II дистанційна науково-практична конференція «Наука і техніка: перспективи XX1 століття»

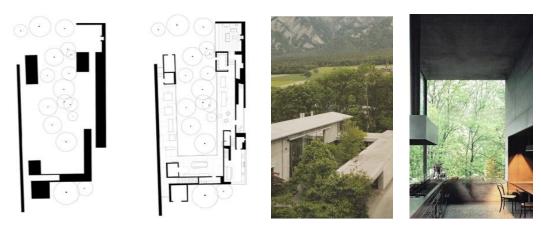


Fig. 1 'STUDIO HOUSE'

RÉFÉRENCES

1. Williamson T. Understanding sustainable architecture. pp. 111-125.

2.Attmann O. Green Architecture. Advanced technologies and materials pp. 24-27.

3.Sayigh A. Sustainability, Energy and Architecture. Case Studies in Realizing Green Buildings [Електронний ресурс]. – Режим доступу: https://www.perlego.com/book/1828171/sustainability-energy-andarchitecture-case-studies-in-realizing-green-buildings.

4.Yudelson J. Green Building trends. Europe [Електронний ресурс]. – Режим доступу: https://www.perlego.com/book/2985053/green-buildingtrends-europe.

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THE SIGNIFICANCE OF COLOUR IN POSTMODERN ARCHITECTURAL AESTHETICS

Introduction. Postmodernism emerges in 1960-1980 because of exhaustion and protest against modernism in architecture, attitude is changing about basic avant-garde values. Postmodernism brought to modern architecture an understanding by its creators of the need for context, eclectics as well as beauty, besides functionality, that has led to greater diversity of colour in architecture.

Literature review. According to research of Chinese scientists, colour is perceived by specialized structures of the visual analyser called cones. Cones are colour-sensitive cells in the retina of the eye that respond to different wavelengths of light. They send signals to the visual cortex of the brain, which is zoned and includes a number of specialized areas. Neurons in more distant areas of the brain, such as the V4 area, have high specificity for different colour shades. The V4 area, located in the posterior part of the frontal lobe, plays an important role in visual processing, including colour recognition and perception. Thanks to the V4 area, we become aware of colours and are able to perceive their variety [1, P. 547-548].

Case study. Based on a study of the neuropsychology of colour perception, Ahmed Hosney Radwan identified in their article "Color in Architecture is it Just an Aesthetic Value or a True Human Need?" (2015) patterns of changes in the emotional state associated with reactions to different colours. In this way, white, which symbolizes cleanliness, is used in sterile areas of medical premises [2, P. 523-533].

The impact of colour on architecture is huge. In the article "Colour as Idea: The Conceptual Basis for Using Colour in Architecture and Urban Design," (2008) Galen Minah explains how colour decisions,

II дистанційна науково-практична конференція «Наука і техніка: перспективи XX1 століття»

starting from the conceptual phase to design development, can serve as generative ideas shaping the overall design. The article highlights how colour contributes to defining space, form, and structure, complementing traditional visual elements [3, P. 1-9].

Understanding the importance of using colour in the designing process and studying colour psychology, contemporary architects are increasingly using warm hues to create the impression of a sunny, neighbourly and delicate atmosphere. Tarajko-Kowalska Justyna notes in the article "Yellow colour in European architecture and the built environment" (2021) that with the improvement of technological capabilities and the emergence of new building materials, interest in the use of yellow in architecture is increasing. As yellow is one of the most reflective of colours it strongly contrasts with its surroundings. That's why it is often used in public buildings to attract people's attention. For example, Charles Moore used yellow and orange colours in designing an urban public plaza Piazza D'Italia in the United States, which is his most prominent work in postmodern architecture. The SIS Building is the United Kingdom's foreign intelligence agency, which was designed by Terry Farrell, and is also coloured in a yellow hue [4, P. 319-324].

