

Case study on Formative elements of the shadows in media arts

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Abstract. Shadow art is being used as a media of expression of many works of art and is evoking psychological and mental sensibility from viewers. To investigate artistic meaning of shadow, this study analyzed characteristics of shadow as amusement, space expandability, simplicity, and temporality and suggested that shadow is expressing artistic sensibility as a formative element through analysis, and investigated how expression method and concept of shadow are expressed in complex art fields as painting, installation, and media art.

Keywords: Media art, Installation art, shadow, projection mapping

1 Introduction

Expansion of artistic presentation has been realized in various ways based on experimental experience of many artists. Among them, media art expanded artistic expression through media most prominently. According to the development of computer and technical development, media art is making visual expression of art by creating imaginary new shadow using artificial light as projector, video media, and lighting instead of sunlight or light in nature [1].

The purpose of this study is to research diversity of visual language created by shadow by analyzing visual expression of shadow that appears in media art. There has been many precedent studies on formative elements such as object and light, but research focusing on the shadow itself, not subordinate factors of light, has been conducted relatively fewer. Therefore, this study analyzed the meaning of aesthetic expression of shadow, and focused analysis on characteristics of shadow as playfulness, simplicity, and temporality. Also, this study intends to analyze how shadow is being used in media art as an artistic expression element and visual meaning of shadow. The purpose is to inform the expandability of formative expression and aesthetic expression of shadow by bringing up the role of shadow as a formative element which is possible to fuse with various artistic genres.

2 Theoretical Considerations

2.1 The meaning of shadow in art

As a formative artist, shadow is a natural phenomenon that appears by light that it is natural for objects to accompany shadow. Also, remarkable imagination can be displayed or artwork with rich sensibility can be created through shadow. The use of shadow is important to create three-dimensional artwork with depth because shadow can stimulate three-dimensional effect. Very dark shadow is created under the strong light, and soft shadow is created when light is weak instead. In general, shadow creates stronger effect when it is darker, and soft shadow can generate delicate tone and emotion.

Shadow resembles the shape of an object and moves along with it. When we look at a shadow that resembles ourselves, we feel as though it is alive as if it is like my other self, and can look into our inner self through the shadow [1]. This is because the shadow verifies the existence of oneself and because it is part of us. The shadow changes according to our movement and is an important element that covers the truth of reality and illusion. Through this inspiration, art infuses life into an object by expressing the shadow.

2.2 Formative characteristic of shadow

There are various perspectives in figurative characteristic of shadow as variability, amusement, symbolism, temporality, space expandability, and simplicity, but this study intends to analyze amusement, space expandability, temporality, and simplicity as characteristics of shadow [2].

Amusement

New and various formative changes are possible for shadow in a relationship between property of light and object of light. Unlike the set rules or expected results, it creates free and unpredictable shapes. Also, there is a possibility that shadow can create fortuitous effects that are completely different from the reality of the object, and this is like amusement. Amusement is in the same context as game or entertainment that it is a generic term of activities that arouses interest without any specific sense of purpose.

As said, amusement takes a big portion in human activity and is one of the most basic mental factors of human. Amusement, which is relevant to games, contains fluid possibility of shape without being limited to a certain situation with unique simplicity. Shadow that stands out as an amusement creates a completely different object using human body through shadow game, and gets expressed as a creative measure by artist or advertisement. Shadow infuses new memory to people by delivering completely

different meaning through such visual amusement, and shadow itself is receiving review as a new creative artwork.

Space expandability

Space expandability signifies the shadow becoming expanded or reduced in three-dimensional space by the property of light. Shadow creates a sense of space and unity in painting. The shadows attached on an object represents three-dimensional shape of the object, and the casted shadow creates space around the object [2]. As other objects getting perceived, shadow adds perspective according to the perspective distortion. Therefore, shadow creates a sense of space around objects and causes perspective distortion and three-dimensional effect [6].

Shadow creates space and reminds epistemic semantics of “semantics as illusion that reflects reality, 2-dimensional neutral image with projected 3-dimensional object, and the image settling in smoothly on the flat surface while the image is gathering oneself and promoting identity on three-dimensional flat surface.” Light has a property that expresses depth of space according to the intensity of light and darkness and gives a sense of change of space depending on the location of lighting.

Simplicity

Because essence nature of an object gets simplified and appears through shadow without decorative or extrinsic property, it arouses interest in the concept with intrinsic visual simplicity. Meaning, simplicity signifies flat, implicit, and simplified characteristic of shadows. Therefore, line, shape, outline, and color getting combined on a flat surface is needed for flatness, and compositional recreative flatness creates a feeling of tension of artwork. Therefore, simplicity means expressing visual elements as point, line, plane, shape, color, and light and darkness by getting rid of decorative or extrinsic property but simplifying the remaining essence. Simplicity mentioned in this study does not only limit dimensional flat surface, but shows a characteristic of accompanying the formation of shape of shadows for suggestive formative space where 2 2 3 association of space is possible in physical dimension.

