# Research on the Scattered Perspective Viewing in the Era of Image

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**Keywords:** the era of image; focus; scatter; perspective

**Abstract:** The emergence of perspective science greatly promoted the Renaissance art to reach its peak. After the concept was introduced into China, it was named as the "focus perspective" in order to adapt to the concept of perspective in the West; the traditional way of viewing in Chinese paintings was named as the "scattered perspective" correspondingly. In fact, there is no perspective concept in Chinese painting; artists move their viewpoints in creation. The invention of photography brought the world into the age of images. The human viewpoint is replaced by the camera lens; humans' consciousness of viewing is also replaced. In the era of image, a group of artists break the pattern of single lens focus viewing, and carry out a variety of attempts in contemporary art combined with the moving viewpoints and the scattered viewing mode in traditional Chinese paintings.

#### 1. Introduction

The perspective discussed in this paper mainly refers to geometric perspective.

We usually explain the spatial treatment methods in classical Chinese paintings as the "scattered perspective", which corresponds to the concept of "focus perspective" in western painting. It means that there are multiple viewpoints in the picture. This is a viewing mode with "moving viewpoints" characterized by the traditional "seven view methods", which include the "step-by-step moving" and "watching every side of the object". In the expression of images, artists hold the overall principle of "much in little", and creatively turn the structure of objects into the language of inks in the picture. They can express the changes of objects' sizes into the levels of the picture, and manifest the change of depth in the space into aesthetic interests. The picture space is an image space created by the artist (comprehension in mind) on the basis of observing and experiencing the object world (outside attainment). It transcends the limitation of natural objects and is not subject to the restriction of focus perspective.

# 2. The Moving Scattered Perspective Viewing

The concept of scattered perspective has a long formation history. In the history of Chinese painting, the earliest exposition of the perspective principle appeared in the Preface to Landscape Paintings written by Bing Zong in the Southern and Northern Dynasties. The author expressed, "The farther you walk, the smaller the object becomes. If you view remote scenery through the silk, the shape of Kunlang (the Kunlun Mountains) can be captured by the small piece of silk. The scenery of thousands of kilometers high and hundreds of miles wide can be expressed in the painting with a few inches high and several feet wide." In Tang Dynasty, Wei Wang wrote in the Landscape Theory that, "Mountains in paintings should be measured by Zhang (3 and 1/3 meters); trees in paintings should be measured by Chi (1/3 meter); horses in paintings should be measured by Cun (1/3 decimeter). Mountains in distance have no stones; they look like fainted eyebrows (black). Water areas in distance have no waves; they are connected with the clouds at the horizon." In the Song Dynasty, Xi Guo wrote in the Landscape Instruction that, "There are three kinds of distances in mountains, namely the distance from the bottom of the mountain to the top of the mountain, the distance from the front to the back of the mountain, and the distance from the nearest to the distant mountain." These three distances from bottom to top, from high to low, and from near to far are the ways of viewing Chinese landscape painting. So far, the perspective method of

DOI: 10.25236/ecomhs.2019.231

Chinese landscape painting has formed a complete system.

Originally, the word "perspective" did not exist in the classical Chinese painting. The concept of "scattered perspective" was created on the basis of borrowing the Western perspective theory, and combining with the characteristics of Chinese painting. In the western world, "perspective" refers to focus perspective. Chinese theorists deliberately emphasized the characteristics of "focus" in order to distinguish Chinese and the Western painting skills. Thus, they defined Chinese paintings as "scattered perspective" correspondingly. However, the term of "scattered perspective" is not appropriate, because all Chinese paintings use equal angle perspective. The lines are parallel and there is no focus, so it cannot be called as "scattered perspective". If a name must be given, it can be called as the "pointless perspective". [1] Chinese paintings are not limited by the field of horizon. According to the needs of the subject, several different fields of horizon can appear in the same picture. So it can also be called as the "moving viewpoint perspective". [2] Bao-shi Fu takes out three sections in Gui Xia's Beautiful Landscapes in China as an example of the "three distances" rule, [3] which shows that Chinese painting has no fixed point of view. The overview viewpoint is horizontal; there are changes from high to deep, from far to near. The empty space in the picture shows the immeasurable inner journey, so as to break the limitations of the three-dimensional space, and achieve an artistic conception in which the sprit wanders in time.

