

The Creation of Landscape Pattern Based on Virtual Reality Theory

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Abstract: In today's society, due to the development and wide application of digital technology, people's existence has tended to "virtual reality" mode of "digitalized existence", and has profoundly affected every field including landscape design and construction. Landscape, as a highly complex organic system, covers many fields, including architecture, outdoor devices and so on. Sometimes it will become the landscape itself. To study the landscape from the perspective of the relationship between environment and human selection in this paper, the research object includes not only the traditional sense of the natural landscape, landscape architecture, landscape architecture, landscape movies, games and other art (scene), people can carry on the five sense experience, path selection, and obtain the spirit of immersed scene mood related. This paper adopts interdisciplinary, hierarchical analysis, typical examples and comprehensive induction. It first studies virtual reality technology and philosophy under the influence of the concept of system construction and interpretation as the center of perspective and theoretical basis, process model of the construction of landscape design. Then, it puts forward the process method in concept and form, rules and operation the output and results oriented and experience design, interactive display, feedback analysis of three kinds of technology import mode. From the perspective of virtual reality, combined with the example of landscape creation, three typical nonlinear generation methods of landscape form are systematically studied: chaos generation, distributed generation and emergent generation. Based on this, the landscape form three aspects, namely, the new logic, the new experience and the new artistic conception is constructed, so as to initiate the new thinking of the landscape creation mode.

1. A Summary of Virtual Reality View for Landscape Pattern Creation

The term "landscape form" was first seen in the study of landscape form. However, the object of this study is not only the objective existence of tangible landscape, but also the integrated landscape form integrating digital, network and other non-material virtual elements. The designer's creation intention must be expressed by landscape form, and landscape planning and landscape design must rely on form presentation. Therefore, the landscape form is an important part of landscape creation. At present, the development of digital information transmission and provides the basis for the hitherto unknown development and application of virtual reality technology, change to accept the concept of technology maturity and promote people's new creation idea -- derived virtual reality concept, but also on the landscape creation has had a positive impact. The concept of virtual reality for landscape form creation is advocated from two aspects, including the new concept of art, the new aesthetic concept of active experience, and the new technology concept of interface ablation. The technical features of virtual reality technology, such as high immersion, high interaction and multi perception, have broken the traditional view of linear space-time and unidirectional acceptance. The seamless link of the virtual reality technology interface extends the range of people's senses and completely subverts people's attitudes and ways of recognizing the real world. The new form is no longer just the visual objective existence, more into the elements of virtual reality technology to adapt to the new situation and needs of people to experience cognition on the world. Faced with this new landscape form, people can seek pleasure in the process of experience, seek novelty in the process of participation, seek change in the process of exploration, and strengthen the role of noumenon.

2. Nonlinear Generation of Landscape Morphology Based on virtual Reality View

Virtual reality is a computer system based on computer graphics, photoelectric imaging technology, sensing technology, computer simulation, artificial intelligence and so on, to create a real sense of vision, hearing, touch, smell and taste. People immerse themselves in virtual environment with all kinds of interaction devices, interact with entities in virtual environment, and produce experience and feelings equivalent to real physical environment. In recent years, on the foundation of virtual reality and the development of augmented reality (mixed reality) technology, the position and attitude tracking of the user, the virtual objects generated by computer or other information accurately superimposed to the real scene setting position, new experience to realize the actual situation and real time interaction. Virtual reality and augmented reality technology can also be widely used in military, advanced manufacturing, urban planning, geographic information system, medical biology, education and training, cultural entertainment and other fields, and are expected to generate huge economic and social benefits.

