

Mykola Orlenko*

orcid.org/0000-0002-4154-2856

Justyna Kobylarczyk**

orcid.org/0000-0002-3358-3762

Dominika Kuśnierz-Krupa***

orcid.org/0000-0003-1678-4746

Yulia Ivashko****

orcid.org/0000-0003-4525-9182

The influence of ideology on the preservation, restoration and reconstruction of temples in the urban structure of post-totalitarian states

Wpływ ideologii w państwach posttotalitarnych na zachowanie oraz restaurację i odbudowę świątyń w strukturze miejskiej

Key words: ideology, religious buildings, post-totalitarian states, urban structure, preservation, restoration requirements

Słowa kluczowe: ideologia, obiekty kultu, państwa posttotalitarne, struktura urbanistyczna, konserwacja, wymagania konserwatorskie

Introduction

In Ukraine, wooden and stone temples were historically placed on the most expressive accent relief forms in the center of a given village or a city. For peasants or city dwellers, their church became a source of pride; therefore, they approached the placement of churches in a city or rural structure very carefully, deciding on urban planning and architectural-figurative aspects.

Kyiv, the „mother of Russian cities”, has always held a special place among the numerous significant monuments of the past. For example, for the period of the eleventh and twelfth century, according to the

chronicle evidence, there were more than 400 churches, wooden and stone, in Kyiv alone, and as of 1124 – more than 600.

For example, in Kyiv, the most significant cathedrals were built either in the center (the Church of the Tithes in the city of Volodymyr on Starokyivska Hill, the Saint Sophia Monastery in the city of Yaroslav); or along the upper end of the steep right bank of the Dnipro river (churches and cathedrals of the Kyiv – Pechersk Monastery, Saint Nicholas Military Cathedral, Desert Nicholas Monastery, St. Michael's Golden-Domed Monastery, the Church of Three Saints, St. Andrew's Church).

* Prof., D.Sc., Honorary President of the Ukrrestavratsiia Corporation

** Prof. D.Sc. Ph.D. Eng. Arch. Faculty of Architecture Cracow University of Technology

*** D.Sc. Ph.D. Eng. Arch., Faculty of Architecture, Cracow University of Technology

**** D.Sc., Professor, Kyiv National University of Construction and Architecture

* *prof. dr hab., prezes honorowy Przedsiębiorstwa Ukrrestavratsiia*

** *prof. dr hab. inż. arch., Wydział Architektury Politechniki Krakowskiej*

*** *dr hab. inż. arch., prof. PK, Wydział Architektury Politechniki Krakowskiej*

**** *prof. dr hab., Kijowski Narodowy Uniwersytet Budownictwa i Architektury*

Cytowanie / Citation: Orlenko M., Kobylarczyk J., Kuśnierz-Krupa D., Ivashko Y. The influence of ideology on the preservation, restoration and reconstruction of temples in the urban structure of post-totalitarian states. *Wiadomości Konserwatorskie – Journal of Heritage Conservation* 2020, 61:67-79

Otrzymano / Received: 17.09.2019 • **Zaakceptowano / Accepted:** 16.11.2019

doi: 10.48234/WK61INFLUENCE

Praca dopuszczona do druku po recenzjach

Article accepted for publishing after reviews

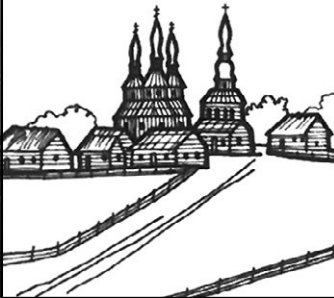


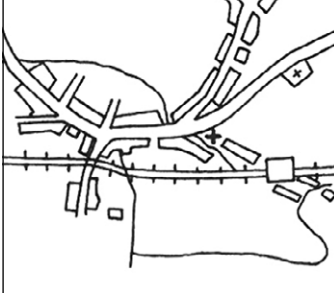




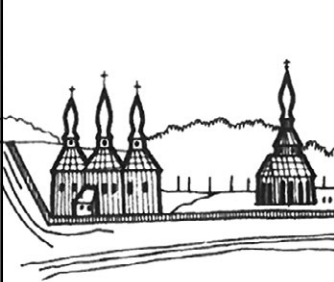

Old situation / 1854 /		New situation / 1991 /	
Scheme / by Deliaffiz/	Type of location and name	Scheme by the map of the Kyiv Region	Type of location and name
	A church in the centre of the village, a church estate near the road Kyiv - Ascension Church Martynovychi Pidhirtsi Rozhev Krenychi Lisnyky Kriukovshchyna Dorohynka		A church in the centre of the village, a church estate near the road, the main street with two-sided development Sukholisy Raskopantsi Krenychi Olkhovets
	A church on the outskirts of the village, a church estate near the road Dolyna Vytachiv Fastiv Pohreby		A church on the outskirts of the village, a church estate near the road, the main street with two-sided development; Tovsty Lis Tulyntsi
	A church in the centre of the village, a church estate away from the road: Lubianka Stechanka Khotiv Katiuzhanka Khalepia Trostynka Trypillia Kyiv - the Trinity Church		A church in the centre of the village, a church estate near the road, the main street is parallel to the river Busheve Kozhanka Antonivka
	A church on the outskirts of the village, a church estate away from the road; Skytok /Lypovyi/ Veremia Snihirovska		A church in the centre of the village, a church estate near the road, the main street is perpendicular to the river. Pivni Zhytni Hory
	A church at the crossroads Kyiv -Zlatoustivska Church Pavlovychi		A church is at the crossroads, on the outskirts of the village the main street is perpendicular to the river. Fastiv

Fig. 1. Location of churches in the structure of settlements. Reconstruction of Yu. Ivashko according to archival sources.

Since the time of Kyivan Rus, a historical sacred axis has passed between the bell towers of the Saint Sophia Cathedral and Saint Michael's Golden-Domed Monastery. That is why the conscious destruction of ideologically significant temples and the construction of Soviet

structures in their place was called upon to fundamentally change the ideology of the people by destroying sacred shrines. Therefore, during the years of independence, the practice of restoration of partially ruined or destroyed Kyiv temples became widespread – the St.

Michael's Golden-Domed Monastery, the Assumption Cathedral of the Kyiv Pechersk Lavra, the Church of Assumption of the Virgin Pirohoshcha, the reconstruction of St. Vladimir's Cathedral in Chersonesos. It was intended not only to restore the urban and architectural landmarks but also to recreate the dominant elements of sacred ideological content.

On the example of Ukraine of the period of militant atheism, general tendencies of the antagonism between the ruling ideology and unamenable religion were observed; this led to the systematic destruction of religious landmarks – vehicles of sacred ideological content and a radical re-planning of the structure of settlements with the emergence of new landmarks that corresponded to the prevailing ideology. A planned programme of the reproduction of destroyed religious structures is called upon to return ideologically significant religious landmarks to the people.