Western perspective is an architectural concept, which was adopted by artists and used especially to reproduce architecture. When explained the concept of linear perspective, Alberti compared it to a window facing the world. "But the question is, if the audience sees the world through a window, where is the audience himself? Is he staying in this world, or away from his world?" [4]

## 3. Focus Perspective Viewing in the Era of Image

The invention of cameras has brought the world into the age of images. "The emergence of photographs has changed the world, and also our 'view' of the world." [5] The viewing mode of the camera lens is still the continuation of the focus perspective method and the mechanical device of the focus viewing.

### 3.1 Focus viewing

Western classical painting, especially after the Renaissance, has gradually improved its focus perspective system. Alberti's On Painting mainly talks about the teaching system of master-apprentice. But the most important point is, this book proposed the perspective painting method for the first time in the history of fine arts. The book systematically summarizes the basic principles of focus perspective invented by Filippo Brunelleschi and others, and holds that mathematics is the root of perspective. "The perspective drawing is the most challenging subject in the history of art. It was the dominant way of thinking in the Renaissance." [6] Therefore, the painter must make every effort to transform solid objects in the three-dimensional space into the illusion in a two-dimensional plane; otherwise the visual reality in some moments cannot be successfully displayed. This is the only way for people to see the world. It is the common visual perception and the physiological ability of human beings. It has material basis, namely the same visual organs and the common physiological structure of all human beings - the eyes.

Constructing a physical space time is the requirement of Western painting art. In order to achieve the consistency between natural objects and pictures, they use transparent curtains (such as glass) to observe objects from a fixed point of view, and describe the observed results on the transparent curtain. Dürer's prints show how things are depicted in this way. This is a method of viewing through transparent objects, from which the word "perspective" (literally translated as transparence and viewing in Chinese) comes. This method of viewing must be carried out on the basis of fixed viewpoint and visual direction. Otherwise, due to the displacement of viewpoint and the change of visual direction, the shape of natural objects will change, and it will become difficult to fix it on the picture. In the picture drawn through this method, everything looks small in the distance and big on the contrary. If the lines parallel to the line of sight in the picture are extended, they will disappear at a point, just like light rays converge to a focus through a convex lens.

The invention of perspective approach plays an important role in the history of Western art. Together with anatomy, it contributed to the transformation and peak of Renaissance art. In Leonardo Da Vinci's The Last Supper, Jesus is placed in the center of the picture, and the vanishing point of perspective is placed in his head, which makes him the visual center of the picture. The artist skillfully and successfully uses the focus perspective method to serve the theme of the picture.

### 3.2 Lens viewing

In photographic activities, people focus the camera lens to achieve a clear subject, and make it different from other parts of the photograph and interact with the focus perspective method. The viewpoint is based on the geometric spatial layout. The camera's monocular perspective starts from a clear observation point of view, and describes the sequence of space by determining a single focus plane. Focussing planes are usually parallel to photographic planes, and stress certain parts of the photograph to highlight the subject of the picture, which "proves the power of photography in the space between the lens and the object". <sup>[7]</sup> In addition, the optical structure of the camera lens also conforms to the principle of focus perspective. Photographers can record the effects of different focus points on the line of sight without any difficulty. But the selectivity and skills shown by painters in their efforts to stimulate their subjective real visual experience can never be achieved by the camera lens. At this point, the camera is not suiTable for imitating the naked eye.

## 4. Limitations of the Focus Perspective Viewing

The limitation of focus viewing is very obvious. In this way of viewing, the clear range of our horizon is very limited. In order to compensate for this limitation, we automatically turn our heads when we watch with the naked eye. Once we turn our heads, objects in other directions come into view. Leonardo Da Vinci has long been aware of the contradiction between the focus perspective and human eyes. Many artists draw based on photographs, but photographs are images captured through lenses, which are obviously different from the way people observe them. The view of human eyes is binocular and multi-focus. It has considerable adaptability to the object, but the camera lens uses one eye to see the world.

Our eyes are given by the God to record the flow of information we receive when we move around the world, not to record static stimulus signals. The eye is an optical instrument with a large field of view, but only a small part of the field of view can produce the clear image. The whole visual field of the naked eye is equivalent to a pencil sketch: only the brilliant and detailed parts are the focused of expression, while the surrounding parts are just sketches. Fortunately, our eyes can rotate; they can scan every small part of the field of view from place to place. Given that we can only concentrate our visual attention on one object at any time and on any occasion, this clear observation is enough to completely occupy our attention when we want to turn to other parts. On the other hand, though the rest parts of the vision field are not clear enough, they are suiTable for us to notice anything new on the edge at a glance, so that we can grasp the whole situation.

