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**Myroslav Yatsiv\***

PhD in Architecture, Assistant Professor  
Lviv Polytechnic National University  
79000, 12 Stepan Bandera Str., Lviv, Ukraine  
<https://orcid.org/0000-0003-3721-7791>

**Maksym Yasynskiy**

PhD in Architecture, Assistant Professor  
Lviv Polytechnic National University  
79000, 12 Stepan Bandera Str., Lviv, Ukraine  
<https://orcid.org/0000-0002-8285-4522>

## **Light in the contemporary churches of the Ukrainian diaspora**

**Abstract.** Nowadays, the Ukrainian church building has not yet succeeded in establishing its own modern image/type of church, different from the conventional one. One of the significant reasons for this situation is the long break in the design and construction of churches in Ukraine during the 20<sup>th</sup> century. The Ukrainian diaspora has accumulated considerable experience in the construction of modern churches, which ensures the continuity of the tradition of the church building. The purpose of the research is to explore the still invaluable experience of designing church buildings and the architectural and artistic organisation of their interior in Ukrainian diaspora churches, which is an important foundation for solving the problem of developing the image/appearance of a modern church. For experimental studies, the method of architectural modeling was used, with the help of which the important properties of the church buildings were investigated. The research analyses several projects by architects of the Ukrainian diaspora in the field of sacred architecture. The research identifies the specific features of the establishment and development of church architecture in the Ukrainian diaspora in terms of the debate over the conventional and modern forms of church buildings and the spatial organisation of the light composition of their sacred space. The research outlines the influence of the local architectural tradition of the church building in North America – Protestant and Catholic churches – and the modernist design culture of the period of functionalism and neo-modernism in architecture on the architectonics of Ukrainian churches in the diaspora and the organisation of the light environment of their interior space. For the first time, the features and regularities of the organisation of the light environment of the most famous Greek Catholic churches of the Ukrainian diaspora in Canada and the United States, built in the second half of the 20<sup>th</sup> century, are explored. The influence of natural light on the architectonics of churches and the specific features of visual perception of their internal object environment and on the development of the appropriate mood imbued with mysticism and sacred atmosphere of the interiors of churches is determined. The experience of diaspora architects is explored and analysed, which has not been understudied but will be essential for use in the practice of Ukrainian architects in designing modern churches while preserving national identity and church-building traditions

**Keywords:** natural lighting; church; sacred space; church architecture; tradition

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\*Corresponding author



## INTRODUCTION

Analysing the architecture of modern church buildings in Ukraine, it can be argued that most contemporary architects do not have the fullness of professional knowledge in the field of sacred architecture, do not understand and do not consider the essential role of light in developing the architectonics of the Eastern Christian church. The subject of the functioning of light, particularly natural light, in the sacred space of the temple has been understudied. A small number of scholarly works by both foreign and Ukrainian authors are devoted to this subject.

Several authors have explored the specific features of sacred architecture and some aspects of the organisation of the light environment/composition of contemporary diaspora churches. In particular: T. Hevryk (1990-1991; 1999), who devoted a significant part of his research to the specifics of the churches designed by R. Zhuk; A. Borys (2015; 2017; Borys & Frankiv, 2015), who covered and analysed numerous sacred buildings by architects of the Ukrainian diaspora and the features of their church-building heritage; V.B. Tymkiv (2017), who explored how architects of the Ukrainian diaspora inherited and interpreted the traditions of the Ukrainian church building, etc. In addition, among the scientific works, particular attention should be devoted to the theoretical works of the famous Canadian architects R. Zhuk (1984) and M. Nimziv (1982), which describe their understanding of the regularities of rhythmic relations in Ukrainian church architecture and the importance of tradition in sacred architecture. A monograph by R. Halysych (2002) is worth highlighting, analysing the artistic features of Ukrainian church architecture and interiors in Eastern Europe and the West in the 20<sup>th</sup> century.