The ideological role of wooden churches in the structure of settlements and their preservation (on the example of the Kyiv province)

The wooden architecture of Ukraine is closely connected with all other aspects of culture since it was folk architecture that reflected the authenticity of the people; each region produced its local traditions of settlement planning and temple construction.

Up to and including the first decades of the twentieth century, Ukrainian villages and cities were picturesque, their urban development interspersed with green gardens and forests, water bodies held a relevant place in the layout of settlements. For example, in the Kyiv region there were settlements with unsystematic and street development and with one- and two-sided street development, where, in the middle of the picturesque village there was a kind of community center – a square where the residents gathered most often and where the main church was built (there could be several temples in one village), in addition, the natural environment performed a significant role in the layout of the settlement, such as natural slopes, ponds, complex terrain with alternating steep river banks and valleys, cliffs, forests (fig. 1).

Most frequently, a temple was built on a hill in the center of the village, more rarely – on the outskirts or in the lowlands; if a village had several sections, there could be a church in every part. The location of the temple on the outskirts was atypical and was dictated by closeness to a natural reservoir, roads or terrain requirements. According to the same principles, stone temples were built in the structure of cities. The location of the churches in the vicinity of Kyiv was dictated either by the presence of natural reservoirs or by the need to create conditions of seclusion for remote monasteries, etc.

The favorable geographical conditions of the Kyiv region at different times aroused the envy of neighbors and led to numerous wars, that resulted in border

changes. As a result of numerous relocations of people from the Kyiv region to other, safer lands, the population was mixed, and in consequence, anthropological factors, language, cultural features and architecture were mixed too. That is why the folk architecture of the Kyiv region is more diverse than the folk architecture of Left-Bank or Western Ukraine, and the traditions of the churches are simultaneously different: in the Kyiv region, small squat churches with tented tops and churches with „opasannia” (structural addition – an atypical for Kyiv Region gallery around the church) were built, in addition to tall, multi-tiered multiple-domed church of a tower-type, with a complex massing and spatial composition.

Until 1917, it was established that general principles of settlement planning stipulated the mandatory presence of one or more churches. At the same time, most of the records about the Kyiv province are descriptive texts without visual support; this makes it difficult to create modern graphic reconstructions and draw conclusions.

Climatic factors made a direct impact on wooden architecture, as the churches were traditionally placed near so-called accent relief forms. For example, the churches of the towns of Radomyshl and Tarashcha were built on the high bank of the river. They stood on squares, and the entire development of the nearby streets was planned so as not to interfere with the perception of the main landmark – the wooden church (for example, the church of St. George of Tarashcha solemnly towered over the whole development, which was emphasized by researcher H. Pavlutskyi) (fig. 2–4). Most often, in front of the village churches, there was a square for people meeting.

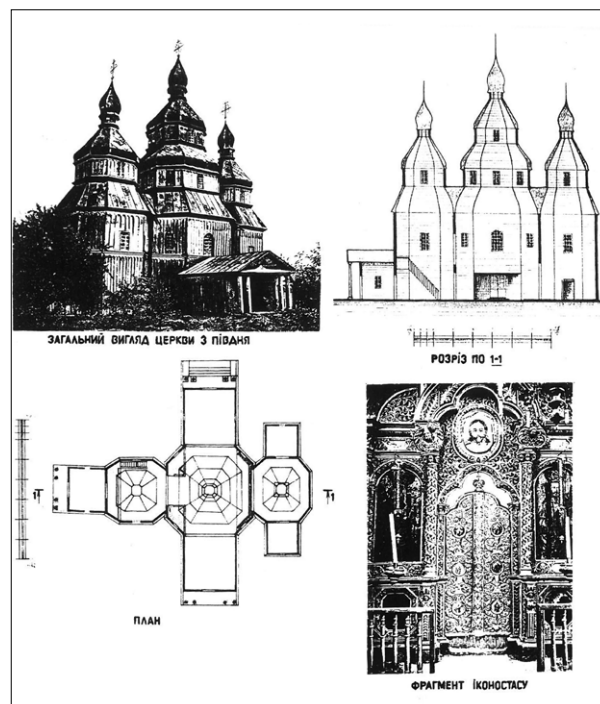


Fig. 2. The Church of Saint George in the town of Tarashcha; materials from Y. Ivashko's doctoral dissertation.

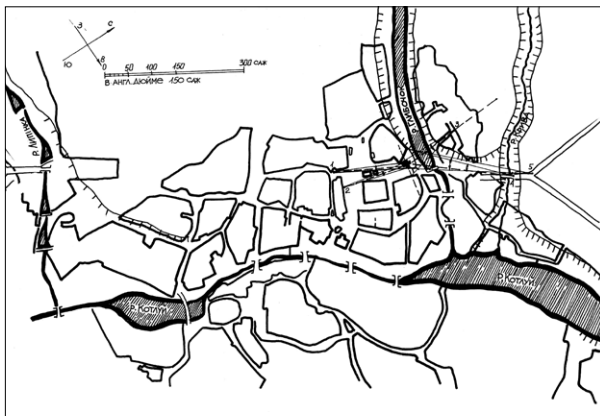


Fig. 3. The old layout of the town of Tarashcha until 1826. The points of perception of the Church of Saint George are shown; reconstruction by Y. Ivashko.

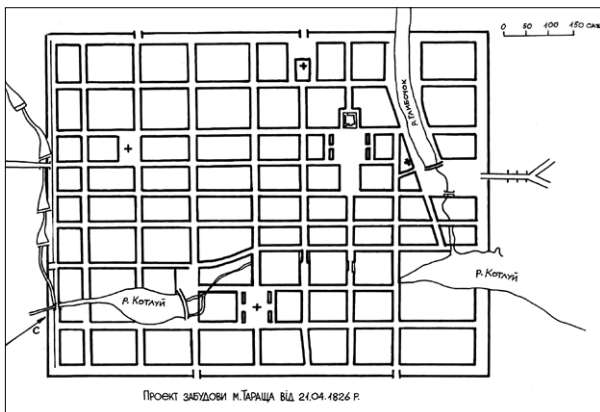


Fig. 4. The redevelopment project of the town of Tarashcha of 21.04.1826. Materials of Y. Ivashko's Candidate dissertation.



Fig. 5. The Church of the Saint Archistratigus Michael in the village of Dorohynka (1600); photo by Y. Ivashko 1989.

Although churches were built in the lowlands, such examples were rare and were dictated most often by natural conditions: for example, the location of the Presentation Church in the town of Trypillia in the lowlands was explained by the attractiveness of the village, formed on the way to the pier, to the Dnieper River. The location of the temple in the lowland also created many additional problems, given the negative influence of climatic factors (rains, spring floods, groundwater, etc.).

Of course, from the point of view of urban planning and compositional and visual features, the location of the church in a high place in the center of the village near a natural or artificial reservoir was the most successful. It then became the main dominant of the village or city. There was a rule for both wooden and stone architecture: the church was supposed to be the tallest building in the development.

