

Perception: Being Art in Virtual Reality

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Received: November 19, 2018; Accepted: December 03, 2018; Published: December 12, 2018

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Abstract

This article investigates the significance of receiver's perception in virtual reality art. With virtual reality technology, artwork became a process rather than a definite object, and perception of receivers could be the process of Art. Finally, the conflict between full body immersion and imagination remains to be mediated in present virtual reality art. The author suggests that relation between virtual and reality is not disappeared, what has been changed is relation between human and artwork.

The role of receiver's perception

Compared to traditional art forms, virtual reality art appears many new features, which have been reduced to "3I". The first two of "3I" are interaction and immersion, but the third one is still in dispute. For Grigore Burdeaan and Philippe Coiffet, it is "imagination" [1]. In <Virtual Reality> Heim substituted "information intensity" for "imagination" [2]. No matter in which argument, immersion and interaction are dominant features. Whether immersion or interaction is relation to perception of receiver. In virtual reality art, perception of receiver participates the creation of artwork, and partly decides artwork's contents and forms. From the point of art history, perception of receiver has unprecedented position. In this sense, virtual reality art develops its own personalities.

Theory of esthetic experience took the perception of receiver into account, but it wasn't the important part. As esthetic experience, receiving process has been known as criticism (comment) and appreciation. Reception and production are two independent courses, that reception follows the art production. Receiver could influence the author's work, but the influence would be so limited. In this sense, audience plays a very limited role in art theories.

Aesthetics of reception broke the limitation, and began to emphasize the reception and influence, it considered that many literary theories lack the reader in his genuine role. By distinguished text from literary work, Jauss and his company redefined the concept of reader, "a role as unalterable for aesthetic as for historical knowledge: as the addressee as the reader for whom the literary work is primarily destined." [3]

The perspective of the aesthetics of reception convert passive reception into active understanding, giving reception a new identity. But this theory is totally about literature history, even though it tries to bridge the gap of author and reader, the process of reception and production are not merged into a whole. On one hand, receiver's effect seems to be abstract, sometimes what is called receiver just as the author himself. On the other hand, although receiver's influence has been admitted, it is not enough to be regarded as "creator".

It is virtual reality that really gives receiver an identity of "creator", which is in administration of artwork. Completion of virtual reality art become inseparably bound to perception of receiver, in so far, perception of receiver could be woven as strands into an activity that calls the virtual reality artwork into play. It is only through the process of receiver's perception that the artwork could enter into changing visions.

The change of interface has been inceptive of virtual reality.

Interface: From virtual-reality to human-virtual reality

In 1992, the 1st VR international conference was held in Montpellier, with the title of "Interfaces for Real and Virtual Worlds". Interface here was used to describe the joint of virtual and reality. In Heim's words, interface is the second stage of the marriage of human and machine [4].

In virtual reality art interface involved two kinds of relations, one is between artwork (virtual) and real world, the other is human and artwork, what has been changed is the second relation.

Considering relation of artwork (virtual) and real world, realism in visual art history would be investigated. According to realism, representation of physical world would be a rule of art production, artists devote themselves to gain the extreme likeness between imitated matter and representation (artistic image). In ontological sense, objects that artists imitated were real, the appearances that the viewers saw were virtual, thus the degree of imitation was the relation between virtual and reality. Take <Mona Lisa> as example, woman in painting was virtual, prototype behind her was real, and the interface seems as Da Vinci's artistic creation.

This relation between virtual (artwork) and reality constitutes a significant esthetic topic, terms such as “represent”, “imitate”, “reproduce”, “depict” were used to describe the effect on real world, and theorists insist the border between “thing-in-itself” and “presentation”.

The other is between human and artwork. Material matter of artwork may be the relation between them.

Virtual reality art has not changed the first kind relation, artist’s esthetic pursuit is to revive realism to the extent that it produces immersion, a kind of deep illusion. The gap of artwork and real world still exists, what has been changed was receiver’s perception. It is the receiver feels real, not the object really exists. Zeuxis’s grape made an illusion that viewer took it as real grape, illusion disappeared when viewer realized the existence of canvas. Canvas, photographic paper, screen, et al., those material matters are interface between receiver and artwork. It is this kind of interface that virtual reality artists try to change.