During the period of the highest development of modernism (in the 1950s-70s), church construction in Ukraine completely stopped, and experiments with modernist forms in the sacred art of the Ukrainian-Byzantine tradition continued only in the diaspora (Halysych, 2002; Proskuryakov & Kucher, 2006). It was among the Ukrainian diaspora in North America that several architects emerged: R. Zhuk (1984), M. Nimtsiv (1982), etc., who attempted to establish a modern image of a church of the Ukrainian-Byzantine tradition made with materials based on the principles of functionalism. The church architecture of the diaspora developed continuously in the context of the world's sacred culture. The architectonics and organisation of the light environment in the interior space of Ukrainian churches in the diaspora were developed under the influence of world sacred architecture, whose structure and architectural forms began to change significantly in the middle of the 20<sup>th</sup> century. The light composition in the space of the modern church changed accordingly (Borys, 2015; Kutsevych, 2013; Tymkiv, 2017). After the resumption of church construction in Ukraine, the experience of diaspora architects became the main guideline for the creative search for architects in Ukraine.

The purpose of the research – to identify the main factors that influenced the development of church architecture of the Ukrainian diaspora in Canada and the United

States in the second half of the 20<sup>th</sup> century; to establish methods of developing a light composition in the sacred space of a modern church. The objective of the study – to establish the specific features of the lighting design of the interior space of modern Greek Catholic churches in the diaspora by subjective assessment of the distribution of surface brightness and quantitative indicators of natural light fluxes on individual church models.

## MATERIALS AND METHODS

The purpose and specific object/subject of the research – the spatial organisation/composition of natural light in the space of contemporary diaspora churches/cathedrals – required considering the specific features of light functioning in the space of the church in two aspects. From a formal standpoint, it becomes apparent from how the sacred atmosphere of the interior space is expressed using architecture and becomes apparent through the spatial distribution of light in interaction with the vaults, wall surfaces/iconography, and all the object elements of the interior space of the temple, which can be qualified as architectural forms of expression of the sacred. In addition, it is from a semantic standpoint that sprouts from the theological, metaphysical essence of light, elements of the architectural structure of a church building: light openings, windows; light-reflective surfaces (walls, vaults), etc. Thus, the light in the space of the temple was considered from the standpoint of both architecture and architectural lighting technology, as a sacred phenomenon.

A theoretical study was performed, determining information about the features and patterns of development of the light composition inside the church. The research was based on general scientific methods, in particular, observation and generalisation, and special methods, such as analysis, synthesis, and abstraction. Using the method of visual analysis in combination with the method of observation, the main subject of which was the brightness distribution of the interior surfaces of the temple and the main vector/field of light propagation in the interior of a sacred building, the author explored which surfaces play the most important role in the light propagation in the temple from a physical standpoint and which three-dimensional elements should be emphasised in terms of the sacredness of the space. The entire process of light propagation – the spatial distribution and brightness of the surfaces – was decomposed by abstraction into components: straight and reflected light, which has equivalent sacred meanings within the interior of the temple as a sacred space. Using the method of synthesising the physical illumination of the church interior and the spiritual, i.e., sacred, lightness of the interior elements, such as the altar, bath, narthex, and their elements, the importance of their illumination by architectural means was determined, depending on the sacred value of these elements. This approach allowed exploring some aspects of the interaction of the temple's spatial elements with the natural light that penetrates the temple space. Therefore, the method of generalisation





is important in determining the main and effective approaches to designing a suitably illuminated temple space in terms of sacredness.

For experimental research, the method of architectural modelling was used – a method of scientific research of important properties of an object (an existing church building). To explore the quantitative characteristics of light fluxes in the space of a particular church, its model was used, in which the parameters of light openings were reproduced in the appropriate scale, and the internal surfaces were painted with the appropriate light reflection coefficients. Such church models allow roughly determining the coefficients of natural light at specific points and establishing a general picture of the light distribution in the space of a real church.

To explore the distribution of illumination on horizontal or vertical surfaces, models of existing churches in the diaspora were used. The light environment of the Holy Family Church in Washington, D.C., the Church of the Immaculate Conception in Philadelphia, and the Holy Family Church in Winnipeg were studied using the modelling method. The relative proportion of light coming from one or more windows into the interior of the church in the overall system of its natural lighting was explored by the amount of illumination at characteristic points of the interior space of the church. The illumination curves in the characteristic cross-sections of the models and the distribution of light on vertical and horizontal surfaces were determined, which allowed identifying the most illuminated and darkest zones and surfaces in the space of existing churches where the light environment was explored.

