

The Emotional Language of Color in Architecture

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Abstract

As a result of the restrictions triggered by Covid 19, the “psychological health” of the population has been deeply affected. I believe that architecture and color can play a major role in improving the psychological well-being of individuals, acting as catalyzer between the physical and emotional worlds.

When we use color in the 3D physical spaces, due to the nature of its perception, thoughts and emotions are triggered, creating behavioral benefits. We will explain that color perception can sometimes be enriched by the beliefs of the cultural background and the natural environments, Varela et al. (201a). And it is in the Chinese Philosophy in which we encounter the color beliefs connected to the communicative and emotional contents.

In this paper, we present the emotional language of color, made up of five concepts involving color and its situation in space. We will display some of the proposals made for a penitentiary in Seville, Spain.

Keywords: *Color, Emotion, Architecture, Cognitive psychology, Chinese philosophy.*

INTRODUCTION:

Human well-being is not a simple subject, is far more complex than the idea we had until now. Our proposal argues that well-being can be considered as a double faced concept: physical well-being, which brings together the conditions of comfort, and mental health.

My assertion is that color acts on both: transforming the physical space when applied to it, that leads to a reduction of stress, and by inheriting into space thoughts and emotions that generate behavioral benefits. In this paper we will try to expose the second point, explaining the emotional color concepts that will allow us to design spaces that meet the ideal “wellbeing” conditions.

To shape our argument, we will start by recalling an example associated with the traditional use of color. Historically, the red purple and purple were used in the robes of Roman emperors, senators, as in the ceremonial dresses of cardinals, popes, and kings. When people saw a red robe, they perceived two different things: they saw a red stain but also felt a sense of “power” and “authority” Heller (2004). This means that the perception is “enriched” and colored by the belief associated to purple, the idea of “power”; similarly, in the East the color associated with power was golden yellow. This characteristic phenomenon of color perception makes it a perceptual experience since both cognition and action are involved, Varela et al. (2011). Thus, this is the corner stone of color in architecture: the beliefs accompanying certain colors permeate and enrich its perception, whether it is a belief rooted in culture or coming from the natural environments.

A first Step into Color Perceptual Experience: Feelings and Sensations

We can use an example to depict more accurately what we are talking about: If we enter a space with a ceiling painted in a blue-sky tone (1a), -a blue that looks like a sky-, a new “phenomenon” will take place: At first, we will see a blue surface; nevertheless, the ceilings that “look like a sky” will unleash some side effects. We will feel an immediate relaxation and afterwards, the ceilings will appear higher and deeper for the spatial qualities associated to the belief “the sky is blue”. Thus, we will behave in a distinctive way standing more uplifted among other things.

This example depicts accurately the unusual case of color perception we want to talk about, allowing us to draw some conclusions:

- Color is not just a perception but rather a perceptual experience, meaning there is a perception, a cognition and an action involved in the process. Thus, sometimes and under certain conditions, color is no longer a feature of things, like when it surrounds us in architecture.
- The cognitions that participate in this color experience are the beliefs we have about certain colors that are predominant in the natural environment. The enrichment of perception are the contents closely related to the beliefs of the color applied, a phenomenon called the Cognitive Penetration of Perception, studied in the Philosophy of Perception. Mac Pherson (2012)
- We can say that there is CogPen when what we see or what we perceive with our senses is determined, influenced, or colored by what we believe and by what we know; that is, in our claim, by the beliefs of the natural environments. Stokes (2013)
- My statement is that color skills rest in the contents underlying color beliefs coming from the “Physical “, Gibson (2015) and “Cultural” worlds, Noë (2004).

When Emotions come into Scene

Let us use another example to introduce the role of emotions in the perception of color. When we enter a space in a green “that looks like vegetation”, as seen on fig 1, something happens: at first you feel calm, an astounding calm. The reason rests on a very complex process that we will explain. We will follow an order to describe the steps based on the Cognitive Process of Emotion. Dr Hita Villaverde (2000) stated that there was a kind of emotional decoding in the visual process.



Figure 1. Corridor: a) Blue that looks like a Sky ceiling. b) The green communicative concept. Proposal for the Psychiatric Penitentiary in Seville, Spain. Pia López-Izquierdo. (2021).

Departing from this claim, we propose that a parallelism could be set up in the knowledge of color, when talking about an experience, between the Cognitive process of emotion as Becks (1956) and Ellis (1962) anticipated, which was further developed by Brioles (2002-2003). We suggest a scenario of relationships and parallelisms in which perception, cognition, emotion, and behavior are intertwined (fig 2) and enriched with the Enactive Theory tradition. In these lines we will not develop an explanation of the Enactive theory, initiated by Merleau-Ponty (1942), but rather will point out the importance of considering perception as an action, as the enactive tradition defends. As a result, we consider that color behavior in space is a Perceptual Experience, having a sensorimotor profile of color.

