A Study of The Relationship Between Nature and Painting in The Renaissance: Taking Albrecht DÜRer's Works as An Example

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Abstract. Many magnificent works of art were produced during the Renaissance, which not only reflected the progress of art but also reflected the deep connection between nature and art. The study of how artists in the Renaissance absorbed nature into their works and organically linked it with art will help people better understand the artistic works and the expression methods of artistic creation in the Renaissance. By introducing the background of the Renaissance, this paper discusses the relationship between art and science in the Renaissance and introduces Albrecht Dürer's change of consciousness about art and nature. What is more, this paper analyzes deeply the study and exploration of nature in Albrecht Dürer's (Dürer) works "A Large Meadow" and "The Holy Family and the Three Hares". By exploring Dürer's and other Renaissance artists' views on the relationship between art and nature, this paper probes into the way of integrating nature into art creation and the influence of nature on art creation during the Renaissance. In a word, this paper hopes to provide a new way for people to understand Renaissance artworks by deeply exploring Dürer's works and artistic concepts.

Keywords: Renaissance; Nature and Art; Art and Science; Albrecht Dürer.

1. Introduction

The Renaissance, which took place between the 14th and 16th centuries, was an ideological and cultural movement initiated by the emerging bourgeoisie. Many magnificent works of art were produced during the Renaissance, which not only reflected the progress of art but also reflected the deepening connection between nature and art. Exploring how Renaissance artists absorbed nature into their works and connected it with art organically will help people better understand Renaissance artworks and artistic creation methods.

In the article On the Progress of the Renaissance View of Nature and Art, Li Ke briefly analyzed the changes and progress of the concepts of nature and art in the Renaissance period. He believed that "people tried to explain the natural world and social phenomena with scientific methods, which prepared the possibility for the development of the understanding of the relationship between nature and art in this period." [1]. Shao Zhili proposed in the article The Relationship between Art and Nature in the Renaissance that "the rapid development of natural science in the Renaissance provided greater possibilities for the deepening of the understanding of the relationship between nature and art." and demonstrated this point of view [2].

Many contemporary scholars have tried to analyze the relationship between nature and art in the Renaissance when studying the art of the Renaissance, but there are still few research articles starting from the works and specific creation methods. This paper takes Dürer's works "The Great Meadow" and "The Holy Family and Three Hares" as examples, through analyzing Dürer's artistic growth path, analyzing the connection between his works and nature in detail. And then extends to the connection between art and nature in the Renaissance period and discusses the relationship between art and nature combining Dürer's views and other artists in the Renaissance period.
2. Overview

2.1. Renaissance Background

The Renaissance was a European ideological and cultural movement from the 14th to the 16th centuries, which represented the new bourgeoisie. The Renaissance began in the Italian city-states, then spread to Western Europe and reached its peak in the 16th century. The Renaissance was a period of scientific and artistic revolution as well as a liberation movement. It opened the prologue of modern European history and marked a great turning point in the history of human civilization.

The Renaissance was initiated by advanced thinkers, writers, artists, scientists, and others. Because they realized the importance of "human" in the consciousness world, they began to advocate taking "human" as the center of the world. On this basis, they preached to replace ignorance with scientific knowledge, so great progress was made in the field of science during the Renaissance.

2.2. The Relationship between Art and Science in the Renaissance

During the Renaissance, art and science were closely linked: the development of sculptural arts such as architecture, painting, and sculpture promoted the development and progress of mathematics, perspective, human anatomy, and natural research methods. Before the Renaissance, European painters and artists had a low status, similar to that of craftsmen. After the Renaissance, in order to prove their status and the connotation of painting art, painters began to consciously link science with painting.

The development of natural science brings new ideas to painters, who try to reproduce the visual reality of nature in the painting plane works. The prerequisite for bringing this effect was the combination of painting and science. With the continuous practice and exploration of Renaissance painters, perspective, anatomy, and optics became the three scientific branches of painting [3]. Renaissance painters explored a whole set of rules and methods for observing nature and constructing pictures, which made the artistic expression of paintings more powerful and the connotation of pictures fuller.

2.3. Dürer's Transition to Natural Learning

Albrecht Dürer (1471-1528) was a German artist of the European Renaissance who made great achievements in sculpture, mathematics, mechanics, anatomy, architecture, and other disciplines. Dürer created a large number of woodcuts, copper engravings, oil paintings, and character sketches, representative works are "Revelation", "Little Passion", and "Knight, Death and the Devil" [4]. He visited Italy twice, introducing the spirit and techniques of the Renaissance to Germany. Therefore, his works not only have the advanced consciousness of humanism, and the advanced technology of the integration of science and art, but also can skillfully integrate with the traditional German art.