## RESULTS AND DISCUSSION

In America, several trends in sacred architecture were developed. At the initial stage, these were eclectic buildings made of modern materials and structures that mostly repeated the features of the Byzantine style, the traditions of Ukrainian folk wooden architecture, or Cossack Baroque. The composition of these churches uses domes as the main element of Ukrainian identity (Kutsevych, 2008; Kutsevych, 2013). The light environment of these churches is close to the light composition of traditional Ukrainian churches of the corresponding period/style. In conventional Greek Catholic churches, as in Orthodox churches, for a long time, the light and space composition were developed according to the established principles of spatial organisation. The most important among these principles is the dominance of overhead light streams according to the symbolism and sacred meaning and the hierarchical/uneven distribution of light – increasing the intensity of natural and artificial light streams from the periphery to the centre of the temple (Yatsiv, 2017; Yatsiv & Kryvoruchko, 2017). The means of implementing these principles are the structure of light openings (direct light) and the tectonics of internal surfaces (reflected light). The elements of this design include domes on high-light drums, tall windows in the walls of church buildings, and an optimal ratio between the area of windows and the area of walls. This light composition significantly affects the spatial development and morphology of the

architectural forms of the church building. In addition, the principle of minimal filling of the temple space with natural light is important to establish an introverted sacred environment imbued with mysticism, which brings the human psyche into a state of deep spiritual concentration.

Another group is united by modern Greek Catholic churches abroad, in which the influence of the architecture of local denominations, in particular Protestant churches that were adapted for worship by the Ukrainian community, is evident. In the space of these diaspora churches, a significant increase in the intensity of natural light, illumination of interior surfaces, as compared to conventional churches, and the alignment of illumination (brightness) along the longitudinal axis of the building. This situation of the church building is typical both for America and for many other countries where Ukrainians live (Borys, 2017; Borys & Frankiv, 2015; Kutsevych, 2013).

It is known that the main requirement for the interior design of a Protestant church is to establish a large and high hall, evenly filled with natural light, where everyone can see and hear the preacher (Demianov, 2004). In the typical layouts of houses of worship, the walls are pierced along the perimeter with high skylights. These schemes do not emphasise using overhead luminaires. Thus, the entire original architecture of the Protestant church seems to deny any special role of light. Rather, they are utilitarian requirements for good lighting and visibility in the building space, emphasis on common prayer, and singing psalms. There is plenty of space in the church for those who come to pray, as the main thing in the church is not the cult of the church itself but the community of believers who establish and sanctify this church through their prayers (Hevryk, 1990-1991). People sanctify the church by their presence, and not the church sanctifies people by its architecture and arrangement – this is the main tenet of the Protestant church building (Demianov, 2004). The lighting environment of houses of worship is guided by the principle of comfortable lighting, a homely feeling, and the absence of pomp, special symbolism, or mystical mood.

These two types of sacred buildings were the foundation for an encounter with architectural modernism, the “international style”. The experience of laconic and functional representations of sacred semantics gained during the construction of the first Ukrainian churches and the conversion of Protestant churches allowed for a much easier transition from the eclectic-historical morphology of churches at the turn of the 20<sup>th</sup> and 21<sup>st</sup> centuries to the project of the abstract culture of modernism (Borys, 2017). The architects of the Ukrainian diaspora gradually mastered the language of modernity and the “international,” which mitigated the feeling of alienation and established the Ukrainian tradition of the church building as friendly to the main value of modernity-progress. Therewith, the diaspora was at the time of the Second Vatican Council, which proclaimed functionalism as the preferred style of the Christian church (Borys, 2017). It allowed the works of sacred art to be brought closer to the understanding of believers, to be accessible to everyone, and to open the



Church to architectural innovations (Janisio-Pawlowcka, 2017). The Church now encourages simplicity of architectural and artistic design, restrained use of decor, and a limited number of iconographic images. The openness of the church is marked by architectural innovation: Modern architects have the opportunity to add their ideas to the spatial organisation of the sacred building. The monumentality of ancient sacred buildings has been replaced by the simplicity of architectural and artistic solutions, moderate use of decor, and a limited number of sacred images that distract parishioners from the Liturgy and personal prayer.

