Lesson Introduction: Color

Color is such a dominant component of everything we encounter in the visual world that it can be easy to take it for granted. For artists and designers, however, the application of color is a deeply considered, deliberate choice, not simply an intuitive one. By better understanding how color is formed and the relationships between different colors, the color decisions in any piece of art or design becomes much more intentional and effective.

Guiding Questions

• How is color formed? How is this defined?
• What are the different relationships between colors?
• How do designers and artists use color to evoke moods or emotions in the work they make?

Objectives

Students will...

• Demonstrate an understanding of the different color models and relationships between colors;
• Develop an awareness of color’s expressive role in visual culture;
• Critically analyze the use of color in media to create thematic and narrative expressions;
• Make color compositions exploring the expressive and communicative qualities of the different color relationships;
• Constructively critique their peers on their use of color to communicate visually, respond to critique from their peers and the teacher by editing their work, and write reflections on their work, the work of their peers, and how that work has changed based on critique.
Vocabulary: Color Models

Additive color (RGB): the color that is produced by anything that emits light (the Sun, a computer screen, a movie projector, etc.). When working with additive color, the primary colors are red, blue, and green (RGB). In additive color, white is the combination of all of the colors, and black the absence of color.

Key: in four-color printing, cyan, magenta, and yellow printing plates are carefully keyed—or aligned—with the key of the black plate.

Primary colors: any of a group of colors from which all other colors can be obtained by mixing (e.g., red, yellow, blue).

Subtractive color (CMY): where additive color can be thought of as the color of projected light, subtractive color is the color of reflected light. As light strikes a pigment (ink, paint, etc.), certain wavelengths are absorbed (subtracted) while others are reflected back at the viewer. The primary colors of the subtractive color model are cyan, magenta, and yellow (CMY). In subtractive color, white is the absence of color, while black is the combination of all the colors. However, as mixing CMY in pigment produces a murky brown rather than a true black, a Key color (a black pigment) is added in printing to compensate for this. Thus, printing works with a CMYK model (cyan, yellow, magenta, and black).

Vocabulary: Color Terms

Hue: the nameable color (red, blue-green, etc.).

Saturation: the relative intensity or purity of a hue. A highly saturated color will appear very rich, while a color that is lacking in saturation will appear less intense and more gray.

Shade: the addition of black to a hue, resulting in a darker color than what was started with.

Tint: the addition of white to a hue, resulting in a lighter color than what was started with.

Vocabulary: Color Relationships

Analogous colors: hues located next to one another on the color wheel.

Complementary colors: hues located opposite one another on the color wheel.

Cool colors: hues on the color wheel ranging from green to purple.

Split-complementary colors: the two hues to either side of any hue’s direct complement.

Triadic colors: the three hues that define the points of a triangle when looking at the color wheel (e.g., red, yellow, and blue, or orange, green, and purple).

Warm colors: hues on the color wheel ranging from red to yellow.

ACTIVITY PROCESS

Engagement (the hook—motivation and relevancy)

Ask students to think about the colors used by the brands they identify with. How do those colors affect how they see that brand, and how does it affect how they see themselves—or want to be seen—when they display that brand’s mark or colors on the clothes they wear or the things they use? Would they still identify with the brand as strongly as they do were the colors to change? Can they imagine a color combination so off-putting as to make them abandon a favorite brand? Can they imagine a brand they identify with so much that they would stay with it regardless of the colors (see Figure 14)?

Day 1

Introduction

Ensure that students start the activity with sketchbooks and either colored pencils or markers, so that they can make visual aids for themselves as they take notes. Begin by introducing the additive and subtractive color models. This is easiest to do with a color image on a screen (projector or monitor) and a sample of color printing (a book or a magazine). Describe the differences between projected and reflected light, and how that affects what colors we not only perceive, but also can make. The difference manifests for graphic designers in...
many ways, especially when considering color for branding across screen and print. After all, while a logo could potentially make use of millions of colors on screen, print can only replicate several hundred thousand colors. As brand identities such as logos need to be uniform regardless of where they are used, harmonizing colors across both models is a key challenge for a graphic designer.

After defining the color models, introduce the rest of the vocabulary along with illustrative examples of the work from the artists and designers referenced in the unit (along with any others deemed useful). Begin with visual examples that allow for conversations not just about the color (hue) used in any particular composition, but where students can identify tints and shades of those hues as well.

As students talk about tints and shades, encourage them to look for and identify hues of intense and minimal saturation. Ask them to consider why an artist or designer might over-saturate or desaturate a color as opposed to using a tint or shade, and how changes in saturation affect their perception of the color and what it does in the composition. Ask students to describe how they think changes in tint, shade, and saturation would be made on screen, and how the same changes would need to be made in print. Which model do they think would make tints or shades easier? Saturation? Why?

