

Architecture and light. Contemporary trends

Monograph

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The monograph "**Architecture and Light. Contemporary Trends**" is based on many years of systematic research. The topicality of this research is dictated both by the important role of light in the perception of the architectural environment and by the lack of sufficient scientific studies in the specialized Bulgarian and foreign literature on this problem.

The monograph consists of an introduction and 6 chapters arranged in a slim structure.

The first chapter, "**Light, Health and Architecture**", deals with the main theoretical aspects of light, divided into 5 sub-headings: 'circadian rhythm', 'perception of light', 'natural and artificial light', 'light healing' and 'what is light'. The role of light in constituting form and space is emphasized. Its main role in human daily life, in architecture, and the possibility of using light for therapeutic purposes is analyzed.

In the second chapter of the monograph, "**Architectural Compositional Means with Natural Light**", a detailed review of the role of natural light as the main means of forming and perceiving the architectural object is made. The main means are: 'light and shadow', 'light atomization', 'light wells' and 'color and light'. Examples of contemporary approaches to the use of light in architecture are given. Modern technological developments in this field are also analyzed.

In the third chapter of the monograph "**Architectural Compositional Means with Artificial Light**", the author discusses the practical possibilities for the application of artificial light as an important compositional means. The main points are: 'luminous walls' (with the application of own and reflected light), 'improving the proportions of space with light', 'changing the nightscape in the city', 'design lighting'. Here, special attention is paid to the new possibilities of using artificial light - the fruit of the extraordinary development of technology creating a new architectural world. The role of light in the nocturnal urban landscape is also explored.

In the fourth chapter "**Natural and Artificial Lighting in Different Architectural Spaces**" the main points are: "light in kindergartens, nurseries and schools", "light in hospitals", "light for office buildings", "light in industrial buildings", "light in museums, exhibitions and performances", "light in temple buildings", "light in residential buildings", "lighting in commercial buildings", "lighting of buildings of architectural and historical monuments", "light in hotels and restaurants", "light in parks and gardens" and "light in cities". The regularities in the application of light depending on the typology of different architectural objects are studied, so that this part of the monograph also has a practical and applied character.

Chapter Five, "**Light, Ecology and the Future**", is a summary. The chapter is innovative in its treatment of light in terms of sustainable development and the prevention of light pollution of

our cities caused by the oncoming commercialization. It ends with advices to architects and designers.

A glossary of terms used and a list of normative documents are included at the end of the monograph in chapter six, which further facilitates the practical application of the work.

The bibliography to the monograph lists a considerable number of sources from Bulgarian and foreign authors. The monograph is richly illustrated, a significant number of the illustrations are by the author.