

'Conveyance': Kinetic Art Reflected in the Formative Characteristics of Minimalism

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Abstract: Media through which an unlimited visual expression is possible are being developed because of the development of digital technology, and kinetic art, which accompanies physical movement, has limited expression of movement compared to other media. In this study, work 'conveyance', which conveys the meaning of work with minimum elements, is produced by creating kinetic art to reflect using the formative characteristics of minimalism. The work 'conveyance' expresses the meaning of 'freedom', subordinated by 'invisible force', using minimal power and visual elements. This study intended to identify a method that overcomes the limitation of materializing physical movements in kinetic art through the formative characteristics of minimalism.

Keywords: Kinetic Art, Minimalism, and Formative Characteristics of Minimalism

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1. Introduction

Kinetic art is an artistic genre using diverse movements, such as movement of visual or other perceptual phenomena, movement of machines, movement in nature, and so on. However, this study was limited to the movement of machines. Because things that are impossible in material reality can be expressed in the virtual world, the range of expression of movements is wider in the virtual than in the material world. The kinetic art in this study is visual art using actual movements, and the physical limitations are found in the expression of the movements. To obtain vivid visual effects, the maximum effect should be achieved with minimal elements, which is associated with that aspect of minimalism concerned with maximizing the meaning of the work through extreme minimization. This study intended to create kinetic art that reflects the formative characteristics of minimalism and to find a way to effectively use the physical movements of minimalism in the formative characteristics of minimalism.

2. Formative Characteristics of Minimalism

A. Simplicity

Minimalists consider works of emotion and vision as pure art forms and they use extremely simplified geometric forms to exclude the visual element associated with the object or reproductive element [1]. Simplicity conveys a strict and objective feeling and a sense of balance, and it attempts to expand, rather than restrict, expression through simplicity.

B. Repeatability

Repeatability leads an audience's gaze to the whole, not the parts, by removing the correlations among all of the elements in a work. It suggests a new way to appreciate a work by leading the gaze of the audience away from the sequential flow, destroying the center of the work, and so on [2].

C. Objecthood

Objecthood is the image of an authentic object without illusions, and the image of the object is substituted in the art without allowing for any associations with daily life [3]. Objecthood enhances closure and self-criticism by allowing for a view of the work itself achieved by removing all of the illusions associated with the materials.

D. Spatiality

Spatiality locates the purpose of a work outside, as opposed to inside, the work. Outside of the work does not simply refer to the material space where the work is installed; it refers to the newly generated space between the work and its audience [4]. Spatiality suggests new purpose for viewing the art to focus on the space between the work and its audience.

3. Making 'Conveyance': the Kinetic Art Reflected with the Formative Characteristics of Minimalism

A. Making the Work 'Conveyance'

A work's 'conveyance' is its kinetic art that expresses individual freedom subordinated by an invisible force. To convey the meaning of a work in its maximum effect with minimum elements, the formative characteristics of the minimalist art are reflected in the work.



Fig. 1. Outside the 'Conveyance'

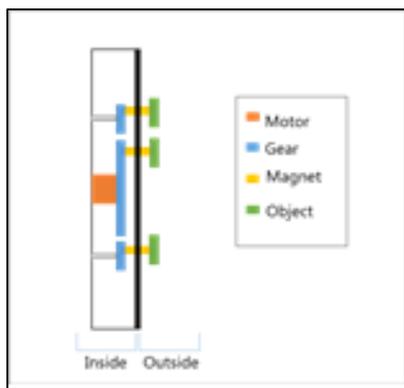


Fig. 2. Inside the 'Conveyance'

The work is divided into its inside and outside on a quadrangle canvas. For the outside, all power elements are embedded inside the work so that the audience views the background as white color and the object as black color as shown in Fig. 1. Fig. 2 shows that inside the work is composed of motor and magnet. The driving power generated by the motor is transferred to nine gears with rotating axes and is transferred from inside to outside by magnets attached to each gear. Only the rotary motion of the motor at a constant speed and direction is used and, to use one power source, the power is divided using the gears. The power is transferred invisibly using the magnets, leaving only the object, which is the essential visual element, at the outside. Therefore, the combination of motor, gear, and magnet makes a simple and repetitive movement. However, because the simple and repetitive movement is predictable, which might lessen the interest of the audience, the gears are transformed and the positions of the magnets are not identical. Because the gears are not perfect forms, and the central gear has a tooth equal to one-eighth of its diameter, the remaining eight gears rotate in sequence. Furthermore, the diverse movement is expressed through the repetitive movement by causing each rotation axis position to be different.



Fig. 3. Exhibition of 'Conveyance'

B. Reflection of Formative Characteristics of Minimalism

In a work's 'conveyance,' simplicity, the formative characteristic of minimalism, concentrates the gaze of the audience on the moving object applied to the figure, power, and color. The simple movement is made using only a circle and rectangle, which are basic forms of figures, the rotary motion, which is the basic element of the motion, and the contrast between black and white, which concentrates the gaze of the audience on the movement by separating background from foreground. The repeatability induces the audience to find a pattern in the movement by applying themselves to the movement of the object in repetitive rotation. Because the nine objects of the work rotate repeatedly around each central point, an effect is created of removing the center of the work and the correlative composition of the work. The objecthood correlates with the nature of the material. The commercial acrylic, wood, and formax materials are fully exposed, and the objectivity and cold feeling are created through the industrial manufacturing method. Last, spatiality is applied to convey the meaning through the change in the work caused by the flow of time, not by the work itself. Spatiality focuses on the flow of time between the work and the audience and locates the meaning of the work in that process.

Table 1.
Reflection of formative characteristics of minimalism

Formative characteristics of minimalism	Applying to the work	Effect
Simplicity	- Rotary motion - Basic figure - Contrast of brightness	- Concentrate the gaze of the audience on the movement
Repeatability	- Rotary motion - Movement of objects	- Induce the audience to find a pattern
Objecthood	- Using acrylic, wood, and formax - Industrial manufacturing method	- Maintain the objectivity of work and a cold feeling
Spatiality	- Create new space of flow of time	- Convey the meaning of the work using the change in the work by time

4. Conclusion

To express diverse visual effects with minimal elements and the meaning of a work in kinetic art accompanied by physical movement, the work's 'conveyance' was created using the formative characteristics of minimalism. Thus, the audience views the free movement outside of the work. However, the work expresses freedom subordinated by the invisible force moving through the work because the motor, gear, and magnet drag the object.

This study found that the interaction between a work and its audience would be an effective way to apply the spatiality of minimalism more actively. Future studies plan to apply the interactive kinetic art with the formative characteristics of minimalism. The research on the effective way to use physical movement in kinetic art will be continued by enhancing the utilization of the formative characteristics of minimalism.

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Biographies



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