

Color Foundations Glossary

- **Aesthetics** Pertaining to the science or or a sense of beauty or the beautiful, having a sense of the beautiful or a love of beauty.
- **Achromatic** "Not Color" Black, Grays or White.
- **Additive colors** Colors made by lights which, when mixed, create white light. (*R-G-B*)
- **Aerial perspective** The tendency of forms seen at a great distance through a hazy atmosphere to blur toward uniformity in *hue* and *value*, with no edges. In many atmospheres, everything will take on a blue cast.
- **After-image** The illusion of color and shape produced in the visual apparatus after staring at a strong color for some time. A positive after-image is the same color as the original; a negative afterimage is its complement. See *successive contrast*.
- **Analogous hues** Those colors lying next to each other on a *color wheel*.
- **Chiaroscuro** The use of light and shadow effects in a painting.
- **Chromatic hue** Any color other than black, grays, and white
- **Chromatic Black** - A black that is achieved with to combination of 2 or more colors. Such as Orange and Blue or Red and Green or by mixing the 3 primary colors together.
- **CMYK** - the three primary offset/lithographic printing colors.(cyan, magenta and yellow, plus black) In computer photo-editing programs CMYK refers to an image format having the image data separated into four separated channels, one for each of these primary printing colors.
- **Collage** A two- dimensional work of art in which *found objects* are glued to a flat surface.
- **Color Contrast** - The way in which colors might contrast by value (Light to Dark), by temperature or hue, (Warm to Cool) and by saturation or complementary, (Muted and Toned to Vibrant and Brilliant)
- **Color-Field painting** A style originating from the mid-twentieth century New York School featuring large, nonobjective areas of color. see, Rothko, Rienhard, Albers, Frankenthaler.
- **Color separations** In printing, colored images are broken down into screens of certain primaries (in a *four- color process*, they are magenta, cyan, yellow, and black) which when superimposed, and printed, will yield an approximation of the original colors.
- **Color wheel** A circular, two dimensional model showing color relationships, originating from Sir Isaac Newton's bending of the straight array of *spectral hues* into a circle.
- **Complementary hues** Colors that lie opposite each other on a *color wheel*. When placed side by side they will intensify each other visually: when mixed as pigments they will dull each other.
- **Cones** Special cells in the retina at the back of the eye which enable us to distinguish hues in daylight
- **Divisionism** The juxtaposition of tiny dots of unmixed paints, giving an overall effect of color when mixed optically by the viewer's eye from a distance: usually associated with the Post impressionists. See pointillism.
- **Dominant wavelength** In light mixtures, another term for hue.
- **Double complementary** A color combination in which hues adjacent to each other on the color wheel are used with their respective complementaries. See split complimentary
- **Expressionistic color** Colors chosen for their emotional impact rather than their fidelity to "standard" colors perceived in the external world.

exposed area and shadows only.

- Hard-edged painting** A painting with precise boundaries between non active colored areas, characteristic of some mid-twentieth-century work.

- HSB** Hue, saturation, and brightness— the variables in color specified in television technologies.

- Hue** The color quality identified by color names, such as "red" and "blue." This is determined by the color's wavelength.

- Limited palette** The use of relatively few colors in a work of art.

- Local color** The color sensation received from a nearby object under average lighting conditions.

- Low Contrast** An image that is made up of only middle value colors or just middle value grays. Also know as **High and Low Key**. An image made up of all very light colors, such as soft pastel colors would be referred to as both **Low Contrast and High Key**. And an image made up of all shaded colors or darkened color would be referred to as **Low Contrast and Low Key**.

- Luminance** The degree of lightness or darkness in light mixtures, corresponding to value in pigments.

- Monochromatic** Referring to a color combination based on variations in value and saturation of a single hue, perhaps with the addition of some neutral colors.

- Nanometer** One billionth of a meter, used in measuring wavelengths of light.

- Neutral** black, white, or gray or a color mixed with its compliment.

- Open palette** The use of a wide range of colors in a work of art.

- Pigment** Powdered coloring material used to give hues to paints.

- Pixel** In computer graphics, one of many tiny points on the computer screen determined by intersections of x and y axes.

- Pointillism** A technique in painting whereby dots of pure hues are placed close together on a white ground to coax the viewers eye to mix them optically. (Divisionism is a similar technique, but without the white ground showing.)

