

The Characteristics of Perception and Intention in the History of Western Color Evolution

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Abstract: The body understands the world through the comprehensive sensation and expresses it with meaning. Much of human activity is pre-reflective, and the core of Merleau-Ponty's aesthetic viewpoint is that the beauty is the manifestation of the finest perceptions. His philosophical proposition is the primacy of the representation. The representation are matters that exist in reality and can be perceived by people. However, the truth represented in painting is not merely a faithful reproduction of the matter itself, but also involves highly abstracted, condensed forms, and extraordinary colors to express the true forms of existence. From the development trajectory of the perceptual intentionality of art history, color starts from representational associations and gradually enters the mode of "psychological interiority," particularly in the present stage, it demonstrates the representation of "truth" in the real world. When color combines the subject's intentionality with perceptual intuition depth, it not only implies fundamental changes in painting techniques but also signifies deeper philosophical inquiries and artistic considerations about the art form of painting.

Keywords: Color, Intentionality, Perception

1. INTRODUCTION

Nicholas Malebranche, a French philosopher from the 17th century, strictly distinguished sensation from concept. He believed that sensation is produced by the body in response to external stimuli, while concepts come from God and represent rationality. Perception is the combination of these two elements. In the rationalists' tradition, sensation is the material

produced by sensory organs in response to external stimuli, while perception is the manipulation of this material through rational abilities (Sahlins, 1976). Husserl considered the universal innate relationship between the object of experience and the way it is perceived as a dominant task of phenomenological research, and used the relationship between intentionality and perception as an example and basis for his phenomenological work (Smedley, 2018). Perception is a conscious activity with typical intentional characteristics. In other words, perception is consciousness about a certain perceptual object. In addition to using surface organs such as eyes, ears, and touch in perception, we also perceive things that are invisible, inaudible, and untouchable through internal perception. However, all of these are related to the intentional subject that corresponds to them (Merleau-Ponty et al., 2013). The American color scientist Robert Boyle once said: "Color is the messenger of light." Does an object have color itself? If our eyes are receivers, then the color signal emitted by an object is the transmitter. For the object itself, it does not have color (Merleau-Ponty & Wild, 1963). The color is displayed through the reflection, selective absorption, and transmission of different wavelengths of colored light. In the field of art, the use of intentional perception in the image has become inevitable or intentional since the appearance of color in the picture. As Husserl mentioned, talking about perception always refers to the thing being perceived. In short, the relationship between perceptual activity and perceptual object is intentional, which is usually expressed by the word "about"; the intentional characteristic of perceptual experience is the "pointing object" of perceptual experience (Adams & Osgood, 1973). Husserl's phenomenological intentionality includes three basic levels: sensory consciousness, the relationship between intentional activity and related items, and constructive consciousness (Carp, 1997). Compared with other factors in the artwork, the intentional perceptual connotation of color has a relatively clear evolutionary context. We can puzzle out the main clues of color perception development from the history of art that the intentional perception used to construct the picture becomes more and more complex and compound. In artworks, the application of intentional perception evolved from completely inexperienced to proficient and eventually to the level of de-experience (Ritter et al., 1971). If "intentional" refers to the object that intentional experience directs towards, then the color of the representation belongs to the composition of the real item of intentional experience. Therefore, it is not intentional because the color of the representation is not the object directed towards by intentional experience.

(Wade, 2006). However, this situation does not hold true in works of art. In artworks, color is not just the color of the representation, but is consciously realized. The relationship between the object and intentional experience is not parallel, and intentional experience itself is intentionally experienced. The color itself has been signified, and in artworks, it becomes the object represented in behavior. Painting, as an art form, has strong symbolic and expressive properties. Nowadays, most research on color starts from a psychological perspective, or studies the expression of emotion and mood through color. However, this study focuses on color itself, analyzing intentional perception and the representation and intrinsic aspects of color, providing us with a more comprehensive understanding of color. In the context of modern art, the study of intentional perception of color not only allows us to understand the developmental trajectory of color in Western art history, but also enables us to re-examine the art form of painting itself in the context of modern art, forming a clearer understanding of art works. At the same time, the study of "intentional perception of color" provides us with a new perspective of understanding, allowing us to see that color as a medium can convey more than just visual sensations, but also profound cultural connotations. Through the study of intentional perception of color, we can not only understand the process of change that color has undergone in Western art history, but also gain a profound understanding that color in artistic creation is not just a medium, but also a pursuit of "truth" in spirit, psychology, and subjectivity.