Looking at the examples with students, ask them to consider the relationships between the colors they are seeing. How do cool colors seem to interact with warm colors? Do the warm colors seem to move toward the viewer? Do cool colors seem to move away? How do designers and artists use this tendency of color to define depth? In addition to the visual aids of work by designers and artists,
A color wheel on display in the classroom (or printed off and given to each student) will greatly facilitate the introduction of the color relationships beyond warm and cool. Likewise, showing examples of work to the students that make primary use of one of the color relationships will be helpful for students to absorb the differences between each relationship described.

In the examples that are shown in class, ask students to identify the color relationships, and what they see as their strengths. **Analogous colors** are groups of colors that sit next to one another on the color wheel, and can often be seen in nature (e.g. autumn leaves). While analogous colors can create a rich palette, it tends to be monochromatic (containing or using only one color) and lacking in the vibrancy of complementary colors. **Complementary colors** are those colors opposite one another on the color wheel, which cancel one other out (make a gray) when combined, but are extremely vibrant when placed next to one another. **Split-complementary colors** make use of the colors to either side of a color’s complement. While Split Complementary colors have much of the same vibrancy and contrast of complimentary colors, they create less tension between themselves. **Triadic colors** are those colors that are evenly spaced from one another around the color wheel. Triadic colors tend to be quite vibrant in relation to one another, even when used as tints or unsaturated variants of hues.

Looking at the examples, ask the students what they think the color relationships help each designer or artist achieve in their composition or design. Expand the question to how they would define their own color choices, and the choices of their peers by way of asking students to pair up and analyze the palette they created for themselves in their choice of clothes for the day. With their sketchbooks and markers/colored pencils, ask them to build a five-
Vocabulary (continued)

Review and Retain: Describe the Vocabulary Color Models, Terms, and Relationships when showing students work by the referenced artists and designers, and other visual aids. Ask the students to recreate and explore the Color Models, Terms, and Relationships in their notebooks during discussion using colored pencils or markers. Students should visually explore the vocabulary in their sketchbooks during the introductory lecture and throughout the unit.

Language Demands: Focus on language function—

1. Can students appropriately differentiate between the color models of RGB and CMY when asked about how color is reproduced (on a screen or in print)? Are students able to describe the various elements of color (hue, tint, etc.) during discussion and when working with color in class activities? Are students able to describe the various relationships between colors (warm, cool, analogous, etc.) during discussion and when working with color in class activities? Informal assessments of language use by the teacher while students sketch or revise their work are ideal. Teachers should talk to students about the images they are making, using and reinforcing the vocabulary while offering constructive critique and guidance. In these conversations, teachers should be actively listening to ensure students are using the vocabulary correctly, and offering constructive correction when students confuse or misuse terms.

2. Can students describe the role of color to create a mood or theme in a movie, television program, art, or graphic design?

3. Can students use unit vocabulary correctly when discussing their work and the work of their peers?

Language Assessment: Students should use terms appropriately in discussion and critique, and be able to correctly describe the color models, terms, and relationships, and how color is used by artists and designers to create or reinforce a expression in their work (either samples provided in class or that they locate on their own). Teachers should use and reinforce the vocabulary during class critiques and discussion as an Informal assessment, and formally assess the students use of vocabulary in the written components of the course work that students submit at the end of the unit.

Materials

- Markers, and/or colored pencils
- Sketchbook/paper/journal and tracing paper

FIGURE 11: Creating a color palette from a photograph. A large number of different color palettes can come from a single source. Photo by Nizam Uddin, used under license (CC BY-NC-ND 4.0).

swatch palette based on the colors they’re wearing, and a five swatch palette based on the color of their partner’s clothes. Have them make brief notes on the palettes they create. Are they predominantly warm or cool? Do they rely on analogous or complementary colors? Are there tints or shades of a dominant color? Are the colors bright and highly saturated or more dull and unsaturated?

Observe and participate in each pair’s activity, providing critical assessment of their palettes and discussions as they work. Once complete, have the students share their palettes and notes with their partner. Where did their analyses overlap? Where did it diverge? Were there colors in their own wardrobe that they felt were more important than their partner did? Could the two palettes be combined, or do they seem too different? What do the colors alone seem to say about each student’s mood or personality?

Close the discussion and sketching session by introducing Assignment 6.

