

Analysis of the application relationship between lighting design and space decoration

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Abstract. Light is the main element of visual sense, and it is the basis of the existence of visual perception objects. Light is a means of light source representation and a necessary condition for the display of space objects and colors. Lighting is an element of modern interior space design that makes the space look smart and vibrant. It is also a catalyst for the interior space atmosphere and the theme of modern interior decoration, and it will make the interior space more visually layered. Therefore, lighting design in indoor space decoration is a means of mainly serving the space atmosphere. Lighting design requires the use of light mixing and superposition, using light to form a space-based artistic visual effect, which adds a sense of beauty to the space, adding artistic expressiveness and visual layering to the color and shape of the space.

The design of modern interior space is not only the decoration and general beautification of ordinary meaning. The modern space decoration is the direct expression of people's aesthetic value of living space and the improvement of living standards. Therefore, in the space decoration, the light color and color, as well as the shape and practicality should consider the basic requirements of aesthetic aesthetics, and also consider people's living habits. Lighting design is an extension of indoor and outdoor decoration design work, and it is also a refinement of space decoration visual aesthetic work. Lighting design plays a very important role in modern space decoration, especially in public space decoration, and it is also a space re-creation technology for the theme work of space decoration design.

Keywords: light, lighting, indoor lighting, light environment, adaptability

Everything needs light to grow, light can represent growth and growth, it can be a positive thinking value orientation in people's aesthetics, and it is a representative of positive energy. The modern space decoration has perfectly combined the optoelectronic equipment and artistic aesthetics, so that the living environment is elegant and full of fun is the purpose of lighting design. In public places, such as public exhibition hall design, window design, square design and even stage art design, lighting design is also the main part of these display spaces. In visual perception, lighting is the most powerful impact and effect for the audience, so design division pays special attention to the lighting design of the space. Coupled with modern technology, lighting in space decoration is an art creation method that includes sound and light. In the visual environment, people create a warm and elegant space environment. The lighting has completely separated from the original lighting function. People are used to it. The use of lighting combined with decorative features, color, atmosphere, patterns and other major features to improve the level of appreciation of the space, not only to ensure the lighting function of the living space, but also to improve the aesthetic level of space, so lighting design can better create a space environment for the space and bring people a better sense of comfort and beauty.

On the Historical Development of Light

The earth's universe and light are the natural phenomena of all things in the world. As far as light sources are concerned, we usually divide them into two categories: natural light and artificial light. Natural light mainly refers to the sun, moon, stars and the light source in

natural phenomena. Artificial light includes light, fire, and other artificial light. Drilling wood fire is one of the oldest artificial light sources. The generation of fire is also the birth of national civilization. With the fire, there is light, so that the animal and vegetable oil lamps, kerosene lamps and incandescent lamps discovered in the course of historical development of Lights, neon lights, halogen lamps and LED lights that have been developed by incandescent lamps, so far are all light reproduction and reconstruction. The emergence of light is a milestone in the history of human civilization. It can be seen that if the first revolution of the artificial light source of firewood is used, then the incandescent lamp invented by Edison is the second artificial light source revolution, which is popular and common in today's society. LED lighting is the third revolution in our ongoing artificial light source.

By studying fireflies in modern times, it is found that fireflies emit light because the main components of the illuminator at the tail of the worm are luciferin and luciferase, of which luciferin is the source of light energy, while luciferase is produced. A catalyst for light energy. In addition, the luciferin conversion energy is very efficient, about 2% - 10% of the thermal energy, the rest of the energy is used to illuminate, so, in a sense, the light emitted by the firefly can also be called "cold light," both physics and optics experts consider this to be the most ideal light source for humans. However, in the 1880s, Thomas Edison turned the filament into a bright light source by pumping away the air from the glass ball, so the emergence of incandescent lamps proved the beginning of the era of electric lighting. Incandescent lamps can be further divided into general lighting, halogen lamps, infrared lamps and so on, which can be used in people's lives to provide a better light source for people.

After the 20th century, the society popularized the yttrium aluminum garnet phosphor by blue LED to produce fluorescence. The fluorescence was mixed with blue light to produce white light, and the LED lamps were turned into the artificial light source market. With the advancement of society and technology, the range of artificial light source applications is becoming wider and wider, and it is also able to dress up the environment around us. It involves our common lights, flashlights, LCD screens, car instruments and dress up cities. Lighting engineering, etc.

The Use of Lighting Design in Modern Decoration

Lighting design is an important part of architectural design and interior and exterior decoration design. It is also an important means to embellish the overall effect and create design highlights. Therefore, designers pay more attention to lighting design in modern decorative design. The lighting design should be active in the decoration space, the color matching, the artistic effect formation as a form of expression, and also serve the clear expression of the environmental aesthetic, artistic modeling, decorative effect and visual level of the decorative space. Lighting design requires designers to consider the color of light, medium and color, lighting, as well as background color, space color and other color factors, to consider the aesthetic habits of the public and the aesthetic requirements of aesthetics. We must also learn to make full use of the combination of light and dark and light and shadow to create a harmonious and beautiful lighting environment for the space. We will use the light to serve the public and serve the environment space. Dressing up our life is the ultimate goal of lighting design in modern decorative space applications.

