

## **How Does Color Strategy Create the Social Value: A Multi-Case Study Approach**

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### **Abstract**

This paper is describing color influence on the social value. We analyze five previous colour studies selected from various sectors of activity discussing previous methods and color effects in order to find its significant impact on humans. It reviews factors how companies and Non-Profit Organizations (Church, Fashion house, High school, Mobility and Prison,) use color strategies, method implementation, instruments and type of colors. Secondly, it discusses how colors or colored environments influence working performances; causing certain behavior; creating negative or positive perception to surroundings and task given; and influencing moods and emotions. Finally, this paper highlights the potential scientific approach in finding color effects on human behavior through the creation of social value. The paper includes with a series of recommendations for CEO's Non-Profit Organisation and brand manager in order to maximise the benefits of the color strategy and to take this opportunity to act on human behavior and create social value.

**Key words:** Color, Social Value, Human Behavior, Perception of Space.

**JEL classification:** M31.

### **1. Introduction**

Color is source of motivation, excitation, drawing attention and providing emphasis. It is one part of the dimensions of communication in information design. According to Caramelo Gomes & Darè (2010), chromatic language emerges throughout history and nature, an unquestionable way of communication for individual or collective identification. The color can be a code that illustrates political and social ideologies and realities.

For many years, color has been considered as a useless element, devoid of a social value. Nowadays, this refusal of color seems to have been overcome.

But the willingness to use color for solely decorative purposes can produce a rather negative effect: the creation of a superficial approach that impoverishes our environment instead of helping it to improve.

The culture of color must go further than this reflection. Color is a precious resource because it makes possible to recover and give value to a given territory through a quick and cost effective renovation process. The reinterpretation of color should be made in order to produce concrete results and improvements in the quality of life.

We must rethink the term color not only as a tool to redesign environments and create new landscapes but also as a tool that conveys serenity and responds to specific social purposes.

How is it possible? Color is a visual reference, effective and immediate, in order to communicate important information and to interact with inhabitants of a given environment.

Living in an equilibrated chromatic context makes it easier to better conduct our everyday activities in urban landscapes. An exploratory qualitative study has been carried out in order to address the following research questions in relation to the general question of how Color

Strategy create a Social value with in the companies and Non-Profit Organization.

- *Why should SME and Non-Profit Organizations use a color strategy?*
- *How could SME and Non-Profit Organizations implement a color strategy?*
- *How does a color strategy affect SME and Non-Profit Organizations?*

## **2. Literature review**

### **2.1. What is color?**

“Color originates in sunlight and is perceived through subtractive color theory. The various wavelengths of light shine on an object and the surface absorbs or subtracts all the colored light rays except for the ones reflected from the object. This color is reflected and received through the cells of retinal wall of the eye” (Morton, 1995).

The color has no material existence, it is the sensation caused by the action of light on the vision's organs. The perception of colors depends on the existence of two elements: the light (acting as a stimulus) and the eye (as a receiver, acting as a decoder of the luminous flux, splitting it or changing it, having then the selecting function of the retina).

The decisive factor for the appearance of color is the light. The light is a moment of vivacity or seriousness, showing and hiding areas, objects, creating real or fantastic environment. The light has its existence conditioned by matter.

According to Caiazzo (Cited in Bassani et al., 2010, pp. 143-147) “*Color is a very important element that is able to reflect the philosophical, sociological, and psychological components of a product*”. The role of color is important not only because it influences aesthetic and technical aspects of human-made environments, but also it affects human beings psychologically, physiologically (Tofle, et al., 2004)

### **2.2. The act of seeing and the mechanism of perception**

Visible colors are defined by the cones of the eye. Humans have three kinds of cones: red, blue and green. These three wavelengths decipher millions of colors.

Approximately 2-3 % of women and some animals have at least four types of cones which increase color differentiation (Morton, 1995).

These receptor cells absorb the hues and send a message to the brain where the colors are deciphered.

*Brain impulses are also sent to the major endocrine regulating glands that cause emotional and psychological responses (Nielson & Taylor, 2007). These receptors constitute two distinct pathways; a red-green system and a blue-yellow system (Banaschewski et al., 2006).*

Seeing has been described as to perceive with the eyes or the sense of sight or vision.

Perception is more widely defined as to take in with the mind and senses... to become aware of by sight, hearing or others sense.

The mechanism of seeing and perceiving may at first appear to be the same thing but those two terms must be differentiated:

Perception depends on the senses of sight and vision but more importantly on the different information received from the stimuli of our environment and past experience. In fact, perception is the process by which organisms interpret and organize sensation to produce a meaningful experience of the world (Lindsay & Norman, 1977).

