The Use and Perception of Black in Architecture

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I.   EXTENDED ABSTRACT

Black is at the same time a color and not a color. It is defined as the absorption of light, the absence of electromagnetic radiation as well as the equal combination of the three primary colors. Black is loved and hated. Black can make a house almost disappear when built in a complete organic environment and emphasize a colored feature or a particular space inside a building.

The use of black in Architecture should not be perceived as a decorative feature but more as a technical and psychological tool. Beyond cultural perceptions, it always have a strong impact on people whether it be a positive or negative one.

Through different case studies we can see how the clients were reluctant to use black at first and ended up very pleased with the effect it created.

The aim is to explain how to make good use of black in order to create the intended effect and also to identify its physiological and psychological influence. We will see that we can actually produce different blacks using light, texture, reflection, etc. that will all induce various emotions.

Bridges from colors to psychology and neuroscience have been extensively researched, however, black is the opposite as it is the absence of light. How is lack perceived by the human eye and the optic chiasma? Why does it have such a strong impact on people if it is only "nothing" to the human eye? What is the difference in our optical and neuronal perception between the "color" black (used on walls, ceilings, floors...) and the black, void, total absence of lighting?

Different leads such as the reaction to obscurity and absence of daylight of the suprachiasmatic nucleus controlling the circadian rhythms, sending information to the pineal gland and resulting in the production of cortisol and melatonin will be explored.

2.   AUTHOR BIO

Born in the s outh of France I travelled for many years. After graduated from the University of Derby, England in Architectural Venue Design and Digital Innovations I returned to France. As early as the first years of studying I was struck by the very little consideration we gave to human beings in the architectural practice. I thought buildings should be built for humans and therefore humans should be in the center of our thoughts while designing them. At the end of my studies, seven years ago, I wrote a dissertation on the following subject: "The correlation between architecture and human psychology". Five years ago I opened my own architectural firm and have carried on researching on psychology and neurosciences applied to architecture, making extensive search and use of artificial lighting, colors, volumes and numerus different features. Probably because it is unknown in France, clients are usually skeptical and reluctant to this approach but by applying what I discovered to my work and projects I have noticed clear results in human perception, well-being, emotions, cognitive behavior, sales revenues, etc. Recently I happened to use black in many of my projects, which led me to extend the research.