If we analyze the layout types of villages in the Kyiv province until 1917, five types of the location of the temple in the structure of rural development were observed most frequently: 1) a church in the center of the village, a church estate near the road; 2) a church on the outskirts of the village, a church estate near the road; 3) a church in the center of the village, a church estate away from the road; 4) a church on the outskirts of the village, a church estate away from the road; 5) a church at a crossroads. The smallest number of examples concerns churches at a crossroads, possibly because they were noisy places.

According to the modern map, these types correspond to conditions that have arisen as a result of the redevelopment of villages.

The church bell tower was one of the most significant elements. It served as an accent of the church estate. At the same time, if the stone bell towers at monasteries or temples in cities were most frequently higher than the church, the wooden bell towers were simpler, more moderate, often shorter than the church itself. This was explained by the fact that the bell tower was often older than the church itself, which was replaced and rebuilt many times.

A scale effect of the church in the natural environment was created, among other things, thanks to the successful use of landscape features and the surrounding residential development. The scale of the structure is connected: 1) with the dimensions of a person; 2) with the dimensions of a part of the massing; 3) with the dimensions of the whole structure; 4) with the dimensions of the environment. If we analyze the role of the church in the environment, it was most often that of a contrast or a nuanced dominance of its massing and much less often – submission to the natural environment, when the church is „lost” against the background of relief and development. A contrasting comparison of the height of the church and those around it is more pronounced in a smooth low relief.

Scale is determined by the composition, the partitioning of the façades, the number of tiers, the level of detail and urban planning factors.

When building a new church, folk master builders ensured not only the perfection of the structural solutions but also about the psychological impression it would have on people. Today, there are many testimonies about the wooden churches of the Kyiv province, many of which have not been preserved, and the impression that the same structure made on different researchers, its assessment is not unambiguous, thus, the

evidence of the image and architecture of the wooden church depended on the subjectivity of the researcher's perception.

The perception of the church in the structure of the village depended on many factors: local traditions, historical context (when and under what conditions it was built), the surrounding environment, and climatic conditions. To show the impact of traditions on settlement planning and architecture, we can compare two temples built on mutually opposing principles – the squat, simple church of the village of Tovstyi Lis from the area of Kyiv Polissia and the tall multi-tier church of the village of Zarubyntsi from an area influenced by Eastern Podillia. If the wooden churches of Polissia look rather modest, the churches of the southern part of the Kyiv region leave a remarkably strong emotional impression.

The oppression of national architecture in the lands of Kyivshchyna began as early as the end of the eighteenth century when, as a result of the second partition of Poland between other states, the whole Kyiv region fell under Russian rule; a division into provinces was introduced, the Kyiv region was turned into the Kyiv province, and a policy of the eradication of national culture was introduced. At the beginning of the nineteenth century, by the order of the Synod, the construction of temples following national forms became prohibited, and villages were given regular plans. The first stage of the destruction of wooden churches was in the middle of the nineteenth century; the second – at the beginning of the twentieth century; the third – during the years of militant atheism of the 1920s and 1930s.

In Soviet times, when the anti-religious struggle began, the destruction of churches, both stone and wooden, became widespread. It is impossible to establish the exact number of disassembled and burned churches in the Kyiv region, but there were more than 500. Now in the register of monuments, there are only 27 items, which is about 4–5% of the number of wooden churches from 1917. In addition, in Soviet times, due to a change in ideology, the accent location of the church in the structure of the settlement was deliberately destroyed and villages were re-planned with the formation of new ideological landmarks, this can be seen when comparing the planning of the beginning of the twentieth century and modern planning.

The wooden church architecture of the Kyiv province is still explored insufficiently, given the systematic destruction of the bulk of its temples. At the same time, obtaining fundamental knowledge about the specifics of their construction is necessary for the development of planned restoration measures to preserve the small number of churches that has remained and is located either in villages or transported to antique building museums in Pyrohovo and Pereyaslav-Khmelnytskyi (fig. 5).

The problem of the functioning of wooden churches in the villages where they are active consists

of non-compliance by the local faithful with the requirements of their repair, the walls in the interior are painted with oil paint, the roofs and walls are covered with „iron” (metal), which ultimately leads to decay of the wood and the destruction of the monument.

The principal causes of the emergency condition of wooden walls made of oak, ash, larch, pine, spruce or fir, fastened in the corners using „Saddle Notch” „Dovetail notch”, „Quarter sawn notch” joints, are the deformation (subsidence) of existing foundations made of wood, stone or bricks that support the walls; the absence or damage of the previous two-layer damp proofing; in conditions of increased timber humidity (more than 25%), the wood rots and fungus can develop; damage by wood-destroying insects – by the larvae of wood beetle grinders; the possibility of wall structures catching fire.

The emergency state of wooden elements is evidenced by the appearance of fungi, damp, beating by wood borers, the appearance of holes, decay.

One example of the problems of the functioning of wooden structures is the example of the Trinity Cathedral in Novomoskovsk (1778–1779). Although it geographically refers to the Left Bank, the experience of its restoration by the Ukrrestavratsiia corporation is useful for the preservation and reproduction of wooden monuments of Kyiv and even foreign wooden churches in neighboring countries – Slovakia and Poland. The uniqueness of the monuments of wooden architecture explains the attention that was paid to the Trinity Cathedral from 1949 to the present day. The cathedral repeatedly suffered from wood decay; this was repaired in the nineteenth century (a foundation and a base of yellow burnt bricks on lime mortar was laid under the building during the repairs). The cathedral was later renovated after 1945, however, the main problems of the emergency condition persisted. As established in 1996 surveys, due to the lack of organized drainage from the brick base and the roof, capillary suction of moisture from the base was observed, which was the main cause of the emergency condition of wooden structures and led to damp in crowns and pendentives and damage by decay of wood and wood beetle- grinders; damp in the roof, the loss of load-bearing capacity of beams; fractures; detachment of oil coloring layer in the interior; moisture retention was also caused by the oil painting of walls in the interior, that resulted in the appearing of the air-proof layer.

During surveys performed in different years, the following emergency measures were carried out: the waterproofing between the brick base and the oak crownings, the installation of metal flashing above the base; the organization of drainage from the base; the partial substitution of the roof structures that led to damp; the replacement of the wooden cladding of the timber wall framework; the replacement of the emergency bars of the groundsills of the log structures; reinforcement of damaged ones and the replacement of



Fig. 6. St. Michael's Gold-Domed Cathedral, early twentieth century; archival photo of the Ukrrestavratsiia Corporation.