The perception is different from one to each other and is related to personal, cultural and psychological factors. In other words, a person is confronted with a situation or stimuli. The person interprets the stimuli into something meaningful to him or her based on prior

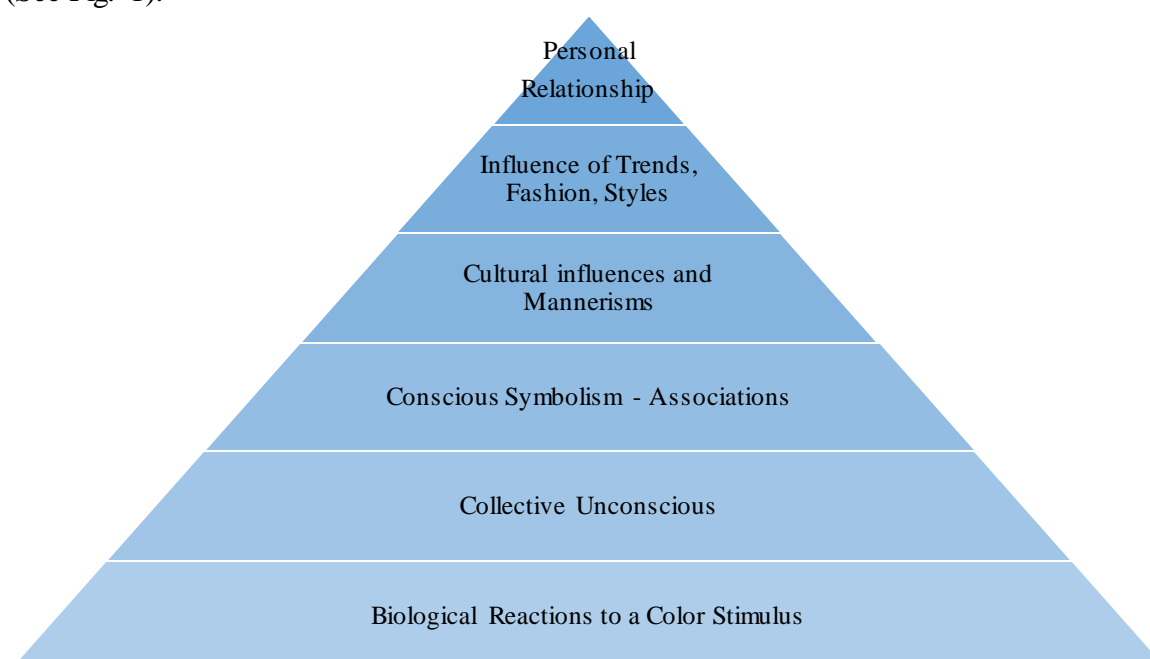
experiences.

A human eye reads the color in relation to its environment, which means that the color is as important as the contrasts between colors. It is possible to reduce the information gained from a scene by reducing the contrast between what has to be done and its background.

The quantity and quality of light can affect a person's vision of an object, such as a glare which may impair both vision and communication. The glare from the daylight or from the artificial light must be understood and avoided. The distinction is between the glare, which causes disability, and the glare which causes discomfort. However, what an individual interprets or perceives may be substantially different from reality. Perception is closely related to attitudes.

### 2.3. *Introduction to the Color Experience Pyramid*

According to Mahnke (1996), the color experience may assume six basic interrelated factors (See Fig. 1).



**Fig1: The Color Experience Pyramid**

Source: Based on Mahnke, (1996, <https://iacna.com>)

### 2.4. *Color in psychology*

The study of how color affects mood and behavior is a relatively new science, and determining the effects, if any, of color has been difficult.

Artists and interior designers have long understood how color can dramatically affect moods, feelings, and emotions. It is a powerful communication tool and can be used to signal action, influence mood, and cause physiological reactions.

The concept of color psychology has been now implemented in several fields but its most important aspects are only discussed in marketing, art and interior design.

- **Warm and cool colors**

In general warm color as red, yellow and orange brings out emotions of comfort and warmth, but also feelings of hostility and danger.

Whereas cool colors like green, blue or violet express feelings of calmness, tranquility and sometimes sadness.

This warm/cool approach of the color had been used in the medicine field: it is called

chromotherapy: the use of colour to heal. A practice whose origins are located in Egypt and China.












- **Color and culture**

This is a point we already discussed in the Color Experience Pyramid. Much of a color's effect may be due to meanings assigned to it within a given culture, and these meanings can vary widely from one culture to another.

