

On the Application of Color in Lighting Design

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Abstract

Color, one of the factors to reveal life, is an important condition for human beings to observe the world and identify things, and is the visual counterpart of all visible light radiation with different wavelengths. In today's advocating film and television art, the function of light and color is no longer simple lighting, but to form visual elements with vitality, and create the motif reflected by works together with other artistic elements. From the experience of art history, color not only has the function of expressing ideas, but also can show the spiritual power. This feature allows us to use it as a lighting design to stimulate various associations of the audience and form a unique "language" to communicate with the audience.

Keywords

Lighting design; Light color; Audience.

1. Introduction

Since the beginning of the 20th century, the basic function of stage lighting has changed from lighting to presenting space scene, and now it has focused on imitating nature so as to create the overall stage shape, and during the process the conception on light color has also been developed. Light color refers to the color of light source, is a kind of art form combining light and color, is an important factor in stage lighting design. The effective use of light color can enhance the audience's aesthetic experience of stage performance. It's not just a sensory stimulus and response, but also a kind of artistic experience that generates feelings through the senses, and then triggers reflections and emotional resonance. In a drama, The playwright stimulates thoughts and emotions, and the performers should understand the feelings and connotation so as to ensure the effectiveness and quality of the performance. In this process light color plays the essential "supporting role", which will not only help the performers get immersed into, but also shorten the distance between the audience and the story. The effective use of Light color can transform the audiences from the passive onlookers to active participants. This transformation brings about special emotions, which will let the audiences get a harvest, and this harvest comes from the skillful application of light color. It is inevitable to produce emotional changes through light and color. Therefore, light color is an important element in lighting design. It is quite essential to study the functions of light color in stage art practice.

2. Recreate the Action Environment for the Audience

In Rudolf Arnheim's Art and Visual Perception (1984), it is mentioned that the most visible phenomenon of vision is movement. It implies that "Events" are more likely to elicit our instinctual responses than "things, and the main characteristic of an "event" lies precisely in its movability. What we really see is not the "event" itself, but the changes that things undergo. Light color activates space and shows the changes of spatial level and time. The flexible use of light color can increase the performance of the stage and give audiences different visual impacts and feelings. Contemporary stage lighting designers have found in the practice of artistic

creation that through the change of light color, the space can be activated. Different light color gives audiences the feeling of far or near, light or heavy. More importantly, Through the change of light and color, the audience can feel the changing process of time.

In naturalistic drama the lighting designers fully consider the color and angle of the light source so as to reproduce the reality as much as possible. To be more accurate, the reality to reproduce is what exists in the hearts of the audience. Lighting design is to find the universal existence in people's understanding of the color. For example, the common association of seasons. In spring, people think of green grass and green willow branches. So in most people's experience, spring is an environment with a cyan tendency. In summer, people naturally think of the fiery sun, and it feels like that the whole earth is burning red. Experience tells people that summer is red. In autumn, the wheat ripened, endless golden wheat, immediately appear in front of people. So in everyone's impression, autumn is golden. Then in winter, probably the blue sky and the vast white land became the visual protagonist. Cold blue is thought to be the dominant color of the season. Therefore, in people's common knowledge and experience, the corresponding colors of spring, summer, autumn and winter are green, red, yellow and blue. The lighting design uses colors representing different colors, together with the fading and fading of colors, to realize the scene transformation that would take much longer to complete in real life. Therefore, on the stage, we often see designers using these color tendencies to show the audience the season in which the characters are acting. Thus, it is very important to reproduce the character's action environment to the audience by means of the change of light color. In the various festival gala, as well as films and dramas, lighting is often used to create an atmosphere of action. It is not a representation of the real environment but an atmosphere, an emotion. In the creation of various works, lighting uses specific colors to create a variety of specific environmental atmosphere.

No matter what kind of work is displayed on the stage, the function to reproduce action environment has been fully used and confirmed in lighting design. Only when the designers accurately select the color, can the audience clearly understand the environment in which the action exists.

