

DESN 110 – VISUAL DESIGN

Color Wheel

The color wheel is a device that organizes color in a way that will help the designer better utilize and understand color theory. On the color wheel, the spectrum of light that is reflected off an object is bent around a wheel to better describe the relationships of the separate colors to each other. Although there are several different color wheels that are used, we are going to work with the traditional twelve-color wheel which dates back to the early 18th century.

There are two types of color systems that we need to consider.

ADDITIVE COLORS

The first is Additive; its primary colors are red, green, and blue. When these three colors are added together they produce white, such as the RGB color on a computer monitor. In this system the absence of color is black. When all colors are combined, the result is white.

SUBTRACTIVE COLORS

The other color system is called Subtractive. The primary colors in this system are red, yellow, and blue. This system deals with light reflected off an object rather than light that is emitted. For instance a blue object will reflect only the blue light, but will absorb all other colors so the other colors are subtracted. In this system the absence of color is white. When all colors are combined, the result is black.

In this class we will be dealing with subtractive color exclusively.

PRIMARY COLORS – red, yellow, and blue

These are the basic building blocks of all color in the reflected light spectrum. All other colors are created from these primary colors. They are like prime numbers in mathematics; they cannot be created by mixing other colors.

SECONDARY COLORS – green, orange, and violet

These colors are the colors at the halfway point between primary colors on the wheel. They are created by mixing the primary colors on either side. Mixing red and blue in equal amounts will produce violet. Mixing red and yellow in equal amounts will produce orange and half blue and half yellow will produce green.

INTERMEDIATE COLORS – red-orange, red-violet, blue-violet, blue-green, yellow-green, and yellow-orange

Also known as tertiary, these six colors are created by mixing a primary color with the adjacent secondary color in equal amounts.

We will explore the relationships of color based on the position of the colors on the wheel in subsequent projects.