Even in a given culture, the meaning can change depending on the context; for example, red can be a warning of impending danger, but cards bearing red hearts are exchanged on Valentine's Day.

- **Color meanings**

While perceptions of color are somewhat subjective, there are some color effects that have universal meaning.

	Danger, warning, or error/ warmth, love, passion, and intense emotion
	Has a calming effect, love and romance, as well as femininity
	The most fatiguing color to the eye and a attention-getting color...seen as a sunny, happy color
	Calming effect/ sadness
	Warm, stimulating and attention-getting color
	Can suggest strength and security
	Associated with nature, and sometimes signifies good luck or money
	Royalty, wealth, and luxury spirituality and wisdom
	Purity, innocence, and goodness
	Death, mourning, and evil
	'In between color', gray is a practical, timeless color

**Table1: The Color meanings**

Source: Adapted from Kurt, S., & Osueke, K.K (2014, pp. 3-5)

## 2.5. What is Social Value?

According to (Ergil, 1984, cited in Türk kahraman, 2013, p. 633), 'Social values are moral beliefs and principles that are accepted by the majority so as to ensure the continuity of a society'. According to Social Value UK ([www.socialvalueuk.org](http://www.socialvalueuk.org)), 'Social value is the value that stakeholders experience through changes in their lives. Some, but not all of this value is captured in market prices. It is important to consider and measure this social value from the perspective of those affected by an organisation's work'. Examples of social value might be the value we experience from increasing our confidence, or from living next to a community park. These things are important to us, but are not commonly expressed or measured in the same way that financial value is. There are several different types of social value; economic forms which include the social benefits to an area and the positive impact these may have on the local economy, and less tangible types including quality of life and community safety. Social values indicate what is important to a local community and can aid the development of effective flood alleviation schemes that satisfy all stakeholders.

Social Value UK, state that social value has a huge potential to help us change the way we

understand the world around us, and make decisions about where to invest resources.

## 2.6. *The Social Value's Principles*

The Principles of Social Value provide the basic building blocks for anyone who wants to make decisions that take this wider definition of value into account, in order to increase equality, improve wellbeing and increase environmental sustainability. They are generally accepted social accounting principles and are important for accountability and maximising social value. Adopting the seven Principles identified by Social Value UK will sometimes be challenging as they are designed to make invisible value visible. Value is often invisible because it relates to outcomes experienced by people who have little or no power in decision-making. Applying the Principles will help organisations become more accountable for what happens as a result of their work, and means being accountable for more than whether the organisation has achieved its objectives.

### The Seven Principles

1.	Involve stakeholders	<ul style="list-style-type: none"> <li>Inform what gets measured and how this is measured and valued in an account of social value by involving stakeholders.</li> </ul>
2.	Understand what changes	<ul style="list-style-type: none"> <li>Articulate how change is created and evaluate this through evidence gathered, recognising positive and negative changes as well as those that are intended and unintended.</li> </ul>
3.	Value the things that matter	<ul style="list-style-type: none"> <li>Making decisions about allocating resources between different options needs to recognise the values of stakeholders. Value refers to the relative importance of different outcomes. It is informed by stakeholders' preferences.</li> </ul>
4.	Only include what is material	<ul style="list-style-type: none"> <li>Determine what information and evidence must be included in the accounts to give a true and fair picture, such that stakeholders can draw reasonable conclusions about impact.</li> </ul>
5.	Do not over-claim	<ul style="list-style-type: none"> <li>Only claim the value that activities are responsible for creating.</li> </ul>
6.	Be transparent	<ul style="list-style-type: none"> <li>Demonstrate the basis on which the analysis may be considered accurate and honest, and show that it will be reported to and discussed with stakeholders.</li> </ul>
7.	Verify the result	<ul style="list-style-type: none"> <li>Ensure appropriate independent assurance.</li> </ul>

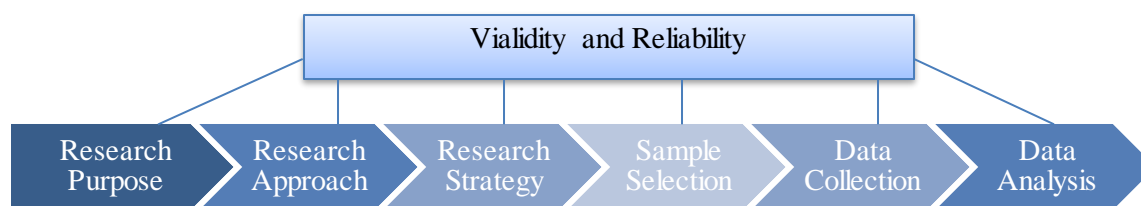
**Table2: The Seven Principle's Social Value**

Source: Adapted from the Social Value UK ([www.socialvalueuk.org](http://www.socialvalueuk.org))

Color psychology is still useful in society through environmentalism colors, researching color effects, implement them into society as a whole, and the inventions. 'The effects of colour on human psychology are used all around the life to impress people, to get their attention and to gain more customers by the people who are experts in colour psychology' (Ünal, 2015, pp. 127-128) are in line with the social value's principles.