2. THE USE OF COLOR IN CAVE PAINTING

In prehistoric times, the use of color in paintings was relatively rare. Prehistoric people mainly used lines for their drawings and engravings. The earliest evidence of color usage can be found in the Lascaux Cave in France and the Altamira Cave in Spain (Fig. 1). These caves depict numerous animal figures such as cows, horses, and mammoths, using simple mineral pigments primarily in red, yellow, white, and black. The tools used for coloring were relatively simple and included fingers, animal fur, plant materials, and bird feathers (Elliot & Maier, 2014). The pigments used for cave paintings were mainly composed of mineral-rich clay and crushed rocks mixed with water, animal blood, fat, urine, and other substances. These cave paintings served primarily to depict the tangible forms of observed objects and had a direct perceptual nature. As B  clard once said, "Existence is perceived." The colors depicted in these cave paintings were

largely based on associative imagination, as people believed that the observed objects had specific representative colors and sought to depict them.



Figure 1: The Lascaux Cave Paintings "Lascaux Bull" (15,000 BC).

2.1 The Perceptual Intentionality Represented by the Earliest Synthetic Blue

Egyptians were the earliest ethnic group to use colors extensively. Through their long-term production and life processes, they gained a preliminary understanding of the rich and harmonious beauty of the nature. The Egyptians regarded the colors of nature as sacred colors and symbols of divinity, endowing them with noble and holy qualities. In the Ancient Egyptian Dynasty of 3000 BC, the categories of colors were expanded, including lapis lazuli blue (extracted from blue copper ore), turquoise green, gold, the world's earliest synthetic pigment known as "Egyptian Blue," and biological colors extracted from cochineal and beetles (Fu, 2011). Their use of color and painting were not just focused on the object itself, but the "inner psychological being" gave color symbolic meaning. Due to their beliefs in resurrection, worship of the god of the sun and pharaohs (Wreschner et al., 1980), and reverence for the Anubis myth, Ancient Egyptians had their own strong preferences in color selection and application. For example, the special green of turquoise was considered to represent the prayer for rebirth and was used to depict the face of Osiris, which represents rebirth and agriculture, departing from the use of skin color in conventional facial color application and emphasizing the symbolic meaning of color (Fig. 2). The emergence of Egyptian Blue was significant as well. Due to their reverence for the Nile River, Ancient Egyptians extracted and synthesized this stunning blue color from calcium copper silicate. The perceptual intentionality of color was not limited to the representational association of objects, but the symbolic meaning of color suggested an abstract association in the picture. At this time, people were

not only limited to representing colors but also began to express the characteristics of the intentional objects and experiences of intentionality in the use of color.



Figure 2: The Egyptian Wall Painting "Osiris and His Son Horus, Nephew and Subordinate Anubis" (1430 BC).

2.2 The Magnificent Ancient Rome

During the Roman period, the simple color culture of Ancient Greece was mostly adopted, and gradually developed its own unique color culture afterwards. Pompeii murals and Roman imperial costumes exhibit the magnificent colors of Rome. It is difficult to see the use of blue during the Roman period, as Romans believed that blue was a color used by barbarians to smear their bodies as a sign (Tolhurst, 2002). Since the establishment of the Roman Empire, its powerful military, economic, and political influence has affected the taste of decorative painting colors. Some famous artworks, such as "Alexander Mosaic", "Centaur Fighting Wildcat", and "Mask", are primarily black, white, red, and yellow, with madder red representing the war god Mars at the time (Fig. 3).



