Research on Cultural Differences and Design Favors
Taking Color as an Example

Dehui Wang
Xiamen Academy of Arts and Design, Fuzhou University
Xiamen, China

Abstract—In today's era, color has entered the various aspects of our social life not by the will of human beings. It has become the representative of the things with the most modern sense. With the continuous improvement of people's living standards, people's attention to color is also increasing, however, the color issues that constantly emerging are followed. Color issues are common in our daily lives due to differences in culture, politics, religious beliefs, and other differences between nations, 'color favors' and 'color usage habits' are also very different. As a designer, if you don't understand or don't care about this, it will not only affect the original intention of the design, but will also cause unnecessary friction. This article will explore the favor elements of colors in design based on cultural differences.

Keywords—cultural differences; colors; design favors

I. INTRODUCTION
Color has a very important influence on people's senses and is the most expressive design elements. However, due to cultural differences, there are also many problems related to color. As a designer, we need to understand the color preference based on cultural differences to avoid the occurrence of color problems. Through literature survey methods, and case analysis methods and so on, this paper summarizes the color preference under cultural differences, and analyzes the preference of several common colors. Through the analysis of successful and failing cases of using the color preference in design at home and abroad, this paper hopes to provide reference for designers, so as to avoid the failure in design due to improper use of color preferences.

II. THE STATUS OF COLOR FAVOR RESEARCH
Hofstadter defined culture as: The so-called "culture" is the "common psychological program" of people in the same environment. Cultural difference refers to the differences that arise due to the different regions where people form unique cultures. [1] The benevolent see benevolence and the wise see wisdom, color this beautiful visual language, without any explanation, people often evaluate and choose according to their own habits and preferences. Different colors give people different feelings, some colors can make people emotional, some colors can make people calm, some colors make people feel good, and some colors make people feel depressed. The difference in color favors often makes people who use color to make creative design has different opinions. In short, the development of color aesthetic habits has its own objective reasons, such as geographical, ethnic, class, religious beliefs, age, gender and so on.

The time we live in is an information-developing and colorful era. Color movies, color televisions, and photography are self-evident, daily objects and clothing that are directly related to our lives, and even cars and subways are all use color for decoration and reconciliation. All in all, the colors have permeated into our everyday lives. As regards the issue of color favor, there had been relevant researches long time ago. The earliest published book “Research on color” in China had a discussion on this issue. As the world's industrial and commercial development is advanced, more and more people are studying this issue. Some people discuss this issue from the aspects of social environment, ethnicity, region, climate, economic status, and occupation, and some people discuss from the aspects of individual's gender, age, culture, and education level. The color favors can be divided into two major categories of collective and individual favors [2]. The collective favor factors include social environment, natural environment, ethnic culture, religious beliefs, economic conditions and collective psychology. The main factors of individual favor are gender, age, physiology, education and so on.

A. According to the Study of Colorists, Currently there Are Several Theories for Collective Favor
1) The geographical climate theory: Experts stand on the ground of geography to illustrate the color favor. The color differences in the world are due to the difference in geographical location, especially due to the different degrees of sunlight exposure. People who lived in sunny areas use more colorful colors, especially warm colors. The interior is adjusted with cool colors. In contrast, the situation in places where there are a lot of cloudy days and where there is not enough sunshine is quite different, they prefer to use cool colors, and indoor use warm colors. Living in the same color environment for a long time will often cause people to have habitual changes in the sense of color. However, in real life, habits and hope often present the opposite psychological requirements. For example, in the rural area of northern China, due to the relatively monotonous color environment for a long time, and the light in the interior is very dark, so that the strong decorative and colorful folk pictures are popularly enjoyed by farmers here,
the strong contrast it produced could improve the atmosphere. In contrast, urban buildings have better lighting conditions. People live in a colorful and dazzling environment all day long. So they need calm and harmonious colors to regulate their emotions. Therefore, the requirements of urban residents for color are soft, elegant and unified.

2) The nation theory: Due to differences in political systems, economic development, cultural education, traditional customs and living habits, the interests and taboos of all ethnic groups will be different. Each ethnic group has its own unique historical color. In our traditional aesthetic conception, we advocate the release of temperament and the pursuit of nature. Although all kinds of ink landscape paintings in our country have denied the full range of colors in landscapes, they have expressed the vitality of the landscape itself with the supernatural power of ink. In Japan, red and white curtains represent festive celebrations; black and white curtains represent funerals. These curtains can clearly inform the passersby about the nature of the activities without any written words. So far, many colors have specific meanings and have become a tradition deeply embedded in the connotation of national culture.

3) The age theory and gender theory: The formation of color psychology has a clear relationship with people's age and gender. According to statistics, in terms of age, children prefer color with high lightness. Colors with high perception and strong excitement will attracted their attention first, such as red and yellow. As people age continuously, the hue of common people's favorite color changes from a longer wavelength to a shorter wavelength, that is, from a warm tone to a cool tone. In terms of gender, men generally like the cool colors such as blue, and the brightness is relatively low, while women prefer warm colors, especially red.