- Polychromatic** Multicolored .

- Primary colors** Those hues from which all others can theoretically be mixed; in refracted colors, red, green, and blue; in reflected colors, red, yellow, and blue.

- Principal hues** Albert Munsells term for the five pigment primaries used in his color model (green, blue, purple, red, and yellow).

- Refracted Color** resulting from passing light through a prism, breaking it down into its constituent wavelengths

- Retina** The inner surface of the back of the eye, where rods and cones respond to qualities of light.

- RGB** Red green, and blue - the additive primaries used in color computer monitors and color televisions.

- Rods** Light-sensitive cells in the eye that operate in dim light to distinguish values.

- Saturation** The relative purity of a color, also called intensity.

- Screen** In printing, a dot pattern used to create the impression of a certain value or color.

- Secondary colors** Hues made by mixing two primary colors.

- Shading** In Ostwald's model, the color change that results when one adds black and decreases the percentage of the original hue.

- Tinting** In Oswald's model of color relationship, the effect of adding white and decreasing the percentage of the original hue.
- Toning** In Oswald's system, the effect of adding both black and white and decreasing the percentage of the original hue.
- Transparency effect** The painted illustration that A film of color is lying over another color.
- Value** The degree of lightness or darkness in a color.
- Visible spectrum** The range of wavelengths seen by the human eye.
- Wavelength** The distance from crest to crest in a wave of energy.

Important People In Color

- ARISTOTLE (500BC)
- LEONARDO DI VINCI (1500)
- ISAAC NEWTON (1700) *"new theory of light and color"*
- MOSES HARRIS (1766) THE COLOR CIRCLE
- JOHANN WOLFGANG GOETHE (1800) COLOR TRIANGLE *"theory of colors"*
- PHILIPP OTTO RUNGE (1810) THE COLOR SPHERE
- MICHEL E. CHEVREUL (1870) BASICS IN COLOR THEORY *"the principles of color"*
- NICHOLAS ODGEN ROOD (1880) OPTICAL MIXING
- ALBERT H. MUNSELL (1905) COLOR TREE *"atlas of the munsell color system"*
- WILHELM OSTWALD (1910) THE COLOR SOLID *"the ostwald color album"*
- JOSEPH ALBERS (1963) *"interaction of color"*
- ALFRED HICKETHIER (1969) COLOR CUBE *"color mixing by numbers"*
- JOHANNES ITTEN (1973) COLOR STAR *"the art of color"*

Suggested Reading Materials:

Call Number: 631.4 M969 1994
 Title: **Munsell soil color charts.**
 Edition: 1994 rev. ed.
 Publication info: Basltimore, Md. : Munsell Color, 1994.
 Physical description: 1 v. (loose-leaf) : col. ill. ; 20 cm.

Call Number: 701.85 S556D
 Personal author: Shibukawa, Ikuyoshi.
 Title: **Designer's guide to color 5** / Ikuyoshi Shibukawa & Yumi Takahashi.
 Publication info: San Francisco, CA : Chronicle Books, 1991.
 Physical description: 128 p. : ill. ; 22 cm.

Call Number: 701.85 I61 VIDEO
 Title: **An introduction to color mixing with Russell Woody videorecording**
 Publication info: Easton, PA : Binney & Smith, 1987.
 Physical description: 1 videocassette : sd., col. ; 1/2 in.
 Series: (The art video series : no 1)

Personal author: Libby, William Charles.
Title: **Color and the structural sense.**
Publication info: Englewood Cliffs, N.J., Prentice-Hall [1974]
Physical description: xi, 114 p. col. illus. 24 cm.

Call Number: *746.92 P393C*
Personal author: Peltz, Leslie Ruth.
Title: **Color, line, and design.**
Publication info: New York, ITT Educational Services [c1971]
Physical description: viii, 152 p. illus. 28 cm

Call Number: *701.8 I91E*
Personal author: Itten, Johannes, 1888-1967.
Title: **The elements of color; a treatise on the color system of Johannes Itten**, based on his book The art of color. Edited, and with a foreword and evaluation, by Faber Birren. Translated by Ernst van Hagen. Publication info: New York, Van Nostrand Reinhold Co. [1970]
Physical description: 96 p. illus. (part col.), port. 21 cm. Series: (A Basic color library)

Call Number: *535.6 B619P*
Personal author: Birren, Faber, 1900-
Title: **Principles of color; a review of past traditions and modern theories of color harmony.**
Publication info: New York, Van Nostrand Reinhold Co. [1969]
Physical description: 96 p. illus. (part col.) 21 cm.

