STUDY OF HARMONY IN THE INDOOR/OUTDOOR CONTEXT OF ARCHITECTURE OF THE 21ST CENTURY CATHOLIC CHURCH IN LATVIA

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Abstract. Wide-ranging use of glass systems in modern sacral architecture extends the traditional dialogue between indoor and outdoor space and makes architects look for new forms or harmony between the two, at the same time keeping focus on the most important thing — sense of God’s presence and idea of spiritual transcendence. Compositional application of coloristics, light and shadow under the impact of insolation and visual accents created by the play of light and shadow should underline altarpiece in church space creating the necessary balance and arranging priorities in the right order. Aesthetic harmony has a subordinated significance. A picturesque landscape seen through a glass system has only a subordinate importance. Harmony of indoor/outdoor space in sacral architecture is achieved only in those cases when expressing a hierarchy or priority values such as an altarpiece accentuated with the help of light, interior design opening to the sky, picturesque view of nature. In order to reach the maximum result a synthesis of mentioned methods is recommended.

Keywords: indoor/outdoor harmony, sacral architecture, glass systems, spiritual transcendence, church of Latvia.

Introduction

Today glass and large glass systems have become an integral part of architecture. Due to their specific qualities glass systems have expanded the possibilities of art of creating buildings. The use of glass not only has given new qualities to the very architecture and its interior decoration, but also expanded previous functions, joining landscape, or outdoor architecture, building architecture and interior design, or indoors, into one spatial structure (Grietēna 2013; Strautmanis 1977). Artists and scientists of all times have been unceasingly looking for the keys of harmony trying to use them as precisely as possible (Kimberly 2001; Kundziņš 2008; Rumiež 2013). In creating spaces the basis of making a harmonious environment is a synthesis of arts (Strautmanis 1982). Correctly devised elements like silhouette, scale, proportions, play of light and shadow and surface plastics of a building, as well as an inborn feeling of materials and awareness of surrounding nature specifics gave ancient masters a possibility to create unparalleled masterpieces (Strautmanis 1977).

Sacral architecture has always embodied the highest synthesis of achievements in architecture, art and crafts characteristic to each era (Krastiņš, Strautmanis, Dripe 1998). Due to this reason the study was carried out on present-day Roman Catholic churches that have recently provided an especially abundant investment in modern Latvian architecture.

Today when employment of glass in architecture is increasing, the merge of landscape architecture with indoors and vice versa has become part of the mentioned synthesis. Results of on-the-spot interviews in churches around Latvia show that people almost always feel the presence of harmony if a picturesque natural landscape joins indoor views through glass systems. People still feel nostalgic about old rural churches (Ziemeļniece 2011) where clarity of form and pure architectural principles stem from the building canons of gothic, renaissance, baroque and fusions of these styles (Kļešņina 2012). These styles are characteristic with symmetrical, rhythmically arranged, oblong, most often arched windows. In countryside churches natural landscapes have been made part of interior design with the help of windows – showing tree silhouettes with their foliage changing along with seasons, letting in sunlight and thus reviving frozen interiors. Urban churches are more characteristic with usage of stained glass in window design to shield indoor space from the urban rush, and to create a presence of peace and serenity so necessary for a
sacral space. In interior design with stained glass one feels a gentle play of exterior light and shadow that helps focusing on the praying process and creates a sense of light and darkness reminding of a horizon in the sea. According to priests, modern sacral architecture in Latvia is in the stage of quest with successful and unsuccessful results. Even present day children, not bound by stereotypes of sacral architecture, value historic churches more than modern ones. Why so? In this study we will try to find the answer.

“The last decade has seen the emergence of a whole new generation of church designs” (Heathcote, Moffatt 2007). When looking at modern church architecture in the world, one sees an apparent tendency to express Holiness through rationality and attempt to harmonise them. “It also outlines the main trends and approaches: the conflict between self-expression and expression of the sacred, between sculptural signification and functionalism” (Heathcote, Moffatt 2007).

In soviet years, as a result of communist ideology, soulfulness of architecture was shaken. If a wall is built as a simple transparent glass, it speaks of a spiritual poverty and serves only to beat off noses of people and birds. In sacral architecture it is important to express transcendence. Earlier it was signified by church towers. We feel human transcendence also at sundawn when nature and human existence merge together and disappear behind the horizon. Indoors and outdoors of a church is in harmony if their dialogue helps to raise the soul up to God, underlines the most important thing in this space, i.e. the altar, and brings the teaching of Jesus to people (+exel. Justs 2013, personal communication).