Dürer was born in Nuremberg, the son of a Hungarian court goldsmith [4]. As an apprentice in his father's workshop as a teenager, he showed a keen observation of nature, and he took inspiration from the natural landscape, which laid a solid foundation for painting. From 1494 to 1495, Dürer began his first trip to Italy and Venice, this trip to the south of his landscape painting had an important influence and change [5].

As an apprentice to Michael Wolgemut in his youth, Dürer painted either individual objects or specific locations. Due to the lack of perspective training, Dürer's works often have the problem of spatial imbalance when depicting places. In addition, his way of processing is somewhat dull and monotonous, and the picture information is more objectively presented, rather than constructing the picture content according to the composition concept.

Compared to these early attempts, Dürer's post-travel watercolor sketches were advanced in perspective and composition. Even when representing a single object, such as "Wild Grass", Dürer could coordinate the details into a comprehensive and coherent pattern, animated by the bright lighting. This meant that Dürer understood that the holistic treatment of the medium was more
important than the partial treatment in painting, and he made more nuanced observations about the phenomenon of color.

3. Analysis of Works

3.1. "Great Piece of Turf" by Dürer

As shown in Figure 1, "Great Piece of Turf", created in 1503, is one of the earliest masterpieces of natural studies and a representative of Dürer's realism style. The perspective of this painting is not the perspective of human beings looking down from the top down, but from the bottom up. It can be guessed that Dürer presents the viewer with a view of nature from the point of view of insects.

![Fig. 1 Great a Piece of Turf [6]](image)

The painting ostensibly depicts a simple piece of turf, but the details are accurate. Wild plants seem to be mixed and growing, but they show the vitality of plants by depicting the reality of nature. The details of the characteristics of each plant in the picture are very accurate and clear, and they are not generalized and drawn as weeds through imagination. What's more, there are many kinds of plants that can be identified, such as duckweed, Daisy, dandelion, leaf root, plantain, inverted flower pot, and saw grass [6].

In the picture, plantain stands out. Dürer uses a dark green slender dry pen to shape the leaves and uses white lines to highlight the veins and edges of the leaves, making the texture of the leaves more realistic and vivid [6]. And Viewers can observe the dandelion in the picture, clearly see the leaves and stems show a slightly wilting curve, showing a kind of beauty of decay. However, Dürer's research is not limited to the stems of leaves above the surface, he also dug up the soil to explore the roots of plants. He placed the roots in dark layers, giving depth and solidity to the composition. Dark tones wrap around the base of the plants, adding a calm, solid atmosphere to the whole painting. This contrast and the use of layers make the picture more three-dimensional but also let the viewer feel the vitality of the plant and the importance of roots.

Dürer chose to use watercolor as a medium in order to concentrate on the expression of color and texture, as well as to aid in his other aspects of painting detail. He skillfully used different types of green, so that the picture of a variety of plants mixed but not messy, each plant's roots and leaves are depicted in a fine and unique. This use of color gives a sense of natural growth and harmonious coexistence as if the viewer is in the garden of nature.

With this painting, Dürer successfully expresses the careful observation and realistic representation of plants. He portrays the growth state of plants from a unique perspective, faithfully tracing every detail. This painting shows the beauty of nature's vitality and makes the viewer seem to
see it with their own eyes. Through the clever use of color, texture, and composition, Dürer has created a work of deep, realistic, and harmonious beauty.

3.2. “The Holy Family and the Three Hares” by Dürer

As shown in Figure 2, “The Holy Family with Three Hares” was created in 1498. It is a woodcut engravings of religious paintings. The painting presents a luxurious family idyll, depicting the outdoor scene of the Virgin Mary, Ruth, and the infant Christ, which is full of symbolic meanings [7]. The three hares in the foreground imply the Virgin Mary's strong fertility and their clever movements and lively looks add interesting colors to the picture.

![Fig. 2 The Holy Family and the Three Hares [7]](image)

In this painting, the trees, grass, and flowers in the picture can be accurately distinguished, with full vitality. The mountain vegetation in the background is natural and realistic, which can be easily distinguished at different distances. The characters' personality characteristics are clearly displayed through their expressions, poses, and clothes. This painting is an accurate expression of naturalism. Dürer's realistic depiction of nature gives his characters, animals, and plants real vitality.

