



2D DESIGN HANDBOOK

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Published by:

Colorado Mesa University

Written by:

Eric Elliott

Associate Professor of Art & Design

Colorado Mesa University

Design & Layout by:

Eli Marco Hall

Associate Professor of Art & Design

Colorado Mesa University

Cover Art by

Matthew Hanson-Weller

coloradoclaws@yahoo.com

For more information please visit:

<https://www.coloradomesa.edu/art>

Or email:

eelliott2@coloradomesa.edu

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Section 1: Talking About Art



More Gratitude | Keith Kitz | Digital Collage | 2019 | Copyright Keith Kitz

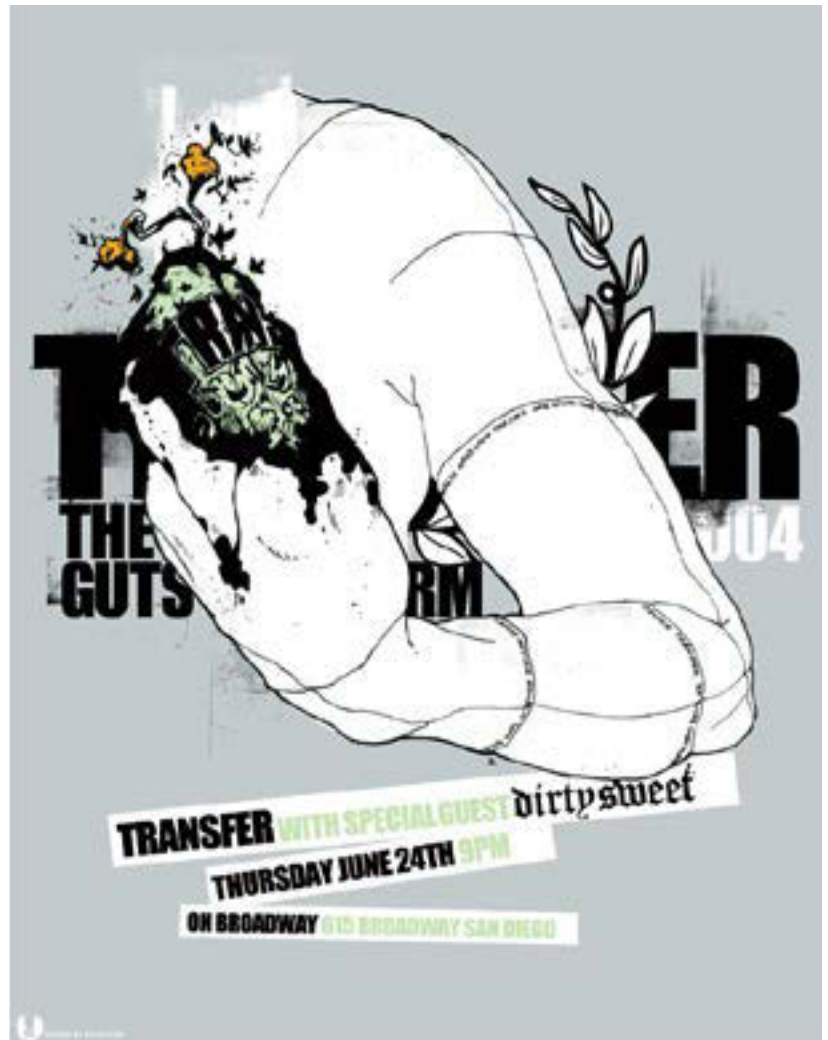
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TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT

INTRODUCTION: TALKING ABOUT ART

When introducing what a two-dimensional design class is about, we first have to define the title. First, there is the 2D part of two-dimensional design, which means just that: something that has only two dimensions, a width and a height with no depth (like a piece of paper). If there is any depth, it is just the thickness of the surface and not part of the actual image. Something that is 3D, on the other hand, has length, width, and height, giving it depth (like a cube). And something that is four-dimensional, 4D, has length, width, height, and time (like a dance). The second part of the title that we have to address is “design,” which is how things are organized on that flat two-dimensional surface. The design is done in order to communicate a message, and the artist or designer’s choices can either help or hinder their message. Simply put, this class is about how to design in the ‘flat’ arts like painting, drawing, photography, printmaking, illustration, film, and the graphic arts.

In order to be able to talk about how to design, we first must have some agreed-upon terms. Much like numbers in math, the agreed upon terms become the ‘coordinates’ of a work of art, so that you can talk about what is working or not working in a piece and how to adjust it, or so you can describe how to make it to somebody who cannot see it. Think of it like this: you are visiting an alien planet, and you have to come back to earth and describe exactly what you saw. On this alien planet, you do not know the names, uses, or histories of anything, so you have to use basic terms to talk about what you saw (the size of things, the color of things, etc.) So, in order to describe what it is that we are seeing when we are talking about a work of art, we must boil it down to some universal terms that we can all agree upon. This text is meant to be your handbook or guide to the universal art terminology that is used when talking about 2D art.



Transfer | Pdohan | Digital Print | 2004 | Creative Commons

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Where to start? First, we have to talk about the two biggest divisions in a work of art: **Form & Content**. Content is the idea, subject, or narrative aspect of a work of art. It is the recognizable imagery that we all draw associations from. Form is the structure and the parts that make up the larger composition like the colors, lines, and shapes. In some works of art the form is the subject of the work.

Form in this painting, by Malevich, is made up of the various rectangles and one green circle. Form is also the arrangement of those parts, where the largest shape is alone at the top, while all the other shapes are grouped together in the lower part of the painting. Content is what those shapes make us think of based on their size, placement, color, and once we realize that the title of the painting is "Painterly Realism of a Football Player."

Kazimir Malevich | Painterly Realism of a Football Player – Color Masses in the 4th Dimension

Oil on Canvas | 27.95" x 17.51" | 1915 | Public Domain

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT

Formalism is the analysis of the forms (the elements and design) in a work of art, and a **Formal Analysis** is an in-depth discussion about a work of art and all of its observable parts. For the most part, form is always in the service of content; form is what creates the content, and therefore will be the primary focus in two-dimensional design. For example, color is a formal aspect of a work of art, but whether we choose red or blue can drastically affect how we interpret the content of the piece. A side note on Form is that it can also be defined as an object with form, which refers to the object's implied or actual three-dimensional appearance.

The Formal Analysis of this painting would be how it has a rectangular format that is taller than it is wide and how it has a blue-grey ground color with different size shapes of light blue, light green, yellow, brown, and black floating on it. There is an even placement of varying sized shapes throughout the composition. The largest shapes are long and thin, and all the shapes seem to have a light halo around them. The only grouping of similar shapes is in the lower middle area of the canvas. They have a similar size, yellow color, round shape, and are in close proximity to each other. They are also contained inside a larger light area that is framed by a thin long black shape on one side, which gives this area a higher level of importance.... and so on.



The Vase | Paul Klee | Oil on Burlap | 34.6" x 21.4" | 1938 | Public Domain

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | **SUBJECTIVE/OBJECTIVE** | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT

Along with Form and Content there are another set of terms that we have to discuss in order to have a formal analysis of a work of art, and those terms are **Subjective & Objective**. Subjective is the individual reaction or feeling that the viewer gets from a work of art, and Objective is the concrete observable facts that can be agreed upon by all viewers. The formal aspects of a work of art are usually considered objective, while the idea or concept behind it is often thought of as subjective.

Objectively, this painting is a beautifully rendered depiction of young woman being harassed by cherubs. But subjectively it is up to the viewer to decide if they think it is a good painting. During the modernist period of art, Bouguereau's paintings fell out of favor because with the rise of photography, ideas took precedent over the ability to realistically render the figure. Many considered his paintings to be too sappy and conceptually shallow, like a poem in a Valentine's Day greeting card. Do you agree?



A Young Girl Defending Herself Against Eros | William-Adolphe Bouguereau | Oil on Canvas | 32.125" × 22.75"
1880 | Public Domain

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | **CONCEPT** | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Jean-Auguste-Dominique Ingres | The Vow of Louis XIII | Oil on Canvas | 165.6" x 103.1" | 1824 | Public Domain

Concept is the main idea or theme that a work of art is organized around or inspired by. The form, content, narrative, and overall structure of the composition should all be in service to conveying the artist's concept. The formal aspects of a work of art can influence how we feel about what we are seeing (for example a blood red liquid vs. a blue liquid). But how we interpret what we see is largely dependent on our background and the context in which we see the work.

The concept behind this painting is much like political propaganda of any time period trying to show that the ruler is someone special who should be followed. Rather than a straightforward portrait of a king, this painting puts the emphasis on Mary and baby Jesus, trying to show that the King is blessed by the 'fact' that he was chosen by God.

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | **CONTEXT** | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



View of the Salon Carré at the Louvre | Alexandre Jean-Baptiste Brun | Oil on Canvas | 9.4" x 12.5" | c. 1880 | Public Domain

Context is the part, or parts, of a work of art that shed light on its meaning and affects the viewer's interpretation (such as a fancy frame). Also, the environment that the artwork is shown in gives a certain context and therefore changes our interpretations of a work of art. For example, a painting hung in a museum (like in the painting above) is different than the painting by Banksy (on the right) done on a dirty wall. There are certain aspects of a work of art we can observe right away that provide further context such as the Medium, Technique, Style, Narrative, Genre, and Appropriation.



Leita | Banksy | Stencil & Krylon | 2013 | Creative Commons

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Photinia in the Studio | Eric Elliott | Oil on Canvas | 60" x 72" | 2010 | Copyright Eric Elliott

The **Medium** is the material that the artwork was made with, such as paint, ink, charcoal, etc.



21 Feet | Eli Hall | Axes & Screenprint | 95" x 72" | 2015 | Copyright Eli Hall



Hakomi 2: Cosmic Flower Garden with Bees | Josh Butler | Etching with Spit Bite Aquatint
9" x 9" | 2016-2017 | Copyright Josh Butler



Chief Serenbe | Evan Curtis | Frame from Stop Motion Film | 2010 | Copyright Evan Curtis

EXAMPLES OF DIFFERENT MEDIUMS:

- Painting: Oil, Acrylic, Watercolor, Fresco, Digital
- Printmaking: Lithography, Wood Cut, Etching
- Photography: Digital, Wet Processes, Dark Room
- Drawing: Graphite, Charcoal, Ink, Digital, Mixed Media
- Graphic Design: Digital, Print, Letterpress, Screen Print
- Illustration: Scratch Board, Ink, Water Color
- Animation: Film, Pixels



The Pot of Cactus Under the Rainbow | Forrest Zerbe | Digital Photograph
2016 | Copyright Forrest Zerbe

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | **TECHNIQUE** | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Georges Seurat | A Sunday on the Grande Jatte | Oil on Canvas | 81.6" x 10.1" | 1884-86 | Public Domain

Technique is the way that an artist chooses to apply the medium of their choice. For example, they could use dots like in Pointillism or the loose fluid brushstrokes of Abstract Expressionism.

Seurat and Signac are both using the technique we have come to call Pointillism (small dots or dabs of paint). But you can see that there are subtle visual differences between how the two artists apply this technique. Those differences are what we call an artist's style.



Paul Signac | Portrait of Félix Fénéon | Oil on Canvas | 28.9" x 36.4" | 1890 | Public Domain

TALKING: FORM/CONTENT | **FORMALISM/FORMAL ANALYSIS** | SUBJECTIVE/OBJECTIVE | **CONCEPT** | **CONTEXT** | **MEDIUMS** | **TECHNIQUE** | **STYLE** | **APPROPRIATION** | **NARRATIVE** | **GENRE** | **REALISM** | **ABSTRACTION/NON-REPRESENTATIONAL** | **GESTALT**



Umberto Boccioni | Horizontal Volumes | Oil on Canvas | 37" x 37"
1912 | Public Domain



Pablo Picasso | Girl with a Mandolin | Oil on Canvas | 39.5" x 28.98"
1910 | Public Domain

Style is the distinctive way that a particular artist, or group of artists, choose to create their art or depict their subject. It is the characteristics and techniques that are specific to the artist and make their work different even from other artists working in a very similar way. There are numerous ways that a style can be represented. For example, an artist can choose to depict their subject matter in a blocky or Cubist way, a loose or expressionistic way, or in a slick Photo-Realist manner. An artist's style can even just be the specific colors that they tend to use.

Boccioni and Picasso are both using a technique we call Cubism, but you can see that there are subtle differences between how each artist is applying the technique. Those differences are what we consider an artist's style.

Picasso and another artist named Braque formed a group that was called the Cubists, and Boccioni was part of a group called the Futurists. The two groups had very different philosophies, but both groups were very aware of what the other group was doing and had no problems borrowing and stealing ideas from each other to further their artistic visions.

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



The Triumph of Bacchus | Diego Velázquez | Oil on Canvas | 64.9" x 88.5"
c. 1628 | Public Domain



Brunch | Zoey Frank | Oil on Linen | 52" x 70" | 2016 | Copyright Zoey Frank

Artists often refer to or are inspired by the works of other artists' imagery, technique, or style. They will often do visual "quoting" where they make a direct copy of elements or structures from the other artworks. This 'quoting' is called **Appropriation**. In most cases, the artist re-contextualizes or transforms the original, but the original is often still identifiable within the piece. This is much like when musicians sample the music of other artists in their song.

In Zoey Frank's painting Brunch, you can see that she is directly quoting Velázquez's The Triumph of Bacchus with her figure placement. Also, the central figure and the man on the far right are taken directly from the Velázquez painting with subtle alterations.

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | **NARRATIVE** | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Jacques-Louis David | The Death of Socrates | Oil on Canvas | 51.18" x 77.165" | 1787 | Public Domain

Narrative comes from the idea of narration, or telling a story, so the narrative in a work of art is when there is some kind of story or event that is being represented in the artwork.

The narrative of this painting by David is of the death of the philosopher Socrates. He had been convicted of corrupting the youth and sentenced to death by drinking a poison called hemlock. In the painting, Socrates calmly accepts his sentence while his followers/students surround him in mourning.

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | **GENRE** | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



[landscape] Among the Sierra Nevada, California | Albert Bierstadt | Oil on Canvas | 72" x 120" | 1868 | Public Domain



[still life] Flowers and Fruit | Henri Fantin-Latour | Oil on Canvas | 28.74" x 23.46" | 1866 | Public Domain

The **Genre** of a work of art is how it is categorized based on its subject matter. For example, the genre of a painting could be landscape, still life, portrait, allegory, abstraction, surreal, realism, non-representational, and many more.



[abstract] Untitled | Wassily Kandinsky | Watercolor on Paper | 12.6" x 15.98" | 1866–1944 | Public Domain



[portrait] Gloria with Pink | Ann Gale | Oil on Canvas | 11.5" x 11" | 2017 | Copyright Ann Gale



[allegory] Bacchus and Ariadne | Titian | Oil on Canvas | 69.4" x 75.1" | c. 1520–1523 | Public Domain

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | **REALISM** | ABSTRACTION/NON-REPRESENTATIONAL | GESTALT



Blood Oranges | Eric Wert | Oil on Panel | 20" x 20" | 2015 | Copyright Eric Wert

Realism means something that closely represents something identifiable in nature or ‘real’ life, while non-representational art has no references to nature. There are many forms of ‘Realism’ in art: There is regular Realism which refers to the depiction of scenes or objects of everyday life (as opposed to idealized or expressive depictions); Photorealism which are usually paintings or drawings that look as if they could be photographs; and Hyperrealism like the painting *Blood Oranges* shown here. Hyperrealism refers to works of art that seem to be in more intense focus and detail than can be achieved from a regular photograph. The artist tries to capture a depth of visual information that lets the viewer feel like they are seeing a common subject with new eyes.

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | **ABSTRACTION/NON-REPRESENTATIONAL** | GESTALT



Portrait of the Artist | John Vanderlyn | Oil on Canvas |
25.25" x 20.875" | 1800 | Public Domain

The genre of **Abstract Art** has created some confusion because for many people the term Abstraction has come to be used to also describe Non-Representational Art. But abstraction means to abstract something, so if you were to take a portrait of a person and make it less realistic, like a cubist portrait by Picasso, then that is said to be an abstraction of the original person. On the other hand, **Non-Representational** is not supposed to be representing anything. Every work of art sits on a spectrum somewhere between Representational on one end and Non-Representational on the other end. So when a person refers to a Non-Representational work of art as an Abstraction, they are saying that it has been abstracted from something in nature, when that may or may not be the case. It may seem like splitting hairs, and it may be, but since art is about communication it is good to be aware of what you are saying.

Here we see the 'abstraction' of a portrait. In the first image, by Vanderlyn, we see a realistic portrait of a man. In the second image, by Modigliani, we see the beginnings of abstracting the portrait through elongating the face and body, and the simplification of the eyes and facial features. In the third image, by Klee, we see the portrait almost completely lost in abstraction, and if it weren't for the eyes it would just be a completely non-representational painting.