Materialisation of these principles has given architectural masterpieces to the world in all times and reached a surprising expressiveness of space in modern 20th century churches, where present day architects have used technical possibilities of new building materials (Maaß, Benthues, Neubert 2003).

Since 1991 and the collapse of occupational regime, Latvian architecture has experienced rapidly progressing development in church building after the long years of communist ideology. Taking into account the unique historic situation in Latvia, mental and psychological specifics of its population, the global architectural trends are entering this territory slower than elsewhere in the world, yet firmly enough. Due to application of large glass systems, the indoor/outdoor dialogue has made a strong entrance in Roman Catholic churches built in Latvia in the post-soviet years (1991–2013). In most cases outdoor spaces opening the view through glass systems have been successfully and purposefully integrated into interior design of sacral buildings and vice versa. However, several cases have been observed when, in the course of time, glass systems have been fully or partially blocked by visually dissociating materials (stained glass, coloured PC sheets, adhesive films, shutters, or interior decoration elements) thus causing unplanned material expenses and losing the specific potential of glass systems in architecture.

There are many studies on history of sacral architecture of Latvia, art and their synthesis (Banga et al. 2007; Grosmane 2000, 2008; Kaminska, Bistere 2006; Krastiņš, Strautmainis, Dripe 1998; Kaminska 2007; Markova 2013; Ogle 2007; Vaivods 1994a, b, c, etc.), however up to now nobody has analysed the dialogue between indoor/outdoor space through a glass system and conditions of its harmony in modern Latvian urban context encompassing outdoors-architecture-indoors as a single spatial structure and determining priorities conducive to harmony in the present time.

**Purpose of study:** to determine priority factors for indoor/outdoor harmony in modern Catholic church buildings in Latvia in order to identify general principles of outdoor/indoor harmony with the help of inductive reasoning.

**Study tasks:**
1. To study and analyse factors of harmony in the indoor/outdoor interaction of Roman Catholic church buildings built in Latvia in the 21st century;
2. To determine priorities of the indoor/outdoor harmony.

**Materials and methods**

For obtaining results, new Catholic churches built in the post-soviet Latvia in the period from 1991 to 2013 were selected and surveyed as research material. They are characterised by distinctive, often expressive architecture, where the indoor space more or less conforms to the general architectural design and adjoins the outdoor space represented by a wide spectrum of Latvian landscape starting with urban fabric and ending with traditional countryside views.

The article summarises a general review of a subject studied very little until now. The present level of research on modern sacral architecture provides only a modest insight into the general situation in Latvia in this area. Present outline of materials uses general principles of methodology in researching sacral buildings developed by architect Juris Vasiljevs, the founder of Latvian modern architectural history school: detailed summary of basic information obtained from written sources and the very physical object (Burzgule 2001; Krastiņš 1995; Dekante 2004). In a research follow-up it is planned to carry out
advanced inspection of each church in respect to its modern architecture by applying methods of historic sacral building research developed by Juris Vasiljevs and Ojārs Spārītis. Also, there is a need to carry out advanced research of the dialogue between architecture and interior in the context of art history, along with analysis of the origins of architectural form, following the methods presented in the works by Rūta Kaminskā, Elīta Grosmane, Anna Ancāne, Ludmila Kļešņina, Kristīne Ogle and Anita Bistere (Dirveiks 2008).

In order to gather data which are as objective as possible, the following conditions were set for carrying out the present research:

1. Inspection of churches should be carried out in one and the same season; in this case November was chosen when trees reveal their branch silhouettes.
2. Inspection of churches should be carried out in one and the same time of the day, while visiting morning Mass, in order to assess the activity of sun in indoor space at a similar angle of sunrays hitting the ground, and indoor/outdoor dialogue during the Mass.
3. Research should be done by a group of researchers of the permanent staff.

Application of comparative method for drawing the information summary for the research:

1. Principles of applying glass systems in architecture:
   − Composition of glazed areas in space and their proportions, i.e. massiveness in relation to un-glazed parts;
   − Compositional application of coloristic and light/shadow under the impact of insolation;
   − Assessment of semantic correspondence and level of emotionality of indoor/outdoor space in relation to the highest functional task of a sacral space.
2. Outline of research materials in reference to the impact of compositional arrangement of outdoor space on the indoor space and vice versa:
   − architectural form building, glazing and outdoor landscape of the church as the main criteria for the search of harmony between church and landscape architecture thus finding compliance with their highest task, i.e. emotional transcendence;
   − assessment of indoor/outdoor harmony: summary of views expressed by priests, experts, parish members and other respondents on correspondence of indoor/outdoor dialogue to the highest task of the church.

