

THE COLOUR OF ARCHITECTURE. PAST AND PRESENT

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Abstract. Colour has accompanied man throughout time since the beginnings, the primitive man used colour to paint drawings in caves, so the relationship between man and colour was, and still is, one of the closest. In architecture, colour swung between the magic, ritualic role and aesthetics, between outside and inside, scoring or reinterpreting in every step new facets and meanings. This article is a brief overview of the main aspects of this evolution, from the prehistoric times to the present with an emphasis on the relationship between the colour and the architectural composition.

Key words: colour, architecture, colour evolution in architecture.

1. Introduction

The issue of colour in architecture has been approached in many ways and on many levels: the relationship between colour and humans regarding the psycho-physiological influences (Golu and Dicu, 1974; Meerwein et al, 2007), the relationship between the perceived colour and the inherent one (Fridell Anter, 2000, Fridell Anter, 2008), the interaction between the architectural form and colour (Caivano, 2006; Vosbeck, 2009), between architecture, colour and city (Minah, 2008), the relationship between the colour of architecture and the geographical location (Lendos, 2004) and even the establishment of a methodology to create colour harmony ~~both~~ at the principled level (Itten, 1970) as well as at the level of the architecture and the city (Kobayashi, 1998), each study focusing on certain aspects of the

relationship between color and architecture.

In this context, the present paper aims to highlight the role that colour played in architecture over time, the transformations of the colour in meanings and functions in relation to architecture, through a historical approach of the phenomenon of colour.

2. The colour of architecture. Past

Colour has had a fascinating evolution throughout history, every civilization, every age and every region manufacturing dyes and pigments from the available resources, organic and/or mineral, according to its needs. Colour was, on the one hand, associated with magic rituals (certain ritualic objects having certain colours according to their symbolic value) and, on the other hand, had the role of decorating the shelter. "In the Paleolithic age the desire

of colour sometimes seems to exceed the goal of the realistic painting, always very alive: at Lascaux the polychrome «coats of arms» already appeared as tribal signs. To the utilitarian and magical character was then added the use of colour as a distinctive signature of a family or of an individual" (Constantin, 1979).

Thus the use of colour represented, in psychological terms, a privilege of the ruling classes, of the persons in the high levels of the hierarchy of society, being associated with the power, with the dominance. The colour was intended to impress psychologically, to give importance, to confer distinction, "to remove from the ordinary that person distinguished with it and enforce those around the feeling of adoration and revelation" (Golu and Dicu, 1974).

The revolution and the industrial development together with the possibility of obtaining artificial dyes on a large-scale, made colour accessible to the entire population, the ordinary man being able to use it according to its needs.

The colour, along with the lines, the shapes and, later, the volumes, was the basic element in the visual arts, painting, sculpture and architecture, playing a major symbolic role during the prehistoric period when man painted on the surface of the caves.

The Mesopotamian and Assyrian civilization had an important concern in terms of architecture and the colour itself (houses were made of sun-dried bricks, were whitewashed on the outside and painted inside). The four or seven steps of ziggurats, built of brick, had different colours, each colour symbolizing one of the deified stars. The Egyptians, who had an exceptional sense of colour, vivid, cheerful,

delicate colours, weren't using it on the outside, but for the interior, for the statues and in a direct relationship with the deity.

The discovery of Jacques Ignace Hittorff regarding the polychromy of Greek architecture, initially assumed to be white, generated many disputes. The Greeks, however, used bright colours for both temples and housing.

One of the first mentions of colour in architecture is found in the treatise of Vitruvius "Ten Books of Architecture", in book VII, dedicated to "polished finishings and the methods of giving them both beauty and durability". Vitruvius considered colour, natural or artificial, in a closely related relationship to the finishing of the surface on which is applied, with the decoration, representing one of the "appropriate principles that should govern the construction of all types of buildings" (Vitruvius, 1914), namely *venustas*.

The Byzantine period brought a more special treatment of the façade, both in terms of construction material and in terms of colour: an alternation of registers of white stone and red brick. In addition, the colour took on a new valence: in order to create mosaics, colours were associated to create color harmonies, taking into account the intensity of light.

The Middle Ages as well as the Roman civilization focused on the use of color on the inside.

The Renaissance and the Baroque architecture bring the elimination of colour from the outside of the architecture and its focusing on the inside.

