## Introduction to Color

- Color attracts our attention and conveys emotions
- Our perceptions of color are personal and subjective-everyone perceives color differently WITH Cultural aspects, too.
" Use of color in art has "rules" yet those rules are used and challenged, making it magical/powerful in unpredictable ways
" "Artists' color" is the name for the basic theory about color based on the three primary colors (red, yellow, blue)
- The primary colors cannot be mixed from any other two colors-red blue yellow
- Secondary colors are colors that can be mixed from two primary colors
- Colors of light and colors of pigment behave differently as in when mixing paint versus mixing light on screen

Color Theory


Hues are the basic colors of the spectrum-pure color Red, orange, yellow, green, blue, and violet are hues

## Dimensions of Color: Hue



André Derain, The Turning Road, L'Estaque, 1906. Oil on canvas, $4^{\prime} 3^{\prime \prime} \times 66^{\prime} 4^{3 / 4^{\prime \prime}}$. Museum of Fine Arts, Houston, Texas


## André Derain,

 The Turning Road, L'Estaque- Strong bright color makes the entire scene glow with energy and vitality
- Derain was a member of the Fauves - French for "wild beasts"
- They used colors in their purest and strongest states as an act of defiance against the Academy, a state-sponsored school of art that set rigid rules for acceptable standards for art
- He uses color temperature and complimentary colors primarily as opposed to VALUE



## Barnett Newman, Vir Heroicus Sublimis

- Relies on value and saturation of color for its visual impact
- Alternating colors of the narrow vertical lines break up a broad red plane
- Subtle variations in the saturation of the red tones create the sensation that parts of the painting are separately lit
- Newman wants viewers to stand close to the canvas, engulfed by color-8' x $18^{\prime}$
- What are your thoughts on this piece?


## Dimensions of Color: Value

Each hue has a value, meaning its relative lightness or darkness compared to another hue so pure purple has a darker value compared to pure yellow
Different colors of the same hue vary in terms of their value
There are light reds and dark reds
Tints are colors that are lighter than their basic hue
Shades are colors that are darker

## Notice how "tonal" the colors are



Color-value relationships


Mark Tansey, Picasso and Braque, 1992. Oil on canvas, $5^{\prime} 4^{\prime \prime} \times 7^{\prime}$

## Mark Tansey, <br> Picasso and Braque



- A work that uses only one hue is called monochromatic
- An artist can give variety to such a work by using a range of values
- In Picasso and Braque, Tansey depicts two figures, whom he refers to as "Orville and Wilbur" (Wright)
- He is referring to Pablo Picasso and Georges Braque's habit of referring to each other as Orville and Wilbur
- The monochromatic palette is reminiscent of the black-andwhite photos of the Wright Brothers' experiments with flight


## Color Schemes

- The color wheel displays important color relationships
- Complementary colors contrast strongly with each other; they work together and fight each other as well"frenemies"
- Analogous colors do not contrast strongly with each other; yet they can work easy and harmoniously together-almost to the point of ennui - boredom
- When two complementary colors are painted side by side, these "opposite" colors create visual anomalies
- They intensify one another
- Each seems more SAturated
- As they have vastly different wavelengths, an illusion (in the photoreceptors of the eye) is created of Vibrating movement along adjacent edges of the two complementary colors


Frederic Edwin Church, Twilight in the Wilderness,1860. Oil on canvas, $40 \times 64$ ". Cleveland Museum of Art, Ohio


## Frederic Edwin Church, Twilight in the Wilderness

- Used complementary colors for dramatic effect
- The intense red-orange clouds complement swathes of the blue-green evening sky
- The powerful color of the sky and its refiection in the water below reveal Church's awe and respect for the American landscape


## Analogous Color

- Analogous colors are similar in wavelength
- Painters use analogous color to create color unity and harmonies
- By keeping the color within a similar range, artists avoid jarring, contrasting combinations of colors and moods


Mary Cassatt, The Boating Party, 1893-4. Oil on canvas, $353 / 8 \times 461 /{ }^{\prime \prime}$. National Gallery of Art, Washington, D.C.