**Assignment 6—Color Palettes in Thematic and Narrative Use (Homework)**

**SCENARIO:** Graphic designers often coordinate their color palettes with the larger demands of their projects or client’s needs. For example, the colors in advertising for a line of autumn clothing must not only coordinate with the clothing itself, but with the season in which it is being launched and promoted. To a designer, color is another powerful communication tool, and one that must be used in a logical way to support the message they are communicating. To be effective, graphic designers must be sensitive to a broad range of colors, their uses, and how to create palettes from the inspiration they find in the world around them.

**OBJECTIVE:** To develop the ability to analyze media (television, film, etc.) and build a color palette based on the media’s use of color to establish a theme or to help tell a story.

**PROCESS:**

1. Using their sketchbooks and colored pencils/markers, students are to develop a color palette based on a movie or television...
Figures
1. Untitled, 1952-3, Mark Rothko (detail)
2. Rock Roll, 1958, Bradbury Thompson (from Westvaco’s Inspiration for Printers)
3. Additive and subtractive color models
4. Hues, tints, and shades
5. Homage to the Square, c. 1965, Josef Albers
6. Saturation
7. The Meeting, 1919, Johannes Itten
8. Warm and cool colors
9. Sample color relationships
10. Farbkreis, 1961, Johannes Itten
11. Creating a color palette from a photograph
12. Color in cinema
13. Color in culture
14. Color in culture and branding
15. Color and mood in graphic design
16. Color and theme in graphic design

Art Context, Cultural Connections and Relevancy

Color is dominant feature of the visual landscape, which is why the successful use of color can make design more effective in communicating an intended message. However, the use of color can also send unintended—or even unwanted—messages as well. Certain colors in western culture have become linked to certain concepts—such as gender—which can feel limiting to people who see themselves one way, but are addressed in another. In August of 2015, the Target chain of department stores announced that it would move away from using stereotypical colors in its toy departments (among others), eliminating the use of pinks and yellows to identify certain toys or areas of the store as being for girls, and blues and greens to identify others as being for boys. As attitudes—and therefore design trends—change in the face of an ever-evolving culture and market demands, where else can students see colors that once were commonplace as a visual shorthand for certain concepts that have now fallen out of use?

program that they enjoy. Students without access to film/television media can base their color analysis off of a piece of print media (magazine, comic book, etc.). The same questions should be answered by students using print material as those using film/television media.

2. As they watch the program/film, students should take notes and make color swatches that they feel identify key scenes, themes, or narrative elements (e.g. characters).

3. With the program/film and their notes complete, students should then build a unified palette of ten colors they feel were most representative of their chosen program/show. This palette should be a series of ten evenly-spaced one-inch by one-inch squares drawn on a page of their sketch or notebook.

4. With their palette complete, the students should then use it to write brief answers to the following questions: What are the primary characteristics of the palette (warm, cool, saturated, desaturated, analogous, complementary, etc.)? What impact did this palette have on the mood of the film or program (bold, somber, exciting, thoughtful, etc.)? Similarly, how did it reinforce the theme? Are there particular colors this film/program returns to often? What about this palette makes this film or program look like itself? How might it feel differently if the colors were changed?

5. Students should have this portion of the assignment completed before the next class session.

SPECIFICATIONS: Each student will be responsible for presenting their finished palette to the class as well as speaking about their brief analysis of the use of color in their chosen media. (Teachers may also wish to consider including a self-evaluation rubric for students to fill-in prior to the critique/discussion to help students better organize their thoughts and prepare for discussing their work and/or questions.)

HINTS: Encourage students to look at the background in their media, beyond just focusing on the central characters or places. Filmmakers often carefully select the colors in their backdrops or even the color of the light used in a scene to establish a mood or tone.
Artists/Designers to Reference

These artists and designers provide excellent examples of not only a dynamic use of color, but color used in a thoughtful and exceptionally intentional way. Examples of their work found in a library or Internet search will serve as excellent visual aids and prompts for discussion of color relationships and the use of color to create mood with students.

Josef Albers (1888–1976): a German-born American painter, Albers completed Itten’s introductory course at the Bauhaus in 1920, eventually joining the faculty there. Albers would later go on to teach at Black Mountain College in North Carolina, where he taught American artists such as Robert Rauschenberg and Cy Twombly. Albers was well-known for his use of color in his art and his work on color theory itself. (See Proto-Form B and the Homage to the Square series for examples of Albers’ color work, as well as his book Interaction of Color.)

Jane Davis Doggett (1929–): an American designer famous for her innovative use of color in public spaces for navigation and way-finding. Doggett also explores color in her art work, which combines the color theories of Albers with an expressive, narrative quality. (See Doggett’s work for the Miami, Houston, and Tampa international airports for excellent examples of color in use in environmental design, and her book Talking Graphics for her use of color in art.)