## 3. Methodology and Analysis

The methodology is explained by the diagram (Fig. 2). Our study was conducted in a scientific manner which means: we describe the research design, the method we used to collect our data. Then we have explained the theoretical part of the different ways of carrying data, we will choose a method to answer our research question and then, explain why we made this choice.



**Fig. 2 : A Schematic Presentation of the Methodological Approach in Case Study**

Source : Adapted from Foster (1998, pp. 81)

A qualitative research design was used to answer the research questions of this study. According to Hair et al., (2007), qualitative research represents descriptions of things made without assigning numbers directly and used in exploratory designs, offering a detailed insight and understanding of the research object. According to Yin (2003), it can be differentiated between exploratory, explanatory, and descriptive case study approaches. Exploratory case studies are conducted to define research questions and hypotheses. Explanatory case studies seek to link an event with its effects and are suitable for investigating causality relations. Descriptive case studies are often used to illustrate events and their specific context (Yin, 2003). This multi-case study represents an exploratory attempt to analyzing Color at SME and Non-Profit Organization.

As confirmed by (Hakim, 2000), the collection of data contributing to case study methodology may involve ‘specialised interviewing of informants, professionals and organisational or public role-holders’, this research design is based on an in-depth interview with Massimo Caiazzo, Designer and Color Consultant. A total of nine questions have been addressed (see table 3).

1. What is color?
2. What are the qualities of the good color?
3. Who are your market research clients?
4. Why are / they appeal to your skills?
5. What is the importance of color in the management?
6. What was your best experience color designing?
7. How do you work? How do you attack color problem?
8. Do you do a lot of research? Focus groups?
9. Can you sum up your color philosophy in one word?

**Table 3: Questionnaire for the Massimo Caiazzo, Designer and Color Consultant.**

Source: The authors

The in-depth interview with order donors and with the chief of color Management projects of companies and Non-Profit Organizations that have made the choice to use color strategy.

Through these cases, this applied social research is used to denote studies that have the objectives of developing, monitoring or evaluating policy and its related practice (Hakim, 2000), we have the opportunity to illustrate the main concepts described above and also to discuss implementation aspects of color strategy initiatives.

Each case study follows the same presentation. A first part presents the objectives of color strategy initiatives. In the second part, the implementation is described with detail. The third part unveils the performance for human behavior, customer behavior and for companies Non-Profit Organizations.

### **Case 1: The Bollate Prison, no-profit chromatic redevelops intervention for a penal Institution**



*Why did Bollate prison use a color strategy?*

The project's goal is to improve the quality of life of prisoners and workers who are in this jail. Indeed, they noticed a lot of suicides and depressions for both prisoners and workers, both were touched by a lack of well-being. Usually, there is a lack of color in jails, because in people's mind jails should be dark places, a punishment place and not colorful place where it is easy to live. Thus, it's much more a place where prisoners are punished and banished from the society instead of being reintegrated and feeling useful.

*How did Bollate Prison implement a color strategy?*

At first, it was complicated to repaint the facade of the jail because of the material used for. After visiting the jail and meeting the staff, Massimo Caiazzo decided to paint in different colors the windows framework. He suggests a balanced range of colors for the windows frameworks and for the inside of the jail.

According to Caiazzo (2016), using powerful and primary colors such as red for the common rooms, and a shade of warm and cold colors for corridors in order to make it warmer and reduce their excessive length.

At first, staff was a bit reluctant for this project because of the colours used for. Indeed, for them, colors were similar to those used for a primary school building, but the designer took it as a compliment because that color selection rendered the jail a more human space.



**Fig 3: The original concrete façade of the Bollate prison**

Source: Studio Massimo Caiazzo (Milan, Italy)



**Fig 4: The External side of the Bollate prison**

Source: Studio Massimo Caiazzo (Milan, Italy)





**Fig.5: Internal side of the Bollate prison, Milan**  
*Source: Studio Massimo Caiazzo (Milan, Italy)*

#### *How did the color strategy affect the project?*

Changing colors has a positive impact on prisoners and workers life. Indeed, the entire project was made by prisoners and staff who were working hand by hand, as a team to improve the quality of life there. They all work very hard to make it a cozy place to live. Even family' and friends' prisoners were surprised by those changes; children were not so sad to visit their parent in this place anymore, color gave them happiness and allowed them to feel better. The aim of this project was not only changing the color but also trying to make prisoners feel useful, to make them feel as a team and trying to make them collaborate with each other. Thus, they go on project and plant flowers around the jail by themselves.