The definition of virtual reality can be summarized as follows: the virtual reality is the use of a computer to generate a simulation environment (such as aircraft cockpit, field operation, etc.) through a variety of sensing equipment to enable users to "input" to the environment, realize the user and the environment interaction technology. Virtual reality technology has the following four important features: The objects in the field of vision move with the movement of the hands. IV. autonomy refers to the extent to which objects are based on the laws of physics in a virtual environment. For example, when the force is driven, the object moves in the direction of the force, or turns over, or falls from the table to the ground. The influence of the virtual reality concept, objective world we know the time can be static, can also slow down or speed up, the concept of time also started desalination; space reconstruction, physical objective space based on information technology are infinite, physical space and cyberspace constitutes a new space, given new meaning. The generation of landscape morphology shows a trend of multiple development. There are three typical nonlinear generation modes, namely, chaos generation, distributed generation and emergent generation. The chaotic system seems to be random and orderly, particularly sensitive to the initial conditions. Virtual reality, as an experiential design thinking, is to guide experienter to get the interpretation of landscape form through experience of landscape. The process has certain chaotic characteristics, and it also has a reference for the generation of landscape form. Thus, we can generate chaotic patterns on Landscape Morphology to illustrate, refers to the initial environment creator through virtual reality technology to landscape experience to make the necessary limits, such as time factors, spatial factors, physical factors and so on, with the landscape experience seemingly random experience the gradual formation and evolution, get two creation results.

The distributed generation of landscape form. As a new form of landscape form under the influence of virtual reality, distribution is mainly based on the network digital environment. It has the characteristics of shared virtual reality experience space, the first angle of view, the real sense of reality, the real-time interaction of data and the experience of multiple users. The Digital Art Museum has been set up as the driving engine of the whole digital art city, which is the representative work of the distributed landscape form. It is worth mentioning that the development of this distributed landscape form to the extreme is an online tourist landscape. According to a study in the United States, nearly 45% of adult American Internet users will choose "virtual tourism". The so-called "virtual tourism" is actually a form of distributed virtual reality system, that is, based on the reality of tourism landscape, through the virtual reality technology to create a three-dimensional virtual tourism environment. Now, in view of the "home" lifestyle of the people, many websites have begun to launch virtual tourism services to meet the desire of "home" home. Taking Yungang Grottoes online museum as an example, the experienter only needs to start the journey roaming only if it has to log in to the official website of the panoramic Museum of Yungang Grottoes. Through the operation of the mouse and the keyboard, the experienced people everywhere can clearly appreciate the magnificent and magnificent Buddha statue. The digital museum has broken the limits of space and time, the experienter can choose to watch the order by itself, the angle of view is controlled independently and so on. Up to now, including China National Museum, the

Museum of Qin Shi Huang mausoleum, more than 40 well-known Tibetan Museum established online digital museum, become the future landscape. Another wonderful flower of the exhibition.

3. New Construction of Landscape Pattern Creation Based on Virtual Reality View

People's world cognitive thinking scope has been further extended under the influence of virtual reality. The construction of landscape form has also changed, which is mainly reflected in three aspects: logic, experience and artistic conception. New logic constructs the new logical construction of landscape form, which does not mean that form must be logical, but explores a way of thinking and method that is suitable for form from logical reasoning. Hagel thinks "form is the appearance of content". Landscape form not only contains the limitation of functions in all aspects, but also represents the corresponding design concepts and values. Therefore, the logical construction of landscape form is particularly important, which includes morphological generation, deduction, morphological function reasoning and morphological mode complementarity. Morphogenesis by interpretation of initial conditions, defined by the generation algorithm and the rules of the form of interpretation, finally obtains the optimized shape more fit; form function reasoning mainly refers to the experience and data of the creators of the feedback mechanism, the numerical on functional logic and make analysis, process optimization and morphological patterns are complementary; in the basis of morphogenesis and function of deductive inference, select two or more form mode, complete the creation process of the landscape through complementary form. The three construction of deductive, is functional reasoning and mode complementation form new logic of landscape form from multi dimension and multilevel. Under the influence of virtual reality, we have further perfected the creation process of landscape form.