Figure 3: The Pompeii Wall Painting. Fragment of "Alexander Mosaic"

During the Ancient Roman period, there were not only vase paintings and mosaics, but also delicate paintings of the Nile River landscape, which were centered around green tones. Around 40 BC, the Ancient Roman

mural “Cannibal Attack” used color as a means of air perspective to divide space. At this point, the relationship between intentional activity and intention-related items began to be built through color, which is the second basic level of intentionality in Husserl's phenomenology. Through the use of turquoise green as the center and ochre yellow and turquoise blue as complementary colors, the green in the blue background reflected distance, and the use of color achieved spatial division and to some extent separated from the plane. It can be seen from this that perception is not mediated by human intention to represent the world, instead, perception is a special representation, a direct presentation of the world, and a deeper artistic consideration that People have in their use of color (Fairchild, 2013).

2.3 Byzantium Under Religion

With the establishment of Constantinople as the capital by Emperor Constantine the Great, the Eastern Roman Empire became known as the "Byzantine Empire," which combined the styles of the Western Roman Empire and Christianity to form a culture with its own unique characteristics. Christian mysticism had a great influence on the color at the time. Due to the fusion of Greek-Roman culture and Eastern culture, a new artistic style was formed. This style not only retained the essence of classical art, but also began to focus on communication and emotional exchange between people, as well as the relationship between people and God. Byzantine painting began to move towards the "inner psychology", gradually shifting its focus from objective things to subjective aesthetic feelings. In Byzantium, the mosaic painting “Justinian and his Entourage” in the Cathedral of Saint Vitale shows that the emperor and empress wore garments dyed with purple dye, and they were colored with white, blue, black, red, and purple, which symbolize the colors of Christian mysticism, against a golden mosaic glass background that symbolizes the glory of heaven (Fig. 4). Color was now being explored and used by religion, and color was given a belief that “special colors represent religious beliefs.” In the broadest sense, mental states have representational content, which is the content of the philosophy of intentionality in the perception of philosophy (Humphrey, 1999). Among them, perceptual representationalism is a kind of perceptual intentionality, which advocates that perceptual experience has representational content, similar to belief and thought, and can tell us about the facts of this world (Wartofsky, 1981). The Byzantine period was a time when classical art matured, and painters began to seek artistic forms that expressed inner emotions and life

experiences. They incorporated color into the picture to express their thoughts, feelings, and emotions through color. In this situation, color was fully developed, and it also transformed from representational associations to the “inner psychology” form.



Figure 4: The Mosaic "Justinian and his Attendants"

2.4 Post-Renaissance and Inspiration for Contemporary Art

Although there was still some influence of Christian mysticism during the Renaissance, more of it was humanistic thinking under the background of navigation. With the discovery of new continents, rich colors were brought from exotic lands. From the paintings of the time, it can be seen that color was liberated from Christian mysticism and had a free color atmosphere. Giotto Blue emerged at this time. Giotto's style broke away from the original profound and heavy Christian style, and his bright and passionate colors were inherited by the Venetian School of Painting and became the basic colors of the Renaissance (Fig. 5). During the Renaissance, painting began to move away from the constraints of religion and theology and pursue individual freedom and liberation. The color of this period also began to move towards the expression of subjective experience and emotions, expressing a pure form of concern for human beings that was no longer limited to the true portrayal of the real world. Painters of this period paid more attention to the expression of color and color perception, and many important painters emerged during this period, such as Leonardo da Vinci, Michelangelo, and Raphael. They began to express their unique understanding of color and sensation through their own unique artistic forms, forming a new face different from previous artistic forms. As we said before, the Renaissance was a great and important period in the development history of Western painting. Painters began to express their different angles, different levels, and different feelings of

social life and human beings through their unique and true reflection of the real world.



