

Innovative Design of Interactive Art Device Based on Spatial Language

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Abstract: in the Classification of Art Installation, Interactive Art Installation Has a Unique Way to Develop an Innovative Art Form of Interaction with the Audience. the Structure of This Paper is Divided into Four Parts. the First Part Explains the Concept and Characteristics of Art Installation and Interaction. the Second Part Discusses the Innovative Features of Interactive Art Devices. from Three Aspects of Game and Entertainment, Personalized and Interactive Participation, Emotional and Pure Spirituality, This Paper Proves the Interactive Value of Interactive Artistic Devices to the Experiential Subject. the Third Part is the Innovative Design Path of Interactive Art Device, Which is Divided into Three Steps to Realize the Application Design of Interactive Process in Art Device. Finally, the Conclusion of the Paper Puts Forward the Expectation for the Future Development of Interactive Art Device, Considers the Current Situation of Development, and Affirms the Innovative Contribution of Interactive Art Device in the Field of Art.

1. Introduction

1.1 Literature Review

With the development of politics and economy of human society, the interactive art device display gradually forms, which not only contains the function of promoting the theme of the exhibits, but also can attract visitors to participate in it and communicate with designers through interaction (Zhao, 2014). Through the interaction and feedback of the audience, artists also know their own improvement direction and deepen their creative ideas (Zhang, 2012). For audiences with different geographical and background experiences, designers have been trying to make the works better serve the audience and meet the needs of the audience's senses and Psychology (Wang, 2016). Through participants'experience, interactive art installations feedback emotional resonance, further promote the audience's own inner exploration, and progressively stimulate the audience's enthusiasm to participate in interactive art installations (Zong and Gao, 2015). Let people experience the beauty of art, at the same time, personally participate in and then experience the charm of art (Hao, 2016). Especially since the 21st century, many pioneer artists have created many classic interactive installation works (Xu and Xie, 2017) after years of efforts. The interactive art device has achieved a milestone development. Finally, the interactive art device design will occupy a place in the art field and realize the artist's own value.

1.2 Purpose of Research

The human body's understanding of the external environment comes from three aspects: visual perception, auditory perception and tactile perception. From the beginning of information collection, aggregation and analysis to meet the needs of their own survival and development, guide individual actions and make decisions. To pursue the harvest in the spiritual field, we have developed the ability of art appreciation and the comprehension of feeling beauty, and the demand is increasingly upgraded. Through contact with art installation works, experience the novel feelings brought by the interaction contained in them, and achieve psychological satisfaction from vision, hearing and touch. It is an important direction of art installation design in the new era, which is also the content of this paper.

2. The Meaning and Characteristics of Interactive Installation Art

2.1 The Concept and Characteristics of Installation Art

Installation Art, a foreign language, first appeared in architecture and later introduced into contemporary art to describe innovative design works completely different from traditional art forms. Installation art is a display art which combines site, material and emotion. By using existing materials, artists can simply stitch together and transform them to express the feelings and artistic opinions of specific people in a specific space-time environment. Broadly speaking, the installation and display of works of art in any space can be called installations. First of all, the exhibition should be completed in a specific environment, depending on the audience's participation, playing a pre-set role, reacting and integrating into the device works. The characteristics of the materials and the site determine the short-term nature of the installation art, and most of the works will be removed after display. Broad inclusiveness, basically no restrictions on categories and professional conditions, and keep up with the latest technology and artistic expression techniques. The ideas reflected are extremely rich, and the artistic conception of the work can not be understood only by watching pictures and film records without personal experience.

2.2 The Concept and Characteristics of Interaction

Interaction, one meaning is mutual, one meaning is substitution. That is to say, the identities of the two parties can be replaced, and the interaction activities are bidirectional. Specifically, in the art category, it means that the author makes rules, engages in creation, provides meta works, and then encourages visitors to participate in the work in order to change the form of the work as feedback to the participants (see Figure 1). The form of works can be changed by the influence of visitors, showing the characteristics of connectivity and interaction. The interaction between people and objects in the works, and the interaction between connoisseurs, communicators and creators outside the works can be an interaction.

