

COLOR THEORY: Week 2

“Only those who love color are admitted to its beauty and immanent presence. It affords utility to all, but unveils its deeper mysteries only to its devotees.”

— Johannes Itten

Notes, clarifications, and information to the first week of class

- If you buy any books on color, I recommend these two. They cover different information:
The Elements of Color, Johannes Itten
Interaction of Color, Josef Albers
- **White** is the presence of all lights or hues in the color spectrum.
Black is the absence of all lights or hues in the color spectrum.
Many artists don't buy gray or black paint. They mix their own grays and blacks from other hues.
- In the world of color, **Complementary** means opposite. I couldn't find any explanation for the use of the word itself. The complementary color of a primary color, for example, yellow, is a mixture up of the other two primary colors, for example, violet (blue + red). When you mix any two complementary colors together equally, you get neutral gray.
- When referring to hues that work well together, the term **Harmonious** is used.

Color of the year

Notice how the predictions vary between different paint companies and a company that defines color for printing, fashion, and plastic.

Reviewing homework from Week 1

The challenge was to match each of the pieces of paper in six hues (red, orange, yellow, green, blue, and violet) with one of the 10 steps on the gray scale. We'll compare what we each determined. We'll also take a look at two representations of this challenge, including one done by Albert Munsell, the first person to identify three characteristics of color and assigned quantities to each characteristic.

Hue, saturation, and value (HSV)

Werner's Nomenclature of Color (updated by Syme) was one of the first color guides was developed in 1774 by Abraham Gottlob Werner, a geologist. Note that while he differentiates among colors, there is no system for reproducing the colors. Charles Darwin used this book to describe colors he observed in nature on his voyages to South America and Australia between 1831 and 1836.

Some color theorists before Munsell proposed that color needed to be visualized as three-dimensional. He used a sphere to demonstrate his system, in which colors are based on “three identifiable and measurable qualities of color: hue, chroma (saturation), and value.” This allowed for accurate communication and reproduction of color in teaching, art, and industry. Over time, he modified his sphere to show that some hues exist outside the sphere, referring to his model as a “color tree.”

Hue refers to the color itself, that is, red, orange, yellow, blue violet, etc. Pure hues are at the outer edges of the color tree.

Value refers to the darkness or lightness of a color. The shades of gray, from black to white, exist on the trunk of the color tree.

Saturation or **Chroma** refers to the saturation or brilliance of a color. On the color tree, saturation goes from the end of one branch of the tree to the end of another branch. That is, saturation indicates how much of two complementary hues (as well as their value) are in a color.

Josef Albers' *Interaction of Color*

Josef Albers is considered one of the greatest teachers of color. He identified how our perceptions of color shift depending on the color context in which a hue appears. He repeatedly emphasized that color is subjective and deceptive. In his classes, he presented students with challenges such as how can one color appear as two colors, how can two colors appear as one color, etc. In his book, *Interaction of Color*, he uses his students' work to demonstrate these challenges. Albers believed the only way to really understand color is to play with color. In the process of working on the challenges, students came to understand how color choice can affect design in print, fabric, weaving, products, etc.

More suggested books

The Secret Lives of Color, Kassia St. Clair (An overview of color followed by the history of dozens of individual colors)

More suggested websites

Albersfoundation.org

Josef & Anni Albers Foundation. Click on the hamburger menu, then select Workshops under Learn.

Interactionofcolor.com/home-ioc (\$26.49 subscription required for access.)

Designed and developed by Yale University (where Josef Albers taught) and the Josef & Anni Albers Foundation.