4) The class theory: The color is considered as certain symbol in a long period of history, and it is a symbol of dividing the rich and the poor, so it was marked with class print. In old China, yellow color represented the emperor and civilians must not use it. As early as the twelfth century, the clothes color used in the church's pilgrimages and ceremonies were different for priests in different levels. The pope used white, the cardinal used red, the bishop used purple, and the lowest priest used black.

5) The product environment theory: The research feature of this kind of theory is the purpose of color psychology. Color design is not based on the designer's own preferences, but on the user of the product, that is, the consumer. The inherent experience and memory of consumers are used to certain colors in certain products and environments and exclude certain colors. Of course, there are reasonable scientific components among them, but for a designer, use what color at what time? At what place? Why use it? For whom? These are all crucial. For example, pink colors are used for women's cosmetics and many people like them, but if they are used in hardware, they will not be welcomed.

B. For a Certain Individual, Because Each Individual Is an Independent Individual, Different People will Have Different Feelings about Color

Affected by many aspects, due to the uncertainty of factors that affecting individual color favors, it is often due to people's color taboos, and have a great relationship with people's living environment and living habits, such as in China, doctors wearing white uniforms, public security officers wearing blue uniforms, firefighters wearing orange uniforms, etc., with different occupations, make people engaged in this type of work have different feelings on the color. So we don't do a detailed analysis on the issue of individual color favors here.

III. THERE ARE SEVERAL MAJOR COLOR FAVORS OF CULTURAL DIFFERENCES

A. White

It is a pure color without adding other colors. Hindu god of protection Xiuna and his wife goddess of wisdom Lasa Swath liked white. In addition, the priest of Hebrew was wearing white on the day of the atonement as a symbol of God to dispel the sins of his wife and children. In Japan, white has been respected since ancient times. It is also a color used to pay homage to gods. Both the god of heaven and the Japanese military wear white clothes. Similarly, white also means a certain profession and class. White is the pope's dress color in Christianity, and white is the dress color of god officials, monks, nurses, and try-out teachers all over the world. White crossing and white angels express the meaning of quiet, pure and clean. However, there are sayings in the ancient adage that “white horses and married men are in constant trouble”, which indicating that white sometimes is the color of disaster. For the white flag, Shakespeare once described the “white flag as a sign of surrender”, therefore, white flag is the synonymous of the surrender and truce. In China, white is the color of mourning clothes.

B. Black

Black is the color of light receiving. In China's yin and yang five elements theory, black is the color that symbolizes the north and winter and points to the road leading to the God world. Black is the color of death and mourning for most countries, and black is the color of funeral in Japan, Iraq and Switzerland. Similarly, in the West, there are also so-called “blacklists, black hackers” etc. In short, black is a symbol of bad and unlucky.

C. Yellow

Yellow is the color of sunshine, and it has bright and brilliant meaning in India. Since ancient times, China has had the theory of "Yellow, the cause of heaven and earth". Yellow was considered as the root color of all things in the world. In China’s yin and yang five elements theory, yellow is located in the middle of heaven and belongs to the “heart” in the five internal organs, and corresponds to the "Yellow
Emperor” in the five dynasties. Among the five official colors of red, blue, white, black, and yellow, yellow is the color of the rich and precious, and the second position to the emperor's rank is the “yellow gate”. The emperor’s clothes are called “yellow robes” and the emperor’s ride is called “yellow house”. In ancient China, yellow is particularly noble and represents the color of the emperor with supreme power. Most people cannot use it casually [1].

D. Green

Green is the color of regeneration. It is a gift that plants give to human beings. Especially in the desert, green symbolizes moisturizing and life. "The wearing of the green" is Irish patriotic revolutionary song title. Green means prosperity and vitality, representing peace and hope in India. However, in Western European countries, green means the jealous devil, and also a new worker with a lack of experience. In English, green hand refers to immature young people. Green Eyed means "strong jealous" which stems from the lines of the green eyed monster that appeared in Othello, one of Shakespeare's four tragedies.

E. Red

Red is the color of fire, the color of fire that is necessary for human survival. In China, red represents luck, happiness, solemnity, and marriage. It is a symbol of auspicious colors and is still widely used in various auspicious celebrations. At the wedding ceremony, the lucky text is written in red paper and red cloth; the eggs are painted in red to send to friends and family. On New Year's Eve, people will stick red couplets on the door as a welcome to the New Year. In addition, red also means danger, so it is used as a stop signal in traffic. Because red can remind people of fire, so the fire engine uses red color. However, in Europe and the United States, dark red also belongs to the red system, which means jealousy, tyranny, provocation and turmoil. It contains bloody meaning and represents sacrifice. Red wine is hailed as the blood of Jesus, so communion and dedication all use this color.

F. Purple

Purple is a symbol of sacred color since ancient times. In ancient Greece, the purple color appeared as the costume color of the gods in the mystery ceremony, which symbolizes the preciousness, is the exclusive of the Roman emperors, and is the metaphysics of the Lord God Jubilee. But in India, purple is seen as a dark color, which makes people think of sadness. Similarly, in Brazil, purple symbolizes pain, especially the combination of purple and yellow mean unlucky.