Moreover, some people find their vocation because a prisoner decided to become a painter after getting out of the jail. This project was a human project and we noticed even if people were in jail because they did something wrong for the society, Caiazzo trusted them and helped them find back their confidence. The color renovation project involved an organized team of prisoners who wanted a change in their environment.

#### **Case 2: The chromatic restyling of a church of the 11<sup>th</sup> century, no-profit chromatic redevelopment intervention for the interiors of the church of Saint Mary Major**

##### *Why using a color strategy?*

The Studio Massimo Caiazzo led a project of restyling of the Santa Maria Maggiore church in Mirabella Eclano, which dates back to the 11<sup>th</sup> century and is the first of this kind. It is situated in one of the most dangerous earthquake zones in Italy. The intervention of chromatic restyling was mandatory in order to correct the incoherence and the discomfort sensation generated by the colors and the lighting. The main goal was to achieve a result not only aesthetically pleasing, but also, physical and spiritual appealing. It was not very hard to understand that scientific observations must be taken into account during the chromatic restyling process. In other words, all the interactions between the environmental components and the artificial ones.

##### *The application of the Color Strategy*

In addition to the objectives listed in the previous question, it was important to define a cultural and a symbolic value of the project. At this point, the Studio Massimo Caiazzo made a connection between the project and the concept of spiritual transition in a reference to the 11th century wooden Christ in the apse, the metaphor of the transition from the flesh (warm colors)



to the spirit (light blue) through all its intermediate degrees. So the colors used were inspired by the paintings of Giuseppe Tomaioli (1749) present in the ceiling and in the top side of the central nave.

« The colors, taken from these paintings, have been brighten up and desaturated and then they have been ordered following a progressive modulation. » *Colore Architettura E Città: La Cultura del Progetto Sostenibile* (<http://dipse.architettriroma.it/documenti/colore-architettura-citta.pdf>) (2013, pp. 54 -55).



**Fig 6: The Chromatic Plan – Palette and Application Section of the Church of Santa Maria Maggiore-Mirabella Eclano (AV), Italy**

Source: Studio Massimo Caiazzo (Milan, Italy)

*How did the color strategy affect the project?*

The goal aiming to create a suitable atmosphere of concentration for prayers was realized. The previous incoherence was replaced by a natural harmony, thanks to the optimization of volumes and a comfortable lighting. The chromatic restyling also permitted to assure a better reading of the paintings.



**Fig 7: The metaphor of the passage from flesh (warm colors) to the spirit (light blue) through all its color range**  
Source: Studio Massimo Caiazzo (Milan, Italy)

### Case 3: Buses change skin: color design for natural gas buses

*Why did the AMT (Azienda Mobilità Transporti) use a color strategy?*

This project led by the Studio Massimo Caiazzo aims to offer to the public transport users in Verona a good quality service that is able to associate harmoniously the attention towards the environment and the citizen's well-being. Also, it intends to optimize the vehicle's size perception and the reduction of the realization and maintenance costs.

*The application of the Color Strategy*

The vision of Massimo Caiazzo to achieve those goals was as follows:

- The vehicle body could be divided into three horizontal stripes.
- On the top, colors made by "effect pigments" with high technology content could be used. It would be the first time that the Italian and European public transport system would use a paint that changes colors according to the light grade that hits the bus (orange blue, purple).
- On the intermediate level, a lively green stripe could be set.
- The stripe on the bottom could use one of the changing hues of the top, the cobalt blue because this side is more exposed to consumption and to dirt.

*The result*

The new urban layout of Verona is now characterized by these buses, both in rest and in motion. Since these redesigned buses have been in service, the AMT (Azienda Mobilità Transporti) of Verona has recorded a significant reduction of vandalism aboard.

The lively green on the intermediate stripe underlines the ecological vocation of these buses. The vehicle body was divided in three parts in order to optimize the perception of the vehicle's dimension as well as to reduce its maintenance costs.