During inspection of churches, their architecture, landscape and interiors were photographed.

With the help of inductive reasoning method (from individual case to general statements) the priority factors for assessing visual aesthetic quality of indoor/outdoor space were determined in the analytical generalisation stage. It was performed by inspecting the Catholic churches in Latvia and trying to find out the general principles for setting the main criteria of indoor/outdoor harmony studies.

Results and discussion

The Holy Trinity Roman Catholic Church is enclosed by dense soviet-time apartment highrises, intensive traffic lines and buildings of public character. With its expressive architecture, a tower integrated in the building volume and conspicuous colour the church has become a landmark in this area. It is surrounded by a visually open enclosure landscaped in small forms. Plantations are still young; therefore we hope to see a general landscaping result in the future. The tower integrated in the church building makes it a vertical structure striving upwards and thus testifying the church’s highest task – to inspire the sense of God’s presence in the building and raise people’s souls up to God (+excl. Justs 2013). With its tower the church makes a vertical accent in the cityscape. Architecture of the church, both by itself and as a part of landscape and town planning system, organises the environment and reflects spiritual priorities of human life. The church tower is diagonally turned to the street crossing and makes the building noticeable from afar. In the complicated residential block of highrises built in the soviet times, where it was no chance to place the church on the street axis without rebuilding the entire street system and public utility networks, such a position of the church building is the best possible. Historically churches were granted a special, central place in cities and towns reinforcing it with the street network and public utility systems. Whereas residential areas designed and built in soviet times had no place for churches due to the well-known ideological reasons. Therefore, in the given city planning situation of the church under analysis this was a successful project.

Construction of the Holy Trinity Roman Catholic Church started in 2000 and was finished in 2006. All slant and vertical ridges strive upwards; the design has almost no horizontal lines. The idea of this church is a flowing, upward-striving space created by the light from above. Large triangle-shaped windows are lined along hall’s upper part near the ceiling. Direct natural light interchanges with a scattered light reflecting on wide window sills and illuminating the central aisle’s ceiling. A visitor gets a sense of flying, striving upward. This is achieved by numerous upward-winding, mutually unrelated wall and ceiling surfaces, as well as by indoor access ramp leading from the
ground to the first floor and from the first to the second floor towards the central aisle. Side aisle starts in the ground floor entrance lobby and leads up as a slant surface. Technical design of the Holy Trinity Roman Catholic Church was developed by architectural bureau SIA Uģis Šēnbergs, arhitekts, by architects Uģis Šēnbergs, Vita Balode, Zigruds Greivulis, Zigmars Jauja, Edmunds Rimkus and Māra Šēnberga (Šēnbergs 2005).

When visiting the Holy Trinity Roman Catholic Church in Rīga (Figs 1 and 2) one may see that the dialogue between indoor and outdoor space is boldly designed, not avoiding even the view of the Purvciems residential district built in soviet times. Many asymmetrically arranged triangle-shaped windows provide a peculiar balance in the interior design. Surprisingly, the view of windows through the choir on the back façade of the church complements the interior looks and seems to open the church to the outdoor space, thus indirectly involving much wider audience in the church ceremonies than is physically permitted by the building. During the Holy Mass this openness did not disturb the researchers at all; also, the ribbon-shaped windows along one side wall, arranged along the ramp and opening the view of the nearby lowrise public buildings and intense traffic road, were not considered a disturbance. Our attention was attracted by triangle-shaped windows above the altarpiece, open to the sky and facing the south-east, through which sunrays came in and disappear, creating a sense of emotional uprise. The interior design employing the impact of outdoors to underline the main object inside, i.e. the altarpiece, arranged in the mentioned order of priorities, is close to the aim of harmony.