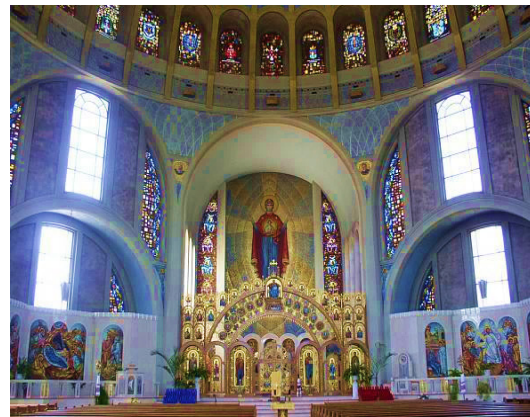
The recommendations of the Second Vatican Council of the 1960s influenced the organisation of lighting in modern churches. According to studies by Polish scholars A. Siwiek (2006) and D. Janisio-Pawlowcka (2017), the following ways of introducing daylight into the space of modern churches can be distinguished: partial (horizontal/vertical) or complete

glazing of the walls in the altar, and the placement of large stained-glass windows in one of the side walls of the nave. In addition, skylights are used, mainly to cover the space above the altar, whose light streams illuminate the icons on the walls or the Crucifix. These means contribute to a significant increase in illumination (brightness of surfaces) in the altar space and equalisation of illumination in the space of the church of the faithful – the prayer hall (Janisio-Pawlowcka, 2017). This important turn in the organisation of the lighting composition of the interior space of the church also took place in the Greek Catholic churches of the diaspora, which were in the same field as the cathedral solutions.

Consider several examples of the organisation of the lighting environment in Greek Catholic churches in the diaspora built in the New Byzantine style. A striking example is the Church of the Immaculate Conception in Philadelphia (Fig. 1a).



a)



b)

**Figure 1.** Church of the Immaculate Conception in Philadelphia (USA): a – the main facade, b – appearance of the altar space  
**Source:** Archeprarcy of Philadelphia Ukrainian Catholic Church (n.d.)

The model for this church was the Church of St. Sophia in Constantinople. The construction of the church is close to the domed churches, faceted in the plan, with slight protrusions of the narthex and apse. The ceiling of the huge dome of the church is decorated with the mosaic “The Savior Almighty”. The base of the dome has 32 window openings with thematic coloured stained-glass windows. They depict the coats of arms of the Ukrainian lands and the bishops who served the Ukrainian Catholic Church. On the altar wall, the Virgin Mary is depicted in a halo/oreole of Divine light (Fig. 1b).

The general nature of the light environment of the temple is defined by the light streams of natural light penetrating through large windows located on the diagonals of the hexagonal plan, rather than on the main axis – the narthex-altar. Thus, there is a uniform distribution of illumination in the church space and on the horizontal floor. In a conventional church, the brightness increases from the bottom up. In this temple, the greatest brightness is in the middle part of the walls. From the top of the iconostasis to the dome itself, the lighting is significantly reduced as the windows are filled with stained glass. The dome looks heavy and earthy.

The light from the windows located in the walls on the sides prevents a good perception of the iconostasis and the image of the Virgin Mary in the apse. Vision is constantly in the process of adjusting from bright windows to not-so-bright images on the walls. It would have been much closer to the Byzantine tradition to move the stained-glass windows from the windows under the dome to the windows in the walls on either side of the iconostasis, which would have increased the illumination in the dome space. The dome would have looked much more impressive, visually light, and “detached” in height.

A striking example of the uniform filling of the sacred space of a church with natural light is the Greek Catholic Church of St. Joseph in Chicago (Fig. 2a). The layout of the church is based on Byzantine tradition and symbolism. Twelve towers from different sides represent the twelve disciples-apostles. In the centre is the main, tallest dome, representing Jesus Christ. The interior space is divided into three parts. The shrine is separated by an iconostasis. The construction of the temple is widely used glazing. The columns, which do not load-bear and surround the main volume of the temple around the perimeter, are made of





glass. The glass covering 75% of the external wall surfaces. A large number of light openings and their location in the building structure contribute to the saturation of the interior space with natural light, which is complex and

circular (Fig. 2b). A large number of windows and their high brightness somewhat impair the perception of the iconostasis and iconographic images in the lower tier of the walls.



**Figure 2.** St. Joseph's Church in Chicago (USA): a – Exterior of the church, b – interior of the church

**Source:** Interactive map of the UGCC (n.d.)

Two colours dominate the decoration of the temple's interior surfaces and furnishings: light blue and gold, and the exterior is dominated by glass walls that reflect the sky, painted blue, and the towers are crowned with golden domes.