#### 5. The Scattered Perspective Viewing in the Era of Image

## 5.1 The "Hockney-style" viewing

David Hockney creates a large number of collages with photographs, which are unique in the viewing pattern. He takes pictures of different parts of the same object with a camera, and then assembles them into a complete work. He creates a new and wonderful visual world, which is known as the "Hockney" collage.

The Pear Blossom Highway depicts the subjective driving experience on a highway in California. The overlapping and divided blue sky shows the multiplicity of space. The passenger on the left is glancing around. No single photograph can show this kind of photographic scene with the meaning of "the three distances". The driver on the right is focused on driving and looking at the signs. Although the car and passengers are not shown, the sense of movement is produced through the movement of viewpoints such as "ahead" and "stop". Hockney combines the sense of speed in

Futurism and the multi-angle perspective in Cubism into one project. The sectional framing and the wandering viewpoints of Chinese painting also add new meaning to his works.

David Hockney's collage works not only follow the focus perspective of the West, but also break through the visual limitations of a single point of view. He also draws lessons from the traditional Chinese scroll painting in wandering viewpoints, and combines the two methods skillfully. When appreciating Chinese scroll painting, the viewer should place him in the scenery, and move freely with the objects. The method removes the space-time limitation caused by fixed perspective of focus; the scenery becomes a free image presented by imagination. The picture is no longer limited by time and space. In the scroll painting, one space superimposes another space; one layer of time superimposes another layer of time. They comprehensively and centrally serve the theme at the same time, so that the contents and forms become an organic whole of art.

## 5.2 Scattered perspective viewing in contemporary art

Some contemporary works of art also break through the limitation of a single point of view, and use a wandering point of view to control the creation of the picture.

Zhen-zhong Peng's work Diary Series: Nine adopts the way of division and juxtaposition. The ink brush strokes with different depths and shades present multiple local perspectives in a unified overall picture. Each partitioned small picture is a separate point of view, and the whole picture is the whole outlook. Looking from the distance you can see the panorama with a theme; standing near the painting, the audience naturally browses every part enclosed by the grid. The juxtaposed pictures often show all parts of the natural object at the same time. Audiences need to see the work dynamically with both eyes, rather than focusing on a single point of view. This is consistent with the multi-perspective of Cubism, which aims to show the multi-perspective and the passage of time in it. The white grid decomposes the coherence of the whole image, which requires the painter to careful design each part before juxtaposition, and takes the relationship between the part and the whole picture into consideration.

Like movies, this kind of work depicts different aspects of the same theme from different angles. The artist need to move viewpoints and combine different scenes, juxtaposes and divides different sides equally, and arranges them in dislocation. The resulting pictures go beyond the painting with one single focus, making the objects of expression more stereoscopic, and bringing more possibilities, and even infinite possibilities of visual imagination to viewers

Song-song Li's work News Making Process is the reuse and re-creation of historical photographs of the Tiananmen Square Parade. He divides and dislocates the photographic images unequally, and uses different tone levels to draw pictures in different regions. In his work, it seems that different parts move towards each other. The whole work is a huge and shows a complete scene. His paintings are about the paradox and game between the painting language and the duplicated image. He uses powerful brush strokes and heavy pigments to represent photographs. It is not only the visual experience of re-recognizing and reading the image with reduced information through expressionist language, but also the daily photographs of history.

Such works and series photography complement each other, and show the style of interaction between contemporary painting and photography. They add new vocabulary and ideas to the interaction between painting and photography, and are the contemporary response to analytical Cubism.

#### 6. Conclusions

The tradition of Western art adopts the "focus" way of viewing objects in a fixed time and from a fixed location; Chinese classical painting adopts the wandering viewpoints in multiple time points and multiple locations. The "focus" mode of viewing depicts the instantaneous vision of a fixed single eye, while the moving multiple viewpoints produce a comprehensive picture.

The moving scattered viewpoint method means to disperse the single viewpoint in the focus perspective into several viewpoints; that is, to set up several focal points separately, each viewpoint has the characteristics of a single viewpoint. Artists do not depict from a single point of view like a

photographic lens; the expression of objects is characterized by the juxtaposition of multiple angles and rules, rather than the perspective relationship. This way of viewing prevents imitating nature, but freely expresses what they want to express.

David Hockney's photo collage and the attempt of wandering multi-viewpoints in some contemporary works of art have broken the pattern of single-view focus perspective and opened the "multiple windows" of viewing the world.

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