April Greiman (1948–): an American graphic designer and pioneer of the New Wave school of design. Frequently noted for her early incorporation of the computer in her design practice, Greiman’s use of color both in print and environmental graphics is notable for its boldness and energy. (See Greiman’s identity design for Vertigo (1979), the 1995 commemorative stamp design for the 19th Amendment, and her Wilshire-Vermont mural for examples.)

Johannes Itten (1888–1967): a Swiss Expressionist painter who was influential as one of the first teachers in the Bauhaus school in Germany. His work in color and color theory is credited with having inspired seasonal color analysis in the cosmetics and fashion industries, where an individual’s skin, hair, and eye coloration is used to create a personalized palette of cosmetic and clothing colors. (See Das Bachsänger and The Meeting for examples of Itten’s color work, as well as his book The Art of Color.)

Bradbury Thompson (1911–1995): an American graphic and publication designer renowned for his ability to combine photography, type, and color into dynamic compositions. Thompson frequently worked with the primary colors and printer’s colors to dramatic effect, blending and separating the colors in unique and energetic ways. (See Thompson’s work for Westvaco’s Inspiration for Printers 1953, 1954, 1955, Mademoiselle magazine, and his book The Art of Graphic Design.)

Other artists and designers to consider include Seymour Chwast, Paula Scher, Louise Fili, Robert Rauschenberg, Paul Klee, and Willem de Kooning.

Extensions

Students in need of additional challenges can be asked to build additional palettes for characters/scenes/locations in their chosen media. These students should look for and address how these sub-palettes relate to the larger palette they have created, and analyze how they converge/diverge. Students with access to photo editing software and the Internet could explore edits to stills from their chosen media, altering or replacing colors and reflecting on what impact those changes have had.

DAY 2

Assignment 7—Color Palettes in Thematic and Narrative Use; Discussion and Reflection

- Have the students present their finished palettes to the class. (Taping or pinning work to the wall/corkboards will facilitate an interactive group discussion. This is an excellent opportunity to use VTS for those teachers applying it to their classrooms.)

- Lead the students in a discussion of their palettes as a class. Discussion questions could include: Can students determine what kind of film/program (thriller, adventure, animation, comedy, etc.) each palette is from? What sort of overall mood or theme does each palette seem to convey? How is the perception of mood impacted by the presence or absence of warm colors? Cool colors? Are there clear color relationships (analogous, complementary, etc.) in use? As each student reveals the name of their film/program, are there any surprises? How are these colors used to define themes in the film/program?

- Guide the end of the discussion session toward a reflection based on what they’ve heard from their peers. Have the students briefly note any changes they would make to their analysis of the palette based on the discussion, and substitute new colors for any color they feel in hindsight was not as important as they initially thought.

- As the students work, teachers should move about the room, offering input on student revisions. As students discuss their revisions and new ideas, teachers should stress the use of the proper vocabulary in their discussions.

Closure (Assignment 7)

As you conclude the in-class reflections on Assignment 7 with the students, collect their palettes and statements. Ask the students to be mindful of what they have seen, heard, and made as they embark on Assignment 8.

Engagement (the hook—motivation and relevancy)

Encourage students to consider this quote from Johannes Itten:

“Decorators and designers sometimes tend to be guided by their own subjective propensities. This may lead to misunderstandings and disputes, where one subjective judgment collides with another. For the solution of many problems, however, there are objective considerations that outweigh subjective preferences. Thus, a meat market may be decorated in light green and blue-
green tones, so that the various meats will appear fresher and redder. Confectionery shows to advantage in light orange, pink, white, and accents of black, stimulating an appetite for sweets. If a commercial artist [graphic designer] were to design a package for coffee bearing yellow and white stripes, or one with blue polka dots for spaghetti, he would be wrong because these form and color features are in conflict with the theme.”

To explore this idea—that features of color and form can be at odds with a product or service—ask students to consider whether or not McDonald’s would “feel” like McDonald’s (or be an appealing place to eat at all) if the interior were decorated in pastel pinks and greens? How would a Starbucks cup look if the traditional green and white were replaced with a chocolate brown logo on an orange cup? What other objects, places, or designs can students identify that seem almost defined by their color? What would a change in that color mean to them as consumers (see Figure 16)?

**FIGURE 14:** Color in culture and branding. Does a color shift from more traditionally athletic or aggressive colors of red and black in the Adidas logo change how the brand might be perceived? Do pink and green make the logo seem more casual or playful? How accepting of this kind of change do students feel they—or the people students imagine as the typical Adidas customer—might be?