4. The Relationship between Art and Nature

4.1. Dürer's View on the Relationship between Art and Nature

Dürer said, "The painter no longer needs to imagine that he can or will create something better than what God has given him. Compared with the hand created by God, the power of the painter is weak." [8]. Dürer believed that the power in nature is infinite, and the painter should actively learn from nature and absorb the beauty in nature. Because Dürer understands the importance of observing and learning from nature, he actively applies these observations and learning to his paintings. For example, he pays close attention to the forms and characteristics of plants and animals, so that he can show their true gestures in his paintings; He also paid attention to natural objects, such as mountains or rivers, and observed their color changes and light refraction, so as to show the realism of nature in his paintings.

Dürer displays a reverence for nature and a spirit of exploration in his paintings. He is not only replicating the forms and colors of nature, but more importantly, he conveys his unique understanding and emotional experience of nature through his artistic expression. His works make people feel the power and beauty of nature and inspire the viewer’s inner resonance.
4.2. The Exploration of Nature by Other Renaissance Painters

During the Renaissance, many painters made in-depth explorations of nature. For example, Leonardo Da Vinci put forward the "mirror theory", "the heart of a painter should be like a mirror, often taking in the colors of the things reflected, and taking in as many images as there are things in front of him" [9]. He was passionate and obsessed with natural perspective. He created excellent works with natural backgrounds such as the “Virgin of the Rocks” and the “Mona Lisa”. In addition, Leone Battista Alberti wrote on Painting in 1435, stating that "the painter always chooses from nature, always chooses the beauty of nature." [10]. And put forward the concept of perspective construction and visual pyramid. In addition to the several painters listed in this article, there are many Renaissance painters who deeply thought about and practiced the relationship between nature and painting, and this article will not list them all.

4.3. The Way Renaissance Artists Incorporated Nature into Art

The rapid development of natural science during the Renaissance provided more possibilities for people to understand the relationship between nature and art. Therefore, people began to try to explain natural and social phenomena with scientific methods, which made them think more rationally about the relationship between nature and art [1]. In the past, art was often seen as an intuitive expression, while during the Renaissance, the spread of science and the formation of free thought changed the way people thought about the relationship between nature and art. People began to realize that art could also be expressed by imitating nature, and that realistic works of art could be created by studying natural phenomena.

Among them, the invention of perspective is considered to be the beginning of the visual art revolution in the Renaissance. The application of perspective enables artists to create realistic three-dimensional images on a two-dimensional plane, thus giving more depth and reality to their works [2]. In addition, Renaissance painters also advocated "imitating nature", which was related to the formation of the concept of freedom and the affirmation of human nature at that time [2]. The people-oriented thinking makes them pay more attention to the discovery of nature.

4.4. The Influence of Nature on Artistic Creation during the Renaissance

The scientific developments of the Renaissance opened the door to a deeper understanding of the relationship between nature and art. Through the application of scientific methods and the invention of perspective, artists can pursue higher fidelity and three-dimensional sense in their creation, so that artworks can more accurately express the beauty of nature. At the same time, people's observation and thinking of nature also make the relationship between art and nature closer, and artworks begin to show a more real and vivid beauty [1].

In a word, the rapid development of natural sciences in the Renaissance provided greater possibilities for a deeper understanding of the relationship between nature and art. The invention of perspective, the emergence of humanism, and the formation of a new concept of nature all opened up a path for artists to explore the beauty of nature and create more realistic works of art. Scientific progress and artistic innovation in this period promoted each other and jointly promoted the prosperity and development of European culture.

5. Conclusion

During the special period of the Renaissance, art and science were closely linked, and artists' attention to nature increased significantly. Dürer displays a reverence for nature and a spirit of exploration in his paintings. He is not only replicating the forms and colors of nature, but more importantly, he conveys his unique understanding and emotional experience of nature through his artistic expression. His works make people feel the power and beauty of nature and inspire the viewer's inner resonance.
This leads to the conclusion that nature is the best teacher. Artists should extensively absorb inspiration from nature to enrich the core of painting. By drawing materials from nature, artists can create more realistic and flexible works. This kind of authenticity can arouse people’s deepest emotional resonance, making viewers understand and appreciate artworks more deeply. Only by observing and thinking about the details of nature can artists create more realistic, flexible, and emotionally laden works.

By delving into Dü rer’s works and artistic concepts, and exploring the relationship between art and nature in the Renaissance, this paper aims to provide new ideas for people to better understand Renaissance art. The author hopes that more research on the Renaissance will focus on the connection between art and nature reflected in the works.

References