With the improvement of social life and living standards, in recent years, people's aesthetic requirements for home decoration are getting higher and higher, and more attention is paid to the individualization of space decoration. The design requires the living environment to return to nature, and the environment requires increasing visual and practicality. It is necessary for people to reasonably use the technical means of lighting to outline and depict a space-level environment and create a warm living environment. The light is the eye of the family environment space, and it plays the role of spiritual

communication and bridge between the space and the people all the time. Moreover, it provides space for people to work, study and live in good visual conditions. Therefore, lighting design plays a key role in interior and exterior space decoration and architectural design, for the artistic re-processing of space and creating an atmosphere for space, and it is very important to add atmosphere and taste to the space. Among them, the main performance behavior of lighting design in space decoration is as follows:

First, you can enrich the space content. When decorating the space, you can use the light to make the range of virtual reality, motion, looming and control light to achieve the desired artistic effect. It is also possible to establish a change in the effect of the pattern of light and the expression of the color on the space.

Second, we can improve the proportion of space. According to people's requirements and habits of vision, the same space is generally under different lighting conditions. People will have different psychological inductions due to different light and light illuminance. Due to psychological induction, the illusion of visual sense, such as space size and proportion, is generated, and this illusion is required by people for aesthetic requirements.

Third, the spatial layering can be increased. In the space decoration design, the designer pays special attention to combining the light and the space to display and present the effect to the audience. Therefore, designers should consider different decorative lighting methods to express different decorative effects. Designers can use this function to show the change of space through the change of brightness. It can also enhance the rhythm and beautify space of space through this change. The environment to enhance the visual level of aesthetics.

Fourth, you can create a fun center. The visual senses of the audience are generally attracted by the light with higher brightness. The field of view is generally viewed from objects with high brightness and clear objects to objects with low definition. This visual sense is generally to be thought as the visual fun center. Therefore, when designing the lighting of the audio-visual area, the designer should consider the façade and top-level lighting coordination of the space decoration area. Generally, the lighting treatment of the space is generally divided into three aspects: bright, comfortable and artistically appealing. The level is considered, so the designer should master and understand the light, use the light, from the conception to the completion of the construction drawing, and integrate the light into his own creation to complete the ideal space decoration effect.

Fifth, the space area can be limited. In the space decoration, the designer often uses the light and dark effects in the lighting to apply the division of the space area.

Sixth, you can express the atmosphere of the rendering space. The lighting can dress up different space atmospheres according to your needs. You can consider the space's light, elegance, vitality, beauty, and other aspects from the overall design style of the space, and consider the space with lighting. The practicality and environmental protection create a space for the audience to have a comfortable and aesthetic personality.

The Important Influence of Lighting Design on Space Decoration

In terms of pure lighting, in space lighting, we usually divide into three categories: space environment concentrated light source, space environment auxiliary light source, and space environment general light source. These three types of lighting are interdependent and lack one in space decoration. And you can also use cross-combination. Centralized light sources are mainly used in work areas where direct illumination is required, such as desks, kitchen stoves, and the like. Auxiliary light sources generally need to be accompanied by lights with scattered light and direct light, mainly used for environmental fatigue. The general-purpose light source is the main light source of the space, generally the ceiling light and the background light of the space, and the illumination process is generally not affected by other illuminations. Therefore, the three light sources need to be combined to make the space more layered and aesthetic, in order to enhance the appreciation of the space environment.

Space environment decoration must have appropriate requirements for the distribution ratio, illuminance, luminous flux, etc. of the light source, and the comfort of the eyes and the body should be considered, and glare cannot be generated. The illuminance ratio of the three types of light sources of concentration, auxiliary and general illumination is roughly 5:3:1, which is the golden rule of light used. Lighting color is also an important part of space decoration. For color requirements, it should be considered in combination with space environment, space function, space lighting, etc., and should also consider the audience's age, education level, health level, thinking and other aspects. The space to be designed can be combined with color to have a sense of beauty and visual aesthetics. It can be integrated with the overall design style, allowing light to change the lack of space decoration, and improve the aesthetic visual needs of the evening space environment decoration.

Interior Space Decorative Lighting and Art Processing

In the space decoration, it is necessary to summarize regional functions, indoor and outdoor effects, furnishings design, furniture design, etc., which are all factors that affect the overall visual effect of the space environment. In the decoration of the space, the decorative materials used, especially the facing materials are also a major factor. The decorative materials in the market generally have the advantages of rich color, texture and texture and pattern, etc. The expressive effect will greatly affect the decorative effect, and the lighting effect can be combined with the facing material to present the space quiet and lively, increasing the visual layering, so the lighting combined with the facing material can achieve visually unexpected. Superior effect. It can also better meet people's requirements for illuminance and luminous flux, and use reasonable illuminance and lighting arrangement, combined with furniture in the color coordination situation can achieve the audience is economical, safe and reliable, and add visual aesthetic requirements.

When decorating the space environment, the lighting influences the overall artistic effect of the space. Therefore, when selecting the light and the light source, the function of the space should be considered. In addition, the lamp itself has an artistic shape. It plays an important role in the overall design style and artistic coordination of the space. It should be selected and designed according to the environmental effects and environmental atmosphere required by the space. It should be considered from the overall atmosphere effect of the space environment, even the position of the light source, the projection of the light source, and the lighting method. It is an important issue that designers consider. Only when these relationships are coordinated with each other can the use of the strength of the light source, the color rendering of the light source and the color play a role in mediation of the space atmosphere, and can also present a colorful artistic effect. Let lighting be both a decorative means and a work of art. As a means of decoration, the light combination material can present an artistic effect. As a kind of art, the artistic shape and color of the lamp itself are artistic. The lighting requirements vary from room to room with different functions. Designers can't just consider the artistic effect to ignore the practical use. The space environment mainly serves the audience. Therefore, the suitable illumination is needed by all the audiences. Only proper and reasonable illumination can meet the dual needs of people's vision and life. Therefore, it is very necessary to require designers to master certain lighting design methods.

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