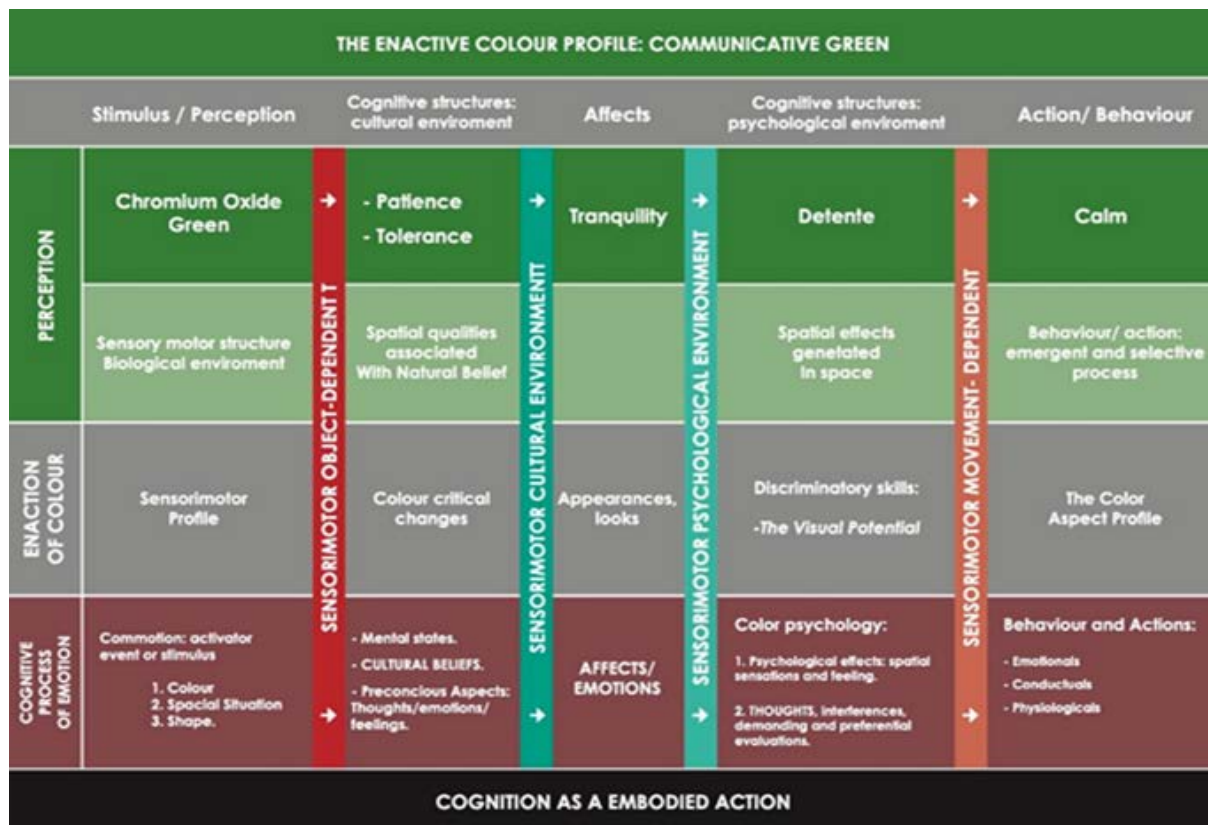


Figure 2. Color Perceptive Experience as a Cognitive process of emotion. Pia López-Izquierdo. Berkeley (2017) and Paris (2013).

However, let us go back to the thread of the argument. When entering a space in a green that surround us like depicted on fig (1b), we perceive at first a green stain, with its chromatic features as chroma, value and hue. Then, the cognitive structures of the cultural background related to the belief will follow, in this case “patience and tolerance”, that triggers an emotion. Why does this “Cognition appears? The moment has come to understand what the beliefs are, which is their role, where does it come from and why is it so.

The Role of Beliefs in the Perception of color:

As we previously saw, the bridge that connects color perception in architectural spaces with the rich and complex phenomenology of its experience are the “beliefs”, known in literature as doxastic states. It is where the basis of color performance in space are affecting people’s behavior. Dokic (2012-2013)

Architectural spaces inherit color beliefs contents through their spatial qualities (As seen in the second example, “blues that look like a sky” fig 1a) or through their cognitive contents (this is the case we are looking at now) of the background beliefs associated to each one, penetrating color perceptual experience. What is important to mention is that what we see is not affected in its sensorial content (we keep seeing a red or green stain) but what takes place happens through the sensory dimension of the perceptual experience, and not through its sensorial content as propose Dokic (2012-2013).

