

Lesson 6 Art in Our Lives

The Art of Dots

Have you ever zoomed in on a photo on your computer screen? If not, take a look at the image below.

When we look at the entire flower, it appears to have a gradual change in shade. Now, zoom in on the edge of the flower. You can see that it consists of many square dots with distinct colors and tones. Each tiny square dot is called a pixel.

Each pixel emits one of the three primary colors of light: red, green, or blue. Nonetheless, when viewing digital images, we can perceive secondary colors, such as yellow, cyan, and magenta, as well. These secondary colors are produced by putting primary colors next to each other. When equal amounts of red pixels and green pixels are put together, people perceive them as yellow. Likewise, people perceive the combination of blue and green pixels as cyan, and the combination of red and blue pixels as magenta. Take the yellow bell pepper on the screen as an example. We perceive the bell pepper as yellow, but if you look at it closely, there are a lot of red and green pixels next to each other.

The idea of using dots to produce another color is not new. Long before digital images were invented, French artists Georges Seurat and Paul Signac used a similar technique to paint their artworks in the 1880s. They were influenced by the color theory a French scientist had developed at the time. They did not use traditional brushstrokes to put paint on the canvas. Instead, they used tiny dots of individual colors to create an image. This technique is called Pointillism. The idea behind it is that when numerous dots of separate colors are placed next to each other, and then viewed from a distance, they blend in the viewer's eyes. Let's look at two examples of Pointillist style paintings.

This work named *A Sunday Afternoon on the Island of La Grande Jatte* was created by Georges Seurat, the pioneer of Pointillism. It portrays people looking at the river, reading books, or sitting on the grass. We can see some animals including a dog and a monkey as well. The grass on which the shade falls is painted dark. However, other areas without shadow are painted bright. This sharp contrast is pretty impressive.

This work is a representative work of Pointillism. It is mostly painted with dots instead of dashes or lines. If you look closer, you will notice that there are no object boundary lines. It also has multiple distinct colors of dots to represent a single color, which adds more vibrancy to the painting.

Take a look at a part of the monkey from the original picture. Its body is made up of a variety of different colored dots. However, when viewed from a distance, the dots of various colors optically merge to produce brown. In the process of creating this work, Seurat kept studying color composition, analyzing it, and revising this work. It took him two years to produce this huge piece because he arranged every single dot with purpose and intention. Since he created art using color theory, Seurat is known as a scientific artist. He himself also said, "Some say they see poetry in my paintings; I see only science."

Now, let's look at another Pointillist painting, *Women at the Well*, painted in 1892 by Paul Signac, a contemporary of Seurat.

In this work, two individuals are drawing water from a well with a container. Behind the women are a lighthouse and boats in the ocean. This artwork portrays a hot sunny day in southern France through the contrast of yellow sand and blue ocean. Upon closer inspection, all the objects in the picture are composed of small dots. It is worth noting that Signac did not simply paint the grass green by combining yellow and blue. Rather, he placed separate dots of yellow, blue, and green next to each other. Viewers then perceive the combination of these colors as green. Signac changed the proportions of these colors to create the various shades of green.

The era of Pointillism came to an end after the first half of the twentieth century. However, this new and scientific method of painting had a great influence on later art groups. Modern artists have adopted the basic concept of dots and applied it to their works in a variety of shapes and forms.