In fact, the change of relation between human and artwork simply indicates the change of human’s position, in virtual reality environment, receiver can “enter in” artwork, the word “in” manifests that receiver is not a onlooker outside the creation, but an experiencer and even an participant in artwork creating.

Form of Art: Process of perceiving

When the environment of artists and receivers has been changed, when the process of producing and receiving has merged, the artwork was no longer as it used to be. New art forms indicated new expressing object, and touched the essence of art eventually.

It is interface between virtual and reality composes the form of art, in <Aesthetics> Hegel used “perceptual manifestation or appearance of idea” to describe artwork. For Croce, the task of an artist is to invent the perfect form that they can produce for their viewers, since this is what beauty fundamentally is—the formation of inward, mental images in their ideal state. Susan Lange analyzed relations between emotions and art forms, endowing each art from with a special emotion expression.

These arguments discussed several art forms, but it is still difficult to define the form of virtual reality art. Different from most kinds of art, the form of virtual reality art is not settled “matter” which has been completed before reception, it seems as a dynamic process which has been completed by artist and receiver together. In this process, perception of receiver is not only the trigger mechanism but also the form of art.

Perception of receiver is no longer the appreciating reaction, but the trigger mechanism of artwork creating, and the expressive object of virtual reality artwork. In virtual reality art world, everything begins at perception, finally ends with perception.

In brief, the process will be described as follow:

a. Impulsion

At the beginning of this process, the artist should make the environment of artwork, this environment may be different from space-time in reality, in which time is non-linear, and space could disappear. When he plans to construct this environment, the first step is to considerate reception of receiver. Because receiver should has an impulsion to act in this environment, so the environment must be congenial to receiver’s perception, in this sense, receiver’s perception will be starting point of artist’s creating activity.

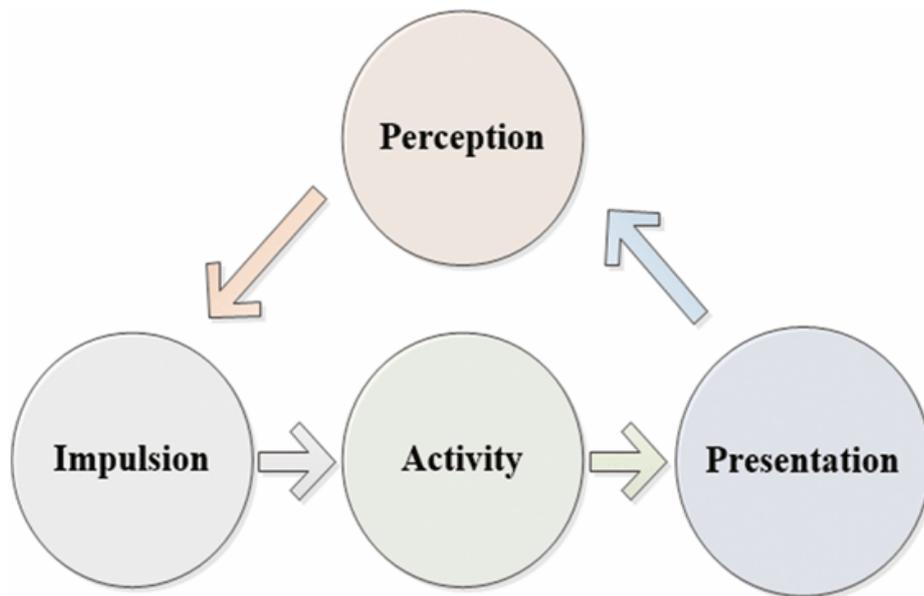


Figure 1: The process of virtual reality art

b. Activity

When impulsion brings out the receiver's activity, receiver will choose the possible ways to act in the environment. The process of virtual reality art needs receiver's activity in different ways. Types of activity are multiple, in the early days, interactive modes in virtual reality art were very simple, receiver simply need to change their viewing angle, then the view will be changed. Then modes evolved into the change of body gesture. When receivers moved their heads or waved their hands, the contents of art would change accordingly, these movements initiate the following vision. In the virtual reality artwork <The night café>, the view of room based on the receiver's head movement. In a way, contents of art are more like the result of activities. Now, virtual reality art mainly used body posture or human voice to initiate the act, and mental control seems to be the trend, perhaps when mental control come true, the artwork could be called really virtual reality.

