

Spatial Attitudes: The Recreation of Space in the Works of Frank Stella

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ABSTRACT

This study investigated spatial expressions in Frank Stella's abstract arts. To achieve this, we divided Stella's works into three stages and selected *Morrow Castle*, *Mogielnica* and *Hudson River Valley series* as representative works in each stage, which were then analyzed in terms of regulated patterns, techniques and materials of expression. The major findings were: the abstract arts of Stella contained the expression of space; Stella expressed his spatial attitudes through the innovation of patterns, techniques and materials, and created his own space in his works; and Stella made abstract art a more complete notion by producing a series of art works in the period from 1960-2002. Stella's works were inseparable with his spatial attitudes, and completely denied the idea in 1960s that abstract art and Minimalism must be flat and resolved the paradox of Greenberg (1909).

Keywords: Frank Stella, spatial attitudes, abstract art, Minimalism

I. INTRODUCTION

As an important representative artist of both abstract art and Minimalism, Frank Stella's works have been widely researched and followed, with an enormous focus on the analysis of colors, techniques and materials in Stella's works (Zhao, 2015; Kramer, 2002; Andre, 1997). The studies have generally revealed that the characteristics of abstract art and Minimalism had an important influence on the development of art in the future (Alloway, 1966; Barra, 1995; Rose, 1965; Doss, 2002; Alloway, 1966; Greenburh, 1962; Gablik, 1994; Judd, 1996; Gossen, 1966). The three main elements of abstract painting and Minimalism are: pattern, material and technique (Barr, 1936; Fried, 1966), and the main feature of abstract art is "planarization" (Greenburg, 1962). Because of the Greenberg's theory on the flatness principle of abstract art (Greenberg, 1962), it is noticed that much literatures focuses on the analysis of Stella's patterns and techniques of the flatness of abstract art and Minimalism (Zhao, 2015; Doss, 2002; Judd, 1996; Crave, 2003; Fried, 2003; Collins, 2007; Prince, 2012).

Even so, more research is called for the spatial expression in abstract art and Minimalism works, especially research on the spatial expression in Stella's graphic paintings and shallow relies, through the changes of patterns, techniques and materials, which has seldom been studied. For this reason, the present study aims to examine spatial expressions in Frank Stella's abstract arts, hoping to offer useful suggestions for future research on Frank Stella's spatial attitudes.

II. BLACK PAINTINGS SERIES (1958-1970)

A. Regulated patterns

Analyses of the collected 23 works showed that Stella used two regulated patterns to represent the spatial structure in these 23 works among the *Black Paintings series*: One is lineal (rectangle), there were 15 works; the other is diamond-shaped, there were 8 works, as found in Zhao (2015). Lineal paintings had one solid principle that all the lines were in parallel to the picture frames no matter whether the rectangle was horizontal or vertical. Diamond-shaped paintings were formed by black shapes and then mirrored, dissected and transformed in other shapes. They were not only a deviation or proliferation of complex patterns out of simple ones, but also a reduction to simple patterns from complex ones, as found in Judd (1962). The way of the *Black Paintings*' proliferation included repetition, bisection, mirroring, perpendicular rotation, dislocation after bisection, or a combined employment of the aforesaid technics.

The 15 lineal paintings were centered by one of the basic shapes, which were gradually extended around the center in equal distance, thus enhancing the visual effects of basic shapes. When the basic shapes went beyond two types, their extension overlapped with one and another and formed different shapes. The points connected as lines which did not connect, and further formed shapes. Such lines and shapes created a waterfall-like motion in retina of audience, which formed a visual illusion of "strobeflash" and "motion".

Unlike the paintings with lineal shapes, the 8 diamond-shaped paintings' four edges extended around one of two centers in equal distance, and a spatial tension to break out the picture frame was created, thus producing a "wave" motioned toward outside. Such an outward extension or inward conversion was not only a visual conflict between the actually painted shapes and "negative" stripes, but also a visual conflict with the picture frames, and produced a new space on canvases.

B. Techniques of expression

In the *Black Painting series*, Stella used commercial oil brush as the painting tool. With the single type of oil brush, he managed to sustain a "stable ratio". The width of the oil brush was 2.5 inches (about 65 mm), with which he painted directly in the stripes drawn by pencils on canvases, as found in Rubin (1970). When the oil and canvases produced a very subtle and uneven changes of transparency, the empty shapes allowed the diffraction of light under the pressure of stripes, and this light produced a new space in painting. When Stella had the intension to create a backdrop and left the major part empty, then such "emptiness" formed a part of extreme "tension" and competed with the backdrop, thus producing the diffraction of light in the retina of audience and extended the spatial dimension of the painting.

C. Materials of expression

The *Black Painting series* were directly painted with materials from the commercial enamel, as found in Jones (1996). Stella painted the enamel on cotton cloth without any further refinement. As a result, the enamel was absorbed by the cloth and lost some lustre, and when the brush touched the cloth, the enamel had an uneven shade and lustre through the hand movement. The uneven lustre gave the painting different depth of space.