Woman with Blue Eyes | Amedeo Modigliani | Oil on Canvas |
31.9" x 21.25" | 1918 | Public Domain



Senecio | Paul Klee | Oil on Chalk Base on Gauze on Cardboard |
15.8" x 14.7" | 1922 | Public Domain

TALKING: FORM/CONTENT | FORMALISM/FORMAL ANALYSIS | SUBJECTIVE/OBJECTIVE | CONCEPT | CONTEXT | MEDIUMS | TECHNIQUE | STYLE | APPROPRIATION | NARRATIVE | GENRE | REALISM | ABSTRACTION/NON-REPRESENTATIONAL | **GESTALT**



Under dawn's red sun, the parade of demons ends. | Kawanabe Kyōsai | Woodblock Print | 7.8125" × 4.75" | 1889 | Public Domain

The formal aspects of a work of art can be simplified into two categories as well. The first is the individual parts of the composition, which we call the Visual Elements of Art (Section 2), and the second is the arrangement of those elements, which we call Composition (Section 3). Composition is how the elements are organized in order to convey a larger idea. The word composition in art is often used synonymously with the word design, or the overall design, of a work of art. A work of art is more than just the parts that make it up; the parts fuse together to communicate some larger message which we call gestalt. **Gestalt** is the idea that the final product is more than just the sum of its parts. For example, the human body is made up of trillions of cells, but a human being is more than just a quantity of cells. So, with a work of art we are communicating something to the viewer larger than just the colors and shapes that are arranged on the flat piece of paper. We use the Design Principles (more on this in Section 3) as tools to help us understand that we can

communicate very different things depending on how we change the relationships between the elements in our composition. Different books or websites will give you different lists of what the elements and principles of art are, but try not to get caught up on that—just think of the elements as the basic building blocks of a work of art and the principles are how you put those elements together to convey a message. The visual elements (the color, size, shape, etc.) are the parts of the composition that you can vary or change to create contrast, variety, similarity, etc. How you arrange them in the composition can communicate a sense of hierarchy, unity, or isolation, etc. Whether you mean to, or not, the rules of the Design Principles come into effect as soon as you place elements on a page, canvas, or screen. If we were to compare visual communication to the English language, the elements are the words and the principles are the grammar. Like a single word in a book, an element on its own can tell a story. But the story is much more complex if you use grammar to create sentences and paragraphs that work together to communicate a bigger message.

Section 2: The Visual Elements

021_INTRODUCTION

022_DOT

023_LINE

024_IMPLIED

025_OUTLINE/CONTOUR/CROSS CONTOUR

026_CROSS HATCHING

027_LINE QUALITY

027_CONTRAST/SCALE

028_ORGANIC/GEOMETRIC/SPEED

029_EXPRESSIVE/FOCUS

030_SHAPE

031_ORGANIC/GEOMETRIC

032_AMORPHOUS

033_SYMBOLIC

034_POSITIVE/NEGATIVE

035_FIGURE/GROUND

036_FORM

036_FORM/MASS/VOLUME

037_PLANE

038_LIGHT & SHADOW

039_CHIAROSCURO/TENEBRISM

040_SPACE

041_FOREGROUND/BACKGROUND

042_PICTURE PLANE

043_ILLUSION TECHNIQUES

044_OVERLAP

045_DIAGONALS

046_SCALE

047_PLACEMENT

048_CONTRAST

049_GRADATION

050_FOCUS

051_DETAIL

052_TRANSPARENCY

053_ATMOSPHERIC PERSPECTIVE

054_SHADOWS

055_LINEAR PERSPECTIVE

056_ONE-POINT PERSPECTIVE

057_TWO-POINT PERSPECTIVE

058_THREE-POINT PERSPECTIVE

059_ISOMETRIC PERSPECTIVE

060_TEXTURE

061_MOTION

062_COLOR

062_THE COLOR WHEEL

063_ADDITIVE VS SUBTRACTIVE

064_CMYK COLOR WHEEL

065_4 CHARACTERISTICS OF COLOR

066_HUE

067_VALUE

068_TINTS/SHADES/TONES

069_TEMPERATURE

070_COLOR BIAS

071_WHITE BALANCE

072_SATURATION

073_COMPLEMENTARY COLORS

073_NEUTRAL COLORS

074_OPACITIES

075_IDENTIFYING A COLOR

076_HOW WE SEE COLOR/RODS & CONES

077_OPTICAL MIXING

078_AFTER IMAGE

079_RELATIVE COLOR & SIMULATED CONTRAST

080_CONTRAST REVERSAL

081_COMPLEMENTARY EFFECT

082_COLOR SUBTRACTION



ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR



Leaving the Opera in the Year 2000 | Albert Robida | Hand-colored Lithograph | 12.3" x 19" | c. 1902 | Public Domain

INTRODUCTION: THE ELEMENTS OF ART

The **Elements of Art** are dot, line, shape, form, space, texture, motion, and color. The elements of art are the form, or formal, elements that make up a work of art. When we get rid of the narrative and recognizable imagery in a work of art, the elements are what we are left with to describe what we see. The elements are also the parts that make up the recognizable imagery. They are the shapes, colors and lines that make up the figure in a drawing or painting. In order to talk about a 2D work of art you have to know what the elements of art are.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR



Untitled | Anne | Pen & Paper | 297 x 420 mm | Public Domain

A **Dot** is a location in space where two or more coordinates meet and that location can be marked with a very small circular spot or speck. A series of dots can create an implied line. A dot can also be thought of as a point, or a pair of x, y coordinates used to define a specific point of reference. As a dot gets bigger it will eventually become a shape.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR
implied | outline/contour/cross contour | cross hatching | line quality



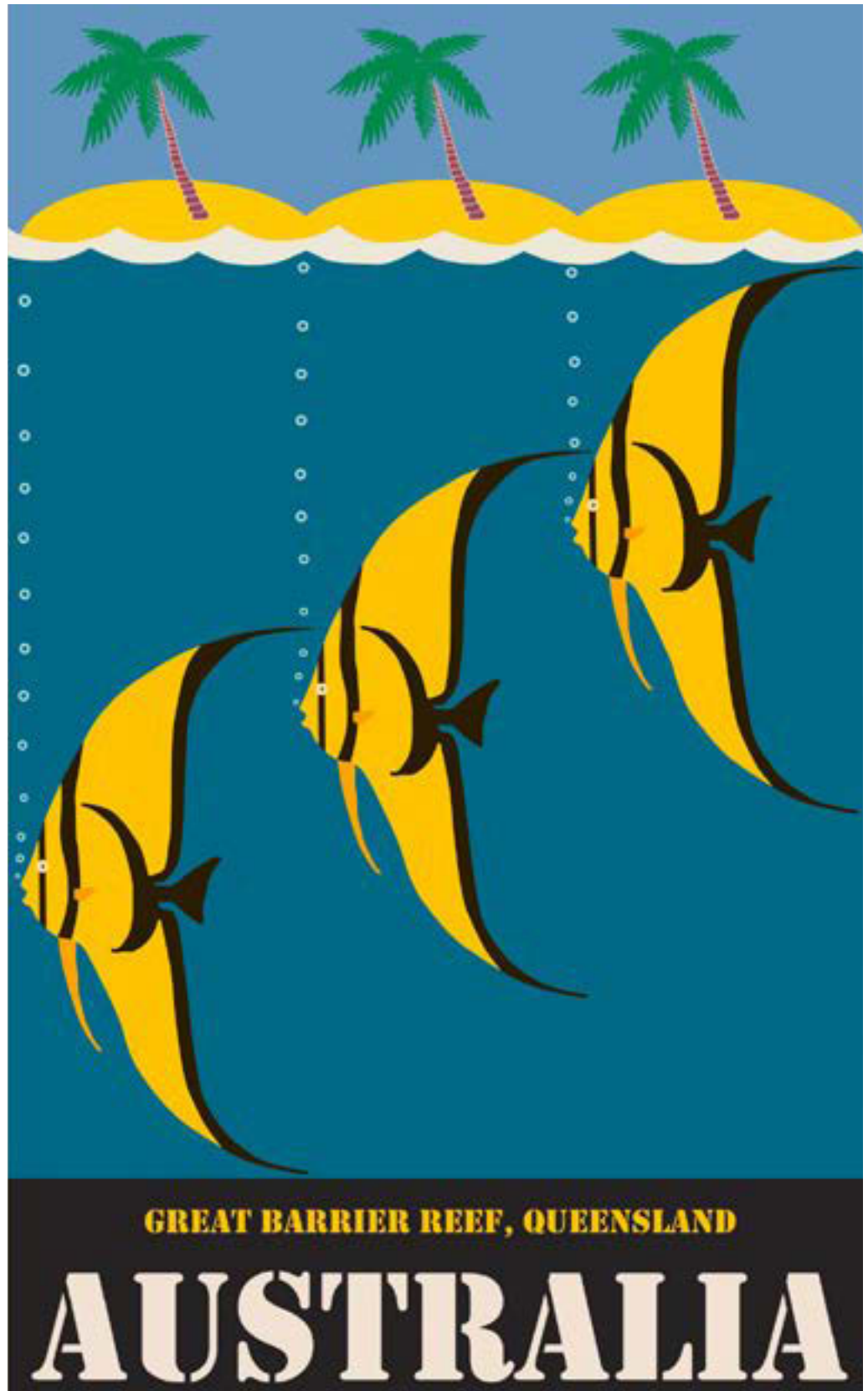
Una Aventura en el Atlixcáyot I | Elmer Sosa | Digital Illustration | Copyright Elmer Sosa

A **Line** is a mark much longer than it is wide, often very thin, made on a surface with a pencil, pen, etc. The more definitions you read, the more you will realize that there are a lot of ways to describe a line, such as a moving dot, or a series of dots all in a row. But most will agree that lines are primarily defined by their length not their width. A line can vary its width to be thinner or thicker, but if it gets too thick then a line will become a shape. In order for it to continue being a line the length must increase more than the width. While a dot locates a position in space, a line is more about direction by moving the eye along its length, or separation by demarcating the edge of a shape.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR
implied | outline/contour/cross contour | cross hatching | line quality

Two dots on a page form an invisible line between them that we call an **Implied Line**, versus an actual observable line.

There are several instances of implied lines in this travel poster. Our brains tend to play connect the dots between things that are similar to each other, so the three fish create an implied diagonal line, the bubbles rising from their mouths make vertical lines, and the three islands with palm trees at the top line up to make horizontal lines. They all work together to move the eye around the page, across the trees, down the fish to the title, and back up the bubbles to do it all over again.



ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR
implied | outline/contour/cross contour | cross hatching | line quality



Study of a Hand and a Pillow | Albrecht Dürer | Pen and Brown Ink
10.9375" x 7.9375" | 1493 | Public Domain

An **Outline** or **Contour Line** is a line that creates a path around the outside edge of a shape. Egon Schiele is using what feels like a continuous contour line to wrap around the outside edge of all the shapes that make up this seated woman.

A **Cross Contour Line** follows a path across the inside of a shape to delineate differences in surface features, giving flat shapes a sense of form or volume. Albrecht Dürer is putting less emphasis on the contour lines, and more on the cross contour lines that travel across every angle and curve in the surface of the hand, face, and pillow to give a stronger sense of rounding and volume than we get in the Schiele drawing.



Seated Woman in Corset and Boots | Egon Schiele | Crayon on Paper
19.75" x 12.875" | 1918 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR
implied | outline/contour/cross contour | **cross hatching** | line quality



Bust of an Old Bearded man | Rembrandt Van Rijn | Etching on Paper | 4.6" x 4.1" | 1631 | Public Domain

Cross Hatching is a way of overlapping multiple lines creating a grid-like pattern to give an overall sense of value to a drawing. As lines build up they give a sense of light or dark based on the amount of white space that is apparent between the lines.

Rembrandt is making good use of cross hatching in this etching to create the values of dark in the shadowed areas of the man.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

implied | outline/contour/cross contour | cross hatching | **line quality**

contrast/scale | organic/geometric/speed | expressive/focus



View of Arles | Vincent Van Gogh | Ink and Graphite on Paper | 17" x 21.4" | 1888 | Public Domain

There are many types of lines, and how a line is varied (for example thick to thin or light to dark) creates specific characteristics that we call **Line Quality**. We can describe lines in many ways, such as straight, horizontal, diagonal, vertical, continuous, fragmented, sharp, soft, blurry, angular, expressive, curvy, etc., and we can use how we are describing that line to categorize it. Some categories are contrast, expressive, scale, organic, geometric, speed, etc. By trying to categorize how we are defining a line, or a shape, we can start to more easily communicate what we are experiencing.

In this Van Gogh drawing we can see examples of lines that differ in their **Contrast** (light, dark) and **Scale/Size** (thick, thin, long, short).

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

implied | outline/contour/cross contour | cross hatching | line quality

contrast/scale | organic/geometric/speed | expressive/focus



Satire on Art Criticism | Rembrandt Van Rijn | Pen and Ink | 6.125" x 7.9375" | 1644 | Public Domain

Here are examples of lines that we could categorize as **Organic** (wavy, curvy), **Geometric** (angular, straight), and/or **Speed** (fast, slow).

The fluid, curvy, lines of the Rembrandt ink drawing are a good example of organic lines. The looseness of the mark making gives the feeling of a quick sketch, making it also a good example of lines that convey speed. On the other hand, the angular and straight grid-like structure of the lines in this Mondrian painting are a good example of geometric lines.



Still Life with Gingerpot II | Piet Mondrian | Oil on Canvas
36" x 47.2" | 1912 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

implied | outline/contour/cross contour | cross hatching | line quality

contrast/scale | organic/geometric/speed | expressive/focus



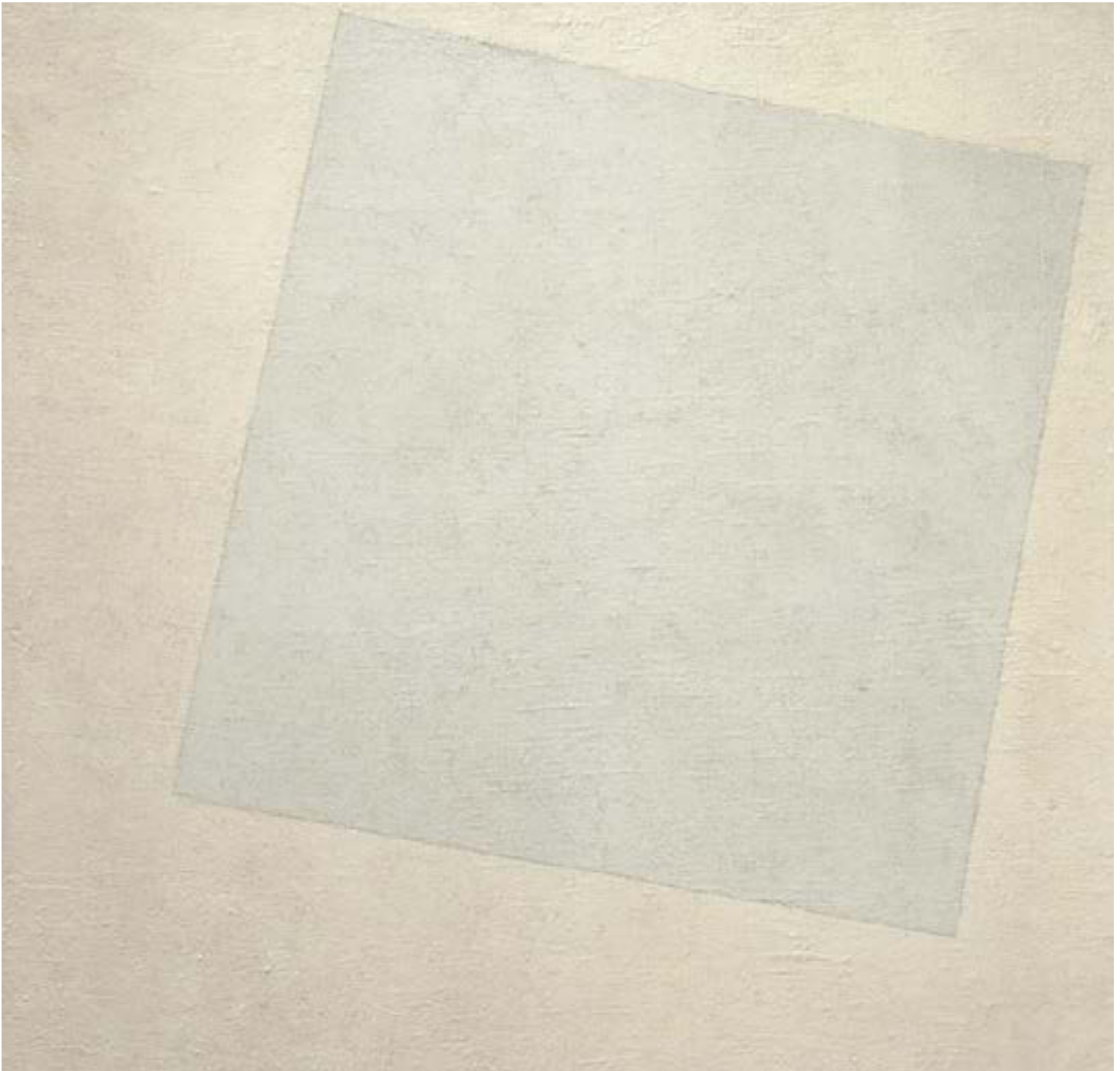
Interior in Twenty-Seven Parts, Part 18 | Jordan Wolfson | Charcoal on Paper | 2010 | Copyright Jordan Wolfson

Here are examples of lines that we could categorize as being **Expressive** (angry, happy) and using **Focus** (sharp, soft).