## Mary Cassatt, The Boating Party

- Analogous color palette creates a harmonious effect
- These colors have relatively similar wavelengths and do not intensify each other when placed in close proximity
- Cassatt's color seems relaxed, reinforcing her theme
- Cassatt was one of the few female (and only American) members of the Impressionists
- The Impressionists were a group of artists who shared an interest in the effects of light and color


What comparisons do you see between this and the Cassatt?

## Our Perceptions of Color

- Our experiences of color are sometimes evocative or physical
- Some colors are associated with emotional states
- Blue is also associated with cold, and red with hot: an association known as color temperature
- Because of color saturation, our eyes cannot fully comprehend all the colors we see, so our brain translates (or distorts) the incoming information
- This is the basis of an illusion known as optical color


Notice these colors and how they affect each other An artist must consider this as well

## Color Temperature

- We associate color with temperature because of our previous experiences-the sun is yellow, water blue-These stereotypes are perceived worldwide
- Artists use such associations to communicate physical and emotional states
- Color temperature is relative to the other colors nearbymeaning it is enhanced and influenced by a comparison
- Our perception of the temperature of a color can be altered if it is placed next to an analogous color



## Optical Color

Colors our minds create based on information we perceive


Two squares, one filled with red and blue dots and the other with red and yellow dots to create optical color mixing effect

Georges Seurat,
The Circus, 1890-91.
Oil on canvas, $6^{\top} 7 / 8^{\prime \prime} x$ 4'111/8". Musée d'Orsay,
Paris, France


Pointillism—devised by Seurat-is the use of such small dots of color to produce optical color mixtures
Because these dots are so close together, the colors we see are different from the actual colors of the dots Optical mixing makes the colors more intense because they have retained their individual saturation


## Color in Design and Print

- Artists who design images for commercial printing or to display on video screens take a different approach to color
- Most printed color images rely on four separate colors to create the range of colors that we see
- Commercial printers use the primary colors cyan, magenta, and yellow, together with black
- An image is scanned and separated into the four colors



## Color wheel for commercial printing inks



Additive color mixtures using RGB primaries

Subtractive color mixtures using CMY primaries, CMYK color separation, and image with exaggerated print screen




## Charles Csuri, Wondrous Spring

- The digital artist Charles Csuri has been creating imagery on computers since 1963
- In Wondrous Spring, the RGB primaries create a dazzling illuminated array of colors, reminiscent of a modern-day stained-glass window
- Csuri has explored and helped develop the digital realm as a viable art medium-What are your thoughts? When does the machine hegin to take nver?


## Psychological and Expressive Aspects of Color

- There do appear to be some universal psychological associations to particular colors-for example, red may provoke feelings of passion or anger
- Important element in designing living and public space
- Artists sometimes want a viewer of a work to "feel" an artwork, rather than merely to understand it
- Color can express a wide range of emotions
- Artists can use color to engage the viewer



## Vincent van Gogh, The Night Café



Van Gogh was greatly affected by color, and studied its psychological effects

The colors in the painting The Night Café were carefully chosen to elicit emotional responses from viewers
"I have tried to express with red and green the terrible passions of human nature." (Van Gogh in a letter to his brother Theo)

The color intensifies the psychological implications of the scene in a seedy nightspot in Arles, France



## Paul Gauguin, The Yellow Christ

- Gauguin used yellow for its uplifting associations
- Yellows and browns correspond to the colors of the surrounding autumnal countryside, harvested fields, and turning leaves
- By using bright color, Gauguin creates a simple and direct emotional connection with the viewer
- While depicting death, Gauguin chose colors that express the optimism of rebirth
- How successful do you think it is? Does the color uplift??

From his "Blue Period", this scene has the man, his lover confronted by his wife and child. Supposedly based the portrait of the man on one of his friends, who later committed suicide when rejected by his lover.