The beliefs involved in color perception are the ones anchored and embedded in cultural systems Hutchins (1995) and related to the notion of both the natural and cultural environments, Gibson (2015) and Noë (2004). We consider two cultural traditions associated to the use and manipulation of color:

the western painterly tradition and the Eastern Chinese philosophy. It is in the later, where the cognitive contents connected to the emotions are rooted. These cultural systems are cultural traditions where colors have been manipulated, the corner stone on which, due to their relationship to the physical world, a complex cognitive dimension is contained: the Five Elements Chinese philosophy.

The Five Elements Phylosophy: a Phenomenological Explanation

The Five Elements Chinese Philosophy is a cultural system that gathers social and cultural cognition, on which medicine and acupuncture are grounded. They depict the world as constituted by Five elements (water, wood, fire, earth and metal), each one corresponding to a season, an organ, a natural element and a color. Fernandez (2000-2017) undertook a research portraying this system as a process of complex thought called “the Constructive Mind”. The key point is that the Constructive Mind cycle corresponds to a Constructive Emotion cycle attached to it. This investigation gives the consistency and accuracy to ground our communicative color claim. Fig (3).

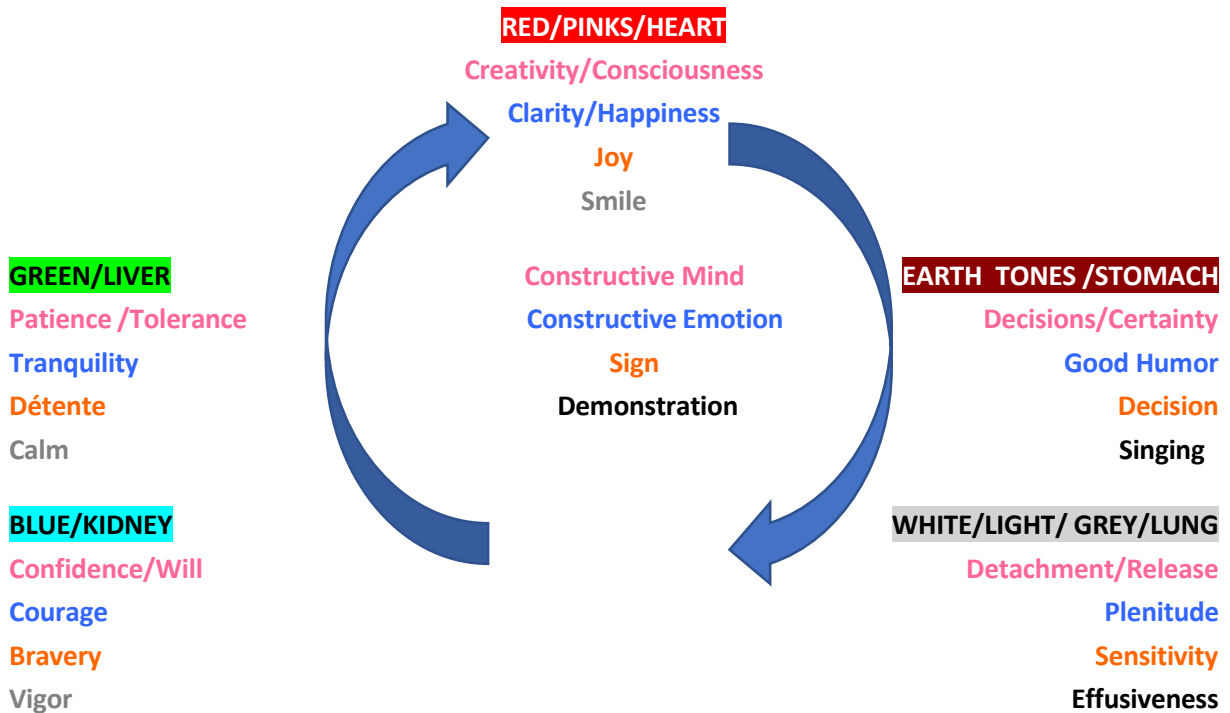


Fig.3. Schemes of the Constructive Mind and the Constructive Emotion. 7Fernandez (2000-2017)