Among the cluster of architects in the Ukrainian diaspora in North America who integrated into the most modern discourse of modernist/contemporary architecture, several architects tried to answer the question of the architectural image of the temple of the Ukrainian-Byzantine and Ukrainian-Baroque traditions, executed in the language of functionalist morphology (Borys, 2015; Kutsevych, 2013). In these church buildings, the techniques used to serve as national attributes retain their significance, but they are devoid of a historical view of the past and are significantly reinterpreted within the author's style of a particular architect.

Gradually, the sacred architecture of the diaspora began to develop a trend of a kind of synthesis of national heritage and the new language of modernity. An example of such a synthesis is the Holy Family Church in Washington, D.C., designed by architect M.D. Nimziv (1982). The architectural

solution of the church includes several techniques of national identification, which can serve as an example of the concentration of all the intellectual achievements of the sacred architecture of the Ukrainian-Byzantine tradition, which developed in the diaspora environment, in one project (Fig. 3a). The general spatial structure of the church is an imitation of the Carpathian three-story churches, where each top defines a separate structural unit of the building: the altar, the nave space, and the narthex. In all other respects, the building has signs of abstract morphological experiments in the language of modernism. The main volume is designed in a new searching form of a tent pierced with continuous window strips, which is not typical of previous interpretations of the Ukrainian folk church. Such architecture significantly influenced the light environment of the church. The church has natural lighting: low floor illumination, high illumination of wall surfaces, especially window openings, and high illumination of the vaults (Fig. 3b and Fig. 3c). The temple is saturated with sunlight and diffused light from the sky, thus the level of illumination is much higher than in conventional Ukrainian Baroque churches.



**Figure 3.** Holy Family Church, Washington, DC (USA): a – side facade of the church; b – the general appearance of the nave; c – the appearance of the space under the dome

**Source:** Archeparchy of Philadelphia Ukrainian Catholic Church (n.d.)



Among the architects who tried to answer the question about the image of the temple of the Ukrainian-Byzantine tradition, executed in the language of the morphology of functionalism, a significant role belongs to the unique experience of R. Zhuk (Borys, 2017). The entire architectural work of the master is a synthesis of the Western Ukrainian and diaspora conceptualisation of 20<sup>th</sup>-century sacred architecture. R. Zhuk was a figure who almost single-handedly implemented a process that, within other traditions, was the work of entire schools of architectural theory and practice (Borys, 2017). This refers to the complex dialectic of the existence of symbolic and semantic functions of Art Nouveau architecture and the so-called international

style, with its figurative unification of the entire design typology. Thus, a conceptual product image of a modern Ukrainian sacred building concentrated on one person, was developed, which significantly influenced the culture of designing church buildings in Western Ukraine (Borys, 2017). Consider several implemented projects by R. Zhuk in the context of designing their light environment.

The Holy Family Church is located in Winnipeg. The architecture of the church expresses the main functional composition – a slow rise of the low nave from the entrance to the sacristy. The much smaller sacristy culminates in a tall tower above the shrine, which is the most important part of the building (Fig. 4a).



a)



b)

**Figure 4.** Church of the Holy Family (Winnipeg, Canada):

a – side facade of the church; b – general appearance of the nave

**Source:** Manitoba Historical Society (2022)

The division of the tower into three volumes reflects the main liturgical functions of the church, which are performed in the sanctuary on the central throne and two tables on the sides. The division of the interior space of Ukrainian churches into three parts corresponds to this sacred idea. It, and using the round arch shape, which is a characteristic element of ancient Russian churches, was an attempt to connect this building with the Ukrainian architectural tradition. The central tower is taller than the two side towers. All three rise sharply above the nave, which establishes a visual illusion of remoteness, and separation from the rest of the temple. The integrity of the composition is “supported” by seven thin white arches in front of the entrance to the building, the wall of which is covered with a continuous stained-glass window over the entire width of the facade. The church is an example of modern church architecture, which emphasises functionality, and the layout and decoration only hint at ethnic and religious affiliation.