In this charcoal drawing by Jordan Wolfson, the dark clusters of black marks combined with the smears and smudges are very expressive. If you were to try to describe the marks with an emotion you would probably describe them more as anxious or high energy as opposed to happy or light. We can also see how the marks with very sharp crisp edges pop out compared to the soft, smeared marks that are obscured and out of focus.

ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR

organic/geometric | amorphous | symbolic | positive/negative | figure/ground

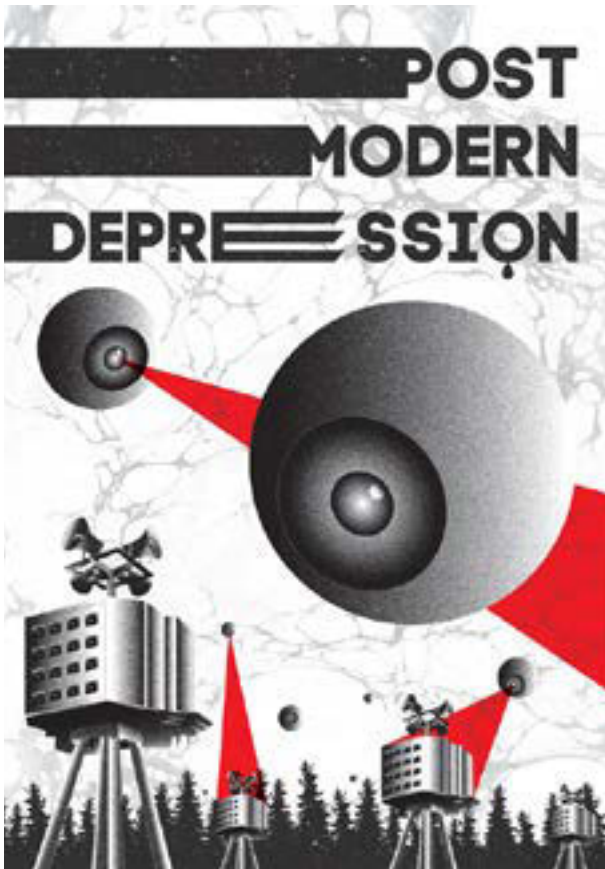


Suprematist Composition: White on White | Kazimir Malevich | Oil on Canvas | 31.2" × 31.2" | 1918 | Public Domain

A **Shape** is flat, with two dimensions (width and height, but no depth), and is contained in a certain area with something like a color change, texture, or an outline defining its boundaries. Shapes can also be implied, or open, meaning that they don't have a set distinct boundary.

ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR
 organic/geometric | amorphous | symbolic | positive/negative | figure/ground

Post Modern Depression | Max Dovbysh | Digital Print | 2017 | Copyright Max Dovbysh

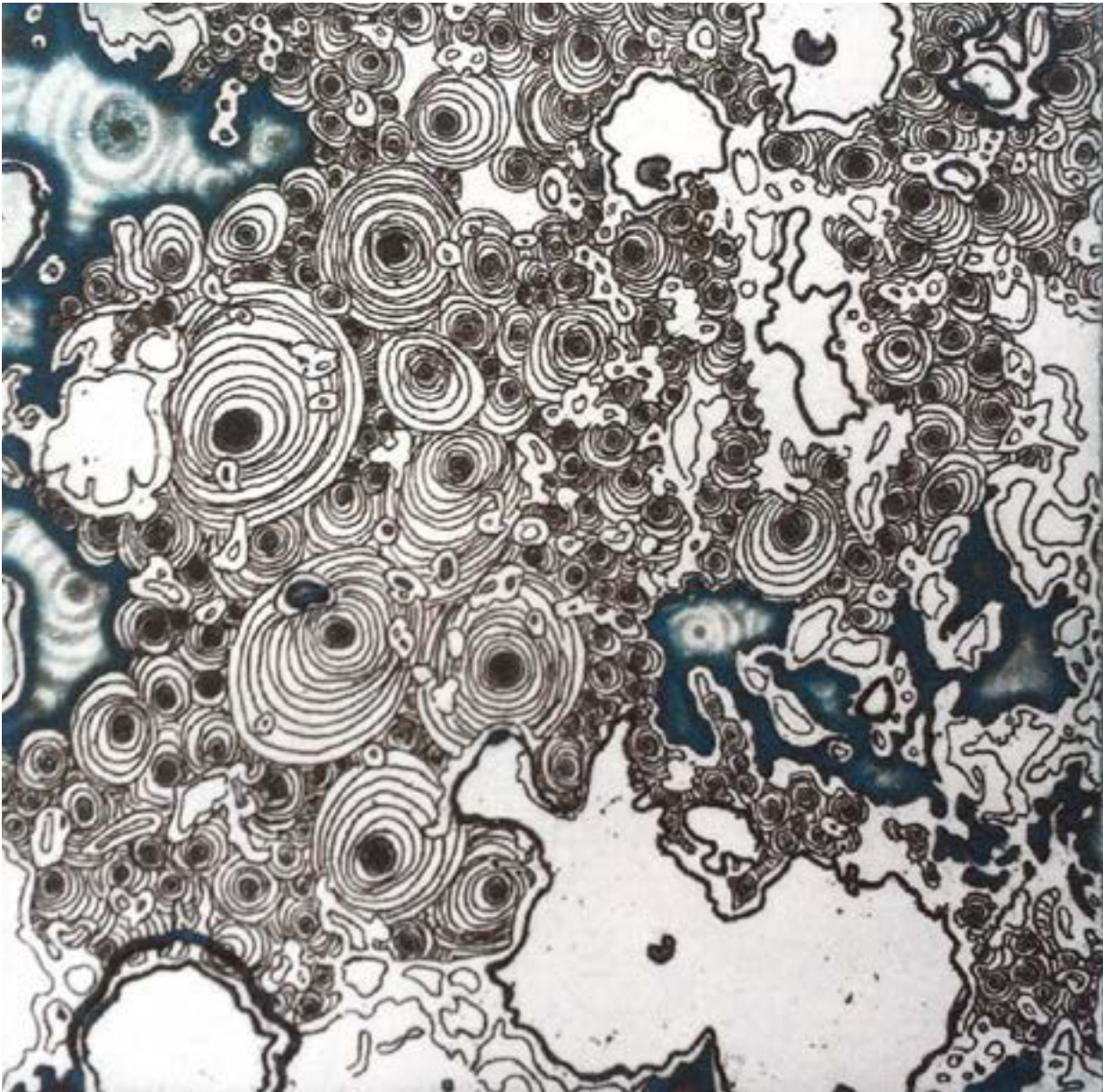


Hilma af Klint | The Ten Largest no. 3, Youth, Group 4 | Oil on Canvas | 94.49" x 125.98" | 1907 | Public Domain

Organic and Geometric Shapes: There are two types of shapes, Organic and Geometric. Shapes that are more rounded and free form are called Organic, while shapes that are more angular and ordered tend to be called Geometric. Geometric shapes are the nameable shapes that we are all familiar with like a square, circle or triangle. Organic shapes are less defined like shapes found in nature, such as a leaf or an amoeba.

The curvy, spiral, and wavy shapes in this painting by Hilma af Klint are organic shapes, except the circle in the top center is geometric. The digital print titled Post Modern Depression is made up of mostly geometric shapes, but the trees and background shapes are organic shapes.

ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR
organic/geometric | **amorphous** | symbolic | positive/negative | figure/ground

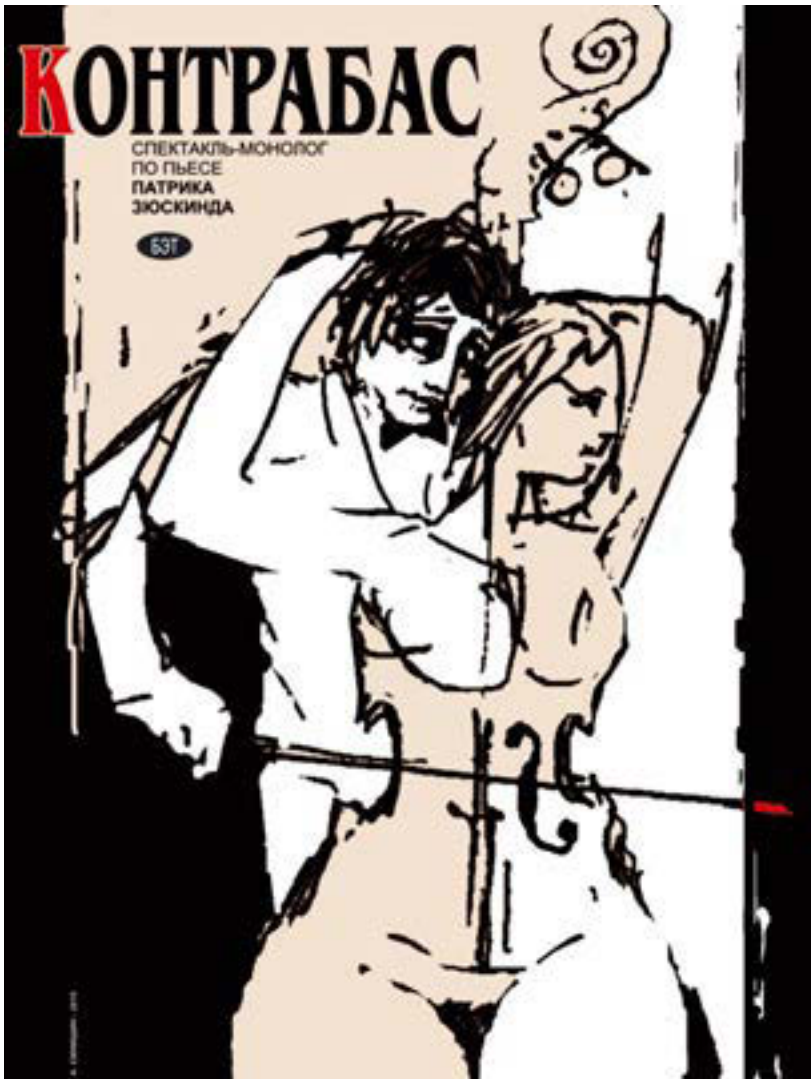


Liminal Series | Josh Butler | 9" x 9" | Etching with Spit Bite Aquatint | 2016-17 | Copyright Josh Butler

Organic Shapes are often Nonobjective or **Amorphous** which are shapes that don't represent any identifiable object, are ambiguous, shapeless, or lack a clear structure.

This etching by Josh Butler is completely made up of amorphous organic shapes. The forms are all very random in their shape and the composition feels more like some strange topographical map than any kind of recognizable object.

ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR
 organic/geometric | amorphous | **symbolic** | positive/negative | figure/ground



Bass Violin | Anatoly Sinishin | Digital Print | 24" x 36" | 2015 | Copyright Anatoly Sinishin

Symbolic Shapes are shapes that stand in for or represent something else, much like a logo. The best example is the heart shape, which has no physical similarity to an actual heart but has come to represent one symbolically.



NY Loves MG | Marlena Buczek Smith | Digital Print | 24" x 36" | 2016 | Copyright Marlena Buczek Smith

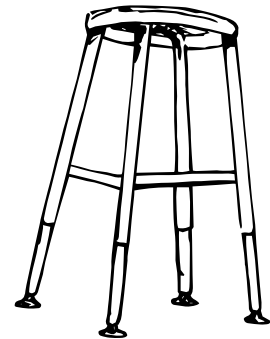
ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR
organic/geometric | amorphous | symbolic | positive/negative | figure/ground



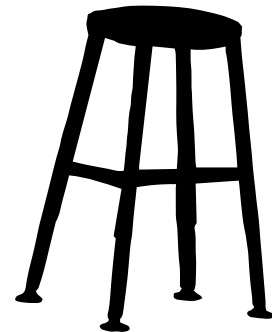
WWF Logo | Gerald Watterson | Pen & Ink | 1961 | Copyright WWF

Negative Shapes (Negative Space) are the space in-between and around positive shapes, often considered the background. Both the positive and negative shapes are equally important, and you cannot have one without the other; they are interconnected puzzle pieces that make up the larger composition. It is important to train your eye to see negative shapes just as easily as you see positive shapes, and to make your negative shapes equally visually interesting.

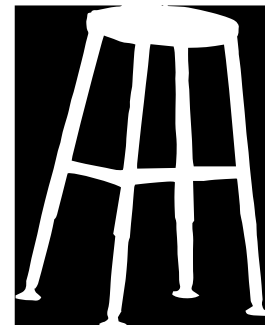
positive shape



silhouette



negative shape



ELEMENTS: DOT | LINE | **SHAPE** | FORM | SPACE | TEXTURE | MOTION | COLOR
organic/geometric | amorphous | symbolic | positive/negative | figure/ground



To be Human | Ryan Russel | Digital Print | 36" x 48" | 2017 | Copyright Ryan Russel

In 2D art you must consider both the shapes being placed on a page and the ground that they are being arranged on. This is called the **Figure/Ground Relationship**. In the Figure/Ground Relationship, the figural elements are the positive shapes and the ground is what is considered the background. In some compositions it is unclear which shapes are figure and which are ground, creating an unstable relationship called a Figure/Ground Reversal. This is when the figure and ground can alternate between being one or the other.

ELEMENTS: DOT | LINE | SHAPE | **FORM** | SPACE | TEXTURE | MOTION | COLOR
form/mass/volume | planes | light & shadow | chiaroscuro/tenebrism



Waving Vases | KyoungHwa Oh | Porcelain | 9"H x 10"W x 10"D (each) | 2007 | Copyright KyoungHwa Oh

While a shape is usually considered flat, an object is three dimensional and has **Form, Mass, & Volume**. Form is an object's three-dimensional appearance, Mass refers to the amount, weight, or quantity of something, and Volume refers to how much space that thing occupies. A shape in a 2D work of art can have implied volume and mass, which means that it just appears to have volume and mass, such as a photorealistic drawing of a sculpture.

Light and shadow show us an object's volume and form. While this is an image of a ceramic sculpture, it is still just a flat 2D photo of that sculpture, and it is only through the way that the light and shadows change on the surfaces of the forms that we can see the volume and space of the piece. Mass is something we can only infer from a 2D image of an object by making guesses on the size and weight of an object based on our previous knowledge of the object and in comparison to what is around it.

ELEMENTS: DOT | LINE | SHAPE | **FORM** | SPACE | TEXTURE | MOTION | COLOR
form/mass/volume | planes | light & shadow | chiaroscuro/tenebrism

When talking about a 3D form, we often talk about the different planes of the object. A **Plane** is a flat surface. For example, the different sides of a square are planes, like the top of a square is the square's top plane. In art we often talk about planes as a way to generalize all that is on one side of an object; for example, with a face we don't have to say the side of the forehead, cheek and nose, we can just say the side plane of the face.