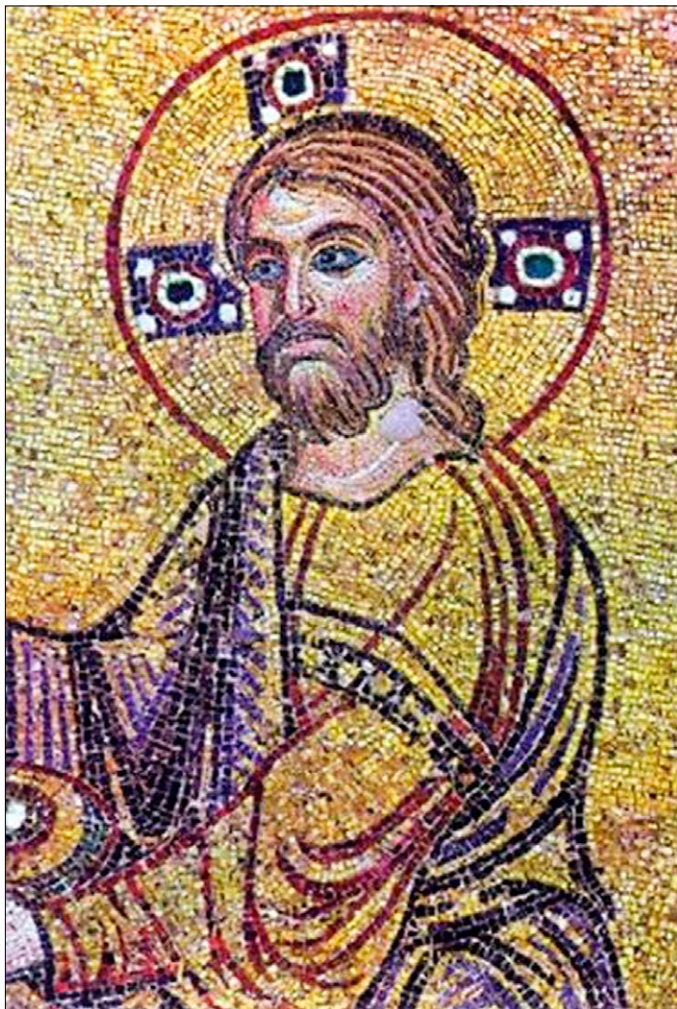


Fig. 7. The „Eucharist” mosaic; twelfth century; St. Michael's Golden-Domed Cathedral; archival photo of the Ukrrestavratsiia Corporation.

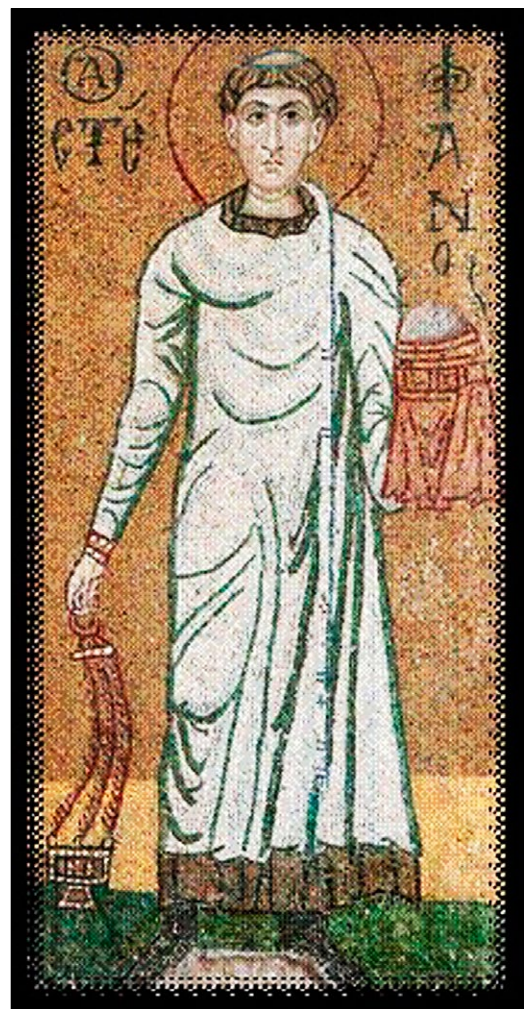


Fig. 8. The „Saint Stephan” mosaic, twelfth century; St. Michael's Golden-Domed Cathedral; archival photo of the Ukrrestavratsiia Corporation.

rotten crowns of pendentives and creases, the removal of oil paintings in the interior; treating wood with insecticidal substances and fireproofing.

The urban development aspect of the location of the stone churches of Kyiv, the negative impact of atheistic ideology on their preservation and modern restoration

Even more significant for Ukraine were the most famous stone churches and cathedrals. The most significant churches for Kyiv were the St. Sophia Cathedral, dedicated to Sophia – Wisdom of God, built by Prince Yaroslav the Wise; the Assumption Cathedral of the Kyiv Pechersk Lavra – House of the Mother of God and the Saint Michael's Golden-Domed Cathedral, dedicated to the heavenly patron of Kyiv, Saint Archistratigus Michael, built by Prince Sviatopolk II Iziaslavych. Where the St. Sophia Monastery remained after years of militant atheism and the Second world War, St. Michael's Golden-Domed Cathedral was utterly destroyed and the Assumption Cathedral was all but obliterated. The most dramatic example of the destructive impact of atheistic ideology on objects of immovable heritage – the vehicles of Orthodox ideology – is the example of the St. Michael's Golden-Domed Monastery complex with centuries-old history (the cathedral was built in 1108–1113 and was rebuilt several times). In the Soviet Union, the cathedral was among the top ten churches of the pre-Mongol period (fig. 6).

At first, it was a three-nave, three-apsed six-pillar cross-domed structure with one gilded cupola, which lent itself to the cathedral's name: „Golden-domed”. The interior was decorated with marble columns, frescoes and mosaics. The interior was not inferior in its beauty to the churches of Constantinople: Its 3,500 square meters of walls were covered with high-quality shimmering mosaics and murals. For mosaics, about 180 shades of smalt were used. The „Eucharist”, „Dmytrii Solunskyi” and „Saint Stephan” mosaics are the most famous among them (fig. 7–8).

The St. Michael's Golden-Domed Monastery complex became the second most valuable ensemble of the Upper City after Sofia Kyivska.

Four periods of the construction of St. Michael's Golden-Domed Cathedral were distinguished in its chronology:

- 1) the original old Russian core of the cathedral from the time of Prince Sviatopolk II Iziaslavych in 1108–1113;
- 2) the enlargement of the total volume of the cathedral – addition of the small church from the south and two narthexes from the west and north.
- 3) the reconstruction of the old Russian parts of the cathedral during the Baroque period of the seventeenth and eighteenth century, it was enlarged and renovated: demolition of the northern narthex; reconstruction of the western narthex;

addition the northern and southern side chapels; changing of the overall volumetric and spatial composition; strengthening the masonry system with arch-buttresses from the southern, northern and western sides; increasing the number of domes up to seven; Baroque decoration; building of the three-tier stone bell tower, the refectory with the Church of John the Theologian and the Economic Gates;

- 4) the construction of the nineteenth century on the so-called „guest yard”: the hotel for the pilgrims, new buildings, adding of the auxiliary premises of the cathedral, engineering equipment.