Temporality

Temporality of light is embedded in shadow. Temporality signifies recording the shadow of an object that changes according to the movement of light, which means that space gets recreated over time [3]. Shadow changes according to the movement of light and people can detect time by experience and perception. And shadow and space with shadow get recognized differently every moment due to the constant movement of light [4]. These changes of light create inherent shape over time. Shadow has different length and direction depending on the season or time. Dimensional space gets expanded or reduced by the movement of shadow through light, and as a result, space gets distorted in perspective or 3-dimensional effect gets maximized.

3 Case of using shadow on media artworks

3.1 Rafael Lozano-Hemmer, “Bady Movies”



Fig. 1. Rafael Lozano-Hemmer, “Bady Movies”

The Shadow Dance by Samuel Van Hoogstraten, a pupil of a painter of light, Rembrandt Van Rijn, of heaven and hell and massive Satanism was reproduced as a media art in 2002 by Rafael Lozano-Hemmer through an experiment of association of light and shadow. He got inspiration from Samuel Van Googstraten’s Shadow Dance and reproduced it into ‘Bady Movies’ that helps viewers to feel the historicity of shadow art. ‘Bady Movies’ by Hemmer is a work that people reflect and react to their physical body projected on the surface of a building through lighting. This piece is a shadow play of interaction performance based on the 3D projection mapping.

3.2 Nicolas Schoeffer “CYSP 1” 1956

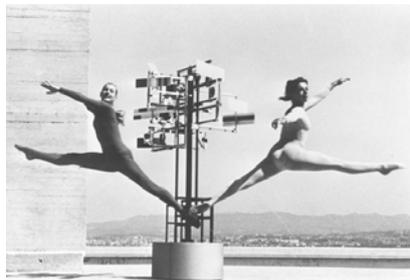


Fig. 2. Nicolas Schoeffer “CYSP 1” 1956

『CYSP 1』, co-developed by Nicolas Schoeffer and Philips, has the first evolved 4 rollers and artificial electronic brain in art history, and the shape changes automatically depending on the surrounding environment or presence of viewers. It creates shadow and moves by reacting to the movement of viewers or to light and sound [9]. It is in open format as involving behavior or viewers itself is intended. Because both light and shadow are included in the movement he created, now questions are being asked whether even untouchable light and shadow can be included in sculpture.

3.3 Gary Hill “Tall ships”(1992)

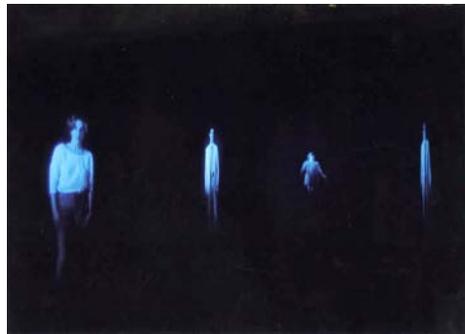


Fig. 3. Gary Hill “Tall ships”(1992)

The work of Gary Hill which is about transporting us from an unfamiliar world where we find our long lost friends or dream to the real world through shadow. Three-dimensional physical images are floating on the corridor bricks in dark alley and this creates a kind of space where viewers and images share as these images approach and pull viewers.

4 Conclusion

This study intended to analyze characteristics of shadow as playfulness, space expandability, simplicity, and temporality as formative elements, and to research that shadow is expressing an artistic aspect as a medium through cases of artwork. Also, this study discussed expression method and concept of shadow in complex art style of media art, not the concept of shadow. Shadow becomes a material for creating imaginary space and expressing psychologically transcendental space by creating traces of object. This study analyzed the shadow expression used in media art. In conclusion, it was analyzed that shadow causes new visual effect on expressing media art as a formative media that can be fused with various art genres, and emotional delivery can be expanded through visual effect of shadow.

References

1. Hyeongjun Kwon, "Using Digital light in Media facade", The Korean Institute of Illuminating and Electrical Installation Engineers, Vol.22 No.5, pp.3-7, (2008)
2. Lee, Kyung-im, "(A) Study on the extensibility of space : Focused on the wall", Dept. of Interior Architectural, Design Department of Architecture, Graduate of Kon-Kuk University (2000)
3. Kim, Sang-Hak and Park, You-Sun, "A Study on Visual Expression by Formativeness Using Object and Shadow", The Treatise on The Plastic Media, Vol.14 No.1, pp. 33-42 (2011)
4. Soo-Jung Kim, "The Image on Formative Expression Transformed between Light and Object", Dept. of Digital Media, The Graduate School of Ewha Womans University (2005)
5. Chooyoon Jung, "Space formation study using the linear connection structure: Focusing on the relevance between the formation and the shadow", Graduate school of Hongik University, (2010)
6. Rudolf Arnheim, "Art and Visual Perception", Mijinsa Press (2003)
7. Victor I. Stoichita, "A Short History of the Shadow", Hyunsilbook Press (2006)
8. Robert A. Johnson, "Owning your own shadow", HarperSanFrancisco Press (1993)
9. George Rickey, "Kinetic art", Youlhwadang Press (1988)