The main factor in organising the light environment of the temple is the light contrast between the nave and the sanctuary, between the horizontal vector of light distribution in the nave space and the vertical vector of light distribution in the space of the towers above the sanctuary (Fig. 4b). The contrast between the almost solid walls that converge in the perspective of the plan and the slope of

the nave ceiling draws the congregation’s attention to the altar space. The significance of which is emphasised by the natural light that enters through the huge windows in the towers. The parishioners cannot see the windows from the nave; the full view of the tower is only visible to the faithful when they approach the throne during the Eucharist, the culmination of the Liturgy.

The most interesting, in the author’s opinion, in terms of planning and spatial solutions, and organisation of the light environment is St. Stephen’s Church in Calgary (Canada). The structure of the interior space recreates the spirit of Byzantine basilicas and the high tops of Ukrainian wooden churches on the Left Bank of Ukraine, represented in unique forms (Fig. 5a).

The church building harmoniously fits into the environment, developing the space as a set of optimal compositions. The scale of the building demonstrates the proportionality of the architecture and spatial solution. The architect achieves this with the formal expression of the roofs and the domed end of the church. The dome (tower) is demonstrating both tectonic and spatial success and has an architectural and national identity that is inherently Ukrainian. They reflect the traditions and innovations of the present. The dome, divided into four parts by segmental finials, is a single unit in the interior of the church. Its space is united by natural light.





a)

b)

**Figure 5.** St. Stephen's Church (Calgary, Canada):

a – side facade of the church, b – general appearance of the nave

**Source:** Ukrainian Catholic Eparchy of Edmonton (n.d.)

The church is tectonically and visually divided into two parts: the relatively low space of the nave, poorly lit by small ribbon windows under the ceiling, and the space of the sanctuary, well-lit by daylight from the windows of the domes. The light contrast of these rooms is high, which emphasises the significance of the shrine. The natural light of the nave space is dimmed by stained-glass windows and windows under the ceiling, which is located in the walls of the building. The light contrast is enhanced by colour: the walls and ceiling are dark brown, and the walls of the dome are light (Fig. 5b). The planning structure of the church has a feature that is not found in other churches: the location of seats for parishioners in the sanctuary space, behind the throne. Such a layout, together with the lighting composition, enhances the centrality and sacredness of the shrine.

It is established that light in sacred architecture, primarily natural light, has been an important factor in shaping the architectonics and sacred atmosphere of church buildings for centuries. The architectural principles and methods of organising the light environment of the main types of conventional church buildings in Ukraine have been sufficiently explored (Yatsiv, 2017). The initial positions of the spatial organisation of the light environment/composition of an Eastern Christian church (Orthodox and Greek Catholic churches in Ukraine) have been and remain relatively unchanged over a long period of development of sacred architecture. The main principles of organising the lighting composition of a conventional church are: the principle of dominance of overhead light and the principle of hierarchy (unevenness) of light in its space. These principles are based on the religious and theological tradition, Christian dogmas, rules, and rituals that have remained relatively unchanged during the construction of churches from the introduction of Christianity to the present day (Yatsiv & Kryvoruchko, 2017; Kryvoruchko, 2019). And today, these principles should become an integral part of the ideological idea/concept of solving the architectonics of a modern church and the foundation of the process of designing the architectural type/image of a church building.

The diversity of forms of church architecture indicates various external factors that influenced the process of its

development. A church building is established in territories characterised by different natural and climatic conditions, which introduces some differences in the composition of church architecture in different regions. The formal side of modern sacred buildings, their image/appearance, is significantly influenced by the possibilities of modern materials and architectural structures. Notably, the methods and means of designing light compositions in modern church buildings in Ukraine often contradict architectural traditions and theological requirements, and their architectural image does not correspond to modern world trends in the church building.

The results of this research correlate with the opinions and judgments of R. Zhuk (1991a, 1991b), who studied more the traditions and individual approaches of diaspora architects to the development of the light environment of churches, and with the works of V. Kutsevych (2008, 2013) and R. Halysych (2002), who devoted more attention to the evolution of church building and the role of light in the space of the diaspora sacred building. Instead, this research highlights the synthesis of the approaches of the conventional interior design of Ukrainian Orthodox churches with the specific features of the organisation of the light environment in Catholic and Protestant churches in the United States and Canada.

