

THE INFLUENCE AND IMPORTANCE OF BUILT ARCHITECTURE ON THE EDUCATIONAL PROCESS THROUGH DIRECT CONNECTION TO NATURE

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Abstract. The article contains a theoretical study, which reflects the importance and possibilities of psychological influence in the process of study of the architectural edifice built as a form and concept, but also the location in a natural setting. At the same time, the author reflects the role of research, the development of the critical and scientific thinking of the architect in the design process, but also the importance of the relevant natural site and very important in ensuring positive emotional qualities in students in the educational process.

„... We shape our buildings, then the buildings shape us...”
/Winston Churchill/

Introduction

Architects in the design of educational constructions are also concerned with the philosophical branch of architecture; they have given rise to a better understanding of the conceptions and approaches of architectural buildings. They understood how important the senses and human perception were, in the process of creating expressive spaces meant to remain memorable in time [1].

The philosophy of the frame built in time and space

The universe encompasses philosophical coexistence with people's ability to endlessly create multiple forms of spaces of memory, imagination, and aspiration that involve the relativity of existing in space and yet the liberation of the very notion of "habitation." It is majestic that a small detail can awaken in all of us a memory, due to the fact that our eyes and mind deeply reflect the attention, developed over time, therefore the architecture and design of a space can become elements of impressive and emotional forms and memories that have carried us through different times, yet wordless, but being present [1, 2]. A space built with volumes of objects, natural environment – defining components, at the psychological level tells us about certain aspects both visual and of perceiving to a much greater extent the students in the educational process of integration, communication and development [3].

Anat Hecht, PhD in social anthropology, argued that they are more than "objects", they are a collection of materials, invested with meaning and memory, a material testament to who we are, where we have been, and perhaps even what we are aiming for. They are what transforms our study room or home into a dwelling, a private cosmos that shelters the memories of bygone times, as well as our hopes of what is to come. Therefore, out of this, it results in the value of the predominant objects in a space and natural environment where we discover ourselves, as well as the meaning, with important properties with indirect meaning but still memorable, through the objects that have witnessed us for a better period of time. We bind memories that give into us, and it makes us determine the evolution, the feelings, the desires, our aspirations, our work and our evolutionary perception in the educational process [4].

Thus, the built architecture involves the game of exclusions and preferences, the arrangement of furniture, the choice of materials, the range of shapes and colors, light sources, the visible and the invisible, harmony and discordance, austerity or elegance, care or negligence, continuing through the way of organizing the available space, how narrow it would be, and the

distribution of different day functions: dining place, toilet, reception, creative areas for discussions, studies, rest, etc., all already compose a history of life.

Michel de Certeau (1925-1986) French philosopher, in his theses mentions that everything that surrounds us in a space day by day, are witnesses of our life history, the visual image consisting of objects, materials, colors, lights, nature, integrates us into a space and suggests the state of spirit [5].



Fig. 1. Concept of an educational space project in harmony with the natural environment

The impact of architecture and the natural environment in the educational process

The psychology of the built space is a very vast field, which relates to the effects produced by the different feelings received from the external environment, such as color, material, light, and the way in which they influence the moods and the individual compartment.

Speaking of educational institutions and development, space can be viewed as a void defined by its limits. Although apparently it represents the void, the importance of space is indisputable, it is the place where the objects are located, which according to their configuration encourages or discourages activities inside the building.

In this context, the boundaries of space are defined by a suite of surfaces outlined by means of materials and textures. The way in which the creator of spaces, the architect opts for a certain treatment of the limits that determine his character and influences the way it is perceived in a natural space [6].

It is the natural setting that inevitably contributes to improving the quality of life. The presence of nature is almost tangible at the level of perception in the inner space because the direct interaction with the natural environment strongly influences the human psyche, the one that can reduce stress and enhance the mood, and the educational process takes place along with nature. More and more studies support the benefits that the direct or indirect contact with nature leads to a beneficial human health and productivity, among them we can mention:

- Contact with nature, be it direct contact i.e. through the presence of vegetation or indirectly, through graphic representations, or symbolic references to natural elements such as: photographs, the use of organic forms and natural materials;
- In rooms where vegetation predominates – there is an increase in educational productivity, while stress levels are low and motivation is higher;
- Direct contact with nature is associated with cognitive functioning, in terms of tasks that require concentration and memorization;
- Communities with a high quality of the environment have a developed capacity to value nature and socialize.

The design of a larger number of green terraces opens to the sky, acts as breathing space, as well as as the aesthetic value of the overall built volume. It is the natural setting that forms the landscape. The landscape is that portion of the territory represented by natural and anthropogenic factors. We need nature as a fundamental element for physical and mental well-being in the educational process (fig. 1) [7].

The importance of colors in educational spaces



Fig. 2. The chromatic aspect of the spaces

Each color has certain physiological and psychological effects on the human body. Colors become factors influencing the mood of the students. The reactions of the individual to different color combinations depend to a great extent on culture and education, but also on the psychology of colors (fig. 2). The message that a given chromatic palette conveys generates affective responses that can support the function of a space, or can oppress the activities carried out inside the same space. For example, pastel yellow creates the feeling that the interior space is stimulated, bright and comfortable, red suggests dynamics, a state of permanent agitation and movement, green is balancing, suggests calm and safety, and white expresses purity and indecision, a space waiting to be outlined. Obviously, this is a cursory way to make a review of the influence of colors on the human psyche, since all colors change their character when modified by light and shadow [8].

Conclusion

Space is decoded through sensations, perceptions and mental representations, depending on the psychic structure specific to each individual. Man is the point about which the whole process of projection of a building is related, in our case the educational spaces meet special needs, it is the place where the student spends time studying for a longer period. Experiencing the feelings produced by the space that encompasses its place is manifested through the perceptual process, it functions as a mediator between the individual and the architectural space. The completion of the built architectural space and the natural environment consists in knowing how these characteristics work on the student, but also on how these characteristics work together.

Confirmation

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References:

1. Pallasmaa J. *The Gaze That Touches: Architecture and the Senses*, Bucharest, 2015, p.345.
2. Alain de Botton. *The architecture of happiness*. Translated by Ema Stere-Bucharest, 2009, p.150.
3. Pallasmaa J. *Understanding Architecture*, Phaidon, 2012, p. 209.
4. Hecht A. *Anthropological study of material narratives and culture*. Available 15.01.2005, <https://uhaifa.org/hecht-anat> (visited on 23.05.2022).
5. Michel de Certeau. *Analyzing the culture*. De Ben Highmore. Continuum. 2006, 14 p.
6. Turchina T. *Psychology of space*. Chisinau Publishing House, 2015, 134 p.
7. Neacsu I. *Aesthetic education*. Pedagogy Course, Bucharest, 1988, 120 p.
9. Pallasmaa J. *Skin eyes. Architecture and the senses*. John Wiley: New York, 2005, 278 p.