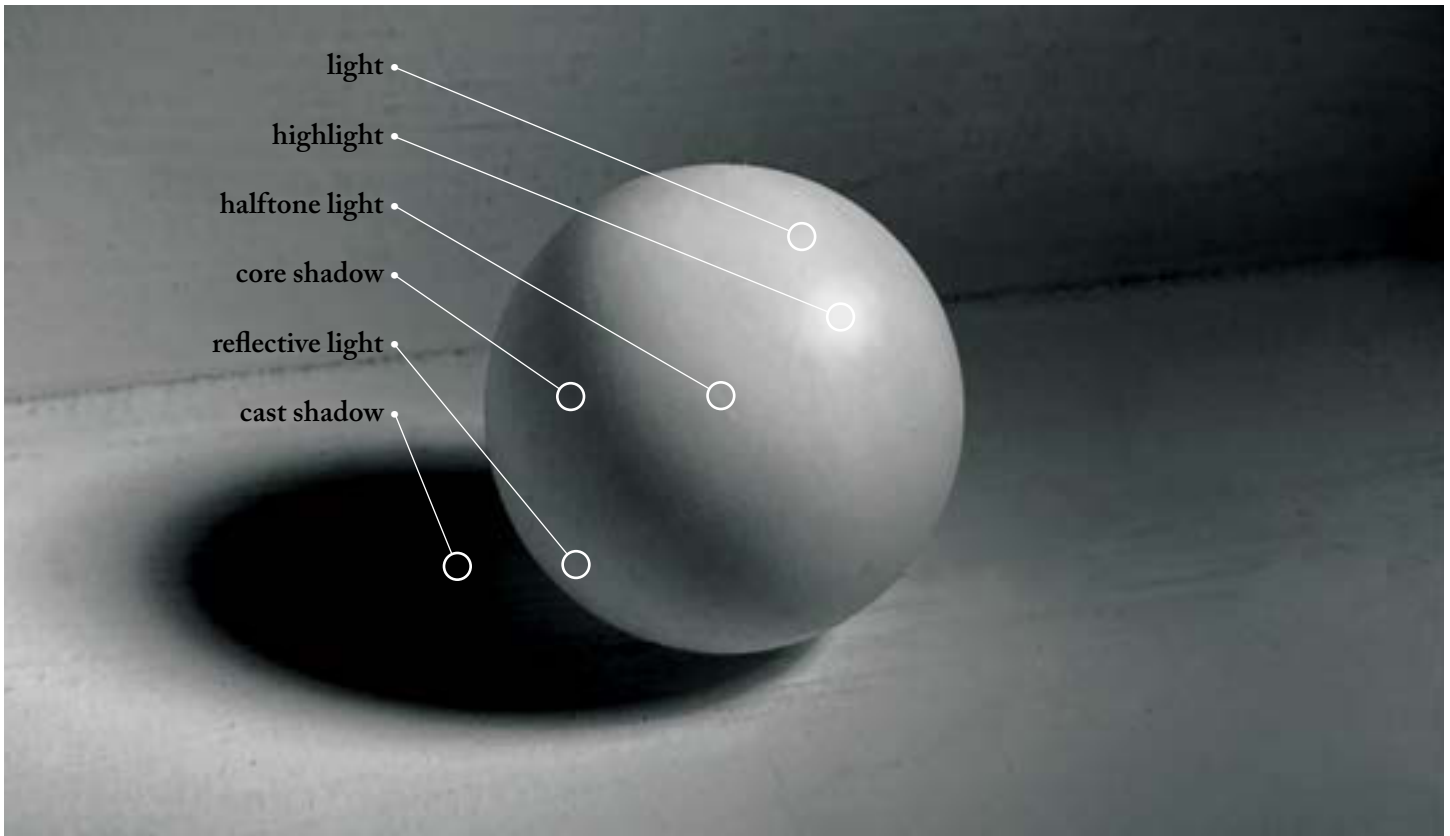
Kimberly Trowbridge | Amanda (blue) | Oil on Canvas | 12" x 9" | 2013 | Copyright Kimberly Trowbridge



In these two portraits, Kimberly Trowbridge is simplifying a complex form into its planes, or facets. Simplifying a complex form, like a head, into planes is a helpful way to see how color and light create the overall structure, and to figure out how to translate any 3D object you are observing into a painting or drawing.

Kimberly Trowbridge | Amanda (orange) | Oil on Canvas | 12" x 10" | 2013 | Copyright Kimberly Trowbridge

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR
 form/mass/volume | planes | light & shadow | chiaroscuro/tenebrism



Light & Shadow: The Highlight is the lightest spot on an object. It is the plane of the sphere that most faces the light source and it is therefore the brightest spot because it catches the most light. The Light is the area around the highlight that catches the second most amount of light before the sphere starts to turn towards the shadow side. The Halftone Light is the area of light just before the planes of the sphere turn into the shadow. It is not catching as much light as the light area making it subtly darker. The Shadow is the area of the sphere that gets no direct light because the planes are all facing away from the light source. The Reflect Light is the area of the sphere that is not facing the light source but is facing the table and therefore is getting a little bit of light that is bouncing off the table back into the shadow side of the sphere. The Core Shadow is the area on the sphere that is perpendicular to the light source and the table. Meaning it gets no direct light and no reflect light, making it the darkest area on the sphere. The Cast Shadow is created by the sphere blocking the light from the light source. In the cast shadow there will be varying amounts of light and dark as light reflects off the sphere into the cast shadow. The area under the sphere is the darkest part because no light can reach this area.



Carlecia Profile | Elana Hagler | Graphite and White Chalk on Paper | 20" x 16"

2020 | Copyright Elana Hagler

ELEMENTS: DOT | LINE | SHAPE | **FORM** | SPACE | TEXTURE | MOTION | COLOR
form/mass/volume | planes | light & shadow | chiaroscuro/tenebrism



The Calling of Saint Matthew | Caravaggio | Oil on Canvas | 133.2" x 126" | c. 1599-1600 | Public Domain



Embroidery: The Artist's Mother | Georges Seurat | Conté Crayon on Paper
12.3" x 9.4" | 1882-83 | Public Domain

Giving an object or a space a sense of light is called **Chiaroscuro**, which is the subtle gradations of light and dark used to create a sense of light, volume, and depth in a drawing or painting. **Tenebrism** is a dramatic lighting effect of high contrast, often used by Baroque artists like Caravaggio.

Both of these works of art are employing Chiaroscuro, but the lighting in the Seurat drawing is much softer compared with the dramatic lighting called Tenebrism that is being used in the Caravaggio painting.

ELEMENTS: DOT | LINE | SHAPE | FORM | **SPACE** | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective



Reggae | Yasim Cakir | Digital Print | A0 | 2017 | Copyright Yasim Cakir



2016 | Public Domain



Stop Bleeding | Lina Yakobchuk | Digital Print | A0 | 2017 | Copyright Lina Yakobchuk

Space: 2D Design deals with the illusion of depth as opposed to the actual depth studied in 3D Design. The illusion of depth refers to the visual sensation of depth we perceive when looking at a photograph of a building when in fact it is just a flat piece of paper. Whether you want to create the look of photorealistic depth in your drawing or have complete flatness, you apply the same techniques.

ELEMENTS: DOT | LINE | SHAPE | FORM | **SPACE** | TEXTURE | MOTION | COLOR
foreground/background | picture plane | illusion of depth techniques | linear perspective



Joseph Pennell | Hail America | Mezzotint | 1909 | Public Domain

As the forms or imagery in a work of art are placed further back into space from the front picture plane, we consider the objects up front to be in the **Foreground**. Things that are in the distance are in the **Background**, and everything in between is in the **Middle-Ground**.

In this mezzotint by Joseph Pennell, the Statue of Liberty is in the foreground. We can see a grouping of buildings across the water in the middle ground, and then another group of even smaller buildings off in the distance on the far left that are in the background.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

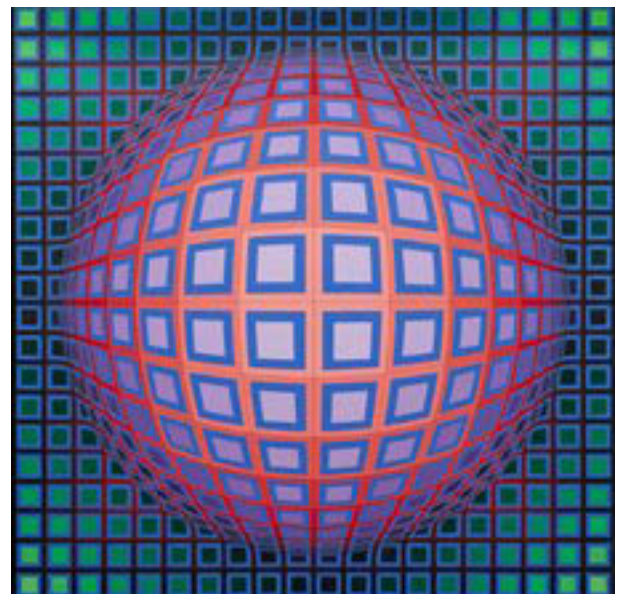
foreground/background | picture plane | illusion of depth techniques | linear perspective



Albercht Durer | Artist and Nude | Woodcut | c. 1525 | Public Domain

The **Picture Plane** is a term used to refer to the flat surface of a 2D work of art. The idea of the picture plane refers to the window-like quality of a 2D work of art and how, depending on what the artist does, the image on the surface can either recede into space as though we are looking through a window, it can flatten and sit right on the surface of the picture plane, or it can come off the picture plane and feel like it is moving into the viewer's space.

In this woodcut by Dürer, we can see the artist on the right is simulating the picture plane by setting up a frame strung with a grid of strings between him and the model. He then has a grid of the same size drawn on his paper to help him see exactly where to place the figure. The Vasarely painting is an example of the shapes coming off the picture plane into the viewer's space.



Vega Szem | Victor Vasarely | Acrylic on Canvas | 1978 | 39" x 39" | Fair Use

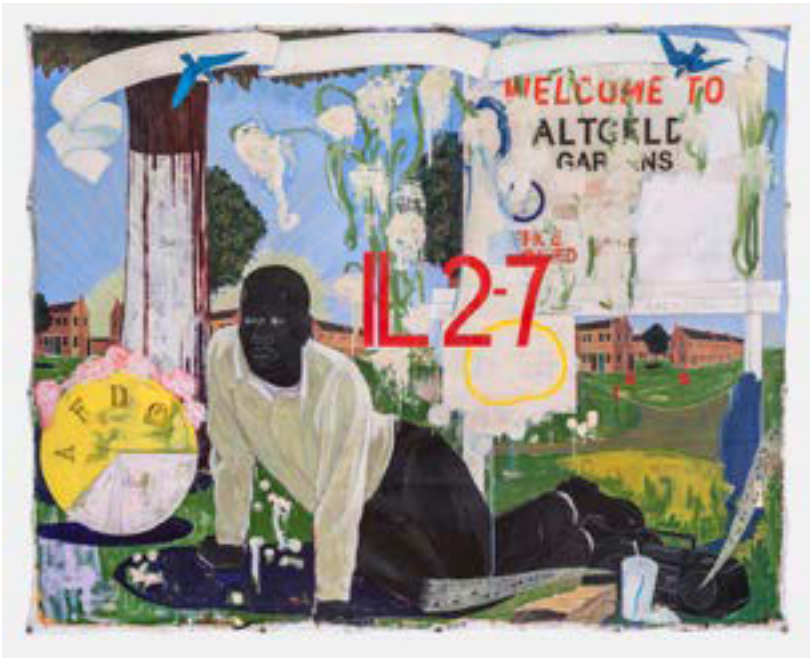
ELEMENTS: DOT | LINE | SHAPE | FORM | **SPACE** | TEXTURE | MOTION | COLOR

foreground/background | picture plane | **illusion of depth techniques** | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Torus Interior | Don Davis | Oil on Board | 1975 | Copyright NASA Ames Research Center



Untitled (Altgeld Gardens) | Kerry-James-Marshall | Acrylic & Collage | 79" x 103" | 1995 | Copyright Kerry-James-Marshall

The techniques used to create the **Illusion of Depth** on a two-dimensional surface are overlap, diagonals, scale, placement, contrast, gradation, focus, detail, transparency, atmospheric perspective, and shadows.



Saint Francis Contemplating a Skull | Francisco de Zurbarán | Oil on Canvas | 36" x 12"
1635 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows

Overlap: Shapes that are partially covering another shape are read as sitting in front of or on top of that other shape.

In this painting, Shane Walsh has the different color shapes overlapping each other in a way that gives the illusion that they are just pieces of paper lying on top of each other.



Shane Walsh | 3119 | Acrylic on Canvas | 37" x 27" | 2015 | Copyright Shane Walsh

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Field with Flowers Near Arles | Vincent Van Gogh | Oil on Canvas | 21.2" x 25.5" | 1888 | Public Domain

Diagonals: One side of a diagonal line must be higher up on the page than the other side and therefore invoke the feeling of moving back into space due to placement on the page. Also, most diagonals we see in the natural world are moving back into space, so our brain assigns this common quality to all diagonals. Vertical lines have very minimal-to-no depth because most verticals in nature do not go back in space so our mind does not influence our perception of them.

Horizontal lines have no depth at all because both ends are at the same level on the page. Implied diagonal lines, created out of connecting two points, can work in the same way of implying depth to our mind, since one point will inevitably be higher on the page if they create a diagonal.

In this Van Gogh painting, the rows of irises and grass in the foreground create diagonal stripes that move our eye back into space from the right to the left. And then the row of trees in the distance creates an implied diagonal line that moves further back in space from left to right.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Suprematism | Kazimir Malevich | Oil on Canvas | 26.41" x 27.95" | 1915 | Public Domain

Scale refers to the relative size of elements in the work of art, and how objects appear smaller as they move farther away. Because we naturally perceive an object getting smaller as it moves farther away from us, our brain assigns this same rule to objects drawn on the page.

In both of these images, the larger shapes appear closer and the smaller shapes seem farther away. This is mainly because the artists are using scale to create a sense of depth. We see the objects as closer and farther away because of their relative size to each other, not because of their placement on the page (see next page for more on Placement). Also note that neither artist is using scale alone to create a sense of depth, but also detail, overlap, and contrast.



Stars | M. C. Escher | Wood Engraving | 1948 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Placement of an object on the page impacts whether it appears closer or farther away. The elements or objects that are placed higher on the page appear farther back in space than objects placed lower on the same page.

In this piece by Zhang Ruitu, even though we cannot see the bottom of the mountains, and they are not overlapping each other, we know that the mountains higher on the page are farther back in space (rather than stacked on top of each other). This is because of our previous knowledge of how the placement of mountains works in the natural world.

Mountains Along Riverbanks | Zhang Ruitu | Ink on Satin
65.75" × 20.25" | 17th century | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows

Contrast: Higher contrast areas come forward in space and lower contrast areas recede in space. Anything that has a dramatic color or value difference from the background will get the viewer's attention, and therefore visually sit farther forward in space than something that blends in with the background.

Gustave Doré is using contrast to draw attention to the main focal point in this painting. Most of the scene depicted is dark and gloomy. But there is a bright light shining on the small boy, giving him the highest contrast in the painting, which makes him stand out. The man in the background is low contrast because he is all black and grey, so he blends in with the background.



The Acrobat's Family: The Injured Child | Gustave Doré | Oil on Canvas | 76.7" x 51.4" | 1853 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



The First Battle of Schooneveld | Willem van de Velde the Elder | Oil and Ink on Canvas

21.4" x 29.3" | 1684 | Public Domain



Spring | Pieter Bruegel the Elder | Pen and Brown Ink on Paper | 1565 | Public Domain

Gradation is the gradual change of something, like a color change from light to dark. Gradation creates depth because one end will inevitably have more contrast than the other, and things with higher contrast appear closer in space. Also, the change of light to dark can be perceived as depth as it gives the sense of light being cast on to a flat plane, like a table, with the lighter end being closer to a light source. A gradual change from light to dark can also give a sense of volume to an object because it mimics the appearance of light rounding into shadow (see page 38 for more information on light on a form).

In both of these ink drawings, the artists have chosen to make everything in the foreground much darker with everything gradually getting lighter as they move farther back in space. Remember that contrast pops out from the background, so in these drawings the dark lines pop forward, but if they had been drawn on a dark colored paper it would be the lighter lines that would have more contrast.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Untitled | Prakhar Sikarwar | Digital Photography | 5184 px x 3456 px | 2015 | Public Domain

Focus: Things that are closer to us appear more in focus than things that are farther away. So, a sharp line appears closer than a soft or blurry line because it appears more in focus.

Focus can be created by having sharper edges, higher contrast, and more detail. In the photo above, the area of fence that is in focus is not the closest part, but it appears closer because of its sharper edges, more contrast, and more detail. In the poster on the right, the letters spelling JAZZ hover forward from all the other letters because these four letters have sharper focus. This is because they have sharper edges and more contrast.



JAZZ | David Jimenez | Digital Print | 2017 | Copyright David Jimenez

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



The Tower of Babel | Lucas van Valckenborch | Oil on Canvas | 16.1" x 22" | 1594 | Public Domain



Witches' Sabbath | Francisco Goya | Oil on Canvas

16.9" x 11.8" | 1797-98 | Public Domain

Detail: When we look at the world, things that are closer have more detail than things that are farther away. For instance, you can see the leaves on a tree right in front of you, but those same leaves seen from a mile away would just appear as a green blob. And, since this is the way we perceive things in the natural world, our mind assigns the same rules to what we see in a 2D work of art.

In the Valckenborch painting, we can see how the artist has put much more detail into everything in the foreground and then less and less detail as things move farther back in space until the buildings in the distance just become a blur of shapes. A similar thing is happening in the Goya painting where the goat and people in the foreground have more detail to their bodies and faces than the people behind them.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Still Life with a Glass and Oysters | Jan Davidsz de Heem | Oil on Wood | 9.875" x 7.5" | c. 1640 | Public Domain



Untitled | Shane Walsh | Acrylic on Canvas | 47" x 47"

2015 | Copyright of Shane Walsh

Transparency is the appearance of seeing one thing through another. There is usually some change to the object seen through the other, such as less detail or a color change, to give the effect that it is actually being seen through something as opposed to just seeing the object through an open window.