St. Anthony of Padua Roman Catholic Church in Iecava sits well in the surroundings of traditional countryside landscape with inherent ploughed fields, trees and, understandably, the sky. Trees are either freely standing or grow linearly along the road. The presence of lowrise buildings situated nearby the church territory cannot be felt. The architecture of this church stands out with its 38 metre heigh tower integrated into the church volume. By its silhouette the building reminds of historic values in church building, however the residential space by the end of traditional apse, as well as specific window arrangement in the building point to the differences. “Architect A. Paklons in 2003 finished the design of the project, and in 2007 finished the assembly of the 38 metres high tower and its cross” (Sv. Antona… 2009). Thanks to the tower our research group managed to find this church innerrably without navigation. The church has a spacious front square, i.e. a parking space. A glazed door helped us to get in the mood for the things awaiting inside already when approaching the church.

Fig. 1. The Holy Trinity Roman Catholic Church on A. Deglava Street in Rīga. Source: photography from the author’s personal archive, 2013

Fig. 2. View of the Purvciems residential blocks from the inside of the Holy Trinity Roman Catholic Church. Source: photography from the author’s personal archive, 2013

Interior of this church is peculiar with two huge symmetric glass surfaces (Fig. 3) placed by the altar’s end on the side facades, perpendicular to the main symmetry axis. The surfaces open a traditional view of Latvian countryside landscape stretching from the ground to the sky. With each year the view’s perspective gets somewhat
decreased because an arbor vitae hedge growing outside. In the interview with the priest serving in the church we learned that in the near future it is planned to cover those glazed surfaces with coloured PC sheets or, if church funds permit, stained glass, mentioning large thermal losses as a reason for such action. Other interviews testified that people would feel more comfortably, if the direct communication with the outdoor space is diminished. It should be also mentioned that it is a good solution from a religious point of view as well, because the large glazed surfaces create a draught of light, leaving just a subordinate role for the altar. One gets the feeling that the most important things are waiting outside; it is hard to concentrate for a prayer. Bishops A. Justs and E. Pavlovskis believe that, for now, due to the lack of indoor/outdoor harmony, this design of the church may be considered less successful.

Roman Catholic Church Dedicated to the Divine Mercy in Kauguri is situated in a densely built-up town block. Its small parameters fluidly incorporate the silhouette of the church in the surrounding development underlining a tower part with a cross. The building is surrounded by a narrow strip of land to be landscaped in the future. The church has an expressive central symmetry of volume and plan. Its main entrance is crowned by a tower incorporated in the building’s volume, its height surpassing that of the surrounding buildings and thus introducing a landmark in this townscape.

On the back of the church interior two symmetrically arranged, rhythmical window rows could be seen (Fig. 4). The unattractive view through them did not disturb praying, but also fails to encourage this process. We did not experience any transcendental feelings, maybe due to the expressive colours of the altarpiece on the background of the interior design, which is only under construction.

Dobele Holy Trinity Roman Catholic Church is situated in the town centre, in the square behind the House of Culture. The church was built in the period from 1997 to 2003, designed by architects J. Kukša and I. Kārkliņš and construction designer A. Vilmanis. Total area of the church is 750 sq.metres, tower height 34 metres (Dobeles... 2012). Thanks to the architects’ efforts to go into detail and listen to the insights of priests concerning the expected results a beautiful church was built serving its higher purpose, rather than disturbing it, as bishops of Jelgava Diocese A. Justs (emeritus) and E. Pavlovskis summed it up.

The building fits well into the city park’s territory (Fig. 5) enclosed by large trees and nearby lowrise buildings. Due to the buffer zone provided by the park between the church and its surrounding blocks, the building stands out in all its beauty and displays perfectly from all angles. The church is surrounded by a small plot of land partitioned off from the rest of the park’s territory by a visually inconspicuous fence. Also, an attention-deserving element is the entrance motif decorated by abridged glass edges and gently leading a visitor from the urban environment to a sacral one.