## CONCLUSIONS

Ukrainian architects in the diaspora in North America have made many successful attempts to integrate the characteristic features of the traditional Ukrainian church into the modernist design culture of the Anglo-Saxon world. Light in the space of Greek Catholic churches in the diaspora has been and continues to be an important symbolic and architectonic factor in developing the interior space and sacred atmosphere of the church, given the sacred significance of specific volumetric and spatial elements. Notably, modern Greek Catholic churches in the diaspora contain many techniques of light and spatial composition that are in no way related to the already developed system of the Ukrainian sacred tradition, but rather reflect the author's style of a particular architect and the influence of architectural





traditions of other denominations of the Christian rite in North America. In the space of these churches, a significant increase in the intensity of natural light flows, and, accordingly, the illumination of interior surfaces, compared to conventional churches, a significant equalisation of illumination (brightness) along the longitudinal axis and in all areas from the centre of the building, since the most important and sacred part of the church is its altar part. It is conditioned upon the arrangement of large panoramic windows above the entrances, using stained glass windows in the walls of the sanctuary and vertical windows in the walls of the nave, which increases the illumination of both the nave for the parishioners, bringing them closer to the sacred centre of the building, and the illumination and brightness of the altar as the culmination of the sacred space of the church. In addition, light enters the space

of the church through skylights and numerous windows of the upgraded domes. Such an overhead lighting system allows concentrating light fluxes in significant areas of the interior space, primarily in the space of the altar, or on the main images/icons in the iconography of the church.

An essential feature of modern churches of the Ukrainian diaspora is the widespread use of coloured stained-glass windows in the walls of the church and in the windows of the domes/domes, which is not typical of conventional Orthodox and Greek Catholic churches in Ukraine.

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## CONFLICT OF INTEREST

None.

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### **Мирослав Богданович Яців**

Кандидат архітектури, доцент  
Національний університет «Львівська політехніка»  
79000, вул. Степана Бандери, 12, м. Львів, Україна  
<https://orcid.org/0000-0003-3721-7791>

### **Максим Романович Ясінський**

Кандидат архітектури, доцент  
Національний університет «Львівська політехніка»  
79000, вул. Степана Бандери, 12, м. Львів, Україна  
<https://orcid.org/0000-0002-8285-4522>

## **Світло у просторі сучасних церков української діаспори**

**Анотація.** Сьогодні в українському храмубудуванні ще не вдалось створити свій сучасний образ/вигляд храму, відмінний від традиційного. Однією з істотних причин цієї ситуації є тривала перерва в проектуванні та будівництві храмів в Україні впродовж ХХ ст. Значний досвід будівництва сучасних храмів, який забезпечує спадкоємність традиції храмубудування, накопичений в українській діаспорі. Метою статті є дослідження ще неоціненого досвіду проектування храмових будівель і архітектурно-художньої організації їх внутрішнього простору в храмах української діаспори, що є важливим підґрунтям для вирішення проблеми формування образу/вигляду сучасного храму. Під час дослідження було використано загальнонаукові та спеціальні методи. Приділено уваги та вивченню актуальних питань формування світлової композиції в сакральному просторі сучасних храмів діаспори. Проведено аналіз низки проєктів архітекторів української діаспори у царині сакральної архітектури. Виявлено особливості становлення та розвитку церковної архітектури української діаспори в аспекті дискусії навколо традиційної та сучасної форми храмової будівлі і просторової організації світлової композиції їхнього сакрального простору. Окреслено вплив місцевої архітектурної традиції храмубудування в Північній Америці – протестантських і католицьких храмів, а також модерністської проєктної культури періоду функціоналізму та неомодернізму в архітектурі на архітектоніку українських церков діаспори та організацію світлового середовища їхнього внутрішнього простору. Вперше досліджено особливості та закономірності організації світлового середовища найвідоміших греко-католицьких храмів української діаспори на території Канади та США, збудованих у другій половині ХХ ст. Визначено вплив природного світла на архітектоніку храмів та особливості візуального сприйняття їхнього внутрішнього предметного середовища і на формування відповідного настрою проїнятого містикою та сакральною атмосферою інтер'єрів храмів. Вивчено та проаналізовано досвід архітекторів діаспори, який ще мало досліджений але матиме важливе значення для використання в практиці українських архітекторів під час проектування сучасних церков зі збереженням національної ідентичності та традицій храмубудування

**Ключові слова:** природне освітлення; храм; сакральний простір; церковна архітектура; традиція