



## ПЛАТФОРМА 4

### ПЕРСПЕКТИВИ РОЗВИТКУ ДИЗАЙНУ АРХІТЕКТУРНОГО СЕРЕДОВИЩА

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## THE LIGHT AS A VEHICLE IN AN EXTRA MATERIAL DESIGN

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Light was always an important part of architectural design to achieve a 3D form of composed structure. There was also employment of a light to underline structure of materials. Both a natural sunlight as well as an artificial light had been used in that task. New research brought us new evidence of another form of a light use to achieve a spectacular effect of an extra material interpretation. A unique solution observed in the St. Sophia Cathedral (Sobor) in Kyiv had not yet been discussed. Analysis and understanding of this solution maybe be a crucial element of future designs.

**Key words:** *light, Kyiv, St. Sophia, extra material.*

### INTRODUCTION

Sunlight and artificial light are important elements creating a 3D visuality and imaginary. For centuries natural light was an important factor in art and architectural design. Everyone agrees with this thesis when appreciate deeply carved ancient Egyptian reliefs, a form of Doric or Corinthian colonnades in ancient temples, as well numerous sculptures masterly carved and modeled where a light and a shadow have improved artistic expectations. Painting in a special manner provides a possibility to recreate 3D form on a flat surface of drawing, painting on canvas or as a mural painting. In a modern time, we have begun a new chapter using strongly an artificial light for architectural designs and creation of interiors. Many new effects of a light use were adopted in architectural design upon an old historical concept.

In the Medieval period architects and artists widely adopted and introduced new forms of a light usage creating a new extra material approach. In a Gothic



Cathedral a Rose Widow at the western front or decorative stained glasses in church windows introduced in a sunny day a rich color decoration changing its forms depending on a rate of sun light.

It was achieved in two ways. As decorative colorful paintings when windows are seen as a transparent decoration with backlight. Another form was usage as a transmitted light flood showing in an interior of church a new moving colorful decoration moving on a church pavement, walls and columns. Such a spectacle of light was available at every sunny afternoon. In a dark interior of churches, at dawn, early in the morning an artificial light of candles reflected on golden and silver elements of sculptures' decoration, building this way their form, and showing their faces. In a Baroque period, ventures with a light were set in new ways. It was a backlight or spotted light concentrated on special elements of sculptures to be exposed in a better way. Light through an oculus of the Eastern apse was a part of the illumination of an altar in a church. Gianlorenzo Bernini sculptures, "The Vision of the Emperor Constantine" in the St. Peter's Basilica in Vatican or "The Ecstasy of St. Teresa" in St. Maria della Vittoria church in Rome are masterly elaborated attempts to use a power of the light [1].

In the St Sophia Cathedral of Kyiv, we have a particular solution worth of our consideration. However, implemented in a Baroque period. It had not been seen practically for a century. In the 2008 recovery of the Royal Gate of the Iconostasis presented anew an old concept using light in perfectly designed form.

#### **PURPOSE**

The King's Golden Gate is part of the Great Iconostas of the great St. Sophia Cathedral of Kyiv. It was built in the middle of the XVIII century by talented sculptors and a well-known goldsmiths, Semen Taran, Piotr Woloch and Iwan Zawadzki [2, 8]. In a sculptured golden frame, there were door wings made of silver plates in a form of sculptured screen. The golden Applica's representing the Saints had been mounted to a silver grill screen. The original form of Iconostas was documented and presented at numerous pictures and photographs made before the 1917 revolution. In the 1930th Iconostas was partly dismantled and ruined. There Royal Gate was smashed. Golden decorative Applica's had been stolen, but the silver grill screen plates remained, however they were crushed and bent. Fortunately, this deposit of silver plates had been safely kept until the independence of Ukraine.

In the 2006 director of the National Monuments Reserve of St Sophia of Kyiv Nelya Kukovalska signed a contract with the company the Polish Conservation Ateliers directed by Dr. arch. Marek Barański, for conservation and reconstruction of this priceless monument. Following scientific research of an original door's photography of a high solution it was possible to make a full reconstruction of each individual element of decoration as well as inscribed texts set on sculptured Applica's of the Royal Gate [3]. The extreme conservation of original silver plates as well reconstruction of figures of Saints carved in golden plates was completed by artist Marek Ganew and his team. The great conservation work finally got its end and masterly carved gate was mounted in an empty door hole in St Sophia iconostas [4].