The territory on which the complex of the St. Michael's Golden-Domed Monastery was located belongs to the historical center of Kyiv and is delimited in the north-west by Mykhailovska Square, in the south and south-west – by Trekhsviatytelska Street, on the other sides – by Volodymyr Hill.

The temple was destroyed in the days of the Civil war, during the artillery shelling of Kyiv. In 1922, the monastery was disbanded. Until 1930, the temple was used as a repository of archival materials.

The destruction of wooden and stone churches continued in several steps. During the first stage of collectivization of 1929–1933, mainly rural wooden churches and stone temples in towns were dismantled; during the 1934–1939 period, the cathedrals in Poltava, Odesa, Simferopol, the Saint Michael Golden-Domed Monastery and other stone churches of Kyiv were destroyed. The third stage of atheistic destruction began in 1962, during the reign of Khrushchov, when the Trinity Cathedral in Glukhiv and the Resurrection Church in Putivl were destroyed. However, the destruction of the temples continued even later, when in 1986–1987 the Trinity Church in Lebedyn of the Sumy region was destroyed as well.

On January 24, 1934, the XXII Congress of the Communist Party of Ukraine and the All-Ukrainian Central Executive Committee accepted the transfer of the capital of Soviet Ukraine from Kharkiv to Kyiv, which resulted in grandiose projects of urban development of Kyiv, intended to convert it from the „nursery city of religion” to a „new socialist capital”. The area with new government buildings had to be sited at the plot that was the most advantageous from the urban point of view – on the site of the St. Michael's Golden-Domed Monastery and the Vasylivska church (the Church of Three Saints), dated to the twelfth century.

The St. Michael's Golden-Domed Monastery (cathedral, bell tower, part of the wall with the Economic Gate) was destroyed after the previous dismantlement of the Three Saints Church during 1934–1937 in connection with the decision to turn St. Michael's Square into a part of the government center according to the project, with parade area for 150,000 marchers, with a monument to V.I. Lenin that would be 54 meters tall in the center and a road that ran through the



Fig. 9. Ruins of Michael's Gold-Domed Cathedral. 1934–1936; archival photo of the Ukrrestavratsiia Corporation.

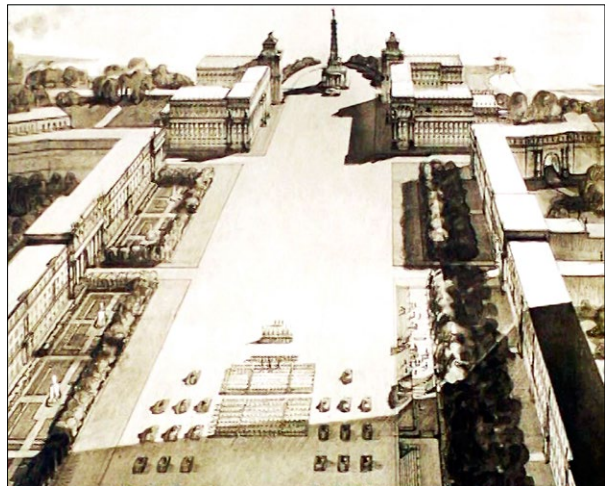


Fig. 10. The project of the government center; archival photo of the Ukrrestavratsiia Corporation.

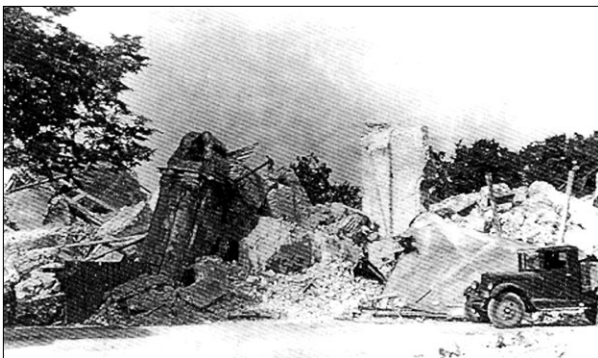


Fig. 11. Ruins of Michael's Gold-Domed Cathedral after explosion, August 17, 1937; archival photo of the Ukrrestavratsiia Corporation.



Fig. 12. Sports ground of the site of Michael's Gold-Domed Cathedral, 1988; archival photo of the Ukrrestavratsiia Corporation.

bell tower of Saint Sophia Cathedral (fig. 9, 10). The cathedral was blown up by ammonal in the summer of 1936, preceded by the earlier dismantlement of Mykhailovskiy bell tower (fig. 11, 12). Of the entire complex, only a part of the walls, cellular buildings and the refectory church, as well as part of the mosaics and frescoes and a high relief of Archangel Michael from the pediment of St. Michael's Cathedral were preserved. Most of the mosaics scattered when they were removed from the walls, only 172 kilograms of smalt scattering is stored in the funds of the Sofia Reserve, and even more – in the Lavra Reserve.

The need to restore the destroyed complex of Saint Michael's Monastery was caused by the desire for the restoration of an ideologically and spiritually significant shrine, to recreate the ancient sacred axis of Kyivan Rus (fig. 13, 14). This became possible only during the years of independence.

Despite the significant number of restoration projects that the specialists of the Ukrrestavratsiia Corporation worked on, several sites can be identified that meet the following criteria: they play an influential role in the development of a city or settlement (ideological, urban); they represent the largest group of monuments by function or period, which are in the State Registry; the problems of their emergency state

were the most typical or were of immense complexity and required non-standard emergency and restoration measures; they used highly specific or unique materials, structures, decorative finishing; unique techniques and technologies were applied during the restoration of these structures; the experience of their restoration can be extended to other sites in Ukraine and abroad.

Works on the revival of the structures of St. Michael's Golden-Domed Monastery and the improvement of St. Michael's and St. Sophia Squares began with the reconstruction of the Gates (1998).

The Economic Gate of St. Michael's Monastery (1997), the Bell tower and the wall paintings at the Holy Gates (1998). All these structures were restored during the first stage. During the second stage, the reconstruction of St. Michael's and St. Sophia squares was carried out, and during the third stage: the cells, the Singer's Outbuilding and the Varvara building of St. Michael's Golden-Domed Monastery were reconstructed. The recreation of St. Michael's Golden-Domed Cathedral was performed during the fourth stage (1998–2000), and the renewal of the interior – during the fifth (1999–2000).