III. SHALLOW RELIEFS (1971-1989)

A. Regulated patterns

Analyses of the collected 130 works showed that Stella used four regulated patterns to represent the spatial structure in all the 130 works among the *Polish Village series*: 1) two-dimensional flat space paintings, there were 19 works, which collaged with parts of different materials with obvious difference in its thickness. 2) three-dimensional paintings, there were 50 works, which employed materials of not only different colors but also different thicknesses, formed a bulging part among the pictures, but still kept in parallel to the vertical walls in spite of differences in depth. 3) three-dimensional shallow reliefs, there were 46 works, which formed an oblique angle with the vertical walls when collaged with one another, and produced an

interfacing and interconnecting visuality and made the work an interwoven object in respect of the visual delusion. 4) geometrical wooden shallow reliefs, there were 15 works. Technically speaking, the aforesaid variations on shallow reliefs, especially through the third pattern, enabled Stella to transform the delusional three-dimensional effect of shallow reliefs into actual structures with different objects interfacing and interweaving into another dimension, thus creating a space with different depth from objects of different thickness. These objects took a space and also created a new space.

B. Techniques of expression

In these shallow reliefs, Stella employed the cutting technologies of computers to make the shapes of different colors more proportional when laid on the board, as found in Guberman (1995). As a result, especially on the slopes in the third pattern, the reliefs effect made by interweaving different surfaces to each other and created new space of different depth.

C. Materials of expression

In this period, Stella used three materials: 1) Wood. Stella employed a carpenter to make a wooden inner frame and then laid the painted canvases, linoleum, paper and other materials on stretch canvases by means of adhesion, as found in Rubin (1987). 2) Kachina Board, which was used to place the prepared materials, as found in Zhao (2015). 3) Composite board made of aluminum alloys, as found in Guberman (1995). When he painted or wrote on the surface of such a material, the strokes on it formed a special optical effect. All the materials amplified the possibilities of the interaction: a comparison of different texture, different potential energy in the surface of different shapes; and the tension of each hard lines, thus creating a profound visual space.

IV. SCULPTURES (1995-2002)

A. Regulated patterns

Analyses of the collected 9 sculptures works from the *Hudson River Valley series* showed that the horizontal extension of the sculptures lacked a fixed viewpoint and focused on the visual center, and every image or shape in this or other areas had its own ways to express its existence in a spatial sense. It was a reading and understanding of picturesque representation in the process of a moving viewpoint. When the audience gave up the traditional way to see a painting and walked closer to gaze into the details of the images, their mutual relationship, their spatial connotation and images were recognizable and distinguishable.

B. Techniques of expression

These 9 sculptures were closed to the tradition of constructivism with a clear, realizable structures but were created in whole-new technique, as found in Bruderlin (2012). There were three techniques of expression: 1) Stella employed curves in all his sculptures to create a more dynamic, active spatial presence. 2) Stella's sculptures used the techniques of casting, pouring of melted metals, welding and compressing. 3) From the perspective of the employment of colors, Stella used inkjet as a way to change the original color, which left an evenly sprayed misted surface and a natural changes of hues of colors and changed the surface of metal materials. With a large volume of florescent colors in contrast to the crude surface of metals, as found in Guberman (1995), it created a new space and reflected the difference in depth in a visual sense.

C. Materials of expression

There were three different materials: 1) dark elastic plate; 2) white synthetic fiber. Both of them had strong plasticity and flexibility to allow themselves to move or interface to achieve a space. All these bended metal stripes created a strong spatial structure. 3) some used materials and objects such as Chinese grids, metal scraps, honeycomb plate made of aluminum alloys or casting squirrel tails. They were interwoven, connected, filled, compressed, extended, twisted or bisected with or by each other, and extended the whole work to a freer space with structural complexity and richness.

V. DISCUSSION

Analyses of the data showed that, Through the changes in patterns and innovation of techniques and materials, Stella achieved his purpose that abstract art was the creation of space. Paintings of abstract art and Minimalism shared a common property in avoiding the expression of dimensions, enabling art to finally return to two-dimensional aspects of the space and the purity of media (Greenburg, 1962; Johnson, 2017; Kandinsky, 1911; Barr, 1936). As Greenburg showed that "two-dimensional space is the only condition which paintings does not share with other art forms, it alone become the only orientation for abstraction paintings to further its development" (Greenburg, 1962, p.14). Through Greenberg's theory on the flatness principle of abstract art and Minimalism, artists were familiar with the picturesque spaces emphasized by machines in the 20th century, but still fought against the delusional space created in abstract art and Minimalism. No matter whether they were Mondrian or Kandinsky, they all denied the creation of dimensional depth in abstract art and Minimalism (Barr, 1936; Gossen, 1966; Doss, 2002; Lewitt, 1967). The results revealed that through the changes of patterns, techniques and materials, Stella

achieved to create a habitable illusion in his works (Frank, 1986), which was a real art space, and not only continuous but also unlimited extension of the sense of seeing. Stella's works were inseparable with his spatial attitudes, with which he completely denied the idea in 1960s that abstract art and Minimalism must be flat, resolving the paradox of Greenberg and bringing the notions such as "space", "motion", and "extension" into abstract art.

VI. CONCLUSION

This study investigated spatial expressions in Frank Stella's abstract arts. By analyzing Stella's works, this study refuted the concept of "planarization" of abstract art and Minimalism in Greenberg's art theory.

The major findings were: 1) the abstract arts of Stella contained the expression of space, 2) Through the changes in regulated patterns, techniques and materials of expression, Stella created his own space in his works, and 3) Stella made abstract art a more complete notion by producing a series of art works in the period from 1960-2002.

Whether they were easel paintings, bas-relief paintings or sculptures, Stella's works made up for the lack of abstract painting in space or three-dimensional forms. He not only resolved Greenberg's paradox through the expression of spatial attitudes in his works but also successfully incorporated abstract art into the overall art career of sustainable modernism.

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