**Fig 8: The vehicle body was divided in three in order to optimize the perception of the vehicle's dimension as well as to reduce its maintenance costs**

Source: Studio Massimo Caiazzo (Milan, Italy)

## Case 4: The Italian fashion house Etro

*Why did the Brand Etro use a color strategy?*

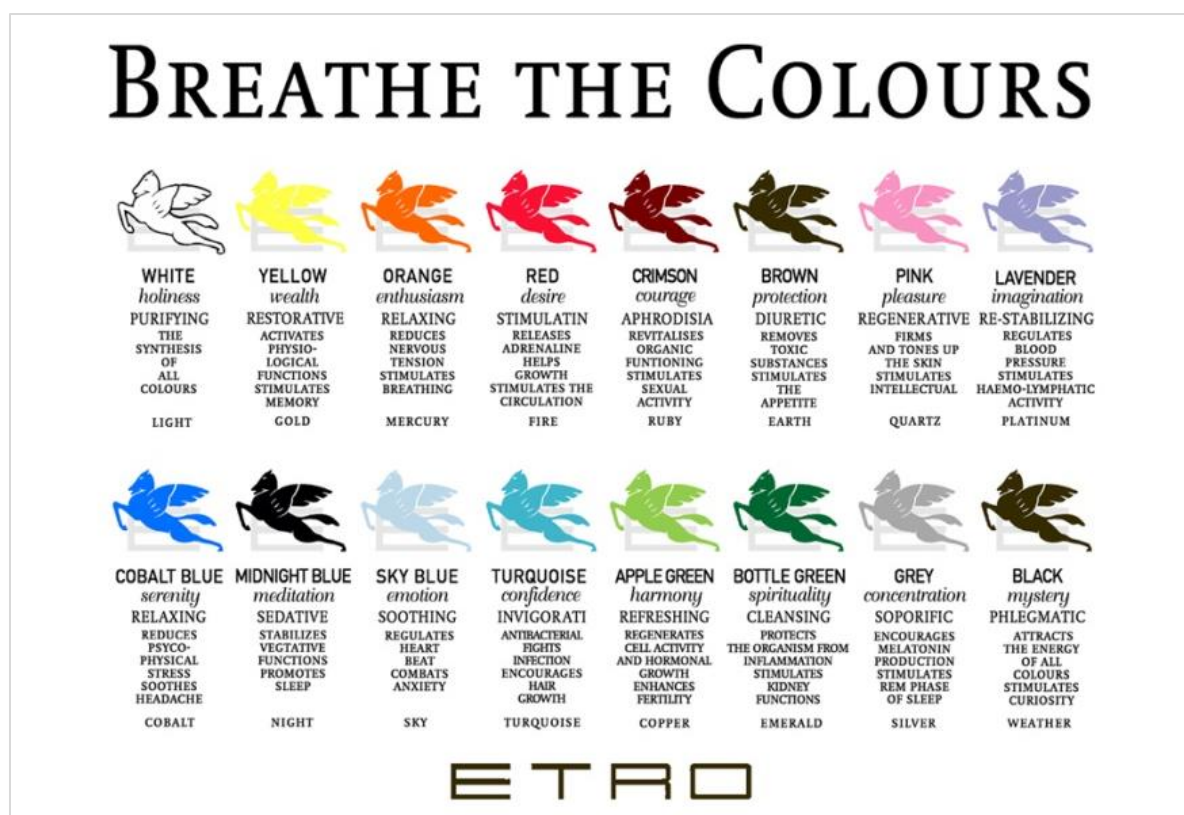
Etro is an Italian fashion house founded in 1968. The brand produces a menswear and womenswear line, in addition to accessories, fragrances, and other home products. Etro is synonymous of style. It is a lifestyle based upon quality and sophistication, not only in terms of design, but also regarding material as silk, cashmere, etc.

As shown by previous academic works (e.g. Rieunier, 2006) color should attract the consumer's attention to the point of sale through the alert function. The attraction function is to empower the point of sale to generate interest for the consumer. The function of well-being helps to create a positive atmosphere in the point of sale.

The fashion brand wanted to develop a new chromatic chart, in the way that each color contributed to a therapeutic function of the soul and the body. The two most important suggestions were about considering that color is an illusion, also, that the fact to combining colors is important.

*The application of the Color Strategy*

The chromatic chart realized by the color consultant Massimo Caiazzo for Etro is called « Breath the Colours ». It contains 16 colors attributed to the logo with an adjective and a short definition. It's about a project of customization, making each article sold by the brand a unique one. It's also about the improvement of our lives through the therapeutic use of color and light, known since ancient times.