The project of the reconstruction of the buildings of St. Michael's Golden-Domed Monastery was developed by Architectural Bureau TAM „Yu. Losytskyi”, all

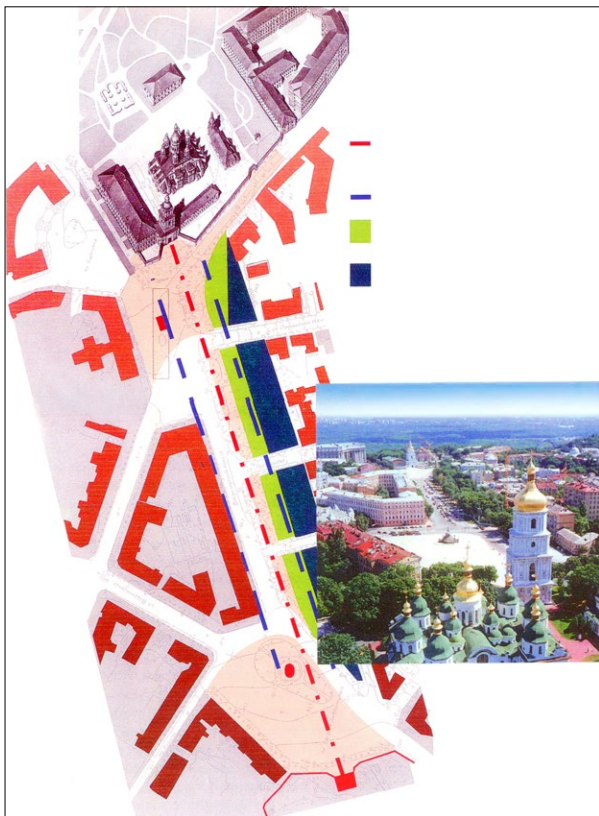


Fig. 13. Site layout plan M 1: 2000. An axis between the Sofia and Mykhailovska bell towers.



Fig. 14. The historical axis of Kyivan Rus.

the buildings were reproduced by the specialists of the Ukrrestavratsiia Corporation. The reproduction of the complex was performed to restore the temple of its heavenly patron to Kyiv and to Ukraine, to testify about the return of age-old Orthodox spiritual values (fig. 15). The

complex was reproduced in its original form, but with the application of new materials and technologies (fig. 16, 17).

One of the most complicated problems was the construction of the foundations of St. Michael's Golden-Domed Cathedral and the bell tower, which

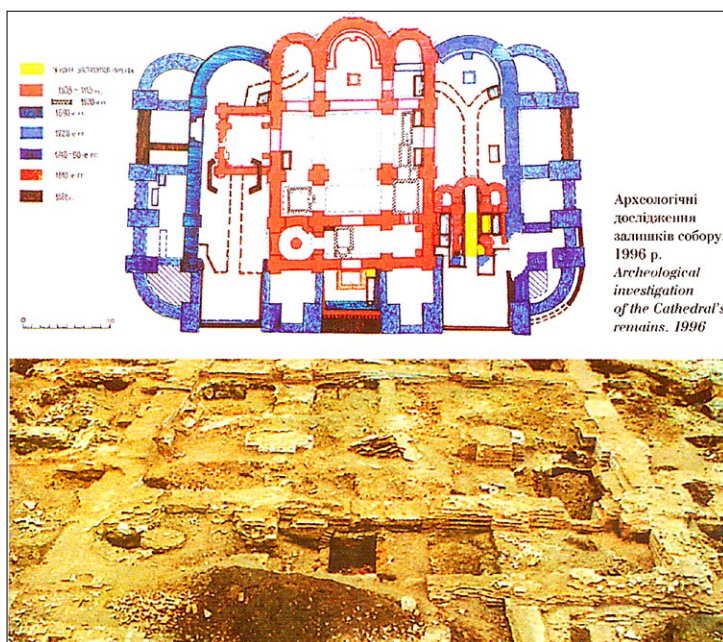


Fig. 15. Archaeological Survey of the Remains of the Cathedral 1996p; archival photo of the Ukrrestavratsiia Corporation.



Fig. 16. St. Michael's Golden-Domed Cathedral in the process of reconstruction; archival photo of the Ukrrestavratsiia Corporation.



Fig. 17. St. Michael's Golden-Domed Cathedral in the process of reconstruction, archival photo of the Ukrrestavratsiia Corporation.

was solved by taking into account the results of historical, archaeological, engineering, hydrological and geological surveys, the study of the condition of materials of the existing foundations, as well as the requirements for their museumification, exposure and the possibility of further archaeological research. When developing solutions for strengthening the footing and foundations of St. Michael's Golden-Domed Cathedral, several options of building the footing, reinforcement and laying the foundations were developed: the reinforcement of various kinds of soils (cementation, silicification, etc.); building foundations from piles of various types (root, bored, jacked) with independent grillages; strengthening of the existing foundations in various ways (by injecting brick and polymer mortars, arranging reinforced dowels, etc.). The foundation of the reconstructed bell tower is a monolithic reinforced concrete slab with a thickness of 1 m. Thanks to the use of „thin walls”, the restorers managed to free up additional space inside the bell tower for the construction of the home Church of the Three Saints, a museum and other premises. The wall thickness of the original bell tower was 3–4 m, it is now 70–80 cm.

To strengthen the old footings of St. Michael's Golden-Domed Cathedral, special bored piles were used to transfer loads from the new reinforced concrete raft to the lower reliable layers of soil.

The option of installing foundations on deep supports met storage conditions, ensured the reliability of the foundations of the cathedral, and did not require additional protective measures.

In the final option, root piles, bored piles and jacked piles were used to reinforce the old foundations and to transfer loads from the reinforced concrete grillage, that provides joint flexible operation of the existing foundations and piles to the lower reliable soil layers. The root piles were installed next to the old footings; it was possible to ensure the reliability of the wall and passage to the old foundations through specific openings in the reinforced concrete raft for museumification. Open access was also provided to the remains of

the so-called „delubrum” in Catherine's aisle. Root piles with a diameter of 500 mm were used in the central part of the cathedral, that carries the greatest load; bored piles with a diameter of 200 mm and jacked piles were used in the aisles.

The reconstruction of the superstructure of St. Michael's Golden-Domed Cathedral merits a separate discussion.

The reproduction of the superstructure of St. Michael's Golden-Domed Cathedral began in July 1998: at the same time, the erection of walls and vaults, the arrangement of reinforced concrete belts in the cathedral, and on the completed bell tower, plastering of facades, mouldings and installation of electric lighting were carried out. According to the project of the reconstruction of St. Michael's Golden-Domed Cathedral, on the main and southern apses, the old Russian two-part pilasters with semi-circular string cornices were raised to a height of 1.5 meters from the design level in the form of a probe (the probe was carried out with an imitation of the ancient masonry „opus mixtum”). A methodology based on full-size reconstruction according to the archival photographs was used for the project of reconstructing the cathedral.

Outside, the walls of the cathedral were plastered and decorated with stucco decoration.

The iconographic interior system of St. Michael's Golden-Domed Cathedral included a detailed elaboration of plots of mural painting, icons, iconostases, floors, thrones and church utensils.