The beginning of the twentieth century can be considered as a chromatic rupture, the colour being removed from both the outside

and the inside of buildings. The white replaces the "chromatic" colour, remaining the colour associated with the modern movement in architecture, the symbolic connotations of white having a special significance: in this case white can be considered the starting point, signaling a rite of passage from the previously practiced architecture to this new conceiving of the building space.

3. The colour of architecture. Present

With the postmodernism, the colour assumes new roles, through the exaggerated polychromy emphasizing both the volumes and the ornament, the colours varying from intense to medium range, rarely to pale range. The colour becomes again an architectural composition and space determining tool, focusing on both the physical qualities of colour and its ability to draw attention, to highlight.

The last 40-50 years have brought forefront a holistic approach of colour, namely "the harmonizing of architecture with the surrounding landscape and with the inhabitants" (Lancaster, 1996). Each building should not be seen in isolation, as an architectural object that exists in isolation (in city, village or natural environment) but, instead, must be seen in context, as a part of the environment to which it belongs. It influences the environment both through volume and the architectural language and chromatics, just as it directly influences it. "It was no longer possible to think of architecture in isolation... From it one certain fact emerged: colour had an important role ... No one can have failed to notice the new role of colour in the industrial world after having been buried for too long in the black of coal and grey of smoke and dust" (Lancaster, 1996).

With the awareness of the importance of colour in architecture and, especially, in urbanism, the effort of harmonizing the

chromatics of buildings with the environment, of creating a chromatic language in order to establish an emotional relationship with the man as the direct and final beneficiary of space, led to a rethinking of the role and of the relationship of colour with the environment. "... For the human eye there is no space without its colour; and no colour that does not create its own space. When you open your eyes the texture of the entire visual field consists of one thing: and that is colour ..." (Lancaster, 1996).

Thus a number of architects/colorists, including Jean-Philippe Lenclos, France Cler, Fabio Rieti, Bernard Lassus, Michael Lancaster, Leonhard Oberascher, Begona Munoz, Eva Fay, Shingo Yoshida and Giovanni Brino, began to study the issue of colour in the built environment (urban or rural), seeking for more precise delineation of the role of the environment's colour in relation to man, the interaction between the individual and the built environment, generating a particular approach to the architecture namely "Environmental Architecture" (Caivano, 2006).

4. Conclusions

As a result of the research of the phenomenon of colour in architecture over time, several conclusions can be drawn: it appears that colour had fulfilled many functions and roles amongst which emerges, naturally, the aesthetic. But even on the aesthetic level, the colour is in constant reinterpretation of itself especially from the human perspective.

The relationship between man and colour has always existed. Colour guided him since the prehistoric times, the colours of nature, the local materials and the characteristic light of the geographical area from which he came, influenced his perception of the world. Therefore that is most likely the reason why, since the

beginning, the man assigned to the colour certain meanings, a certain symbolism in a close relation to psychological and physiological effects that it produces, as well as with the religious beliefs.

If certain religions assigned a colour for each god, in others, such as Christianity, colour accompanied the religious ritual. Having such power over men, the colour was used to generate a difference between social classes. We can say that, along with the religious, cultural, historical, geographical and political elements, colour has shaped people's mental structure.

In architecture colour has swung between the magic, ritualic and aesthetic role, between outside and inside. On the other hand, the colour as a property of the construction material has kept almost constant the site characteristics, of the geographical area in which the building was built. The forced rupture between architecture and colour occurred in the Modern period. The elimination of polychromy in architecture, the use of white, with the purifying role and with the role of a new beginning, promoted by the Modern Movement, represented a major step forward in realizing the deep relationship between man and colour, a relationship anchored in the collective memory. Post-modern Movements have violently brought the colour to the forefront, some using it to taunt, other to highlight and to appeal to the traditional values, others for the aesthetics of volumetric compositions, and others for its use as a tool in creating a pleasant environment for people.

Concerning colour in architecture, conceived in relation to the ambiental space, to the environment, it has insufficiently

explored capacities to generate, through perception, a pleasant environment for man. Given the role of colour on the individual awareness and psycho-physiological reactions to colour, it acquires new meanings and thus the impact of colour on the environment through human, as final beneficiary of the urban environment, should be more carefully studied.

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