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## METHODOLOGY OF DEMATERIALIZING SACRED SPACE IN JAMES TURRELL'S LIGHT INSTALLATION

OSADCHA Tetiana

Odesa State Academy of Civil Engineering and Architecture, Odesa, Ukraine

[osadchatv@odaba.edu.ua](mailto:osadchatv@odaba.edu.ua)

*The study analyses the methods and artistic solutions used by James Turrell in sacred spaces. The analysis emphasises the importance of light in shaping sensory experience, which is defined as one of the most significant stages of the dematerialization of space.*

**Key words:** interior design, light installations, spatial dematerialization, lighting design, sensory experience, sacred architecture.

### INTRODUCTION

In contemporary artistic and architectural practice, there is a growing tendency to search for and reinterpret existing methods of environmental formation and spatial perception. Particularly notable in this context are James Turrell's light installations, which create a sensory experience characteristic of sacred architecture through the use of light.

### PURPOSE

The relevance of this research lies in the need to study the artistic and spatial methods of dematerializing the environment in contemporary light installations, with a view to their further application in the architectural and artistic practice of shaping sacred space.

### RESULTS AND DISCUSSION

Light is one of the most powerful tools in an architect's hands. At the same time, when we speak of sacred architecture, light transforms for us into the very essence, into the object of design. Both in the architecture of mosques and churches, although different beliefs, the role of light has a function as a reminder of god's presence in his people [1]. This technique has been used for millennia and has proven itself effective. That is, sacredness arises in the triangle: human – space – light. Where the primary task becomes a rupture of ordinary perception – *Mysterium Tremendum*, which means the experience of encountering the sacred as a mysterious power that goes beyond rational explanation and evokes a state of reverent wonder. And it is precisely the awe-inspiring mystery – to which we must lead the visitor. This experience must provide a tangible sense, irrational and emotional [2]. Space in this system plays a secondary role as a shell. At the same time, sensation becomes the priority.

So we have a very interesting task in terms of design nature – to create not a space, but the impression that it does not exist. One of the most consistent researchers of this issue is James Turrell, an American artist and representative of



the light art movement, whose work is dedicated to exploring the interaction of light, space, and human perception. Using light as an independent artistic material, Turrell creates environments in which the physical boundaries of space visually dissolve. To illustrate this approach, we will examine his light installation in a Berlin chapel at the Dorotheenstädtischer Friedhof cemetery. Built in 1928, the interior underwent quite serious changes in the 1960s.

The chapel attracted neither parishioners nor tourists. Everything changed in 2015, when Nedelykov Moreira Architects took on the reconstruction process. In collaboration with James Turrell, they arrived at an updated lighting concept that closely approaches biblical notions of light while appearing ultra-modern [3] (Fig.1).



**Fig.1.** Dorotheenstädtischer Friedhof chapel after reconstruction in 2015

The light scenario of the installation is formed in a minimalist white space, which is gradually filled with light through smooth gradient transitions from one color to another. The dynamics of artificial lighting are coordinated with natural light entering through elongated facade openings, creating a complex interaction of different light sources. Such a change in the lighting environment creates the effect of visualizing the passage of time, which can be viewed as one of the processes of space dematerialization. An important feature of the interior is the absence of visible light sources: LED elements are hidden in niches and operate through a system of reflected light, which enhances the impression of the environment's immateriality,



as well as the effect of a color conductor along the frosted glass of the aforementioned openings.

When we do not see the origin of light, we grant it the status of an unconditional participant in space. Observing the change of colors, a special sensory state arises. This forms a new type of experience, creating an effect of liminality, which is a certain stage of dematerialization.

This project attracted a large number of tourists and demonstrated a modern approach to the vision of sacred buildings, while also introducing us to a new approach to the use of light.

### CONCLUSIONS

The dematerialization of sacred space acts as a goal, a design task, and a system of sensations. In this space, a person perceives not the geometry and function of the interior, but dissolves into the emotional background. The system of impressions is formed by a light scenario implemented against a neutral white background. Design techniques employed: light-color gradations; combining artificial lighting with natural; including the conventional “frames” of window openings into the overall composition (thereby diversifying impressions through daily natural lighting); hidden or diffused lighting, etc.

The system of spatial-light installations includes an interior space of sacred purpose and a separate technology for organizing its perception.

Terms such as the “time visualization effect” or “liminality effect” are not yet described in scientific literature; the means of achieving them require study and experiments.

### REFERENCES

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### ОСАДЧА Т.В.

#### МЕТОДИКА ДЕМАТЕРІАЛІЗАЦІЇ САКРАЛЬНОГО ПРОСТОРУ В СВІТЛОВИХ ІНСТАЛЯЦІЯХ ДЖЕЙМСА ТАРРЕЛЛА

У цій доповіді досліджуються методи та художні рішення, що використовує Джеймс Таррелл у сакральних приміщеннях. Аналіз підкреслює важливість використання світла у формуванні чуттєвого досвіду, що визначається одним із найголовніших етапів дематеріалізації простору.

**Ключові слова:** дизайн інтер'єру, світлові інсталяції, дематеріалізація простору, світлодизайн, сакральна архітектура, світлове середовище.