3. Convey the Emotion of the Work to the Audience

In today's lighting design, color is not only used to reproduce the environment of action, but also more importantly to load the emotion. The symbolism of color is well known. For example, red is a color associated with strong emotions. It represents love, revolution, and danger. Warm yellow is a color of gold, is a color of the sun and creation, it symbolizes joy, wealth and glory. Green represents hope, lightness, as well as jealousy and suspicion. Blue symbolizes a fresh, clear, logical attitude. people have a variety of wonderful feeling experience that are linked together with color. As Rudolf Arnheim argues in *New Treatises on the Psychology of Art* (1994), the human body has a direct response to color. For example, red gives a person fervent with sense of vigorous, blue gives a person quiet and serene, purple gives a person restlessness and sense of success, black gives a person deep with sense of mystery and so on. When people receive color stimuli, the typical characteristics are passivity of the observer and directness of experience. Therefore, in the lighting creation, what the designer can use is "color language" to arouse all kinds of emotional experience in the audience to achieve communication.

When color reveals the emotion of the work to the audience, the creator uses light color to present the tone of the whole stage space to help externalize the inner thought and emotion of the work, and as a result it can externalize the inner thought and emotion of the work into the overall or partial color tendency on the stage. When the audience receives the stimulation of color, it will trigger some emotional experience in their heart to read the psychological state to be presented by the work at this moment. For example, in religious stage plays, designers

designed a row of lights into a transition from white to gold, symbolizing the character's path from ordinary to holy and then to Buddha. This is the light color changes in contrast to reveal the layers, which are built between the story and the audience, so that the latter's heart resonates. Therefore, it is confirmed that the "expressive meaning" of light color is further manifested when light color conveys the emotion of the work to the audience.

4. Convey the Spiritual Content of the Work to the Audience

The lighting, like the rest of the work, is always created around the central idea, general emotion and spiritual content of the work. This creation is based on the totality of the work. In this overall perspective, the unique language of light color can express accurate interpretation and explanation of the spiritual content of the work. And the role of this light color is different from the previous two functions. It transcends the limits and frames of prescribed situations, and it is the visual end of the overall meaning of the work. It is the role of light color in the creation of works that makes the expression of light color more unique and important. For example, in the Southern Liaoning opera "Fengtian Falls the Son", lighting designer deliberately tries to match the stage scenery and the psychological changes of the actors, and therefore, the lighting is interspersed with red, orange and yellow to outline the layers of the whole scenery. A cold light source has been used to focus on the point, highlighting the tension that followed the gunfire. Finally, in order to show that the hero died in tears and blood, the fixed light changed from white to a red blood path. The above applications of light color are used to show the atmosphere of the scene and the psychology of the characters, and drive the mood of the audience. Therefore, in stage lighting design, it is important to pay attention to the artistic integration of emotion expression and light and color. The artistic control of light and color can be bright and dark, cold and warm, complicated and simple under the condition of mastering the whole plot of the stage and other factors. The ups and downs of emotional expression and the infectivity of artistic expression are integrated together to foil the whole plot and the inner world of the characters.

5. Conclusions

To sum up, the inseparable relationship between lighting design, light color and audience is clear. In the process of explaining and conveying the spirit of the work to the audience, light color has the unique significance. It makes the way of communication between the works and the audience more diversified and deeper, especially in promoting the psychological power of the works has a broad prospect. In stage lighting design, with the symbol or meaning of light color, designers can render the story, interpret the emotional changes of characters and set off the scene atmosphere. It is worth noting that as a lighting designer, the focus on color is not only to pursue one-sided lighting effects through a certain color, but how to use a lot of colors to make them more pleasing to the eye. The color of stage lighting is a "living color" and a "talking" color. The application of light and color is a complex artistic creation process and a perfect embodiment of artistic accomplishment and technical experience.

References

- [1] Arnheim, Rudolf: Art and visual perception (Beijing: Social Sciences Press, China 1984).
- [2] Rudolf Arnheim: A new Theory of art Psychology (Beijing: The Commercial Press, Chian 1994).
- [3] L.H. Wang: On Light Color in Lighting Design (Literary life , China 2018),p. 25-29 (In Chinese)