Under different cultural backgrounds, there are different attitudes toward color. Only by fully understanding the culture of various countries or regions can we make well-directed color application.

IV. THE USAGE HABIT UNDER CULTURAL DIFFERENCES

Since ancient times, color has a symbolic meaning, and it is mostly used according to customs. The following countries are typical representatives.

1) In the UK: All types of collectives have their unique shield badge. The badge is represented by nine colors: yellow for reputation and loyalty, silver (white) for faith and purity, red for courage and enthusiasm, blue for piety and honesty, black for sorrow and confession, green for youth and hope, purple for Emperor power and high position, orange for strength and strong, red purple for devotion.

2) In the United States: Yellow was considered unlucky when a drama was performed. In the United States, the university faculties can be distinguished by color: theology is represented by red orange, philosophy is represented by blue, generalized literature is represented by white, medicine is represented by green, law is represented by purple, and science is represented by golden yellow, engineering is represented by orange, music is represented by pink, aesthetics and literature are represented by black.

3) In Thailand: People who follow ancient habits need to change their clothes in seven days a week. They wear red on Sunday, wear yellow on Monday, wear pink on Tuesday, wear orange on Thursday, wear light blue on Friday, and wear redpurple on Saturday. [3]

4) In China: China's yin and yang five elements theory first indicates the relationship between color and orientation. The five elements theory believes that: the east is blue, the west is white, the south is red, the north is black, and the center is related to yellow. Secondly, it indicates the relationship between color and seasons. Spring is blue, summer is red, canicular are yellow, autumn is white, and winter is black. Even today there are also says of blue spring, red summer, white autumn and black winter, which can be the remnants of the yin and yang theory.

V. THE FAILURE DESIGN CASE AND SUGGESTIONS OF THE COLOR FAVER APPLICATION UNDER CULTURAL DIFFERENCES

Color has its various symbolic meanings, and it plays certain role in our lives and is widely used. For example, in Brazil, yellow represents a desperate color, and the yellow color which has supreme position in China’s Five Elements theory is also a color of lucky in Hinduism and Buddhism. However, in medieval Christian paintings, Judas who betrayed Jesus, often expressed with yellow. The medieval Jews had the statute of wearing yellow armbands, so the later Nazis also forced the Jews to wear yellow armbands to show their guilt. The same yellow color in different times and under different cultural backgrounds, people will have different preference. Some like it and some have taboos. Therefore, we must consider color-related issues in design.

A. Failure Cases

1) In Brazil: People think that purple can cause grief and yellow can cause disappointment, also dark brown
would bring misfortune, so they hated these colors. There have been an such failure case in Brazil; clocks sold from Japan to Brazil, due to its purple ribbons on boxes and purple is considered as unlucky in Brazil so this kind of clock is very unwelcome in Brazil.

2) In the United States: There was also a similar failure case. When Japanese pen manufacturers exported pens to the United States, they used boxes with purple velvet inside to contain silver pens, which made Americans very repugnant [4]. Because they believe that purple is the color favored by widows and also symbolizes the destruction and disloyalty.

3) In the emergent Republic of Ghana: There have been cases where a fiber company printed a housewife with an orange shawl on an advertisement for cotton cloth exported to Ghana. But who knows that orange is the color of the funeral there, so it suffered the disgust of the Ghanaians.

There are many examples of such failures. Most of the failure is because they do not understand the local culture and do not understand the country's color preferences.

B. Suggestions

For a designer, it is very important to understand the preferences, prejudices and favors of colors for the people from all countries in the world. In the past, it was not uncommon for accidental failures to occur due to poor understanding of the situation. In the design colors, if you use colors that should be avoided, you may have serious consequences.

1) Before designing: We could first check the national flag which symbolizes the country, then we are able to observe the spirit of its founding, its history, and the colors that its peoples loves. The rational use of these colors will make them easy to accept. Although there is no creative idea, at least it will not disfavor the audience.

2) When designing: Your work, first conduct a full-scale investigation to understand the specific target population and the specific consumer market you are facing, and conduct purposeful targeted design. Through the symbolism of color, visual effects are enhanced to make consumers at all levels, classes, and types are able to understand at a glance. As mentioned earlier, sunlight has a great influence on people's sense of color. For example, living in sunny places, most people like bright colors, especially warm colors, but they prefer the interior to be cool color. Therefore, when doing interior design, it is necessary to use this difference to help residents get a psychological balance.

3) Make good use of popular colors: In a certain period of time, popular colors are new colors and tones. There are hopes, creations, advancements, and intrinsic vitality. The opposite of new is old, old has the meaning of fogyism, backward, and shrinking, most people could choose the former naturally. Therefore, when designing, the priority should consider the popular colors for design. Selecting popular colors can avoid local taboos to a certain extent, and it also conforms to the aesthetics recognized by the local public at that time.

VI. CONCLUSION

Different countries have different cultural backgrounds, and different cultural backgrounds will have different color favors. A good design work must be designed after fully understanding the cultural background of the peoples in the world and understanding their color favors, so that it could be widely recognized by people. For designers, they influence people subtly through the selection and use of colors every day, so it is particularly important to understand the color favors under cultural preferences.

REFERENCES