



Glossary

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Accent A color that doesn't properly belong in a particular color combination, but is added for spice.

Analogous Color combinations which come from adjacent areas on a color circle or adjacent wedges on a color star.

Aristotle Early Greek philosopher who theorized that all colors were just differing amounts of sunlight (or firelight) and darkness. Red had less light than white, green had more shadow, blue had still more shadow. (350 BC)

Busy Backgrounds A surface which has light and dark parts; over such a background no color of type will be easily read.

Michel Eugène Chevreul A famous French chemist who designed a 72-color wheel and explored many important principles of color including Simultaneous Contrast.

Chromatic Deviation The measurement of the inaccuracy inherent in process printing inks.

C.I.E. This 1931 International Commission on Illumination, the first scientific system to site magenta and cyan as subtractive primaries is still used as a benchmark for comparing various color media.

Colorspace A defined environment for using color which has distinct characteristics.

Contrast The quality that allows visual objects to be distinguished from each other, accomplished by difference in value.

Contrast Differential The percentage of value difference between a subject (especially type) and a background.

CMYK An acronym four-color process printing (the acronym is not in correct printing order).

Leonardo da Vinci He stated in his Treatise on Painting (1510) that there were six basic colors: White, Yellow, Green, Blue, Red & Black; and that the blue of sky was not intrinsic but a reaction between sunlight and "vapors" which rise from the earth.

Dominant Element That object in a composition to which the eye is first drawn when viewed. Also called focal point.

Double Complement Color combinations which come from adjacent sets of complements.

Duotone An image printed in two inks: usually black and a color ink.

Dynamic Range The amount of contrast between the lightest and darkest elements in an image

Fluorescence The phenomenon when invisible ultraviolet light is changed into visible light or when longer wave visible light is changed into shorter wave visible light.

Focal Point That object in a composition to which the eye is first drawn when viewed. Also called dominant element.

Gamut A term referring to the range of colors achievable compared to the full range of colors visible to the human eye, usually shown superimposed on a CIE diagram.

GIF The file format for saving images made with Indexed Color.

Johann Wolfgang von Goethe A German writer, poet and scientist who criticized the author of Opticks and proposed a

triangular model for color (with no magenta) in his own 1810 book Zur Farbenlehre (Theory of Colors).

Grayscale A computer term for an image in black only which has the potential for all the values between black and white.

Moses Harris He published, in 1766, the first color wheel in color based on subtractive primaries.

Hexachrome A six-color printing process which provides a much wider color range than conventional four-color process.

Alfred Hickethier A German printer whose 1952 numerical system used a 1000 color cube for designating colors made with process primaries of yellow, magenta and cyan.

HLS A digital way of describing colors using hue, value and saturation.

Indexed Color A system for reducing any image to 256 colors or less using a custom palette, reducing the file size for use on the Internet.

Johannes Itten His Color Star did not recognize magenta or cyan as primaries, but his 1961 book The Art of Color summarized most other knowledge about color to date.

JPEG A compression technique used for digital images which discards information and interpolates the image with the remaining data; used on the internet.

Lab Color A digital colorspace developed by CIE to theoretically encompass every color discernible to the human eye. Uses 3 channels: one for value, one axis for magenta-red to blue-green), and one axis for yellow to blue.

Johann Heinrich Lambert and Tobias Mayer A German and Swiss team of color theorists who devised the first 3-dimensional model for explaining the world of color: a pyramid with the primaries at the corners and white at the top, with black in the center at the bottom.

Lateral Neutrals Sets of six colors on the True-Color Star which are neutral counterparts to Lateral colors, positioned on the outside edges of each wedge.

Laterals Sets of six colors on the True-Color Star, positioned on either side of main axis colors.

Legibility The ability to see clearly the subject or words being looked at. It is possible because of contrast.

Lossee Compression A way of saving a file in binary code for a document which takes less disk space because it discards data and then interpolates the missing data by mathematical deduction. There is a loss of quality but much greater size savings.

Lossless compression A different way of writing the binary code for a document which takes less disk space. Examples: LZW, Stuffit, Zip, DiskDoubler

Macintosh System Colors 256 colors built into the Macintosh system. Since virtually all computers now display millions of colors, this system is rarely used.

Main Axis Sets of eight colors on the True-Color Star extending in a straight line from the center, through either a true

primary color (C, M or Y) or secondary color (R, G or B) to the tip of the respective wedge.

Main Axis Neutrals Sets of eight colors on the True-Color Star which are neutral counterparts to Main Axis colors, positioned outside and to the right of each respective wedge.

Match Color Printing inks that are specially mixed to be the exact color needed. Also called spot color or premixed inks.

Monochrome Color combinations that come from a single wedge of a color star.

Albert Munsell He recognized the intrinsic difference in values between different hues and developed a system for indicating saturated and unsaturated colors (Color Notation 1905). (no magenta)

Isaac Newton He worked extensively with colored lights produced by prisms and published Opticks in 1704, but received a great deal of criticism for his work because no one recognized the difference between additive and subtractive color.

Wilhelm Ostwald A former Nobel Prize-winning chemist who developed in 1913 a scientific method for mixing precise shades of color with pigments. (no magenta)

Premixed Inks Printing inks that are specially mixed to be the exact color needed. Also called match color or spot color.

RGB The acronym that refers to the native colorspace of computer monitors. Usually the most convenient and accurate of the digital colorspaces to work in.

Phillip Otto Runge In his 1810 book Die Farbenkugel (The Color Sphere) he made a spherical three-dimensional model for color (no magenta).

Split Complement Color combinations made up of a color on a color wheel and colors on either side of the first color's direct complement.

Spot Color Printing inks that are specially mixed to be the exact color needed. Also called match color or premixed inks.

Triad Color combinations made up of colors from either the subtractive true primaries or the additive true primaries.

Value Of the three qualities that distinguish colors from each other the only quality of color which provides true contrast.

Vanishing (Boundaries) The effect of two adjacent colors which are only slightly different in hue, but the same in value.

Varying Backgrounds A surface where the values go from light to dark, over which there will be a place where type will be illegible, no matter what color the type is.

Vibrating (Boundaries) The effect of two adjacent colors which are quite different in hue only, but the same in value.

Warm Grays Sets of grays made from equal quantities in 10% increments of Y, M and C.

Web-Safe Color The 216 colors that are common to both the Macintosh and the Windows operating systems and, therefore, will always display the same on the internet.

Wide Analogous Color combinations which come from

adjacent areas up to half of a color circle or half the adjacent wedges on a color star.

Windows System Colors 256 colors built into the Windows system. Since virtually all computers now display millions of colors, this system is rarely used.