In these two paintings, we can see how using transparency creates a more visually interesting depth by allowing the viewer to see what the forms are doing as they coil their way behind each other.

ELEMENTS: DOT | LINE | SHAPE | FORM | **SPACE** | TEXTURE | MOTION | COLOR

foreground/background | picture plane | **illusion of depth techniques** | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



The Lackawanna Valley | George Inness | Oil on Canvas | 33.875" x 50.1875" | c. 1856 | Public Domain

Atmospheric Perspective is when we look at things farther away from us and there is more atmosphere between us and them, which affects how we see them. Due to more atmosphere in the air as things move farther away from us, there is a gradation of more to less contrast, sharp to soft focus, more to less detail, and a shift from warmer to cooler colors. Knowing this occurs in nature, artists often use these same effects in their art to create the illusion of depth.

In this Inness painting, the hazy soft quality to the mountains in the distance versus the brighter color and sharper details of the landscape in the foreground is a good example of the use of Atmospheric Perspective.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

overlap | diagonals | scale | placement | contrast | gradation | focus | detail | transparency | atmospheric perspective | shadows



Jeremiah Lamenting the Destruction of Jerusalem | Rembrandt Van Rijn | Oil on Panel | 22.8" x 18.1" | 1630 | Public Domain

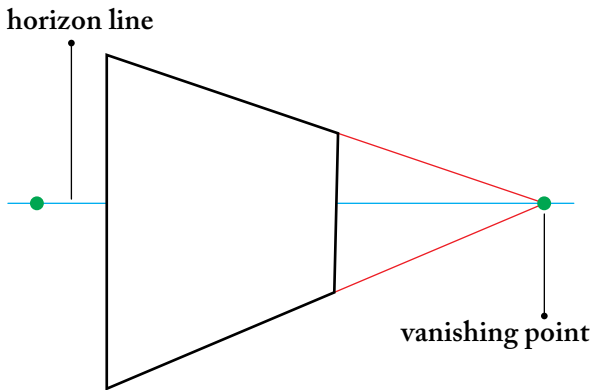
Shadows: Having a light and dark side to an object gives it a sense of volume. It indicates more than one plane since the light can't reach all sides. Having a cast shadow not only indicates that the object has enough volume to block the light source, but it also indicates a surface plane the cast shadow is projected on; both of which give a stronger sense of depth to the image.

During the Baroque period in art history, artists like Rembrandt started to really push the use of light and shadow for dramatic effect in their paintings. A strong light shines on the man illuminating what is important to the narrative and casting his shadow on the rocks behind him that lead us up and back to the burning city in the background.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | **linear perspective**

one-point perspective | two-point perspective | three-point perspective | isometric perspective



Linear Perspective: Linear Perspective is a system used to give the appearance of believable depth on a flat surface. If we were to look down on a road from an airplane we would see that the two sides of the road are parallel. But if we were to stand on that same road we would see that the road gets smaller as it moves farther away from us. When we look down a long straight road, that road will get smaller until its sides converge at a single point (we call this point the Vanishing Point) on the Horizon Line. The Horizon Line is usually thought of as where the edge of the earth meets the sky, but in linear perspective it is an imaginary line that is at the eye level of the viewer. Everything you see is determined by your vantage point, including the Horizon Line, and where you stand will determine whether you are seeing something from above or below. So, when an object is below the horizon line it is below your eye level and therefore you will be able to see the top of that object. Imagine you are standing on a hill watching a hot air balloon. When the balloon is on the ground you can look down into the basket where the passengers ride, but as the hot air balloon rises into the air it will get to a point where you can only see the bottom of the basket. If you were in another hot air balloon rising along with the first one you will never see the bottom of the other basket unless it goes higher than yours, showing that your perspective on what you see is completely dependent on where you are and that is why the Horizon Line is actually completely dependent on your eye level.



The Miracle of the Child Falling from the Balcony | Simone Martini | Tempera on Panel | 32.2" x 26.3"

c. 1328 | Public Domain

During the time of this painting by Simone Martini, artists were just starting to figure out some of the basic ideas of linear perspective. We can see in this painting that things we know are parallel to each other, like the top and bottom of a building, are not parallel to each other but are angling towards each other as they go back in space. While the angles of the buildings are definitely off, the fact that the top of the buildings are angling down, and the bottoms are angling up show us that Martini was very close to figuring out linear perspective. It is not surprising that it took so long for linear perspective to be discovered, because it is really kind of a crazy idea to wrap your mind around at first. Being willing to admit that how we perceive the world is so different from how we know things to be, is a very difficult thing to do. For example, as lines we know for a fact are parallel to each other go back in space, they angle towards each other so sharply that they converge at the exact same point if taken back to the Horizon Line. It was almost another hundred years before Italian Architect Filippo Brunelleschi would make the first drawings using linear perspective in 1415, but it didn't take very long before every artist was using the idea.

ELEMENTS: DOT | LINE | SHAPE | FORM | **SPACE** | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | **linear perspective**

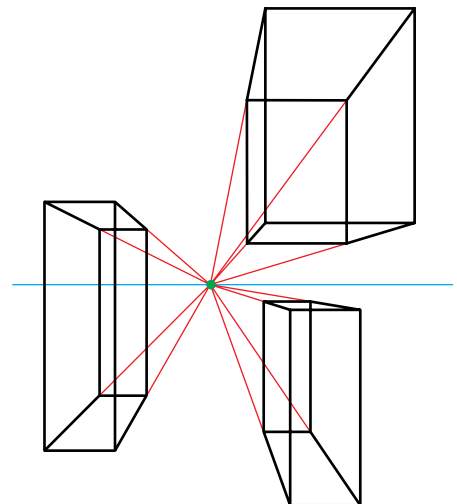
one-point perspective | two-point perspective | three-point perspective | isometric perspective



School of Athens | Raffaello Sanzio da Urbino | Fresco | 196.8" x 302.4" | 1511 | Public Domain

One-Point Perspective is where the diagonals of a box appear to be going back into space and converging at the same point. In a one-point perspective drawing of a box, or building, the horizontal and vertical sides are parallel to each other while all of the diagonal sides of that box (the sides going back in space) will go back to the same vanishing point.

This painting by Raphael is a good example of one-point perspective, with the one vanishing point right between the heads of the two men in the center of the composition.



ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | **linear perspective**

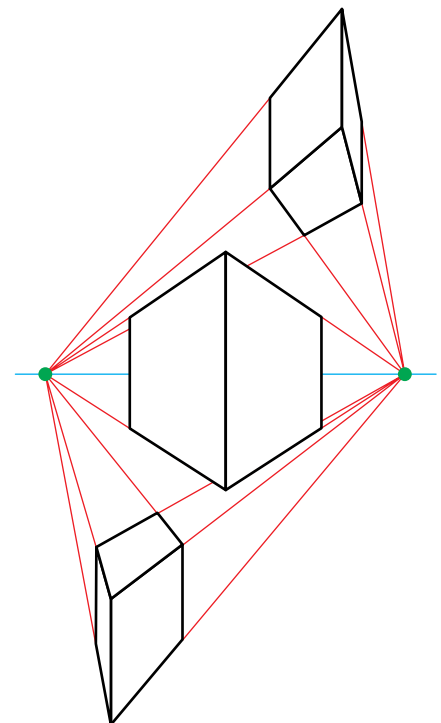
one-point perspective | two-point perspective | three-point perspective | isometric perspective



Mount Rainier National Park with Containers | Mary Iverson | 32" x 50" | Oil on Canvas | 2015 | Copyright Mary Iverson

Two-point perspective is where the diagonal sides of a box appear to go back into space and converge at two different vanishing points, one to the right of the object and one to the left. When you are looking at a box in two-point perspective, you are looking directly at a corner of that box. In a two-point perspective drawing only vertical lines will be parallel to each other.

In this Mary Iverson painting we can see that the none of the fronts, or sides, of any of the rectangular shipping containers are facing us (we are looking at corners), and that means that they are all two-point perspective objects. All of the objects that are sitting at the same level and in the same orientation have their vanishing points on the same Horizon Line, but any object that is tipped up or down will have its vanishing point move up and down. (If you are really interested in linear perspective, I recommend doing more research on all the possibilities of linear perspective).



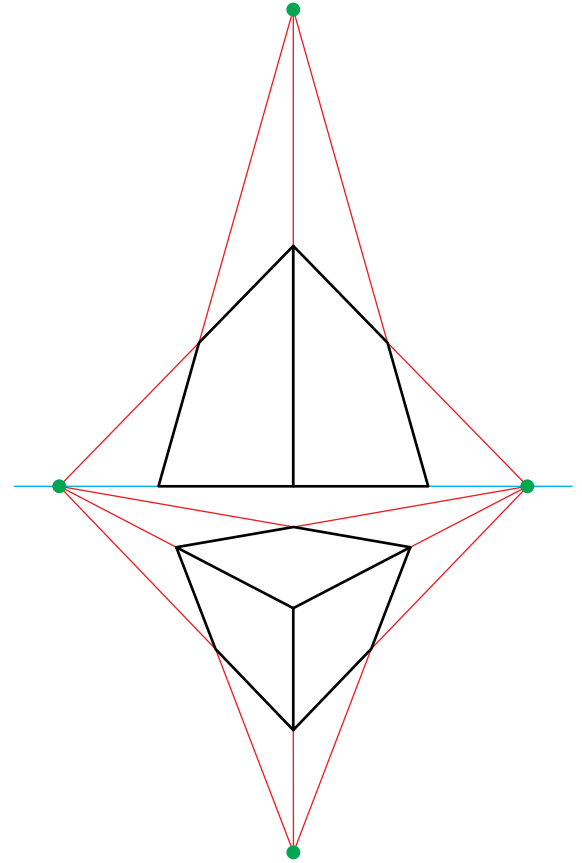
ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | **linear perspective**

one-point perspective | two-point perspective | three-point perspective | isometric perspective



View taken in Rouen | Adrien Dauzats | Graphite and Watercolor on Paper | 15.4" x 10.6" | 1832 | Public Domain



Three-point perspective is when all sides of a box go back into space and converge at three different vanishing points, one to the right one to the left and one that is either above or below the box (like when looking up at the corner of a building from the ground). In a three-point perspective drawing no sides are parallel to each other.

With subtle changes in the angles of the sides of a building, the vanishing points are usually so far away from what we are drawing that they go off the page. For example, if we were to draw the third vanishing point for this cathedral, drawn by Adrien Dauzats, the vanishing point would be so high up that it would go way off the page. The same is true of the vanishing point for the right side wall of the cathedral. If you find this is the case in your own drawing, I recommend you attach an extra piece of paper to the sides of your drawing to draw your vanishing points on. This will guarantee you get your building drawn accurately.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

foreground/background | picture plane | illusion of depth techniques | linear perspective

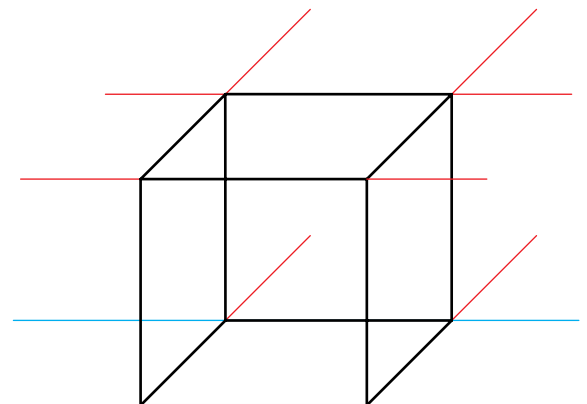
one-point perspective | two-point perspective | three-point perspective | isometric perspective



ENkoklish | Mikias Hailu | Digital Print | 2019 | Copyright Mikias Hailu



FreeCol screenshot 05 | The FreeCol Team Video Game Graphic | <http://www.freecol.org/> | GNU General Public License



Isometric Perspective is when parallel sides, or lines, stay parallel in the work of art. Isometric perspective drawings do not use linear perspective. Diagonals that would normally go back into space and converge at a vanishing point remain parallel. Isometric perspective relies on illusion of depth techniques like placement on the page and overlap to give a sense of depth. But since it is not how we actually perceive the world it does not create a believable space (it is primarily used by designers of something like furniture to give accurate proportion and measurement of all sides in the drawing).

Isometric perspective is often used in video games (although not always a perfect isometric). It allows for easier rotation of tiles, and it is easier to have more things on the screen all at once since objects don't get smaller as they go back in space, like they would in a linear perspective space.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | **TEXTURE** | MOTION | COLOR



Faith, Hope, Love | Anselm Kiefer | Emulsion, Synthetic Polymer Paint, Shellac, and Photo Document Paper on Linen and Lead Construction
1984-6 | Public Domain

Texture is the specific characteristics or quality to the surface of a work of art, for example smooth or rough. Texture is its own element because it is a totally different way to describe what we are seeing on the surface of a particular piece. For example, a piece of paper can have color, but it can also be smooth or rough. Texture adds visual interest by creating variety to the surface of the piece. Texture can be actual or implied. Actual Texture is a surface that actually feels like what it looks like. For example, the soft woven feeling of a tapestry or the bumpy surface of thick paint on a painting like the one by Anselm Kiefer above. Implied Texture is the illusion of texture like a smooth tabletop printed to look like a wood surface, or the fur of the rabbit in the drawing by Dürer on the right.



Hare | Albrecht Dürer | Watercolor and Gouache | 9.8" x 8.8" | 1502 | Public Domain

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | **MOTION** | COLOR



Dynamism of a Dog on a Leash | Giacomo Balla | Oil on Canvas | 35.375" x 43.25" | 1912 | Public Domain

When we talk about **Motion** in two-dimensional art we are primarily dealing with implied motion (versus actual motion) or the illusion of motion, whether that is the stop motion of film and animation or the implied motion of comic books like blurred lines or movement lines. See the legs of the dog in the painting above for a good example of implied movement. We can also create a sense of movement with rhythm, repetition, gradation, intervals that gradually change, or with directional forces that direct the eye to look in a certain direction. (For more information and examples, go to the the Design Principles section on Movement, pages 118-124.)

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see

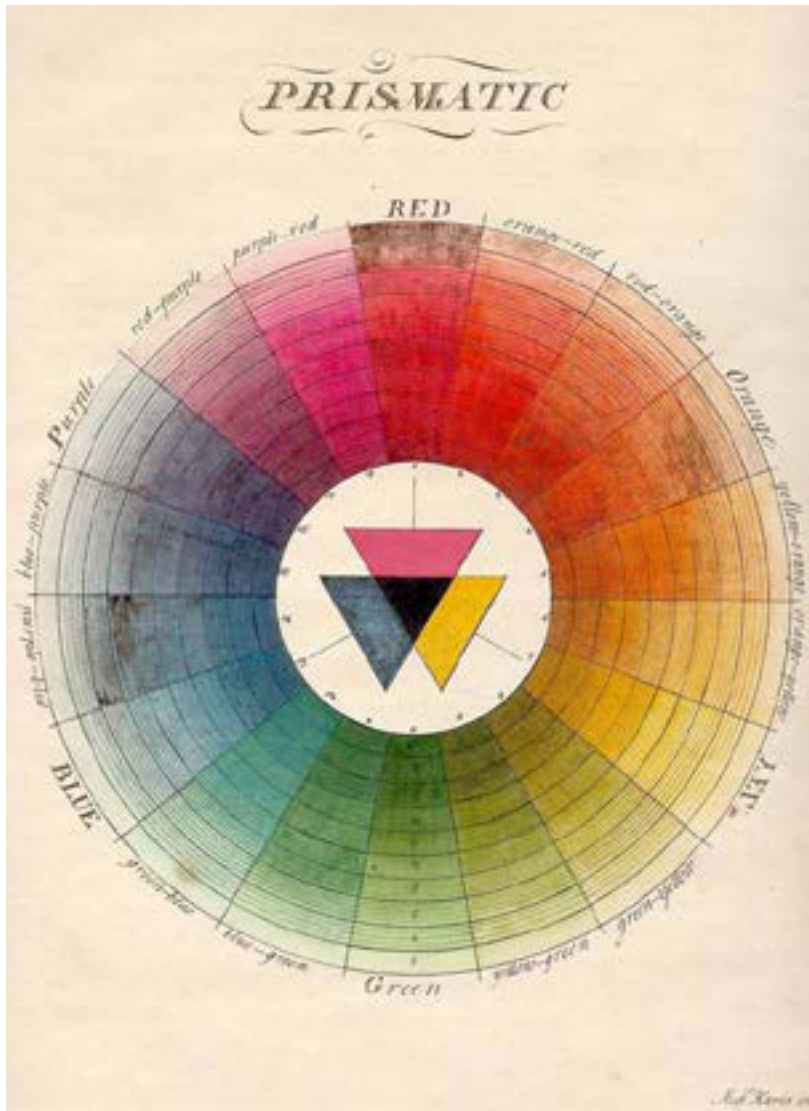
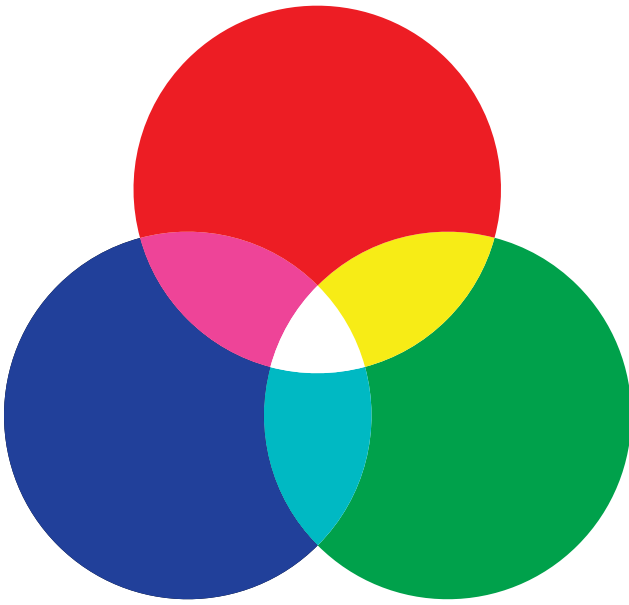