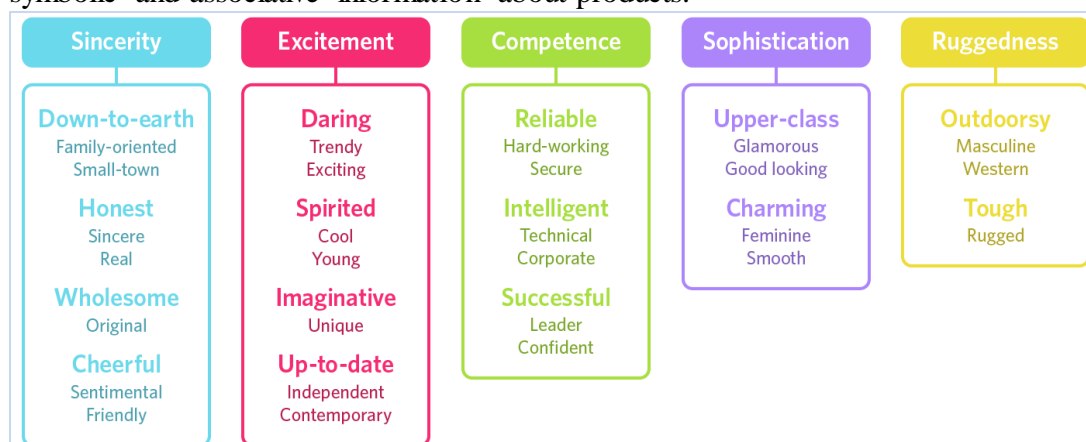
**Fig 9: The new color palette designed for Etro**

Source: Studio Massimo Caiazzo (Milan, Italy)

### *The result*

According to Aaker (1997), there are five core dimensions that play an important role in a brand strategy: Sincerity, excitement, competence, sophistication and ruggedness. (See Fig. 10).

In the case of Etro, it's more about a representation of sophistication, and here, Caiazzo wanted to connect the personality of the brand with customers' perceptions of color. This is why, the new chromatic chart contained many definitions of colors corresponding to the customers' psychological needs. As Garber, et al., (2000) already stated, color affects every moment in life. It is an important marketing communication tool, a memorable visual element and carries key symbolic and associative information about products.



**Fig10: The 5 Dimensions of Brand Personality**

Source: Aaker, J. L. (1997, pp. 347-356)

### **Case 5: The Boccioni's Artistic High school**

#### *Why did the high school use a color strategy?*

These organizations use color strategy because there is a problem with the color in those places that it has a strong emotional content. People experience subjective impressions which vary according to human temperament. Man is responsive to his environment and is affected by it. This is especially important to take into consideration in educational and pedagogical environments as it may have an effect on a patient's responses, both conscious and subconscious, during learning.

#### *The application of the Color Strategy*

According to Portillo & Dohr (1993) and Portillo (1996), the Effects of Color in educational and pedagogical environments, empirical studies, researchers have found reds to increase emotional and motor responses more than greens and blues, more explicitly, a study of color and emotionality indicated that green elicits the strongest positive emotions of calm, peace, and happiness, but yellow-green associates with disgust and sickness as well as white, brightly lit interior environments contribute to eye fatigue and psychological discomfort.

So he created a ground using industrial tiles with different gray tones. According to Portillo (1996), "this approach serves as a practical as well as an aesthetic purpose in highlighting potential environmental hazards –for example, on staircases, where treads and risers must be clearly delineated".

In this case, the colors must not only be different in hue, but in shade or texture as well. On the



other hand, experts suggest that in environments for elderly users, color can be used to organize a series of rooms so they appear to be grouped in some way; it can signify change, suggest outlines or emphasize contours, signal an alert, or work as a background surface on which a focal object can be easily distinguished. Here, the use of color becomes more important than making a room aesthetically appealing.

#### *The result*

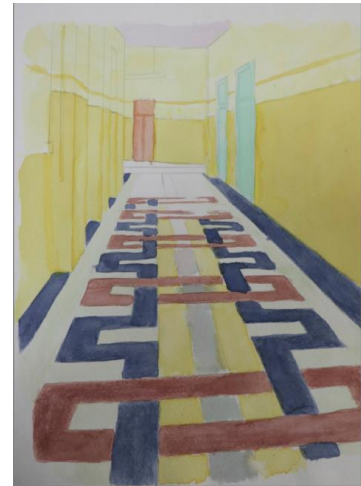
Color strategy affect the organizations through color perceptions that change according to lighting variations, spatial configuration of the interior, primary tasks occurring in the space, and differences among the people using the space. Similarly, color also is affected by materials, textures, and patterns in the interior environment, and that these effects may attenuate or strengthen with the passage of time. The results included several aesthetic preferences as well as characteristics of desirable educational and pedagogical environments.