If we go back to the previous example of the communicative green Concept, once the emotion “tranquility” appears, there is a second cognitive structure related to the psychological environment that arises: the “detente”, leading to a final behavior, “Calm”. In the following scheme, we expose the correspondence between the constructive mind and the constructive emotion that arises in each step of the cycle. The next question would be how do we become aware of the thoughts inherited into space? Through behavior, as we know that emotions are behavioral, as the cognitive Psychology asserts. In my research, I propose that when entering a colored space with one of the five color concepts, all these cognitive contents are preconscious in the Freudian sense housed in a blind level, although always using them. Thus, color is acting as the Psychic impulse that pushes color contents from the preconscious to consciousness, triggering a highly complex communicative and emotional issues into space. My claim is that due to the social genesis of the preconscious as De Lucas (1990) proposes, the enriched Five

The Emotional Language of Color in Architecture

Elements contents are universal since they refer to natural environments, and therefore people everywhere are influenced in the same way, although without being conscious.

In conclusion, there are five colors with the following Visual properties: Blues that look like water, greens that look like vegetation, reds (oranges and dark pink) that look like fire, ochre-brownish tones that look like the earth and white and light grey that look like metal. These colors are responsible for the emotional ability of color, when applied according to the proposed spatial schemes (fig 4 and 5). These are the five color concepts, understood as the basic color notes of the Emotional Language of Color for architecture.