Plate I From 'The Natural System of Colours' | Moses Harris | Hand-Coloured Etching

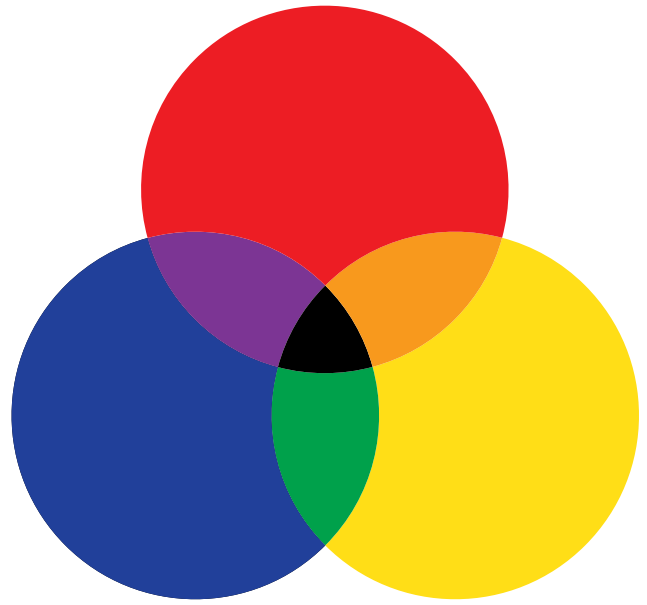
14" x 10.5" | 1776 | Public Domain

The colors of the **Color Wheel** are the Primaries: Red, Blue, and Yellow; the Secondaries: Orange, Violet, and Green; and the Tertiaries: Red-Orange, Yellow-Orange, Red-Violet, Blue-Violet, Blue-Green, and Yellow-Green. If we arrange these colors together into a continuous circle this is called the color wheel.

Red, Blue and Yellow are the **Primary Colors** because they are the colors used to mix all other colors and they cannot be made by any combination of other colors. If we mix two primaries together we get the **Secondary Colors**, such as red and blue mix to make violet, blue and yellow mix to make green, and red and yellow mix to make orange. The **Tertiary Colors** are the colors in between the Secondaries and the Primaries, so on each side of yellow we would have yellow-green and yellow-orange.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLORcolor wheel | **additive vs subtractive** | CMY | characteristics of | complementary | opacities | identification of | how we see

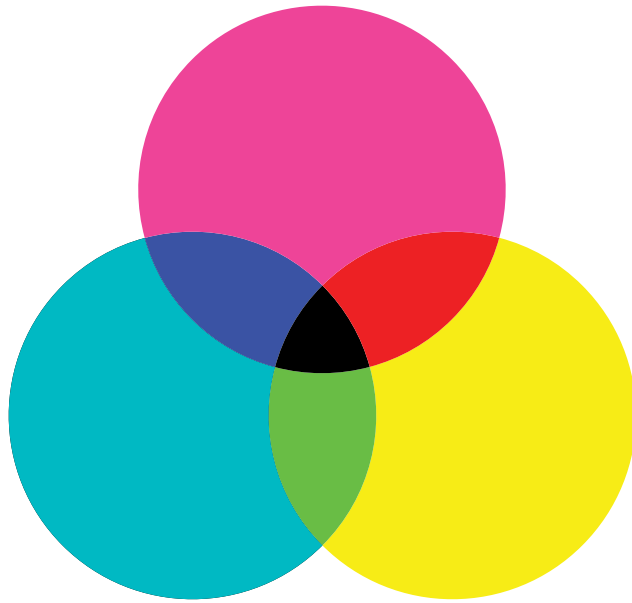
additive color system



subtractive color system

When dealing with color there are two different systems: one is called the **Additive Color System** and this deals directly with light (such as light directly from the sun, or seen directly from a computer screen), and the other is the **Subtractive Color System**, which deals with a color that has been reflected off the surface of an object. Each ray of sunlight has every color of the rainbow in it in the form of waves (it also contains gamma rays, x-rays, and ultraviolet rays, but we can't see those so you'll have to take a different class for more information). When light waves hit the surface of an object like a red car, we see the car as red because the light waves of every other color have been absorbed into the surface and the red-light waves have been reflected into our eyes. The absorbed light has been subtracted from all the light that was originally present, and that is why it is called the subtractive system. In both systems, the more light waves of a specific color that enter our eye, the brighter or more saturated

a color appears. The more light waves there are in total, the more luminous the color appears, creating a lighter value. But, in a Subtractive System, as we mix colored pigments together, we tend to produce colors that are duller and darker because the more colors that are present, the more light waves that are absorbed, creating less luminosity. (For more information on the Additive System go page 76)

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLORcolor wheel | additive vs subtractive | **CMY** | characteristics of | complementary | opacities | identification of | how we see

CMY color system

Disclaimer: The real primary colors are **Cyan, Magenta** and **Yellow**. The CMY Color Wheel is made up of Cyan (as the blue), Magenta (as the red), and Yellow. It is commonly used in design, printing, and digital mediums, but it has been slow to replace the traditional RYB color wheel in classrooms. The RYB color wheel is what is taught in most art classes because it was developed back in the 1500's when color pigments were much more limited and continues as a relic of the past. But, since then it has been found that magenta, yellow, and cyan are the true primary colors (meaning the colors that all other colors can be mixed from) because it is possible to get much brighter and more saturated colors with them.

The CMY color wheel also relates much more to how our eyes actually see color. Our eyes have red, blue and green light receptors in them, which makes RGB the primary colors of our eyes. And, when we mix the red, blue, and green light together we see cyan, magenta and yellow as the secondary colors (more on this on page 76). To learn more information on CMYK printing go to page 77.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation



Civilization-1 | Ramy Hussien | Digital Print | 2019 | Copyright Ramy Hussien

Color Contrast is how we see and distinguish one thing from another. There are four different ways that we see contrast in color. We call these color contrasts **The Four Characteristics of Color**: Hue, Value, Temperature, and Saturation.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation



Hue is the nameable characteristics of a color. For example, whether a color appears more bluish or more reddish. In a 1676 experiment, Sir Isaac Newton directed sunlight through a prism and all of the colors of the rainbow appeared on the wall. Newton identified each of the seven different hues in this spectrum as red, orange, yellow, green, blue, indigo, and violet (abbreviated to ROYGBIV). Newton then put the hues into a continuous circle which we now call the color wheel. The color wheel that Isaac Newton created was based on the prismatic hues created by light waves that make up what we call the additive color system. It wasn't until 1810 that Johann Wolfgang Goethe published his treatises on color introducing the subtractive color wheel which deals with color pigments and is the color wheel we are most familiar with today.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation
tints/shades/tones

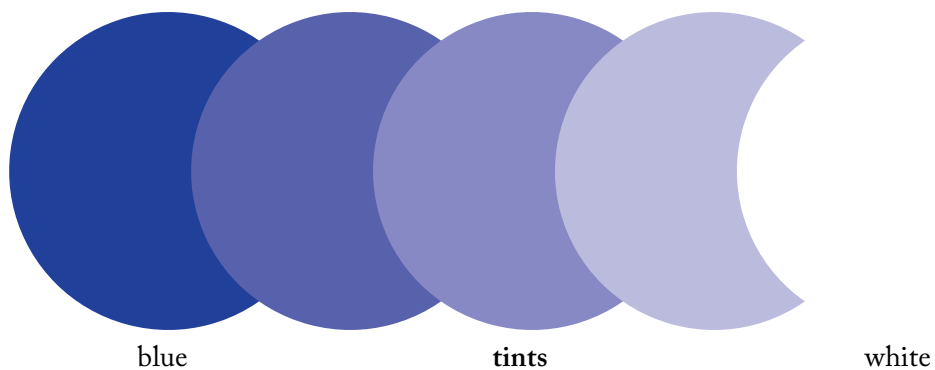
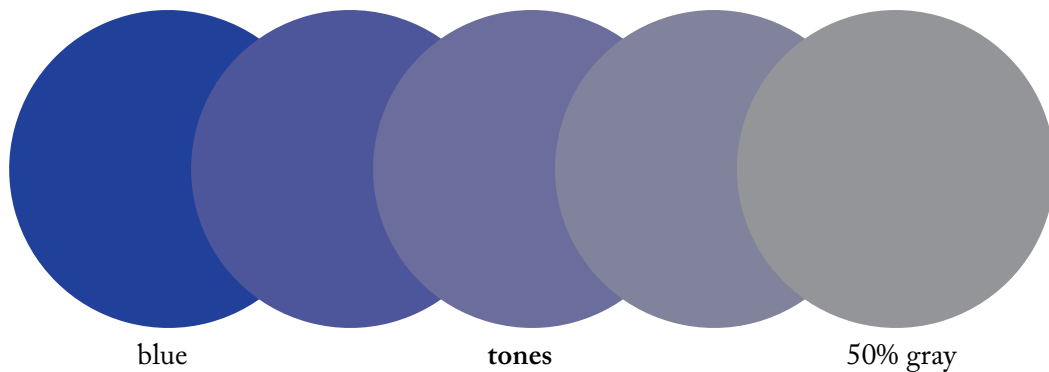
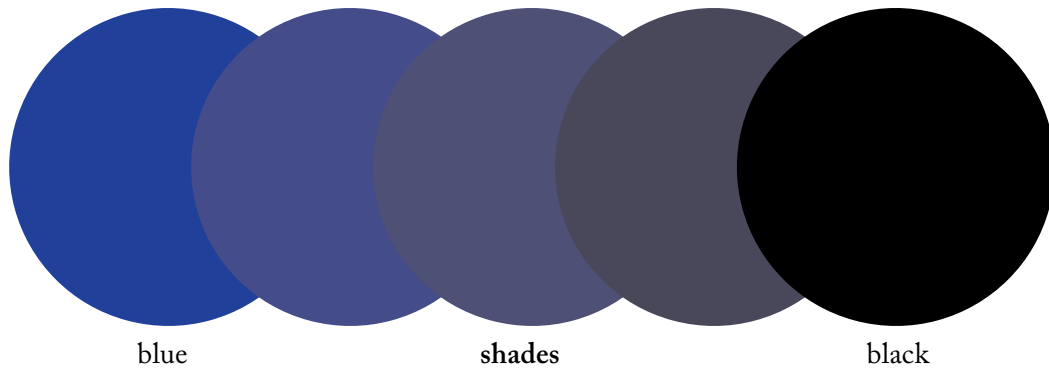


Magdalen with the Smoking Flame | Georges de La Tour | Oil on Canvas | c. 1645 | Public Domain

Value refers to how light or dark a color appears. This is also referred to as the luminosity of a color. Our eyes see color because of the specific type of light waves that enter our eye (such as red light waves), while value is the amount of overall light waves present. The more light waves of any kind that enter our eye make something appear lighter, and if we have an even amount of all colors of light waves, we will see white. When working with value, high contrast is the primary way to make something stand out. High value contrast means that a color is a lot darker or a lot lighter than the other colors around it like the moon in the sky and low value contrast means that something is very similar in value to what is around it like a black tie on a black shirt.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see
hue | value | temperature | saturation
tints/shades/tones



Each color has a value of its own, but different values can also be created through tints, shades or tones. A **Tint** is when we add white to a color; a **Shade** is when we add black to a color; and a **Tone** is created by mixing a grey with a color.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation
color bias | white balance

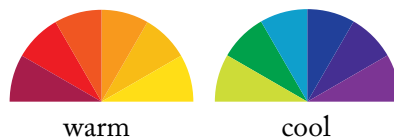


[warm] Sadak in Search of the Waters of Oblivion | John Martin | Oil on Canvas | 1812 | Public Domain



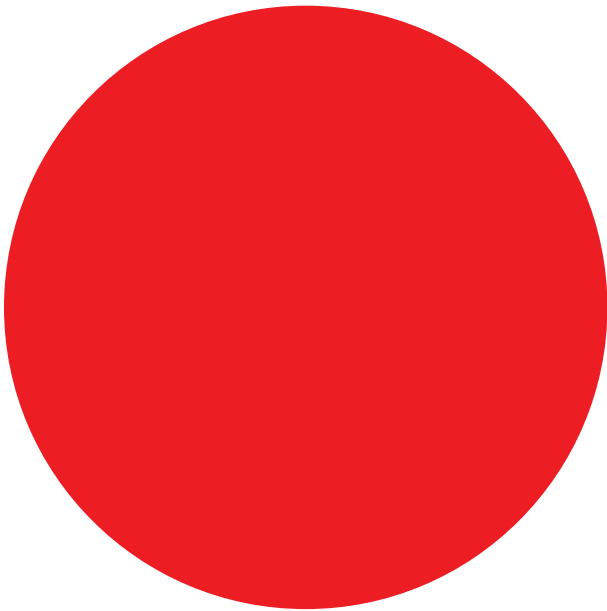
[cool] The Old Guitarist | Pablo Picasso | Oil on Canvas | 1904 | 48" x 33" | Public Domain US

Temperature is how warm or cool a color appears. The color wheel can be divided into two sides with the warmer colors being on the orange side of the color wheel and the cool colors being on the blue side.

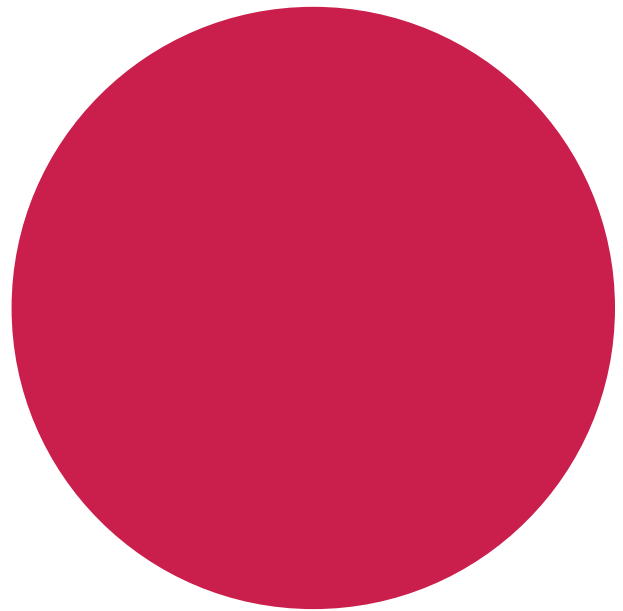


ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation
color bias | white balance



red leaning yellow



red leaning blue

Temperature deals with **Color Bias**. Each of the three primary colors on the color wheel is either pure or it leans to one of the other two primaries. For Example, red it is either pure or it leans towards blue or yellow. If the red leans towards blue it has a subtle violet feel to it. If it leans towards yellow it has an orange feel to it, as we can see in the two red swatches above. Specific hues can also have temperature differences, such as a red that leans towards blue is cooler. Or a red that leans towards orange is warmer. You can think of temperature as a secondary hue characteristic. For example, in the red leaning blue swatch above, red would be the main hue of the color swatch, but we might also identify blue or violet as a less dominant hue present in the color, making the red have a subtle violet tint.



ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see
hue | value | temperature | saturation
color bias / *white balance*



original photo



white balanced



cool filter



warm filter

White Balance in photography is synonymous for color temperature where your camera is adjusting the colors based on the temperature of the different lights that are present. Light can be warm or cool depending on where it sits on the Kelvin Scale. A candle with its noticeably orange tint, would be an example of a warm light (low on the Kelvin Scale at 1850K) and daylight is an example of more cool light (higher on the Kelvin Scale at 5000-6500K).