This church moved us with its finely balanced play of light achieved by multifarious use of its windows. The interior design (Fig. 6) involves indirect light which tenderly yet clearly accentuates the altarpiece and highly positioned window rows creating a sense of spiritual presence. The vertically elongated windows are oriented against the building’s central symmetry axis, and their rhythm reminds of a classical composition basilica, along with the opening view to the town square and nearby buildings and tenderly directing one’s attention to the altarpiece. Due to the orientation of windows according to the hall parameters and bench rows, as well as elegant glazing bars in windows, the visitor’s look does not roam out through the window, but stops at glazing the bars obtaining a sense of peace, presence and harmony with the outdoors.
“In autumn 1999 the construction of the new St. Peter and Paul’s Church started. Its design was developed by architect Aigars Andersons from Saldus. The foundation stone of the new church was consecrated on October 30. On September 6, 2008 the entire new Church of St. Apostles Peter and Paul was consecrated” (Saldus… 2011). Saldus church (Figs 7 and 8) is located in a five-storey residential areas built in soviet times. Due to its location on a hill, as well as architectural and colour design, the church is well-noticeable from a distance on the background of the surrounding buildings, despite of its small tower. The church territory lies along a street of low traffic intensity and is surrounded by a beautifully designed garden, not fenced off from the nearby territory.
The church interior dialogue with its outdoor space is presented to the minimum, mainly with the help of the ribbon-shaped windows along the ceiling (Fig. 9). Thus a reserved attitude about the indoor/outdoor dialogue could be expressed: some elongated windows on the façade opening the view to the surrounding buildings have been covered by shutters in the course of time. The altar’s illumination by the side lights coming through the oblong windows symmetrically located on both sides of the altar accentuates the main object in the hall and serves as a nice and convincing example of harmony. On the other hand, the priests believe that decoration of the ribbon-shaped windows with frozen geometrical abstractions made from coloured adhesive films distorts the life-bringing teaching of Christ. Such windows break down the indoor/outdoor harmony.

The newbuilt Grobiņa St. Bridget’s Catholic Church with its adjoining garden territory is situated in the centre of a small populated area with occasional low buildings. Its placement on the land plot coincides linearly and perpendicularly with the directions of adjoining streets in their crossing. Surrounding overgrown fields and partly tended grasslands serve as a contrasting background against which this small church is well-visible. Church territory is fenced off and thus visually set apart by the hedge of pyramidal arbor vitae trees, valued contradictory by public. The garden is well-tended, including its water-lily pond.

The church designed by Liepāja architectural bureau AKA (Figs 10 and 11) was planned as a Noah’s arch – a boat reminding of a Biblical motif of deluge and possibility for everyone who has found a refuge in it to be saved. The building architecture, both in its forms and decoration, visually fulfils the idea; however the chosen building materials and roof construction are not suitable for the Latvian climate. The church facades and interior are heavily damaged by humidity and already require new investments and action after only a few years of operation. Also, the architectural design of this church, as bishops believe, is more appropriate for a prayer house than a church. E.g. traditional motif of tower has been reduced to a freely standing cross testifying poverty, both in the spiritual and material sense. More than often eccentric ambitions of architects are the ones that encourage such minimalism, a tendency characteristic of our age, leaving the highest task of sacral architecture unfulfilled. Economic factors, as the catholic bishops point out, should not be used as an excuse for such low-quality approach in sacral architecture.
However, the building expresses harmony in the indoor/outdoor dialogue that could be sensed not only by us, but also by parish members who confirmed it in the express interviews. One side façade of the church is a glazed wall which, due to the exterior shutters, opens a view of a well-tended church garden with a pond and softens the impact of direct sunlight in the interior. The most powerful source of light is indirect above the altarpiece that introduces the necessary balance in the indoor/outdoor dialogue. An oval window design (Fig. 12) frames small pretty paintings in the church lobby connected with the outdoors by a glass door thus optically enlarging the space. Many small windows create an association with the boat theme undertaken by the architects in this project.

Māra Church of Liepāja Catholic Parish is situated in an inner yard of a multi-apartment block separated from a traffic road. Its small, presently still unlandscaped, territory is adjoined by the standardised kindergarten territory and a park. The architecture of the building, due to its bell tower integrated in the building’s volume, creates a strong accent in the cityscape.

This church designed by architect A. Skujīņa brings new features in the indoor/outdoor dialogue of Latvian sacral architecture, i.e. its glazing seems to split the church optically, including the roof. One gets a sense of the sky opening.

The position of the church was determined by the land plot’s oblong shape, front area and altar’s orientation towards the east. For the entrance the architect eliminated the corner of a square positioned aslant in the plan: “In sacral premises the most important aspect is their relationship to the sky. By letting in the light I deprive the physical form of its power; I destroy it with an axial diagonal. I am trying to say that it is nothing, and, most importantly, I stop the penetrating ray with water, i.e. a pool” (Ķempe 2005).