Yellow isn't the only colour used in postmodern architecture. The Walt Disney World Swan and Dolphin Resort designed by Michael Graves is painted in green and orange colours that represent the lush Florida greenery. These colours were also used in the exterior decoration of the House for Essex designed by collaboration between Greyson Perry and FAT Architecture (Figure 1).

In this way, colour is not just an accompanying element of architecture, but an independent unit that affects both the shape and the perception of the object as a whole.



Figure 2. Warm hues in the built environment. Collage by the authors.

Results and discussion. According to research colour is one of the most crucial tools in the creation of architectural objects. It is able to influence human perception by evoking appropriate associations. It emphasizes the shape of the object and is able to highlight the main among the secondary. There is no consensus among the authors of the articles on the superiority of one shade over others, architects use a variety of combinations and contrasts to emphasize a particular style and individuality.

Conclusions. Colour plays a fundamental role in architecture, shaping perceptions and associations with architectural structures. It serves as a universal language of communication, conveying the atmosphere of a space and its intended purpose. Architects and designers select colours based on their

II дистанційна науково-практична конференція «Наука і техніка: перспективи XX1 століття»

preferences and style, creating unique spaces that influence the emotions and perceptions of individuals. Thus, colour in architecture is not merely a decorative element but also a tool for conveying emotions, creating moods, and directing attention. It holds functional significance in highlighting zones and emphasizing design details, and can also be informed by studies in colour psychology, influencing the psyche and behaviour of individuals within a space.

REFERENCES

- 1.Liu Y., Li M., Zhang X., LuY., Gong H., Yin J., Chen Z., Qian L., YangY., Andolina I. M., ShippS., McLoughlin N., TangS., & Wang W. Hierarchical Representation for Chromatic Processing across Macaque V1, V2, and V4. *Neuron*. 2020.Vol. 108/ 3. P. 538-550.
- 2.Radwan, A. H. Color in architecture is it just an aesthetic value or a true human need. *International Journal of Engineering and Technical Research*. 2015. Vol. 4, No 12. P. 523-533.
- 3.Minah G. Colour as idea: The conceptual basis for using colour in architecture and urban design. *Colour: Design & Creativity.* 2008. P. 1-9.
- 4. Tarajko-Kowalska J. Yellow color in European architecture and the built environment: traditions and contemporary applications. *The International Conference of the Color Society*. 2021. P. 319-324.

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PREREQUISITES FOR THE FORMATION OF INDUSTRIAL TOURISM IN THE DNIPRO REGION

The article discusses the prerequisites for the formation of industrial tourism in the Dnipro region, examines the chronology of events that have taken place in the region throughout history, and analyses which of them had the greatest impact on the development of the industry. In the course of analysing the tourist potential of the Dnipro region and the historical background of industrial tourism, certain markers and the chronology of events that had the greatest impact were identified.

The **basis** of this study was the works of the historian of the city of Dnipro, M. Kavun, and the historical overview of the development of industry in the Dnipropetrovsk region published on the website of the Dnipropetrovsk Regional Military Administration [1, 2].

The **aim** of this paper is to explore how historical events and stages in the formation of the Dnipro region have influenced the development of industrial tourism in the area.

Case study. In 1775, according to Catherine the Great's decree on the liquidation of the Sich, the lands of the Zaporizhzhia Cossacks were forcibly annexed to the russian Empire. From the second half of the eighteenth century until the beginning of the nineteenth century, the territory of the modern Dnipro region was part of the Novorossiysk Territory of the Russian Empire and regularly underwent changes in administrative boundaries. The processes of further settlement and economic development of the region, the formation of culture and local traditions were actively underway [3].

The actual liquidation was of great importance for the vector of the region's development, as the Cossacks tended to focus on agriculture rather than on various industries of varying complexity. Despite all the opportunities and prerequisites for the development of agriculture, the territories of the Dnipro region have always had significant reserves of mineral resources for the development of the mining industry [2].

Thanks to the activities of O.M. Pol and the involvement of French capital, industrial development of iron ore in KryvyiRih began in 1881. The catalyst for changes in the region's economy was railway construction, which gave impetus to the development of the industrial sector.