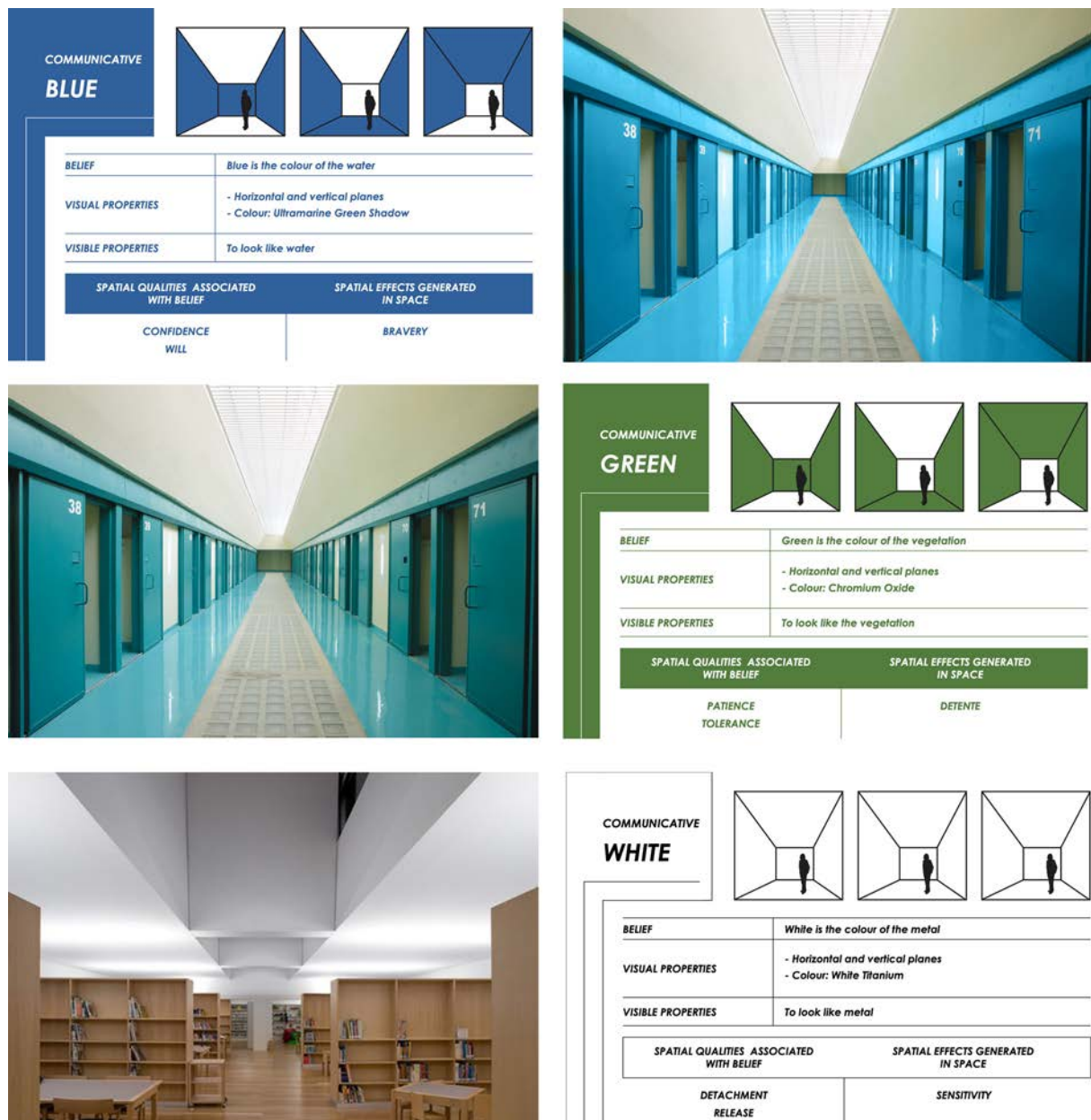


Figure 4: Color Enactive Concepts: Blue, Green and White. Pía López-Izquierdo.Paris 2017.

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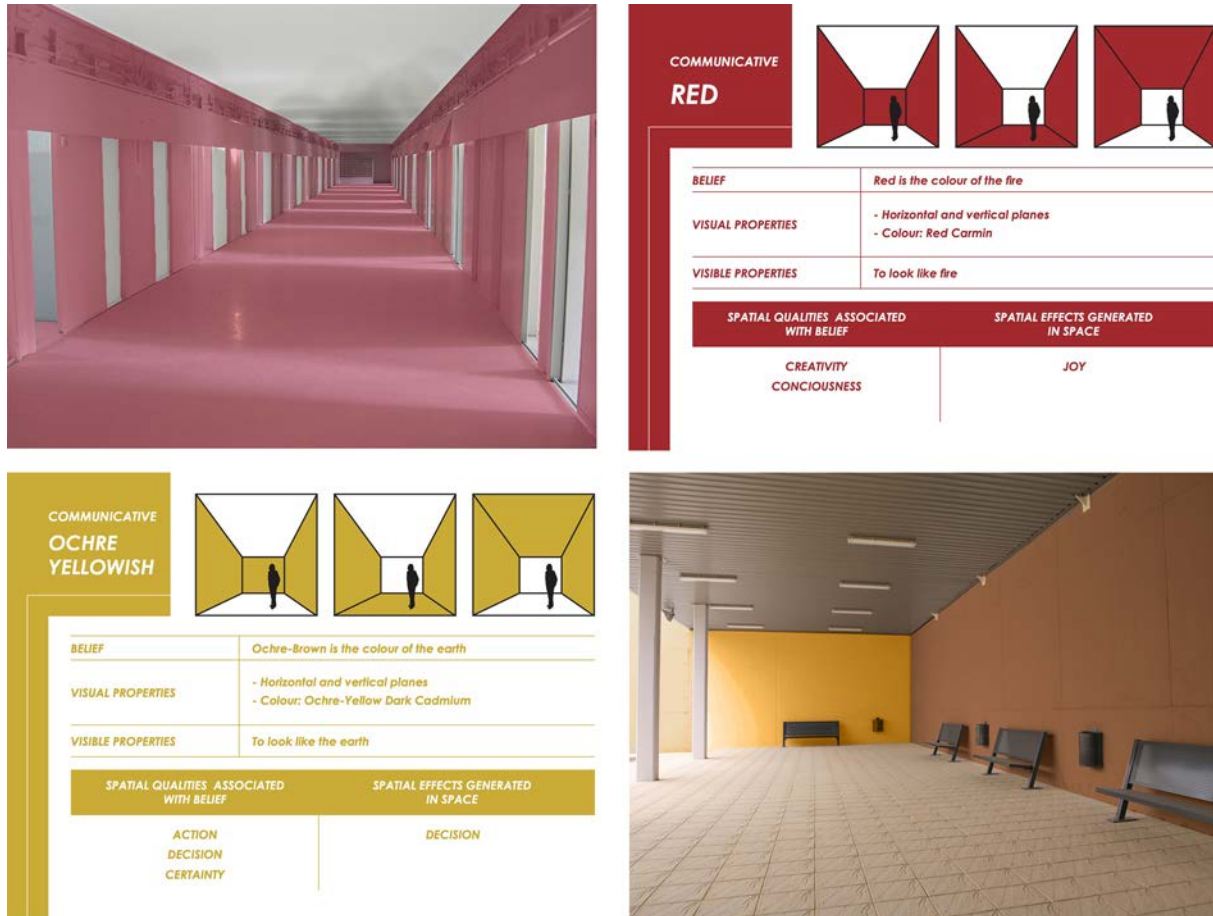


Figure 5. Color Enactive Concepts: red and earth tones. Pía López-Izquierdo, Paris 2017.

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