Unfortunately, the wonderful idea of glazed roof ridge is not suitable for the Latvian climate conditions: dampness penetrates the glass constructions and enters inside (+exel. Pavlovsksis 2013, personal communication). Cases of great ideas not matched to the technological possibilities are quite frequent in Latvia. Hopefully, the problem will be solved and soon this church will be opened to the public at large.

St. Meinhard’s Church and Catholic Parish Centre (Fig. 13) in Liepāja is the Vatican’s present to the town of Liepāja underlining the international cooperation of clergy and architects. The building is situated in a lowrise building area, enclosed by trees. Its territory adjoins the low-intensity motorway crossing, thus making this beautiful building together with its front square visible in this townscape from afar and excellently complementing it. The central part of the raised building volume was designed by A. Hupfauf (Germany), while its radial surrounding part was designed

Fig. 13. St. Meinhard’s Church and Catholic Parish Centre, Ganību Street 120, Liepāja.
Source: photography from the author’s personal archive, 2013
by AKA bureau, A. Kokins and A. Kokina. In the daytime the interior space gets filled with light through the windows near the ceiling, while in the evening it reminds of a “lighthouse of spirituality on the seaside” because of its glazed facades (Dripe 2011). The indoor space is able to have multilevel communication with the outdoor space, to be regulated by the exterior shutters (Fig. 15), if necessary. The glazed ceiling (Fig. 14) creates a sense of heaven’s presence in the lobby connected to the prayer room with a glazed, radially curved wall. This unusual approach leaves a powerful and convincing impression of the indoor/outdoor harmony.

Unfortunately, again, this wonderful building does not fit the Latvian climate conditions: drawbacks in the design of the radial part roofing, as well as foundations have created enormous material losses that put the fate of this newbuilt church into question, not excluding the possibility of its dismantling (+exel. Pavlovsksis 2013, personal communication).

Liepāja St. Dominic’s Monastery of the Order of Preachers and St. Dominic’s Roman Catholic Church (Fig. 16) is situated in Liepāja old town with its characteristic dense lowrise building development. The church and monastery territory with a garden falls linearly between the two old town streets. The main entrance of the church faces one of the streets and is built lower than the ground level in relation to the existing building line. The small front square exposes a dignified tower standing lower than the ground level and asymmetrically integrated into the church volume. Surface of a large glass door and centrally axed large and round window above it on the background of the red brick façade leave the indoor/outdoor communication open, with respect to its historic spirit.

The architecture of this building presents a varied use of glass systems: a round window on the front façade opens the view to the sky; side lights (Fig. 17) create a tender flow of light upon the central and side altars; and a glazed part of the wall opens a view of the garden in the church inner yards. The general impression is a sense of peace and harmony.

After summarising the conclusions on the indoor/outdoor harmony in several modern Catholic churches in Latvia it has been generally concluded that integration of the idea of transcendence in a harmonious dialogue between the indoors and outdoors of modern sacral architecture has a priority significance. The compositional application of coloristics and light and shadow under the impact of insolation and visual accents created by the play of lights/shadows should underline the altarpiece in the church space creating the necessary balance and arranging priorities in the right order. Aesthetic harmony has a subordinated significance.
Conclusions

1. With the help of the method of comparative analysis it was discovered that harmonious indoor/outdoor dialogue in modern urban environments evolves in sacral buildings, where indirect light for accentuating altarpiece, direct light for revealing the sky and glass systems are applied in their architecture, so that they express the idea of transcendence in accordance with the Christian teaching.

2. The priority meaning of modern sacral architecture in a harmonious indoor/outdoor dialogue is the integration of the idea of transcendence. Compositional application of coloristics, light and shadow under the impact of insolation and visual accents created by the play of lights/shadows should underline the altarpiece in a church space creating a necessary balance and arranging priorities in the right order. Aesthetic harmony has a subordinated significance. A view of picturesque landscape noticeable through a glass system has only a secondary meaning. It is advisable to use a synthesis of both mentioned methods for the maximum result. It has been concluded that incorrectly applied light in arranging the premises of sacral buildings sooner or later leads to additional measures and material expenses. Therefore the advanced knowledge in creating an indoor/outdoor harmony would not only raise the quality of architectural environment, but also help to reach a higher level of mastership in creating environments in a more economic and purposeful way.

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VIDAUS IR IŠORĖS KONTEKSTO DARNOS XXI A. LATVIJOS KATALIĶIŠKU BAŽNYČIJŲ ARHITEKTŪROJE TYRIMAS
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