Psychology of Colors and Architectural Façade and Interior Color Selection

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Abstract: The first section of this paper discusses many effects that specific colors have on human minds and how they can be applied to interior architecture and design. The focus of this research pertains specifically to restaurants. Most of this research comes from studies of warm and cool colors. Though they have opposite effects on human minds, combining them can create comfortable atmospheres and settings. The second section of this study is to research the human’s color selection of the architectural facade. As a result, Ratio of the color selecting has the tendency when surrounding color’s tone and selecting one are same. Degree of consideration in surrounding and Degree of harmony after color selecting have the tendency which is relation in the Saturation. Difficulty in the color selecting is in the brightness. There seems to be a different tendency between light tone and any others in Degree of consideration in surrounding and Satisfaction after color selection.

Key words: Color Selecting , Architectural Façade, human mind, warm and cool colors.

INTRODUCTION

When designing a restaurant, there are many things to consider besides the food that is served there. Customers should be able to enjoy the atmosphere almost as much as they enjoy the food in order for the restaurant to be successful.

The flow of the floor plan is important because when a place is too crowded or hard to maneuver, customers may not be as comfortable as they could be. In addition to the floor plan, the colors used on the interior affect the successfulness of a restaurant because they can directly influence a person’s desire to eat.

Fig. 1: Warm and Cool Color.

In general there are two ways to classify colors, warm and cool. Figure 1 gives a visual description of these two groups and physically separates the two.

However, aside from the visual differences, there are psychological traits associated with each group as well. Warm colors are defined as being bold and energetic, and they have the tendency to advance in space. This characteristic has both positive and negative effects because while using them can make something stand out, too much of them can be overwhelming in a sense that it drowns out the other colors.

Cool colors are soothing and have a tendency to recede. They are good to use with things that are meant to be located in the background and they can make the space that they are used in seem bigger than it really is. (Nicholson, 2002).
Out of the seven hues that make up our visible range of color, red, orange, yellow, and some shades of green are considered to be the warm colors, as shown in Figure 2.

The warm colors cause an increase in heart rate, respiration, and blood pressure because it has a stimulating effect on the nervous system. (Meola, 2005) Due to the size of its wavelength, Red is the most warm color and has the strongest effects on the human mind.

It increases enthusiasm, encourages action, and is often associated with desire. The color orange shares some of the same characteristics as red but without the intensity. It stimulates activity, appetite, and encourages socialization.

Yellow encourages communication, activates memory, instills optimism and influences creative thoughts. (Nicholson, 2002; Smith, 2008).

While warm color can gain the attention of a human mind much quicker than a cool color, the characteristics of cool colors are just as important to consider.

The green, blue, indigo, and violet hues from our visible range of color are considered to be the cool colors, as shown in Figure 3.

They have the opposite effect of warm colors and lower the heart rate, respiration, and blood pressure because they affect the parasympathetic branch of the nervous system. (Meola, 2005).

The parasympathetic branch opposes physiological effects of the sympathetic nervous system by stimulating digestive secretions, slowing the heart, constricting the pupils, and dilates blood vessels. (“Parasympathetic”).

Because green is often associated with nature, it has a soothing, peaceful, and calming effect on the human mind.
It helps to get rid of nervousness and anxiety and brings on a sense of renewal and self-control. Blue and indigo also calm and sedate the mind, but they have a tendency to lower body temperature and reduce appetite. Violet is a balance between the warm nature of red and the cool nature of blue. It causes the mind to feel calm, yet uplifted and inspired through creativity at the same time. (Nicholson, 2002; Smith, 2008).

There are a few more “colors” that don’t exactly fit in the categories of warm or cool. Brown gives people a sense of stability and orderliness. Gray can cause people to feel unsettled. The human mind associates white with cleanliness and mental clarity, while black brings a feeling of emptiness but represents potential and possibility. (Nicholson, 2002; Smith, 2008)

In combination with the warm and cool colors, these extras can be used to create a well balanced atmosphere that benefits multiple types of people at one time.

The mental effects caused by color choices are important to consider when designing the interior of a restaurant. Since orange stimulates appetite, it would be a smart idea to some shade of it in the dining area of the restaurant. Brown could act as a good accent color because it would help to create an order and flow within the restaurant. In the kitchen area, yellow would be a smart choice because there needs to be good communication, coming up with new recipes requires creativity, in any business there are times when optimism is needed, and there is so much going on that a good memory is beneficial.

White accents would help because they make the kitchen space seem bigger and maintain and air of stability and cleanliness. In all the areas where high energy and activity is expected, warm colors are ideal to use. Red probably would invoke too much excitement, and things could easily get uncomfortable and out of control.

On the other hand, in waiting and bathroom areas people should feel calm and relaxed. This is where the cool colors can be used to counter the effects of the warm colors used in the other areas. The use of different types of colors when going from room to room help in maintaining a flow because people have to transition from one frame of mind to another. If customers are comfortable and excited with anticipation to enjoy the food, then the restaurant will be successful.

By choosing the right colors to paint the interior of a restaurant, it is possible to make them feel that way.

Architectural Façade color selection:
Background:
In some areas, there is a guidance of architectural facade color to change the base-color that developers should followed. But the problem is that in the guidance still remained the lack of harmonious color called “color pollution”. In this section, the fact regarding what emotions a human has against the facade is strongly debatable. The purpose of this study is to research the human’s color selection of the architectural facade.

Degree of Consideration in Surrounding (fig 4):
- Light tone has a tendency of consideration in favorite
  - On the other hand, dark, pale, medium grayish and dark grayish tones have a tendency of consideration in surrounding.

![Surroundings : Medium grayish tone](image1)

![Surroundings : Light tone](image2)

Fig. 4: Degree of consideration of Surrounding.

Degree of Harmony After Color Selecting (fig 5):
- Light tones have more of a tendency of disharmony than dark, pale, medium grayish and dark grayish tones.
Degree of According In Imagination Between Before Color Selecting and The After (fig 6):
□ Light and moderate tones have a tendency of discord in imagination in the surrounding color’s tones.

Degree of Difficulty In Color Selecting (fig 7):
• Dark and dark grayish tones have a tendency of easier color selecting than the rest of surrounding’s Tones.

Degree of Satisfaction After Color Selecting (fig 8):
• Light tones have more of a tendency of dissatisfaction after color selecting than deep, dark and dark grayish tones.

RESULT AND DISCUSSION

our visible range of color, red, orange, yellow, and some shades of green are considered to be the warm colors. The warm colors cause an increase in heart rate, respiration, and blood pressure because it has a
stimulating effect on the nervous system. The green, blue, indigo, and violet hues from our visible range of color are considered to be the cool colors. They have the opposite effect of warm colors and lower the heart rate, respiration, and blood pressure because they affect the parasympathetic branch of the nervous system. As a result of the experiment, when color selecting of architectural facade takes into consideration surroundings, it is expected that chrome relates the evaluation of “Degree of consideration in surrounding” and “Degree of harmony after color selecting”. These seem to relate to the previous study to term of saturation being an important factor in the harmony or necessity of legal control and selecting low saturation color for the townscape where it has the composure or feels good sense. It is expected that brightness in each same saturation level relates to the evaluation of “Difficulty in the color selection”. We need to verify that result in the different experimental condition. It was shown that different tendency between light tone and any others in “Degree of consideration in surrounding” or “Satisfaction after color selection”.

REFERENCES


<http://personales.upv.es/gbenet/teoria%20del%20color/water_color/IMG/cw8.gif>