The official opening ceremony had a place at afternoon of the 25<sup>th</sup> of July 2008 with the presence of Archbishop and Patriarch of Constantinople, Bartholomew the First, President of Ukraine Viktor Yuschenko and numerous representatives of Ukrainian State. This religious ceremony was devoted to bringing back holiness of the St Sophia Cathedral after its desacralization during revolution period.

The afternoon ceremony of the 25th of July had not been suitable to make documentation photographs, therefore it was necessary to come early in the morning next day. It was a great surprise when we discovered in the morning, we could not able to make a sharp pictures. Our Canon camera in automatic or manual mode simply was not able to take a good sharp picture. Professional skills of a team members were not enough to improve situation. Lightning condition in St. Sophia at this day was perfect, but without an extra front light covering the sunlight from the back it was simply not possible to take a sharp picture. Surprisingly we discovered a shining of the silver grill of doors was so strong that a result of our perfect conservation work reconstructing each detail of decoration would not be appreciated by visitor. But soon situation dramatically changed, and a strong sunlight at the back had diminished and it was easier to make photo.

### **RESULTS AND DISCUSSION**

The Royal Gate in each orthodox church serves as a link between Earthed domain and a realm of the Heavens. The gate focuses the gazes of believers, who recognizes here all holy persons. In general, a royal gate is a static composition of figures of Saints set on a richly ornamented back. Gold plated ornamentation improves the filling of importance and richness of this element of the Iconostas. Analyzing this situation in St Sophia cathedral we discovered a strong coincidence between shining the Royal Gate of the iconostas and Eastern windows at the Cathedral apse providing at the morning a strong sunlight. With a movement of sun this effect is maximized in a certain period of time. Here we touch a most important problem why Gate doors are made of a silver, not fully of a gold. For sure it was not a problem of lacking financial resources. How to explain why however the whole iconostas was gold plated its doors were made of silver? This solution was intended in a design. Differentiation of a golden Applica's of Saints set on a silver grill was highly needed. Reaching an effect of shining was also a needed effect here. In our consideration it was designed intentionally to achieve an extra material effect [5-7].

Due to this solution in St. Sophia, we cannot see only golden figures of Saints set on a silver screen, but in a certain period of a day this composition is getting a special effect. The Saints looks they are arriving in a sunlight glove. It creates an impression of an opened Gate with golden figures of Saints approaching inside the Cathedral. For a moment a rich decoration of the Royal Gate disappears, and it becomes invisible. Its static composition of decorative elements is turned to a vivid action with figures of Saints moving to a people kneeling in front of the Iconostas gate. The sentence from a Byzantine Liturgy "Invisible Powers of Heaven serve here with us, as the King of Glory enters" already materialized in moving figures set at the Gate. In a special moment, static figures with a sunlight aura change to a living Saints approaching believers in a church. The sunlight became a



vehicle providing the Saints into interior of the church. Thus, a material form of an artistic masterpiece had been turned to a non-material sensuality.

### CONCLUSIONS

In the St. Sophia cathedral in Kyiv, a unique sculptural composition was designed to reach a special effect. A very static form of religious composition with perfectly elaborated details due to sunlight changes to a vivid scene of a mysterious character. The whole silver screen changes to a shining glow. Its very materialistic form reaches an extra material effect. Strongly shining silver screen becomes a nonmaterial stream of a holy light on which Saints approaching to believers gathered in the Cathedral. Perfectly studied composition reached in St. Sophia a design where we can appreciate not only a materialistic form a Royal Gate of the Iconostas but also a non-material effect of religious sensation. The Royal Gate became an unique historical monument where we can see adoption of a different inspirations and ideas melted to achieve not only effect of richness but also a special religious sensation, a miracle.

Though the Gate is adorned with Baroque motifs of decoration, it is not a classic Baroque work, but its Eastern interpretation, individually achieving materialistic and non-materialistic effects. In a Baroque art we have also solutions playing with a light and the sunlight, but their results are different. It is not a simple example of cultural syncretism. Thus, we can call the unique masterpiece of the Royal Gate of the Iconostasis of the St. Sophia cathedral a “pan-heritage”, a heritage which incorporates elements of various cultures and providing new non expected solutions.

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