Figure 5: Giotto's "Lamentation of Christ"

It was in this color background that the Renaissance period formed the characteristics of visual representation of "truth." "Intention" as the core concept and theoretical starting point of phenomenology is linked with subject and object, and explicitly puts forward concepts such as clarity and essential intuition [Husserl, Phenomenology], just as Renaissance painting presents the natural reality of objects. The Renaissance's love for "truth" formed the logic of reproducing the truth. Or, in other words, as an art, painting should first reflect freedom, but in traditional painting, painters and viewers are subordinate to the reality of objects and can only present beauty from the perspective of bystanders. If according to the French artist Fernand Léger's view that modern painting began with Impressionism, "They discovered that the claim of traditional art to have discovered how to reproduce nature as we see it was based on a misunderstanding; traditional art at most discovered a means of reproducing man or objects under artificial conditions." (Su & Wang, 2024) According to Clement Greenberg (1909-1994) who was an art critic, the self-critical principle of modernist painting inevitably leads to two results: returning to 'flatness' and moving toward 'purity'.

3. DISCUSSION

The questioning of the perceptual intentionality of color in modern painting reflects the decline of the traditional concept of painting, which seeks to reproduce objects using traditional techniques. This poses significant questions regarding subjectivity, creativity, expression, and dominance in the renewal of painting concepts. Therefore, intentionality as a philosophical concept for analyzing existence has deep insights into

intrinsic psychological traits from the beginning. Although the constructiveness of phenomenological intentionality is directly aimed at epistemology, its philosophical thinking goes far beyond the direct philosophical issues it faces, and is widely open to many fields such as painting and art. Western painting has evolved from initial concrete association to modern "psychological interiority" mode. This change is not only technological progress but also a shift in consciousness. It is no longer a reproduction and imitation of the objective world but a transition from concrete to psychological through perception, representation, and reflection of the "truth." The pursuit of the "truth" in color expression in modern painting is not the truth of the objective things themselves but a spiritual, psychological, and subjective pursuit of the "truth." Judging from the color evolution process in Western painting, the color obtained by subjective association with objective objects cannot be called the "truth," and only the color obtained through perceptual intentionality can be called the "truth." Therefore, in creating a painting, expressing the subject's subjective cognition and subjective feelings about the objective world is the real "truth" presented in the work. As Gilles Deleuze said, "Art is not simply objectification, modeling, conceptualizing, and formalizing truth or ideas, but constantly changing itself. Art is not the pursuit of truth or ideas, but conveying truth or ideas by constantly changing itself." To truly express a "truth" in a painting, the content expressed in the work must be transformed.

4. CONCLUSION

Contemporary art has integrated technology and art more closely, providing new means and possibilities for contemporary art. Performance art, as a representative of contemporary art, explores and presents information from various aspects of human society, history, and culture, and contemporary artists have profound reflections on this. Technology and art are an inseparable whole. When artists use new materials and technologies to create works, they not only use these materials and technologies as media for creation but also express their thoughts on current social life and social issues based on technology. This kind of thinking is not only a reflection on the trend of "technology first" in contemporary art creation but also an exploration of the relationship between people and technology and between people themselves. In this context, the color expression in contemporary art shows different

characteristics from traditional art. The perception of color by contemporary artists is no longer based on functional requirements. From the perspective of artistic expression logic, painting actually constructs the correlation between object and experience in the way of visual experience. The core bridge is the perceptual intentionality of color. The perceptual intentionality of color provides an important research perspective for us to directly face the problem of how modern painting reduces the internal mechanism of artistic expression logic to the subject's artistic judgment. Perception can maintain immediacy while representing the world because perception is not only a representation of the world like belief. When artists present the perceptual intentionality of color, they do not present the meaning of the object and the subject matter but rather phenomenologically express the relationship between the subject and the object; the viewer faces the work with a free experience of intentional vision, which is a dual subjectivity of the artist and the viewer and the objective encounter in the picture. The artist and the viewer together form the field of art, constructing and expressing the relationship of the perceptual intentionality of color. Therefore, the perceptual intentionality of color becomes an important theoretical perspective for analyzing and creating modern painting.

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