*Fig.11: External side of Boccioni Liceo, Milan*



*Fig.12: Internal side of Boccioni Liceo, Milan*



*Fig 13: The new color palette designed for liceo Boccioni*

Source: Source: IACC ITALIA Massimo Caiazzo (Milan, Italy), Edda Mally, Emanuela Volpe, Eugenia Alliata, Jin Hee Lee, Silvia Bellani and Umberto Garboli.

#### **4. Managerial implications**

Color plays a huge role in the management and the brand's life. In order to create a memory recognizable experience for customers, brands are stimulating the senses by an eye contact. So choosing the best and the right color for a corporation are crucial. From the branding chart to the packaging, the color should set the brand apart. This process should take into account color psychology, which is fairly complex; because colors can mean different things depending on



the culture.

According to Moriarty (1991), color in advertising serves a panoply of purposes. Color is used to draw attention, to create moods and emotional response, and to enhance memorability. Moriarty (1991) further states that color can be used as a cue. The colors are widely used by marketers because it is a means of communication, they allow the identification and brand differentiation, Roulet (cited in Rieunier, 2006, pp. 129-160).

Many specialists in branding see color as an important part of marketing because it can be used to influence consumers' emotions and perceptions of products (Bellizzi & Hite, 1992). Companies also use color when deciding on brand logos. These logos seem to attract more customers when the color of the brand logo matches the personality of the products.

In other words, colors play different roles depending on many criteria linked to the targeted audience: religion, politics, ceremony, and art. So these aspects must be taken into account while defining marketing and a management strategy for a product. The culture of the potential audience affects how it understands the deeper meanings of color. Even the context you use the color in affects the meaning of color. For example, in India, red means purity, while in the U.S. it denotes passion and specific holidays.

Ulrich et al. (2004) summarizes how consumers perceived brand benefits by classifying them according to three basic dimensions:

- “Social benefit: The product can by the consumer be perceived to be helping them feel more acceptable, to improve the way they are perceived by others, help them make a good impression on other people, and giving them social approval and adhesion”.
- “Emotional benefit: Makes the consumer feel relaxed, good, smoothened, pleased, evoke thoughts of happiness”.
- “Functional benefit: The product can be perceived to be well crafted, having an acceptable standard of quality”.

## 5. Conclusion

The perception of a color can widely vary from one culture to another. It could be linked to age, to gender, or to the context in general. It's a mysterious subject that guides human behavior, mood and performance, according to many factors. For example, orange and red are known to be stimulants. The origin of this behavior, according to Leslie Harrington, executive director of The Color Association of The United States, which forecasts color trends: *"You have an innate reaction to color. For example, when you look at red, it does increase your heart rate. It is a stimulating color. This goes back to caveman days of fire and danger and alarm."*

Color is also able to change our perception of time and space. In other words, light colors are expansive and airy, making rooms seem larger and brighter. Dark colors are sophisticated and warm; they give large rooms a more intimate appearance.

This qualitative study aims to show social and psychological values of colors through all experiences conducted by the Color Consultant Caiazzo. All the cases above-cited mention the positive effect of colors, they deeply had a remarkable influence of feeling and behaviors. For example, thanks to the color strategy conducted by Caiazzo, prisoners feel more optimistic, and committed less suicide. Also, the colors chosen in the project of the church permitted to have more spiritual and concentration effects.

Public spaces play a vital role in the social life of communities. The social value of public space is wide ranging and lies in the contribution it makes to 'people's attachment to their locality and opportunities for mixing with others, and in people's memory of places'. Places can provide opportunities for social interaction, social mixing and social inclusion, and can facilitate the development of community (Dines et al., 2006). Color consultants believe the

colors used in the design of an environment can have significant impact on the emotions and performance of people within that environment (Brucker, 2013, pp.18).

A quantitative study showing statistical analysis and the results of the social values of color is planned to complement this qualitative study. In addition to that, the quantitative research aims to measure and to provide the fundamental connection between empirical observations and mathematical relationships.

As Heller (2009), already stated “*Combinations of colors and emotions are neither the fruit of the hazard nor the question of taste, but establish themselves on common experiences, profoundly anchored in the language and the thought and which are understandable at the same time by the history and the psychological symbolism*”. Color is a fundamental factor in environmental design. People often consider our response to color as instinctive and simple, but it involves a very complex interaction between light, eyes, and the brain (Ghamari et al., 2016). So we can conclude with a slogan provided by Itten (1965, pp. 8) “*Color is life ; for a world without colors appears to us a dead*”.

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### Webgraphy

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