c. Presentation:

Gesture and voice call out presentation, perception happens when receiver appreciate the presentation, then next impulsion could be generated. In such process, every successive part flows, without seam and without unfilled blanks, into what ensues. In some degree, receiver could decide the appearance of virtual reality artwork in part. During the whole process, perception of receiver may be everywhere. In so far, virtual reality becomes a psychological state to describe the perception of receivers happened in process of art reception, so the form of art becomes intangible.

As long as perception of receivers becomes a part of art creating process, virtual reality art seemed highly individualization. There is an adage "One thousand readers, there are one thousand Hamlet". According to different readers' interpretation, <Hamlet> itself had never been changed. But virtual reality art developed another meaning, for different receivers, being different artworks; each receiver could partially own authority of artwork. In 2015, some artists from Guangzhou made an interactive installation called <Unnoticed moment>, the final presentation based on receiver's face, through a special instrument, receiver's facial expressions converts into a series of successive scene thus every receiver could have a individual vision which symbolized his life [5].

The conflict between body perception and imagination

Immersion and interaction have long history in art world, but they developed different meanings in virtual reality artwork.

From the above description, there need receiver's systemic perception in virtual reality art, which including all the forms of

human perception, such as visual, auditory, body perception, and so on. This systemic perception present in the whole process of virtual reality creation, and based on sensation.

When reading novels or looking paintings, immersion of receiver happened in the realm of consciousness, such as visual optical illusion in Zeuxis's grapes or emotional illusion in realistic novels, all these illusions exist in receiver's consciousness, which cannot be acquired by sensation immediately. The form of virtual reality visualized the imagination, body immersion shorten even take away the distance between artwork and receivers. When receiver turns to be "experienter", the perceptions could happen through receiver's sensation directly.

Full body immersive could be the condition of interaction. Different from esthetic perception in general, perception in virtual reality is peculiarly and dominantly sensible.

On one side, full body immersive broaden the esthetic perception in artwork, but on the other side, there will be lack of emotion and thought in some degree. Like Steven Johnson pointed out that traditional film could expressed the emotion more effective than holographic movie [6]. Although "3I" emphasize imagination, most present virtual reality artworks did not avoid the conflict of imagination and body immersive. More than a decade ago, Heim thought the immersive experience in virtual reality should be acquired not only by looking, but by mental control, it could put mind into a state like philosophy [7]. Although this aim has not been realized at present, the constant efforts of artists and scientists show bright prospects in the future.

Acknowledgement

Supported by the Fundamental Research Funds for the Central Universities [ZK1112], SOA Global Change and Air-Sea Interaction Project [GASI-02-PAC-YGST2-02], Fujian Social Science Planning Fund Program [FJ2016C182], and the Fundamental Research Funds for the Central Universities [ZK1072].

References

1. Burdea G, Coiffet P. Virtual Reality Technology Second Edition with CD-ROM 2nd Edition. 2003. Wiley-IEEE Press, 2 edition. 464.
2. Heim M. Virtual Realism. 2000. Oxford University Press. 264.
3. Jauss H, translated by Timothy Bahti. Toward an Aesthetic of Reception (Theory and History of Literature) First edition. Edition. 1982. University of Minnesota Press. First edition. 264.
4. Heim M. The Metaphysics of Virtual Reality. 1994 Oxford University Press. 208.
5. <http://old.zcool.com.cn/work/ZMTQ00Tg5NDA=.html>.
6. Johnson S. Wonderland: How Play Made the Modern World Paperback - November 14, 2017. Riverhead Books. Reprint edition. 336.
7. Heim M. The Metaphysics of Virtual Reality. 1994 Oxford University Press. 208.