

Color Theory – Portraits Spring 2008

Overview

- Learn about different methods for employing color
- Learn basic color theory
- Learn terms associated with color use
- How to use these ideas in the fine metals and printmaking studios

One note: color theory generally assumes the use of paint in paintings –not ink, stained glass, ceramic glazes, patinas, etc.

Various Approaches to Color Use

Descriptive Color

American Gothic, Grant Wood, 20th century

Portinari Altarpiece, Hugo van der Goes 15th century

Still life, student work

- applies to color choices governed by the desire to achieve realism.
- employed when artists are working directly from live models, objects in a still life, or landscapes.
- When a work employs descriptive color, we can assume the artist's intentions are to tell us something about 'real' life or situations rather than mythical or mystical or abstract ideas.

Intuitive/Expressive (Subjective) Color

The Scream, Edvard Munch, 20th century

The Joy of Life, Henri Matisse 20th century

Homage to Matisse, Mark Rothko 20th century

- selecting colors intuitively
- not necessarily one's favorite colors
- there are a variety of reasons for choosing colors that are not descriptive:
- Some colors have emotional or psychological associations (ie blue = melancholy or cold; red = exciting, intense, passionate, warning, warmth).
- Some color combinations may express dissonance or order;
- expressive color often appears more mythical or imaginative or fantastical.

Color Theor(ies)

- Sir Isaac Newton, Joseph Albers, Albert Munsell, Johannes Itten,
- use color theory as a tool to problem solve color issues, not a system to develop color in your art.
- Governing principles 1: **the perception of colors is relative to other adjacent colors.**
- Governing principles 2: **the eye/brain always seek equilibrium and harmony with respect to colors and combinations of colors**

Discussion: *Fig. 37 three grays on orange ground.* Each of these grays is very similar – you might not see them as different were they painted on the wall. Look at each of the squares on the orange ground.

Which one looks best? What is happening? (#1 perception of colors is relative)

The 12-part Color Wheel

Hues or Chromas (Colors)

Primary colors (center triangle): red, yellow, blue (when mixed in equal amounts = neutral gray)

Secondary colors: (center hexagon *sans* primaries) green, orange, violet (when mixed in equal amounts = neutral gray)

Tertiary colors: (circular ring) yellow-orange, red-orange, red-violet, blue-violet, blue-green, yellow-green (when mixed equally = neutral gray)

When combinations of these colors are physically mixed, as in paint, they result in neutral gray. When they are taken into the eye/brain in equal amounts, they result in a harmonious perception of color.

Modifying Hues and Combining Colors

Monochrome: using a palette of one color

Dutch Tile Fever, Judith Schaechter

Student work, Untitled (Bathroom)

In order to make a monochrome image interesting, modifying the color is necessary. There are several ways to do this:

1. Modifying the Value (lightness/darkness) of a hue

Fig. 12 in blue, the central blue hue has been shaded and tinted in this grid.

Fig. 11 indicates how these values appear when photographed in black and white film.

Shading (adding dark value hues or black)

Tinting (adding light valued hues or white)

2. Modifying the Saturation (intensity) of a hue (i.e. the *orangeness* of orange)

Fig. 39 an example of tinting orange with white. Orange becomes lighter in value, but it also loses its intensity or ‘orangeness’. Thus its saturation or intensity has been ‘diluted’

Analogous Colors: the use of colors that are immediately adjacent on the color wheel., i.e. red orange and yellow:

Female bust, Andre Serrano, photo, 20th century

Piss Christ, Andre Serrano, photo, 20th century

Sink, student work, oil

The effect of using analogous colors can be similar to the use of monochrome – a homogenous image that can be generally warm or cool. Because these color combinations don't employ many or diverse colors as in the natural world, they may suggest strong emotional or psychological tones or symbolic uses of color. They may suggest an imaginative, fantasy world.

Complements (or Dyads)

governing principle #2
**the brain continuously seeks equilibrium, and for the brain/eye,
equilibrium is achieved by perceiving neutral gray.**

Experiment:

- (1) project red square: focus on it for 30 seconds. Immediately close your eyes, what do you see?
- (2) repeat the experiment with green square.

You should see the color's complement in the 'afterimage' when you close your eyes.