Since St. Michael's Golden-Domed Cathedral was rebuilt in the days of the Ukrainian Baroque, it was proposed to use art ceramics in rosettes and individual icons on the facades of the eighteenth century.

A unique work was carried out on the study and reproduction of mosaics in the central part of the reproduced St. Michael's Golden-Domed Cathedral in the main altar with a bema and eastern wall arch in its upper parts and the vault, drum and squinch of the main cupola of the cathedral.

The conceptual conclusions of the reproduction of the interior of St. Michael's Golden-Domed Cathedral were formulated as follows:

- the interior of the cathedral is fully painted: the central part was built following the system and style of painting of the twelfth century;
- mosaics are to be placed in the central altar with the bema and eastern wall arch in its upper parts and the main cupola (vault, drum, squinch);
- copies of preserved mosaics are reproduced with the use of the transfer technique according to the originals. Fragmented mosaics are reconstructed based on studying similar images. Copies of frescoes are made in their original locations;
- the rest of the volumes are painted in the KEIM technique (the three-nave old part with the altars including, the narthex, stairs, choirs). The side altars of the eighteenth century (of St. Barbara and St. Catherine) are painted according to the period and

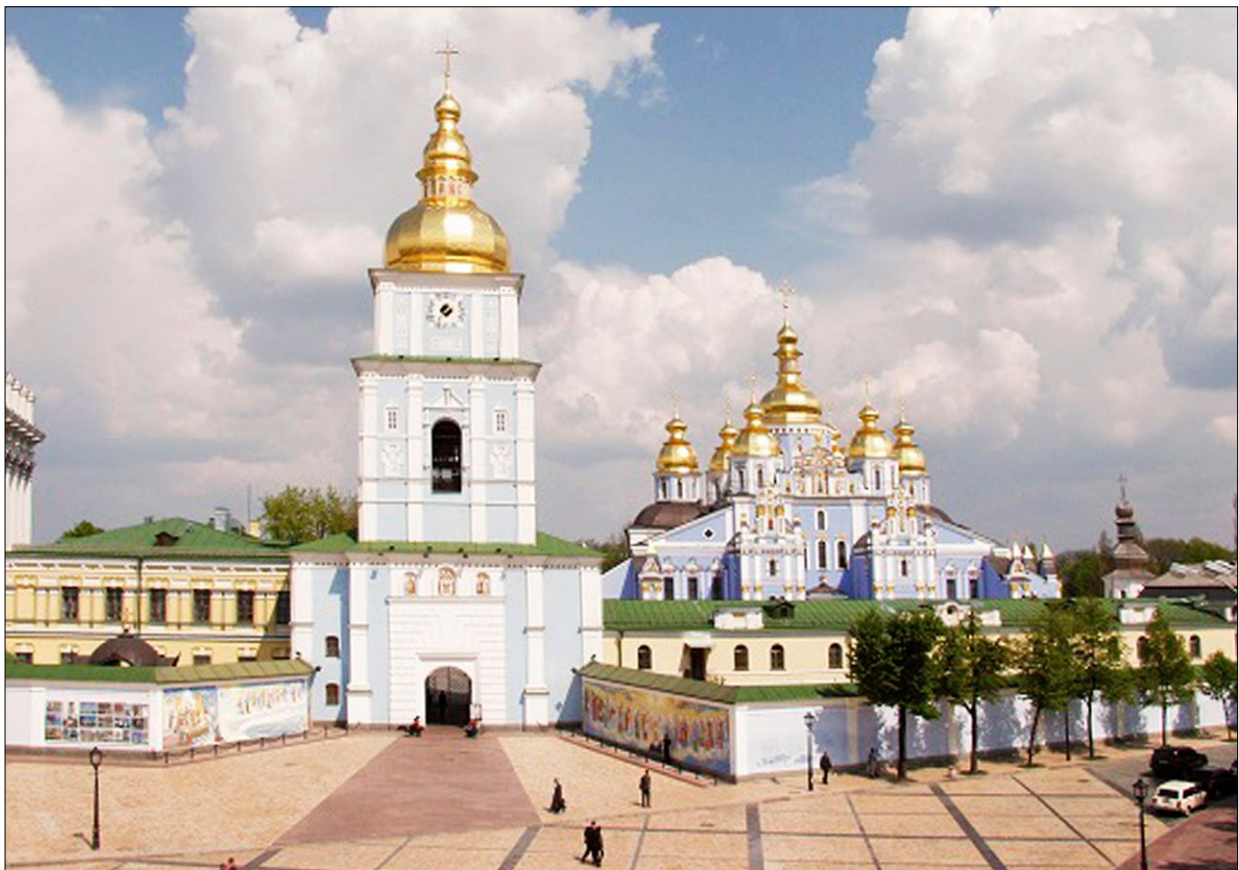


Fig. 18. Re-created St. Michael's Golden-Domed Monastery.

style of architectural forms with an iconographic system of thematic areas, likewise using the KEIM technique, which provides for the use of soluble glass as a binder in painting.

One peculiarity of applying mosaics was their reproduction via the method of transferring and attraction of analogues, the study of preserved images and fragments from museums. The uniqueness of these works even lied in approximating the dimensions of the new small pieces to their ancient Russian analogues. Modern restoration artists installed mosaic images following ancient technology, without the use of chemicals.

It should be noted that Ukrainian multi-tiered iconostases of the golden age of the Ukrainian Baroque (the eighteenth century) were distinguished by a particular sophistication of carving, when in the middle of the eighteenth century there are signs of penetration of the of elements indicative for the Rococo style into the Baroque decor: for example, instead of a floral ornament, there are fancifully curved generalized floral motifs, perforated shell clippings, decoration in the form of a „caterpillar”, etc.

The craftsmen who reproduced the central iconostasis of St. Michael's Golden-Domed Cathedral had to revive the lost traditions of the art of decorative carving, to repeat the forms and decorative elements of the original iconostasis, using rare preserved low-quality photographs.

Thus, the reproduction of the destroyed complex of St. Michael's Golden-Domed Monastery along with the reconstruction of other destroyed churches testified to a fundamentally new ideology of an independent state concerning religion. As before, in previous centuries, the role of sacred landmarks was given back to the temples, which personified the national identity of the state (fig. 18).

At the same time, imperfect mechanisms for regulating buildings in historical zones continue to create a negative impact on the location of places of worship in the structure of cities (for example, the construction of a hotel near Mykhailivska Square, the Hyatt Hotel opposite the St. Sophia Monastery, etc.).

General conclusions

The problems of the restoration, reconstruction and protection of cultural heritage sites – architectural monuments on moral and ethical issues moved into the category of the most significant state, socio-political and economic challenges of our time. It is evident that considering restoration only from an academic and technical point of view and limiting ourselves only to the development of specific methods of restoration and conservation would mean to depreciate the most important and crucial role that restoration plays at the present stage of the development of society. Without awareness of the philosophical context behind the

problems of the proper maintenance and protection of cultural heritage sites, the reproduction of outstanding monuments, the very need for restoration as an indicator of the level of civilization of society and humanity as a whole, becomes unclear. The prosperity of the country depends not only on economic factors and its state structure but also on the level of consciousness of the people, the cultural level of the nation and the attitude to the cultural and artistic heritage of past generations.