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see hue | value | temperature | saturation



Sun Setting on the Seine at Lavacourt, Winter Effect | Claude Monet | Oil on Canvas
39.4" × 59.8" | 1880 | Public Domain



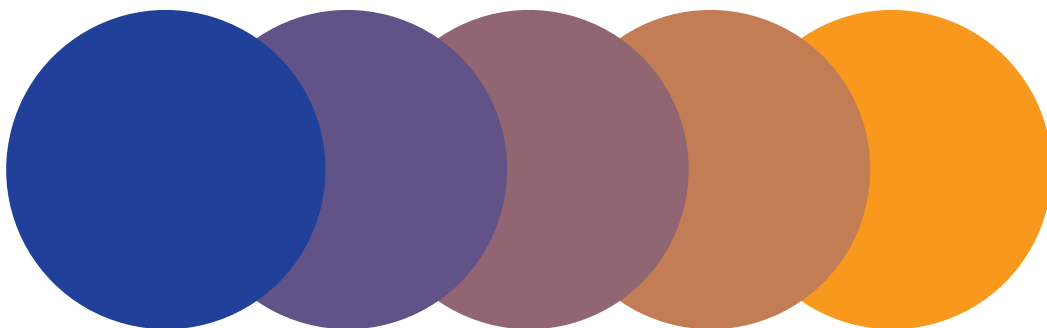
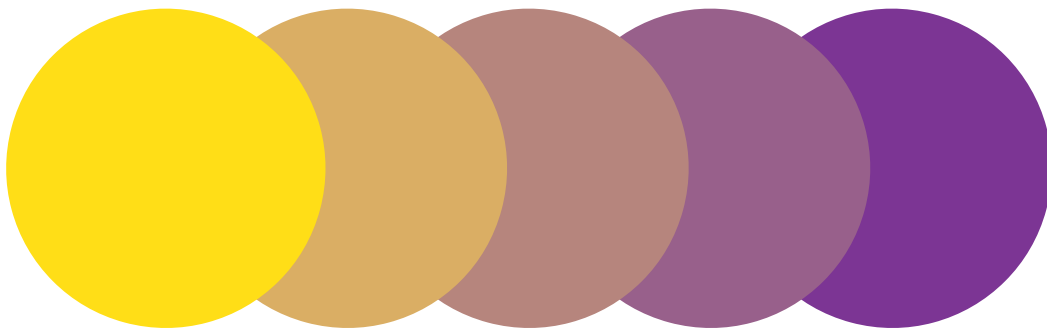
Black and white version of painting above.

Saturation: Saturation refers to how bright or dull a color appears. Saturation is often used interchangeably with Intensity or Chroma. Where value deals with a color's luminosity, saturation is dealing with a color's purity. Saturation has to do with how much light a color 'appears' to have, but be careful because lightness in value does not always equal brightness in color. The color of an object is created by the amount of a specific light wave that is reflected off it in to your eye. We see red because all other color light waves are being absorbed except red, and the more of that specific light wave reflecting in to your eye, the brighter or more saturated it appears. If we were to mix blue into red, then the blue and red start to cancel each other out because they both absorb each other. The more colors we have on a surface then the more light is being absorbed, and the more light that is absorbed the duller a color will get until all light is absorbed (none escapes) and we see black. If we have a red and we add its complement, green, then we are technically adding the two colors that make green (yellow and blue), and we start to neutralize or dull the red. Because all three colors are present, the number of light waves reflected is reduced, and thus the red's saturation is reduced. This is why a color is dulled by its complementary color.

This painting by Monet illustrates the difference between value and saturation. When the painting is in color, we can see how the bright orange sun pops out from the hazy sky. But when the painting is changed to black and white the sun almost completely disappears. This is because the sun is almost the same value as the sky and only pops out because of its difference in saturation and temperature.

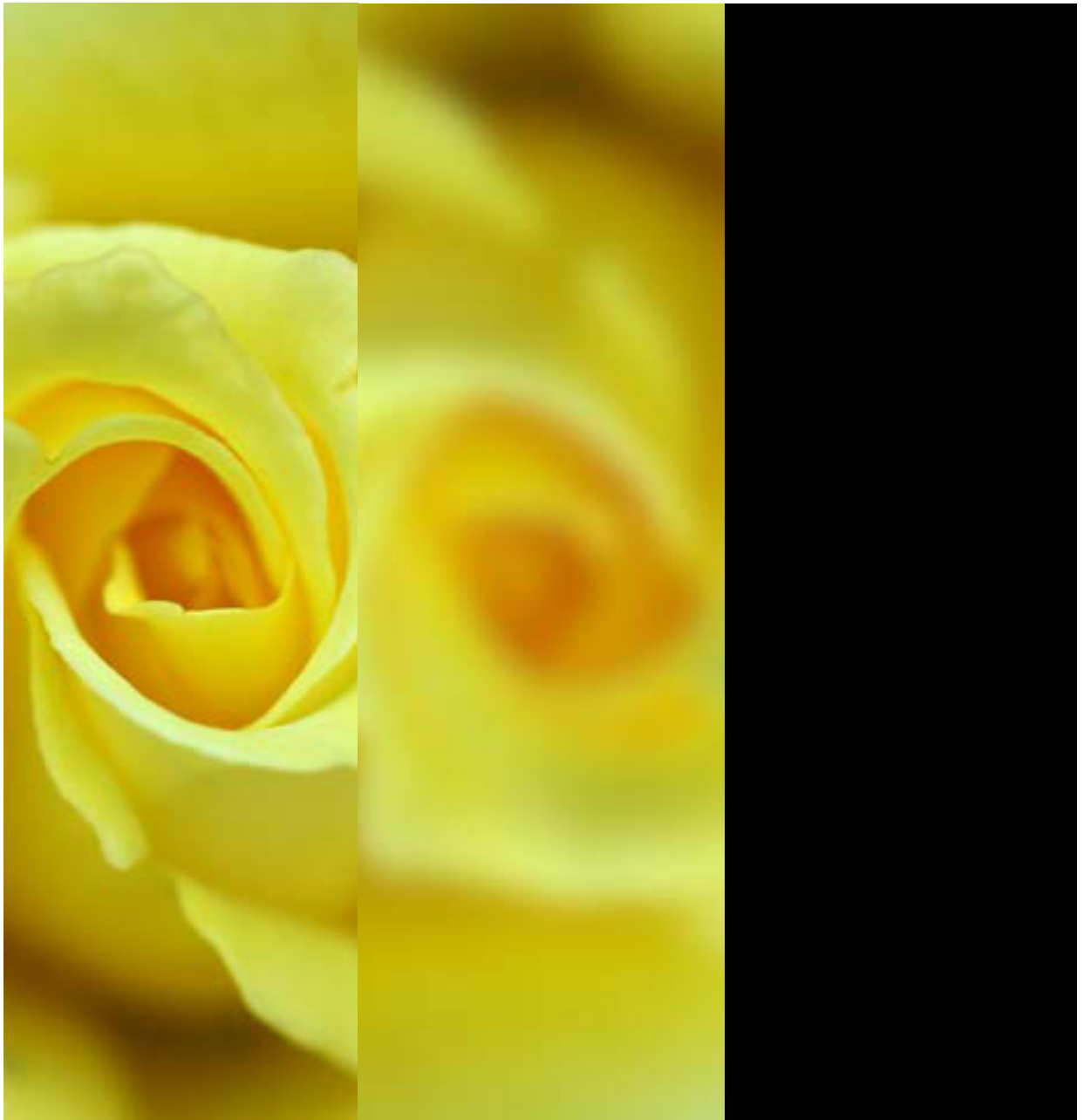
ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | **complementary** | opacities | identification of | how we see neutral colors



Complementary Colors are colors that sit opposite each other on the color wheel and they neutralize or cancel each other out, creating a Neutral Color. **Neutral Colors** are greys or browns mixed through some combination of complementary colors. Neutral basically means an unsaturated color. A 'true' neutral color is exactly in between two complements, leaning towards neither one nor the other, having no strong characteristic of one specific hue. Neutral greys can also be created through Tints, Shades, or Tones.



ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLORcolor wheel | additive vs subtractive | CMY | characteristics of | complementary | **opacities** | identification of | how we see

transparent

translucent

opaque

Besides describing a color by the four characteristics we can also talk about the **Opacity, Transparency, or Translucency** of a color. Each of these terms deals with the amount of light that can pass through the color. Opaque color is a solid color that you can't look through at all. Transparent is when you can see clearly through something, like a window. Translucent is more like looking through frosted glass or a stained-glass window, where shapes on the other side are less distinct.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

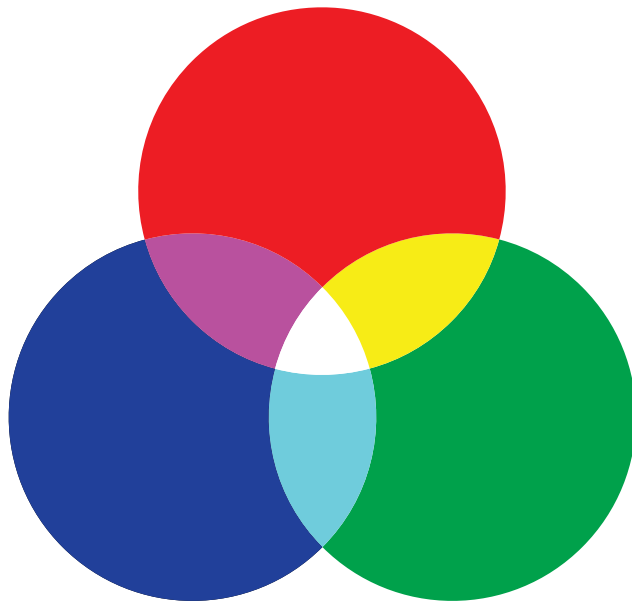
color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see



Identifying a color: Pretend you are talking to somebody on the phone who is at a store and you want them to buy you a specific red colored t-shirt. But you don't have an example of the color so you have to describe it to them. In order to do this, you have to be able to describe all aspects of the local color. **Local Color** is the color of an object under even light. For example, we know a solid color red t-shirt is the same color all over, but the local color changes depending on how light hits the shirt. The red will get lighter as it gets closer to the light source and darker where less light can hit it. But, if we want to tell another person specifically what kind of red the local color is, we will need the four characteristics of color. The hue, or the nameable color, of the t-shirt in this example is red. But if a group of people were all asked to select the color red from a bunch of color swatches in the paint section of the local hardware store, we would probably get as many different reds as there are people. In order to get a little bit closer to the correct red, we could next describe the value of the shirt on a scale from white to black. We might say the value of the shirt is somewhere right in the middle, more like the red of the American Flag versus a darker red like Colorado Mesa University's school color. Next is the saturation of the color. Is it a bright red like a new t-shirt or a duller red, like a shirt that is a few years old. Lastly, we can talk about the temperature of the color, where we might say that it is an orangier red, as opposed to a more violet red, and hopefully the person we are talking to will be able to get a lot closer to picking the right color shirt for us.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast



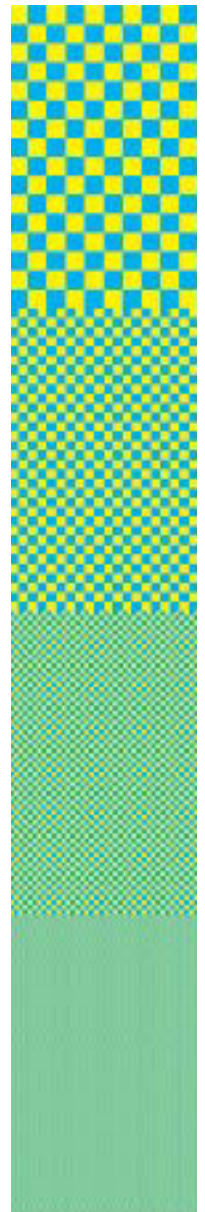
additive color system

Since our eyes are dealing with light waves, they work within the additive system, and in the additive system we are dealing with the spectrum of visible light that we can see which is made up of Red, Orange, Yellow, Green, Blue, Indigo, and Violet (or ROYGBIV). In our eye we have light receptors called Cones and Rods. Cones are activated by specific light waves that our brain translates into specific color, and the Rods just detect how much light is present and therefore value. There are three types of cones in the eye: red, blue and green. The red cones are sensitive to short wavelengths of light, green cones are sensitive to medium sized wavelengths, and blue cones are sensitive to long wavelengths. When all three cones are stimulated equally we will see white, and we see black when no light is present. Light waves on the visible light spectrum that sit in between two cones will stimulate both of the cones on either side. For example, yellow light triggers both red and green cones, but if there was an equal amount

of red and green light our brain will translate that as yellow too. Remember that the additive color system has a slightly different color wheel where red and green mix to make yellow, blue and green mix to make cyan, and blue and red mix to make magenta. When all light waves are present we see white, so if you were to take spot lights of red blue, and green and overlap them (as they do on a theater stage) they would all mix together to make white.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMYK | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast

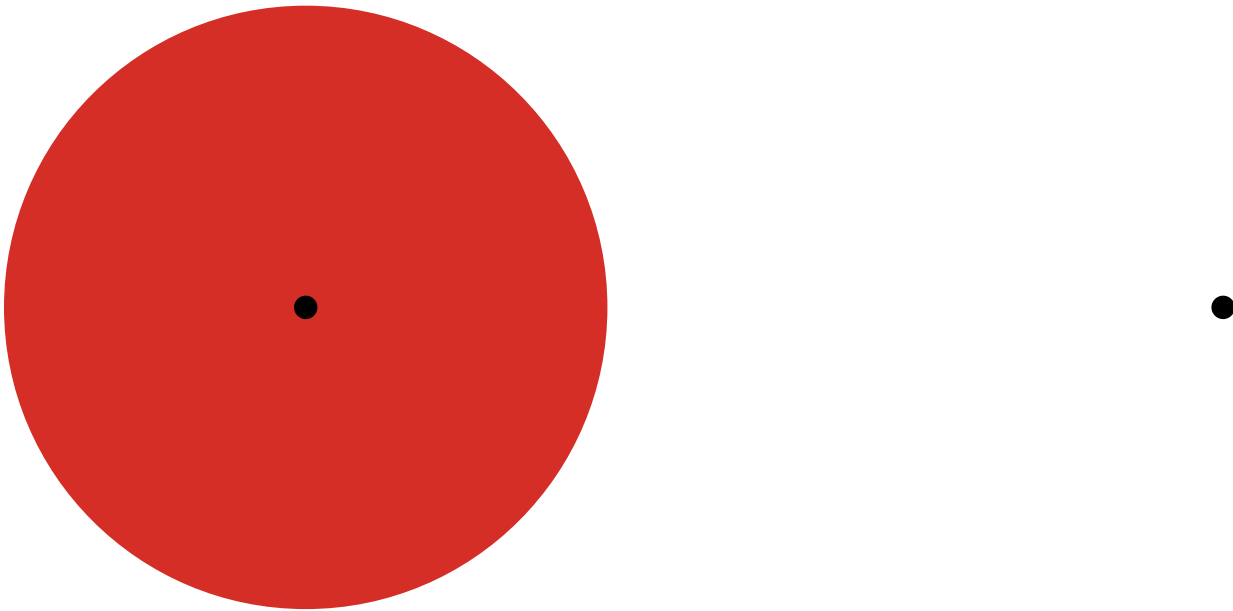


Since what we see is basically just approximations of the amount of light waves hitting the receptors in our eyes, color can be created by not just mixing colors together to get a solid patch of color (mixing a blue and red to make violet), but also through **Optical Mixing**. This happens when you put a bunch of small dots down and the smaller the dots are, or the further away you are from them, the more they will start to blend together into one color. This is because all of the light waves that reflect off a small area merge together into one color in our brain based on the amounts of different waves present. So if we have equal amounts of blue and yellow, like in the example on the right, they will mix to make green.