For the construction of new conception, there are two levels for the generation of landscape form. The first is the material existence level, that is the form of humanization created by nature or relying on nature, and the aesthetic condition is the scene. It includes natural factors, historical context, expression form and application technology. Secondly, it is the subjective experience level, that is, the aesthetic subject recreating the landscape form on the psychological level based on the experience of scenery, it is called artistic conception. Driven by the combination of the subject's aesthetic motivation and technological interface, the existence of landscape form as a object has fundamentally changed, resulting in virtual reality, synaesthesia, symbiosis and nomadic conception. The artistic conception refers to the application of virtual reality technology, the virtual and real material intertwined and mutually melt, produces a new state of virtual reality, this experience changes in the object, the main perception has changed, is itself into virtual reality, into a part of them the actual situation, which refers to the artistic conception; synaesthesia landscape aesthetic activities, experience the visual, auditory, olfactory, tactile and other sensory mutual communication, mutual transformation produced by symbiotic artistic conception; artistic conception refers to the experience in the process of this experience landscape, artistic conception, relevance of nomadic artistic conception refers to experience; in the process of free experience, have a leisurely mood, a forgotten reality, I return to this natural state of mind. The above three kinds of artistic conception are not independent existence. The essence of the design is to serve human or service objects, including the utilitarian, but also the sublimation of the mind. The experience thinking of virtual reality mainly stems from the experience economy thinking. It makes the practice of landscape form creation integrate the cautious and perceptual thinking of rational thinking. Experience the impact of creative thinking in virtual reality, designers can choose a different point to start writing, which will produce different effects, which can make the landscape form creation and become a process of economic products on the assembly line, and can realize the unified creation of the inner world to experience subjective feelings, improve the model and process of landscape the final creation constantly, produce new meaning of the landscape design works.

4. Conclusions

Virtual reality oriented landscape creation concept construction, discusses the main connotation

of the concept of virtual reality technology, art and aesthetic aspects, sort out the "comprehensive landscape inverse" landscape space system thinking and new cognition world fusion under nonlinear thinking and perception of landscape form mutual experience under the thinking. This paper constitutes the theoretical foundation of further research, realized the virtual reality view associated with the specific landscape creation, which lays the foundation for later study on landscape creation method. Based on the view of virtual reality, the landscape creation process is regarded as a dynamic process. From the two aspects of subjectivity and objectivity, the historical evolution of landscape creation process is discussed respectively, and the creation process model is constructed systematically. Combined with the concept of process method, this paper summarizes and puts forward the process oriented method based on concept and form, rule and operation, output and result, and the related technology import mode. On the whole, the whole process of landscape creation is analyzed, and a comprehensive, innovative, holistic and process based systematic creation method is formed, which provides overall guidance for further research on the specific methods of landscape space and form creation. Landscape space creation method based on the concept of virtual reality, based on analyzing the elements of landscape space under the influence of super space expansion and space order reconstruction methods, combined with the main experience and intangible concept characteristics, summarized and put forward the build type landscape space of the actual situation, synaesthesia, symbiosis, nomadic four kinds of artistic conception, generating guidance method and direction of the reference for the designers and the public in the landscape space design practice and experience of artistic conception.

Virtual reality landscape view form creation method based on a typical case of landscape creation, comprehensive analysis and put forward the construction of new cognitive landscape style comb, creation method of virtual reality concept under the influence of landscape formation and topological deformation and regulation on the basis of this, the designers for the use of virtual reality technology and related concepts involved in the landscape form creation provide methods for reference. In conclusion, based on the change of the concept caused by the development and application of virtual reality technology, this paper proposes, analyzes and constructs the virtual reality view oriented to landscape creation in the information age, which constitutes the main content of the theoretical innovation in this paper. Based on this theory, we discuss systematically the landscape creation process guidance method and technology import mode and the creation method of landscape space and form, form the basic content and framework of the creation method based on the virtual reality view, and form the innovative content of the creation method in this paper. At present, the fast development of virtual reality technology and application to permeate all aspects of human life, caused great changes in all aspects of human existence and landscape creation, so the results of this study will have very important theoretical and practical significance, and introduce the concept of grasping the Virtual Reality Landscape in the creation of concept and related technology application the system provides reference for the designers and the public understanding, to a certain extent also defined the direction of the future development trend of the information age digital landscape creation and target.

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