The global community has drafted international legal documents in the sphere of protection and restoration of monuments, which are the basis and guidance for the professional conduct of restoration and conservation work. A code of ethical principles for the protection and restoration of architectural monuments, groups of buildings and sites has also been developed and is the basis of conservation activity. A number of international legal documents have been adopted in the field of the protection and restoration of cultural and artistic heritage, which are the basis and foundation for the conservation and restoration of architectural monuments: the International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter, 1964); the Code of ethical principles for the protection and restoration of monuments, group of buildings and historic sites ICOMOS (Colombo 1993); the Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris 1972); the Granada Convention for the Protection of the Architectural Heritage of Europe (Granada 1985); the Moscow Charter of Architectural Heritage (1996); the Riga Charter on Authenticity and Historical Reconstruction in Relationship to Cultural Heritage (2000) and a number of other documents. Close cooperation has developed between the World Heritage Committee of UNESCO, the International Council on Monuments and Sites (ICOMOS), the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), and the International Union for Conservation of Nature (IUCN). The procedure for inscribing objects onto the World Cultural Heritage List is as follows: proposals are prepared by the relevant authorities of the states with the participation of the ICOMOS and the UICN's national committees, after which experts from these two organizations are invited to evaluate the monuments.

The importance of professional restoration work, and therefore the training of restoration specialists, is evidenced by the adoption of the ICOMOS Charter for the Training of Specialists in the Protection and Restoration of Cultural Heritage Sites (Colombo 1993).

The protection of cultural heritage sites is enshrined in the Law of Ukraine „On the Protection of Cultural Heritage” adopted by the Verkhovna Rada of Ukraine in 2000 (with subsequent amendments), which summarizes earlier conservation experience, integrates the principles and recommendations of legal documents recognized by the international community for the protection of landmarks, and classifies the cultural heritage objects of Ukraine according to the world monument protective standards¹.

The processes of destruction and revival of architectural monuments are always associated with certain historical events, as well as with the careless attitude of the population, the business sector, local authorities and those processes that took place in societies – both positive and negative. It is the state that is responsible for the preservation and transfer of monuments to the future and into the hands of future generations in all their original beauty.

According to the electronic registry of the Ministry of Culture of Ukraine dated December 4, 2012, about 7,670 architectural and urban planning landmarks were registered and protected by the state in Ukraine, 894 of which were of national significance, and 6,776 were of regional importance². Unfortunately, in the new electronic state registry of March 15, 2016, which has not been completed yet, the number of monuments decreased to 1,535.

The main problems that need to be solved for the preservation of the architectural heritage in Ukraine, including its restoration, are: the insufficient level of legislative and legal regulations for the conservation and restoration of architectural monuments; the consequences of their uncontrolled operation (accident rate, violation of the static state of buildings, changes in hydrogeological conditions, loss of load-bearing capacity by foundations, walls, etc.), a lack of methodological and organizational foundations, an information monitoring system and expert assessment of the state of monuments.

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- ² V. Vecherskyi, *Lost objects of the architectural heritage of Ukraine*, Kyiv 2002; idem, *The Heritage of Urban Planning of Ukraine: Theory and Practice of Historical, Urban Planning and Monument Protective Researches in Populated Areas*, Kyiv 2003.
- ³ Ibidem.
- ⁴ *The Church of the Holy Trinity in Novomoskovsk, Dnipropetrovsk Region. 1778–1779. The work order for the development of engineering design documents for the repair and restoration work of 1946–1996 years*, Kyiv 1996.
- ⁵ Ibidem, p. 31, 43, 57, 80–82, 88.
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- ⁷ *Information on the number of monuments of archaeology, history, monumental art, architecture and urban planning of Ukraine as of January 1*, „Culture and life” 2002, no 31; M. Dyomina, V. Dyomina, L. Dmitriiev, *General principles for documenting monuments of architecture and urban planning in Ukraine*, „Theory and history of architecture” Kyiv 1995; *The Law of Ukraine. On the Protection of Cultural Heritage. Legal protection of cultural heritage: a collection of documents*, Kharkiv 2006; *The set of historical and cultural monuments of Ukraine*, Book 1, part 1: A–L, ed. P. Tronko et al., Kyiv 1999; *From the history of Ukrainian restoration*, [in:] *Architectural Heritage of Ukraine*, ed. V.I. Tymofiienko, Kyiv 1996; *The Law of Ukraine On Approving the State Program of Preservation and Use of the Cultural Heritage for 2004–2010*, „Information of the Verkhovna Rada of Ukraine” 2004, no 32, p. 390.
- ⁸ Ibidem.

Abstract

Among the entire list of architectural monuments, religious structures depended most heavily on the changes in politics and ideology. If the ruling elite did not take an antagonistic position concerning the dominant religion, it either contributed to its dissemination and affirmation or was at least neutral. In the case when the dominant religion was that of the state and a combination of power and religion was observed, the temples occupied a dominant place in the structure of settlements, and their size and luxurious decoration became evidence of the strength and divinity of power.

Using Soviet-Union-era Ukraine as an example, it was proved that places of worship that played the role of ideological and urban development landmarks in the urban environment were systematically destroyed. In the Soviet Union, the conscious destruction of wooden and stone churches and cathedrals took place under the slogan of militant atheism, the denial of God and the fight against religion.

The modern restoration of partially ruined or destroyed temples is also a criterion for changing the ideological attitude to religion in independent Ukraine.

Streszczenie

Spółród wszystkich zabytków architektury obiekty sakralne w największym stopniu zależały od zmian politycznych i ideologicznych. Gdy elity rządzące nie przeciwstawiły się religii, to albo przyczyniły się do jej rozpowszechnienia i afirmacji, albo były wobec niej neutralne. W przypadku gdy religia miała charakter państwowy i można było zaobserwować jej powiązanie z władzą, świątynie zajmowały dominujące miejsce w strukturze osady, a ich wielkość i bogactwo dekoracji świadczyły o sile i boskości władcy.

Ukraina, będąc w przeszłości zależna od Związku Radzieckiego, jest przykładem, że obiekty kultu, które odgrywały szczególną rolę w ideologii i rozwoju urbanistycznym środowiska miejskiego, były systematycznie niszczone. W Związku Radzieckim świadoma dewastacja drewnianych i kamiennych kościołów oraz katedr miało miejsce pod hasłem wojującego ateizmu, wyparcia się Boga i walki z religią.

Współczesna renowacja częściowo zrujnowanych lub zniszczonych świątyń jest również przejawem zmiany ideologicznego stosunku do religii w niepodległej Ukrainie.