This experiment suggests that the brain is always trying to achieve a balance of color – thus, when presented with one constant, strong color, upon closing your eyes you should see the color's opposite or 'complement'. When these two colors are mixed, the result would be a neutral gray: equilibrium.

- Complementary colors are across each other on the color wheel
Color wheel – point out complementary relationships

- When mixed (in the form of paint) they result in neutral gray
Figs 23 – 28 mixtures of complementary colors resulting in neutral grey

<i>Yellow/violet</i>	<i>Red-orange/blue-green</i>
<i>*Orange/blue-violet</i>	<i>Red/green</i>
<i>*Red-orange/blue</i>	<i>Red-violet/yellow-green</i>

**combinations that are not direct complements, but nearly direct*

- When employed equally in a piece, complementary colors are harmonious/create equilibrium
Fig 46 – balanced use of red and green = harmonious (but boring?)
Fig 47 – imbalanced use of red and green = interesting?

Landscape with Figures, George Tooker, 20th century tempera
example of use of (near) complements (red-orange/violet).

- How would you describe the color combination employed?
- Is it theoretically harmonious?
- How does harmony impact the imagery?

Tertiary complements

Fig. 54 diagram of tertiary complements

the placement of an equilateral or isosceles triangle in the color wheel will yield three colors that are complementary (when mixed = neutral grey).

Equilateral triangle = red/blue/yellow

Isosceles triangle = blue-violet/red-violet/yellow:

1 part yellow

$\frac{1}{2}$ blue, $\frac{1}{2}$ violet ($\frac{1}{4}$ blue, $\frac{1}{4}$ red) = $\frac{3}{4}$ blue, $\frac{1}{4}$ red

$\frac{1}{2}$ red, $\frac{1}{2}$ violet ($\frac{1}{4}$ blue, $\frac{1}{4}$ red) = $\frac{3}{4}$ red, $\frac{1}{4}$ blue

= 1 part yellow, 1 part red, 1 part blue!

Quadratic Complements

Fig. 2 diagram of both tertiary and quadratic complements

the placement of a square or rectangle in the color wheel will yield four colors that are complementary (when mixed = neutral grey).

Square = yellow, violet, red-orange, blue-green

1 part yellow

violet ($\frac{1}{2}$ red, $\frac{1}{2}$ blue)

$\frac{1}{2}$ red, $\frac{1}{2}$ orange ($\frac{1}{4}$ red, $\frac{1}{4}$ yellow) = $\frac{3}{4}$ red, $\frac{1}{4}$ yellow

$\frac{1}{2}$ blue, $\frac{1}{2}$ green ($\frac{1}{4}$ blue, $\frac{1}{4}$ yellow) = $\frac{3}{4}$ blue, $\frac{1}{4}$ yellow

= 1 $\frac{1}{2}$ yellow, 1 $\frac{1}{4}$ red, 1 $\frac{1}{4}$ blue (nearly equal amounts of red, blue and yellow)

Rectangle – yellow-green, yellow-orange, red-violet, blue-violet

$\frac{1}{2}$ yellow, $\frac{1}{2}$ green ($\frac{1}{4}$ blue, $\frac{1}{4}$ yellow) = $\frac{3}{4}$ yellow, $\frac{1}{4}$ blue

$\frac{1}{2}$ yellow, $\frac{1}{2}$ orange ($\frac{1}{4}$ red, $\frac{1}{4}$ yellow) = $\frac{3}{4}$ yellow, $\frac{1}{4}$ red

$\frac{1}{2}$ red, $\frac{1}{2}$ violet ($\frac{1}{4}$ red, $\frac{1}{4}$ blue) = $\frac{3}{4}$ red, $\frac{1}{4}$ blue

$\frac{1}{2}$ blue, $\frac{1}{2}$ violet ($\frac{1}{4}$ red, $\frac{1}{4}$ blue) = $\frac{3}{4}$ blue, $\frac{1}{4}$ red

= 1 $\frac{1}{4}$ blue, 1 $\frac{1}{2}$ yellow, 1 $\frac{1}{4}$ red (nearly equal amounts of red, blue and yellow)

Be aware that it is not advisable to construct an image with precise calculations of quantities of complementary colors. Rather, most artists employing color theory and complements will *visually* approximate the amount of each color to add to a composition.