Call Number: *752.09 B619H*
Personal author: Birren, Faber, 1900-
Title: **History of color in painting, with new principles of color expression.**
Publication info: New York, Reinhold Pub. Corp. [1965]
Physical description: 372 p. illus., facsims., 32 col. plates, ports. 31 c

Call Number: *701.8 L694C*
Personal author: Libby, William Charles.
Title: **Color and the structural sense.**
Publication info: Englewood Cliffs, N.J., Prentice-Hall [1974] Physical description: xi, 114 p. col. illus. 24 cm.

Call Number: *709.24 A332 BUC*
Personal author: Bucher, François.
Title: **Josef Albers : despite straight lines : an analysis of his graphic constructions** / by François Bucher ; statements and poems by Josef Albers.
Edition: Rev. ed. Publication info: Cambridge : MIT Press, c1977. Physical description: 111 p. : ill. ; 24 cm.

Call Number: *701.8 H791C*
Author: Hope, Augustine.
Title: **The color compendium** / Augustine Hope, Margaret Walch ; introduction by Michel Pastoureau.
Publication info: New York : Van Nostrand Reinhold, c1990.
Physical description: xvi, 360 p. : ill. (some col.) ; 29 cm.

Call Number: *701.85 B187b*
Author: Philip Ball
Title: **Bright earth : art and the invention of color**
Publication info.: New York : Farrar, Straus and Giroux, [2002]
Description: ix, 382 p., [24] p. of plates : ill. (chiefly col.) ; 24 cm.

Call Number: *701.8509 G132ca*
Author: Gage, John.
Title: **Color and culture : practice and meaning from antiquity to abstraction**
Edition: First paperback printing 1999
Publication Information: Berkeley : University of California Press, c1993.
Description: 335 p. : ill. (some col.) ; 28 cm.

Call Number: *701.85 G132c*
Main Author: Gage, John, 1938-
Title: **Colour and meaning : art, science and symbolism / John Gage.**
Publication Information: [London, England] : Thames and Hudson, c1999.
Description: 320 p. : ill. (some col.), ports. (some col.) ; 27 cm.

Call Number: *535.6 O85C*
Main Author: Ostwald, Wilhelm, 1853-1932.
Title: *Farbenfibel.* English **The color primer; a basic treatise on the color system of Wilhelm Ostwald.** Edited and with a foreword and evaluation by Faber Birren.
Publication Information: New York, Van Nostrand Reinhold Co. [1969]
Description: 96 p. illus. (part col.) 21 cm.

Call Number: *152.1 B619C*
Main Author: Birren, Faber, 1900-
Title: **Color psychology and color therapy; a factual study of the influence of color on human life.**
Publication Information: New York, McGraw-Hill, 1950.
Description: ix, 284 p. illus. 24 cm.

Call Number: *701.8 I91E*
Main Author: Itten, Johannes, 1888-1967.
Title: **The elements of color; a treatise on the color system of Johannes Itten, based on his book The art of color.** Edited, and with a foreword and evaluation, by Faber Birren. Translated by Ernst van Hagen.

Call Number: *535.6 B619P*
Main Author: Birren, Faber, 1900-
Title: **Principles of color; a review of past traditions and modern theories of color harmony.**
Publication Information: New York, Van Nostrand Reinhold Co. [1969]
Description: 96 p. illus. (part col.) 21 cm.

Call Number: *752.C529P*
Main Author: Chevreul, M. E. (Michel Eugène), 1786-1889.
Title: De la loi du contraste simultané des couleurs. English **The principles of harmony and contrast of colors and their applications to the arts.** With a special introd. & explanatory notes, by Faber Birren.
Publication Information: New York, Reinhold Pub. Corp. [1967]
Description: 256 p. illus. (part col.), facsimis., ports. 29 x 32 cm.

Call Number: *535.6 J17B*
Main Author: Jacobson, Egbert, 1890-
Title: **Basic color; an interpretation of the Ostwald color system.**
Publication Information: Chicago, P. Theobald, 1948.
Description: 207 p. illus. (part col.) 29 cm.