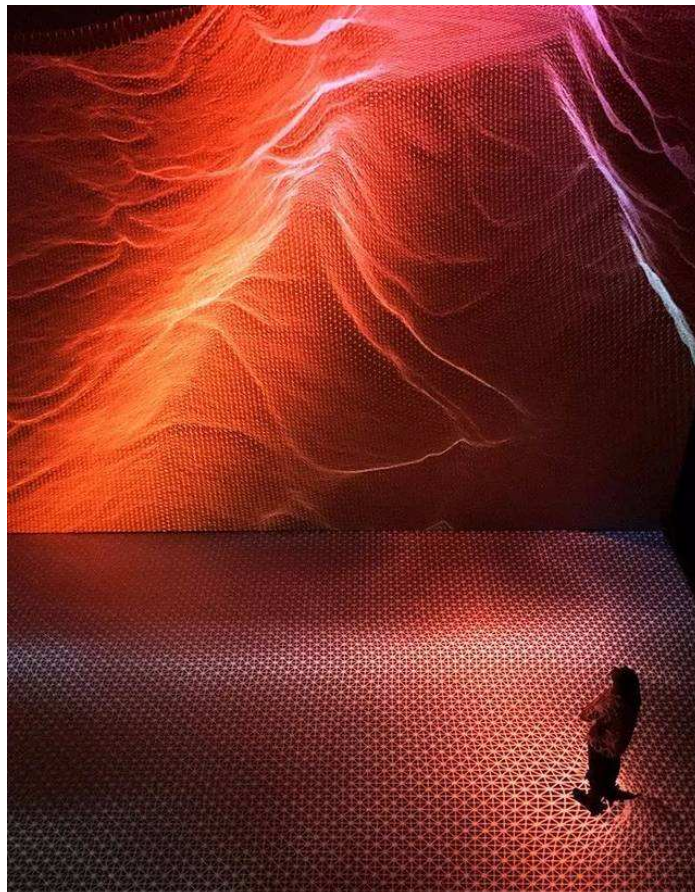


Fig.1 Interaction

3. Innovative Features of Interactive Art Device Based on Spatial Language

3.1 Gamification and Entertainment

In the era of experience economy, Games integrate the characteristics of social and entertainment, and become an important way for people to experience social life. The improvement of the economic income level makes people greatly rich in the choice of pursuing fun nature. With the development of science and technology, landscape installation art has upgraded its manifestation. For example, the use of video game design, by controlling the location of key objects to cause chain reaction, change the projected virtual picture, and then reflect the impact of different decision-making on the environment, systems, people. It reduces the difficulty of the experienter's operation, at the same time, it gives more timely and vivid feedback intuitively, leaving a deeper impact on the experienter's psychological level.

3.2 Personalization and Interactive Participation

The artistic device of interactive function is a tangible object, and the experience service it can provide is intangible, which is difficult to quantify. The only person who can deeply understand the meaning of this interaction is the person who has the experience. Therefore, in the early stage of the design of the device, we should integrate the idea of experience first and try to bring emotional resonance to the participants. It is not only satisfied with the curiosity brought by the surface features, but also should create a humanized design to meet the inner desire and express the deep meaning.

3.3 Emotionalization and Pure Spirituality

Experience art is a progressive process with different levels and depths. The cognitive level of experience subject determines the degree of perception and resonance of art works. First, understand the scene of interactive art device construction, find the meaning contained in the interactive changes, stimulate the visual, auditory, olfactory, tactile and other sensory organs, and increase the feeling when interacting with the device. Then, we can break away from the immediate scene and guide them into the spiritual imagination to achieve a higher level of influence and give the experiencing subject a better feeling of emotional self-worth realization.

4. Innovative Design Path of Interactive Art Device Based on Spatial Language

4.1 Concise and Vivid Theme Spirit

The design center of any artistic installation is a fixed theme. Through materials and forms with different styles, you can freely express your creativity and imagination. But whether it is a serious documentary, or a relaxation of entertainment, the performance of the central theme should be concise, keep the positive performance elements, always focus on the outstanding points, and strengthen the cultural appeal.

4.2 Multi Element Innovative Application

Wind, rain, thunder, electricity and other elements that exist naturally in life are one of the design inspirations most used to express the idea of interactive landscape installation. In fact, as long as it is suitable for the expression style of design ideas, natural or synthetic materials can play an unexpected and unique effect under the transformation of designers. And often adopted the new material artistic installation, the fusion good creativity, will display surpasses the anticipated prominent effect.

4.3 The Establishment of Interactive Relationship

The most important significance of landscape installation is to give people inspiration and thinking, and the interaction of experiencing people randomly is the necessary process to explore the ultimate meaning of art installation. Free play and random behaviors vary from person to person bring unpredictable experience, which is also the charm of attracting audience to participate in the

interaction. How to establish interactive relationship is not only the characteristic of experiential design, but also the characteristic of interactive art device. It is for this reason that it is particularly important to participate in the establishment of interactive relationship in the design of interactive art installations. To determine the feeling of interaction by different Experiencers and derive psychological touches beyond design will greatly deepen the impression of interactive art installations to experiencers.

5. Conclusion

After all, the interactive art device is different from the well-known art forms such as film and television, drama, etc. the slightly higher threshold makes the feelings of the interactive participants different. It is highly compatible with the current trend of art development and integrates with the latest digital technology, which makes it difficult for interactive art devices to be loved by all the public in a short time. Due to the consideration of practicality and over commercialization, the long-term preserved devices have already separated from the essence of art and can only meet the needs of the audience in the low level of entertainment. These problems need to be solved in the future development process of interactive art installations. At the same time, we should also see that after just over a decade of development, interactive art devices have produced rich artistic achievements, and we believe that they will bring more surprises in the future.

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