Historic Uses of Color

Lamentation, Master of the Rohan Hours, tempera illumination, 1420

- Lapis was mined in Afghanistan far from Europe
- getting pure lapis out of rock required grinding and separating the lapis by hand – a difficult, tedious process.
- In medieval Europe, it was as rare and costly as gold, thus its use said something about the wealth of the patron or the importance of the image (or figure in the image). For instance, Mary's garments are often painted lapis blue.
- In these works color theory is not employed – rather the value of the material (blue, gold) governs its use

Old Man with Young Boy, Ghirlandaio, 1480

During the renaissance, artists began observing the natural world closely to make their paintings more realistic. Da Vinci was one of the first artist' to suggest a theory of atmospheric perspective. He noted that hills and mountains in the distance looked purple or bluish –even though they may be covered with gray rocks or green grass and trees.

- Objects lose color saturation as they recede (they become grayer).
- Most colors become cooler as they recede.

Conversely, warm colors appear to advance

Haystacks series, Monet, oil, 1891

- The Impressionists focused on *pleine air* painting (painting outside)
- Focused on color as they saw it, not as they thought it was (scientific, objective approach)
- Haystacks were painted in various kinds of light and weather, different times of day. Monet recorded differences of light and color through paintings what he saw.
- This work also involved mixing colors both on the palette and on the canvas

A Sunday on the Island of La Grand Jatte, Seurat, oil, 1884-5

Detail of dots

- Pointillist or divisionist approach to paint application; small dots of color next to each other result in colors being perceived or 'mixed' in the eye of the viewer.

The Starry Night, Van Gogh, 1889

Expressive color – color use that corresponds to an emotional or psychological effect rather than realism

Cameo, Helen Frankenthaler, 8-color woodcut, 1980

Successive layers of color printed, one on top of another

Transparent blue on top of peach-orange ground (complements, reduces saturation of both)

Pollen from Dandelion, Wolfgang Laib, 1997

- Similar to the illuminated manuscript the employment of bright yellow is significant because of the material – not really the color (collecting enough pollen from flowers to cover an 8x8 foot square)
- The yellow square is often placed on a neutral grey floor to set off the yellow more

Color Analysis Workshop

Work in groups of 2 – 3 to discuss the use of color in each image. Write a brief analysis of each image using color theory terms and concepts. Address the following questions:

Are complements being used, if so what kind?

Is the piece monochromatic? If so, how is monochrome achieved?

Are some colors saturated?

Are colors shaded? tinted?

Is color used expressively? subjectively? symbolically? descriptively?

Does color contribute to the tone of the piece? If so explain which colors support or enhance the tone of the image.

For example:: *Roschen*, Gabriel Munter, 1924

Composition with Red, Blue, and Yellow, Piet Mondrian, 1930

Young Woman Holding a Black Cat, Gwen John, 1910

Self-portrait, Gauguin, 1889

Savage Breeze, Helen Frankenthaler, 1974

A Visit To/A Visit From the Island, Eric Fischel, 1983

Untitled, Justin Patten, 2006

Five Color Frame, Robert Mangold, 1985

Dining Room in the Country, Pierre Bonnard, 1913

Color Theory Workshop

Art and Religious Practice / Winter 2008



Terms

descriptive color

intuitive/expressive (subjective) color

color theory

governing principle #1

governing principle #2

hues or chromas

primary colors

secondary colors

tertiary colors

Using, Modifying and Combining Colors

monochrome

shading

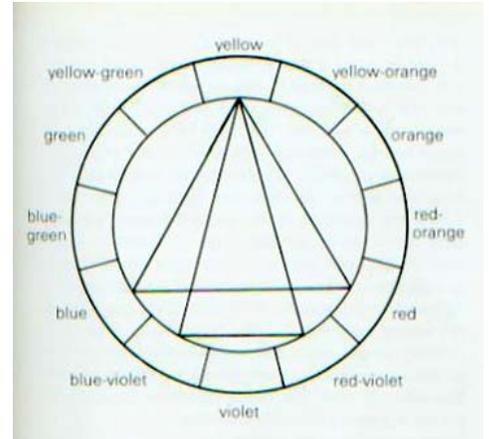
tinting

saturation

analogous colors

complements (or Dyads)

tertiary complements



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