**FIGURE 15:** Color and mood in graphic design. Samples of Alexey Brodovitch’s design for the CCA’s poster from Unit 2C, with the color palette changed to represent aggression, childishness, confidence, and elegance (left to right, top to bottom). Quick studies such as these which explore how points, lines, planes, Gestalt, and color all work together in the compositional space help designers quickly establish not only the layout but the mood and tone of voice of a design.

**Assignment 8—Color in Use in Graphic Design**

**SCENARIO:** Much like points, lines, planes, and Gestalt are used to build and then organize a design, color plays a vital component in giving any design a tone of voice and a sense of place in the world around us. Understanding color’s ability to change the feel of a design is
a key skill for designers to develop, and is a vital component of a
designer’s thinking, planning, and making process.

**OBJECTIVE**: To explore the impact of different color palettes on a
common design and to create different, specific expressions in
a design through color alone.

**PROCESS**:

1. Return to students the “successful” and “unsuccessful” Gestalt
   analysis posters from Unit 2C, Assignment 5.

2. Ask students to consider how they could change the theme
   of their blocked-in “successful” poster by simply changing the
   color scheme. Brainstorm what they feel colors mean to them in
   contemporary culture. For example, does blue make them think
   of security or stability? Does green call to mind wealth or nature?
   Does red say joy or anger? Is yellow a color of optimism, or of
   cowardice? Is pink anything other than the color of romance or
   beauty? Can orange be something other than playful? Is black
   sophisticated, or is it mysterious?

3. With their colored pencils or markers, ask the students to
   recreate their “successful” poster—without changing any of
   the compositional elements—to reflect the terms Aggression,
   Childishness, Confidence, and Elegance. (Tracing paper laid over
   the original can make this process more efficient and accurate.)
   Each new poster should be on its own piece of paper.

4. While stressing the need to work with precision, ask the students
   to keep things loose and not over-think. Stress that they can
   quickly make an array of palettes for each theme and then select
   from them before making the poster design for each. Encourage
   them to consider not only what each individual color says, but also
   what they say when combined in a composition. Teachers should
   reinforce the use of the correct vocabulary as they circulate and
   discuss the student’s work in progress.

5. Leave time in the session for a group discussion of the poster
   designs created.

**SPECIFICATIONS**: Each student will produce four color compositions
based on their work from Assignment 5 in Unit 2C. At the end of
the session, students will be responsible for presenting their color
compositions and discussing with their peers how they feel their color
choices represent the four different moods.

**HINTS**: Remind students of their experiences from Assignment 6 in this
unit, and that they can find color inspiration for their various assigned
moods in the world—and media—around them.

**Closure (Assignment 8)**

Toward the end of the session, have the students present their four
designs to the class. (Taping or pinning work to the wall/corkboard
will facilitate an interactive group discussion.) Ask students to critique
one another’s color selections, making certain to focus constructively
on how the palettes could be improved. At the end of the discussion,
ask students to collect their work and select the palette for the theme
they feel has the most room for improvement. Ask students to take
that feedback and revise that theme into a new version that reflects a
response to the feedback they have received. Once this is done, have
the students write a brief response (three-to-five lines) about what

*FIGURE 16: Color and theme in graphic design.* If the concept
of patriotism was a major theme in the design of the bicentennial
logo, how is that concept impacted when the colors are desaturated?
Changed entirely? Does what and how the design communicates
change when the colors are altered or removed?
they changed in their color palette, and how they feel the revised version better reflects the chosen theme than their original design. At the end of the activity, prompt the students to consider the fact that they have now explored the fundamental elements—points, lines, planes, Gestalt, and color—that designers use every day to create effective communication.

**Checks For Understanding**
Throughout the lesson encourage students to answer questions/participate in discussions/contribute to critique using the vocabulary introduced and making reference to the work of artists and designers seen at the beginning of the lesson and that they have discovered on their own. Encourage students to talk through the different color relationships and how they feel the use of those relationships determines the way design and art communicate. Explore how the different color models (additive and subtractive) affect what colors artists and designers can make, and how those different models impact what the audience sees. As students work, reinforce the vocabulary and principles in your feedback and critique, asking questions to ensure comprehension.

**Lesson Assessment Based On Objectives**
Students should be assessed on their ability to demonstrate an awareness and proper use of the different color models and relationships in their own work and the work of other artists and designers. The correct use of unit vocabulary in class dialog and in written reflection should be accurate and appropriate to the work they make and see. All work produced in and out of class—as well as student writing—should be collected and analyzed. (See *Unit 2B Rubric.docx* for assessment and rubric ideas. Customize to meet class specific assessment needs.)