaina principiem. Aplūkots un pētīts Ukrainas pareizticīgo baznīcu arhitektūra no vēsturiskajiem aspektiem līdz mūsdienām. Pētījumā iezīmējās kurss jaunu pareizticīgo baznīcu izveidē, kas ir vērsts uz zaudēto seku atjaunošanu. Šādos procesos uzmanība tiek likta uz dabisko vidi, baznīcas tiek celtas parku teritorijās, meža parkos, ezeru krastos, ko ieskauj dekoratīvo apstādījumu dobes. Pētījuma aktualitāti izskaidro daudzo pareizticīgo baznīcu klātbūtne Ukrainā. Pētījuma aktualitāte izskaidrojama ar to, ka Ukrainā atrodas liels skaits pareizticīgo baznīcu – gan arhitektūras pieminekļi, gan jaunuzceltie, kurus tradicionāli ieskauj dārzi, parki un dekoratīvo apstādījumu dobes. Tāpēc svarīgi objektu restaurācijas un jaunas celtniecības laikā saprast gadsimtu gaitā izveidojušās un pilnveidotās ainavu dizaina iezīmes.