Optical Mixing is how most printing is done in newspapers and magazines. If you look at an image in a magazine with a magnifying glass you will see that it is just made up of small dots of color (see image above). The colors used in printing are CMYK or cyan, magenta, yellow and black. But printing is a little more complicated because they are not only using optical mixing but overlaying transparent colors to create more colors. For example, a transparent yellow over magenta will have the appearance of red.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

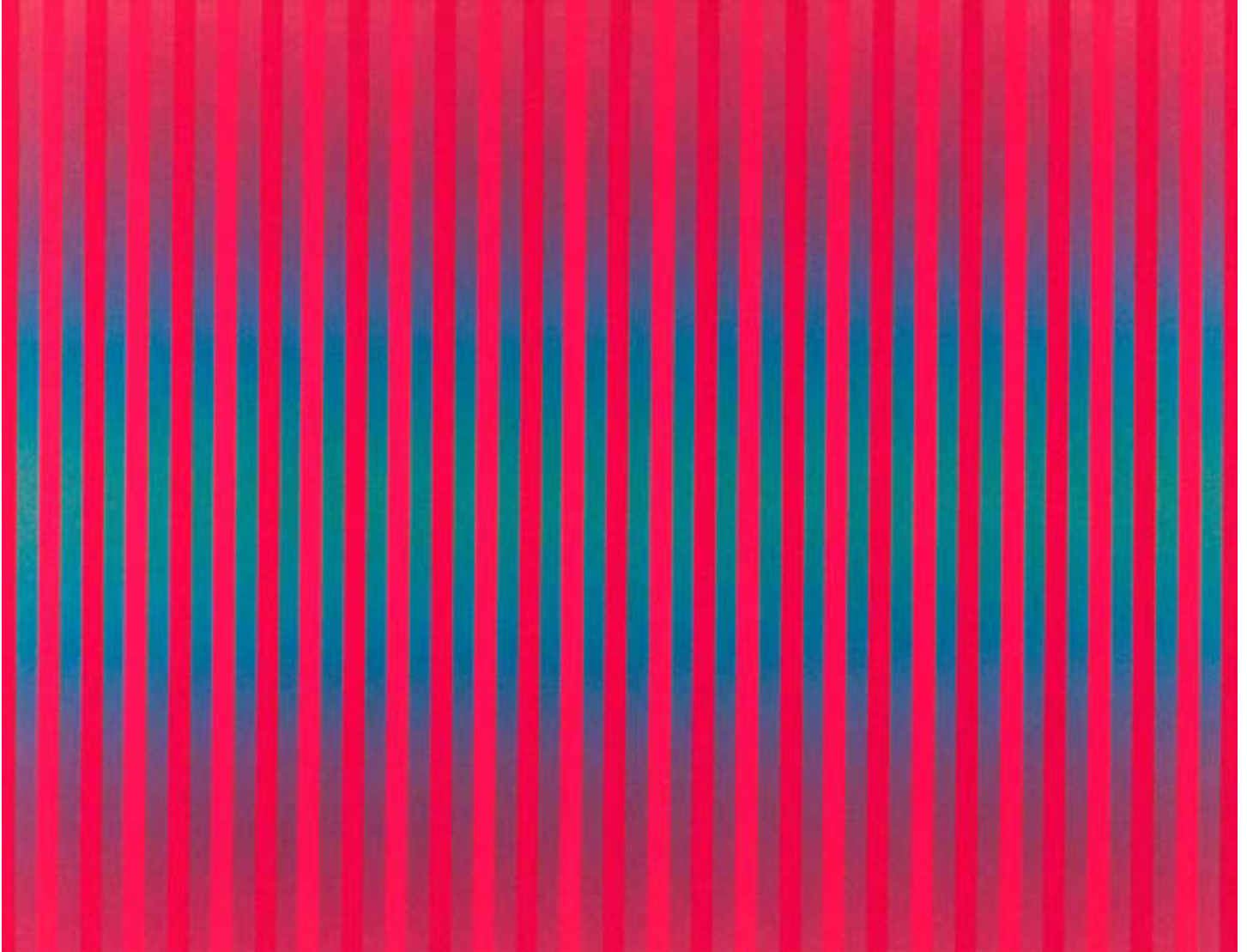
color wheel | additive vs subtractive | CMYK | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast



If you have ever stared at something like the bright light of a camera flash and had a spot linger in your vision for a few seconds afterward, this effect is called an **After Image**. An afterimage happens when the cones in our eyes get overwhelmed by a color and the other cones start to kick in to balance things out. For example, if you stare at the black dot in the middle of the red circle above, for about 30 seconds and then look at the black dot on the right side of the page, you will see a lighter bluish spot where the red spot used to be. This happens because the red cones in your eyes get fatigued so the blue and green cones start to kick in, and the blue and green light waves mix together to produce the light bluish color of cyan. Because our eyes do this, it has profound effects on how we perceive colors in the world around us. It means that anytime we look at a large area of one color it will fatigue the cones in the eye for that particular color causing the other cones to chime in and completely change the color of everything we are looking at. This effect is referred to as Relative Color.

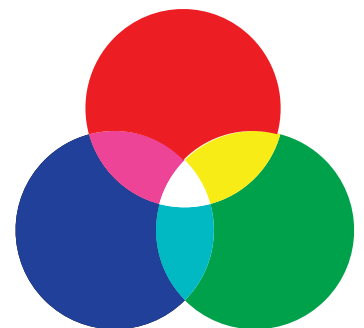
ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMYK | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast



Alpha Red Alternates | Francis Celentano | Acrylic on Canvas | 1969 | 35" x 48" | Copyright Estate of Francis Celentano

Relative Color is the fact that all the colors we see are relative and can drastically change depending on the colors that surround them (as in the image above). This concept is called **Simultaneous Contrast**, which is the idea that the cones in our eyes seek out the opposite of whatever the dominant color is. So, if we are seeing a dark color our eye seeks out light; if our eye sees a lot of blue it will seek out the opposite of blue. Now, we have to remember that our eye is dealing with direct light waves, so it is working in an additive color system and therefore the complements, or opposites, are not the same as the subtractive system we are used to. The opposite of blue is yellow, the opposite of red is cyan, and the opposite of green is magenta.



additive color system

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

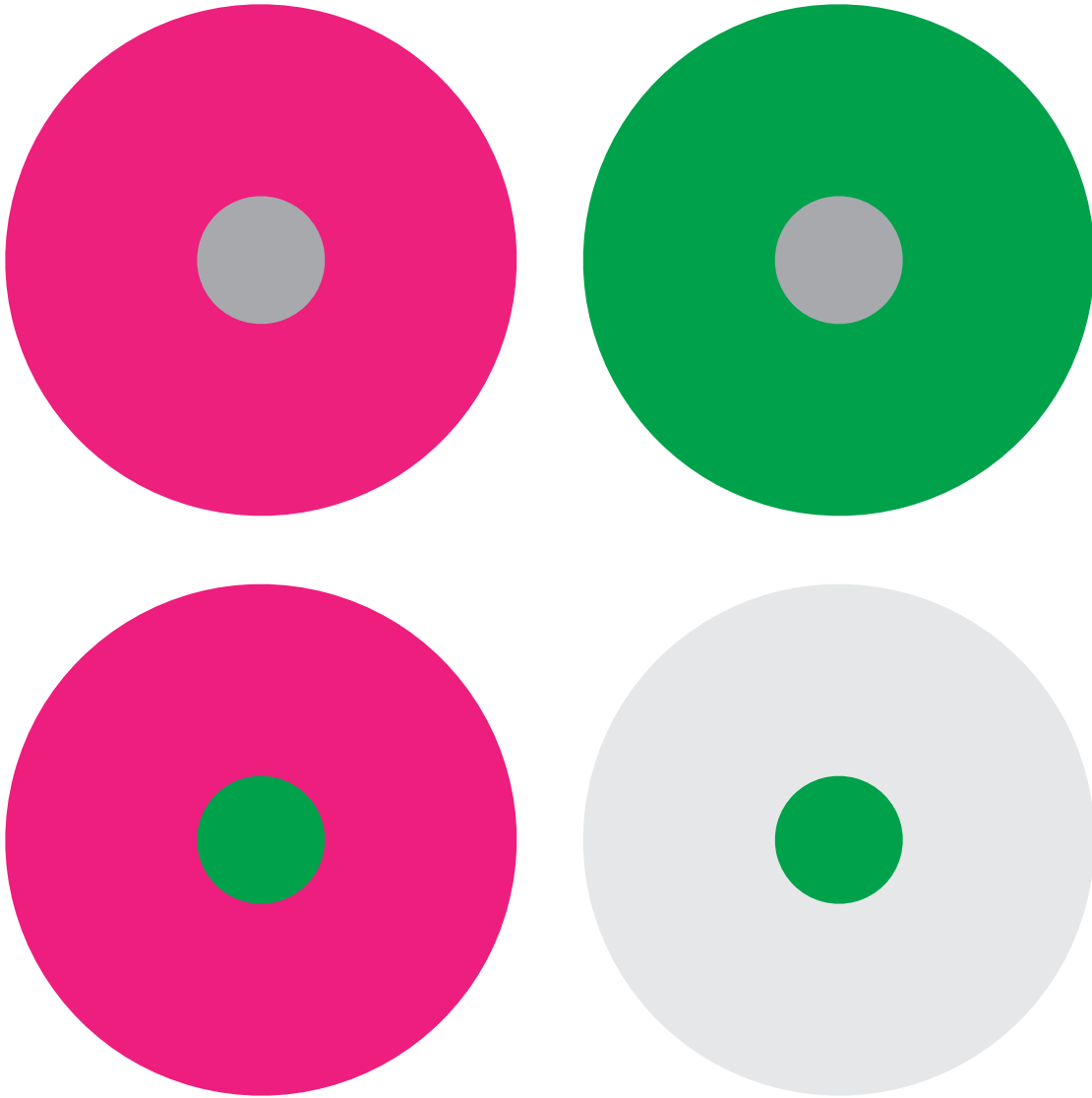
color wheel | additive vs subtractive | CMYK | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast
contrast reversal | complementary effect | color subtraction



Contrast Reversal (also called **Value Contrast**) is when our eye seeks out the opposite in terms of light and dark, so a color will appear lighter on a dark background and will appear darker on a light background. For example, in the image above, the bar in the middle is the same value of grey all the way across. There is a gradation of light to dark behind it, and it appears darker on the lighter grey and lighter on the darker grey.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMYK | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast
contrast reversal | complementary effect | color subtraction

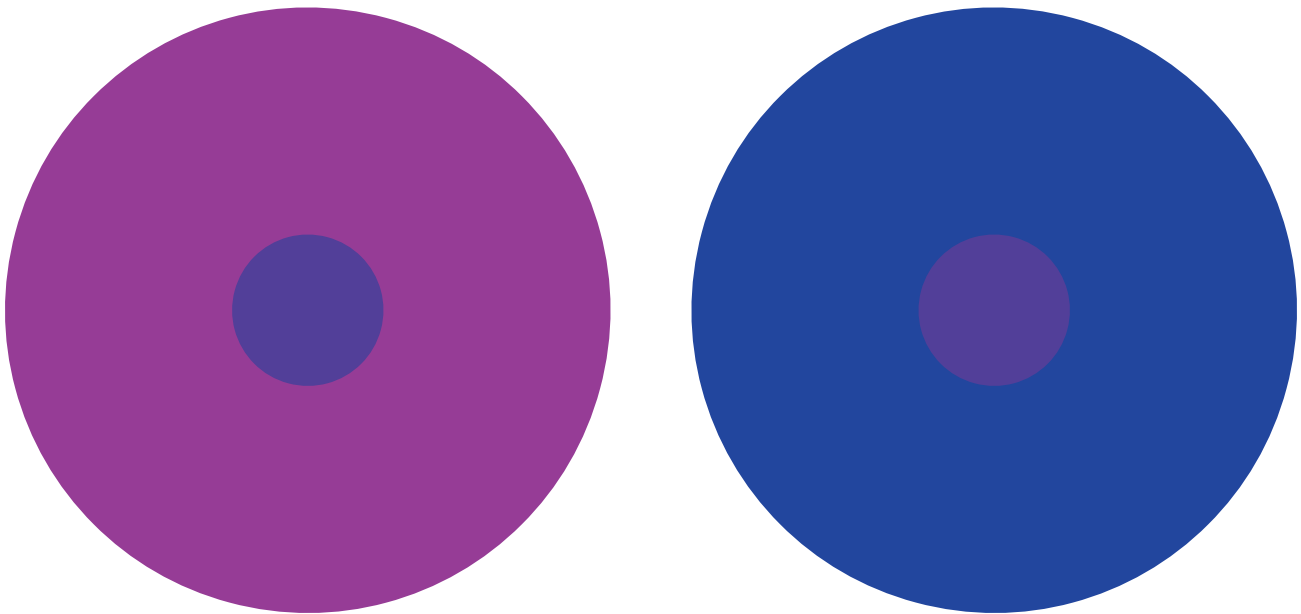


Complementary Effect is when our eye seeks out the opposite (or complement) of the dominant color. For example, a light grey surrounded by red will appear slightly more blueish than the same color surrounded by green, because our eye seeks out the complementary color of the dominant color. In the first example above, green and magenta are complements in an additive system, so although the grey in the middle of both these squares above is the same color, the grey on the magenta has a greener tint than the grey in the middle of the green, which has a pinker tint. The complementary effect can also heighten the intensity of a color

that is surrounded by its complement because our eye is seeking out the color that is already there. This is apparent in the second example above where the green on the magenta appears brighter than the same green on the grey. For the effects of relative color to work you have to look at one area without moving your eyes around to different colors on the page or else those colors will affect, and therefore change, what your eye sees.

ELEMENTS: DOT | LINE | SHAPE | FORM | SPACE | TEXTURE | MOTION | COLOR

color wheel | additive vs subtractive | CMY | characteristics of | complementary | opacities | identification of | how we see
optical mixing | after image | relative color/simulated contrast
contrast reversal | complementary effect | color subtraction



There is one more effect that we get from simultaneous contrast and this is called **Color Subtraction**. Color subtraction happens because our eye gets fatigued by the dominant color, so our eyes actually start to subtract the dominant color from all other colors around it. For example, if you had a violet color surrounded by red-violet, the violet would appear bluer because the red would subtract itself. The same color violet on a blue will appear more red-violet (believe it or not but in the example above the color in the middle is the same color on both sides). Think of this like an equation where on the left the blue-violet minus violet equals blue ($BV - V = B$) so the center color appears bluer, and on the right blue-violet minus blue equals violet ($BV - B = V$), making the center color appear more violet.

Section 3: Composing 2D Art

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Coincidence of Opposites | Nick Croghan | Silverpoint, Acrylic, Rabbit Skin Glue on
Wooden Panel | 5" x 5" | 2009 | Copyright Nick Croghan

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | directional forces



Interior Mess | Laura Carpenter Truitt | Oil & Colored Pencil on Birch Panel | 24" x 20" | 2018 | Copyright Laura Carpenter Truitt

INTRODUCTION: COMPOSING 2D ART

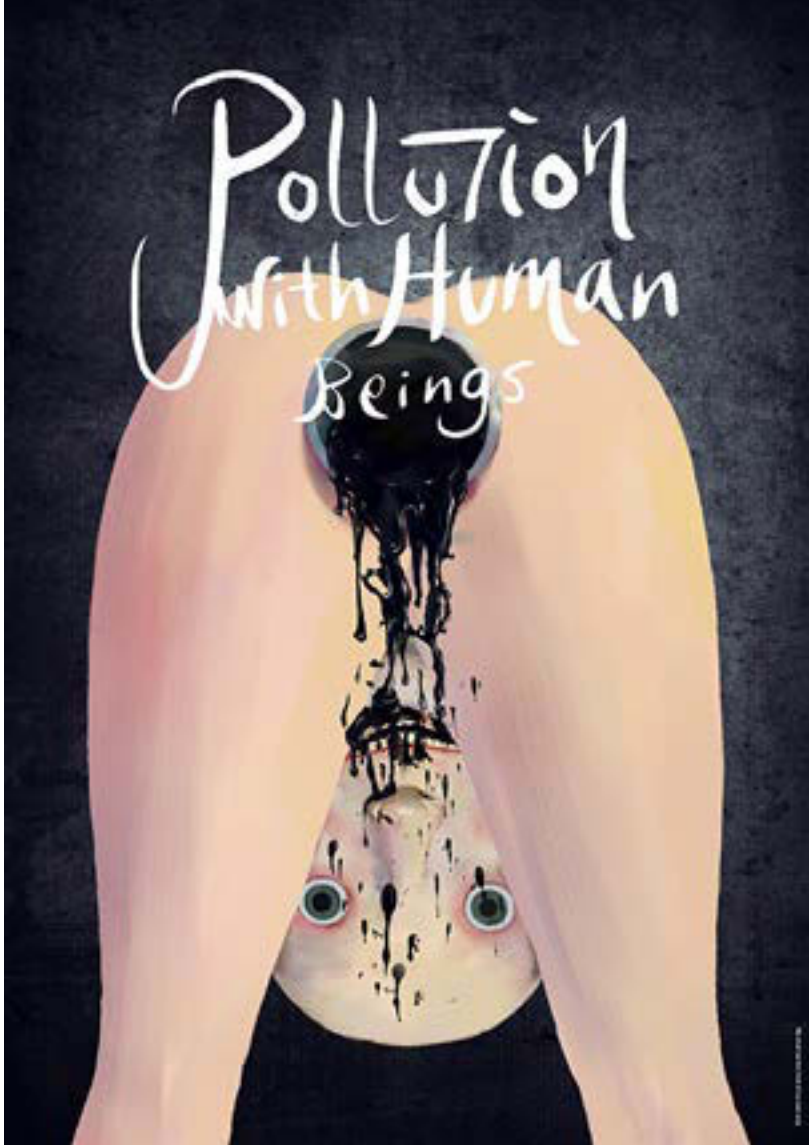
Composition refers to the overall design of a work of art, but it can also be a generic term for a work of art itself. For instance your teacher could say, “Everyone turn in your compositions”. But to say whether a composition is good or bad refers to how the elements in the artwork are being used. Whether a work of art is successful has a lot to do with the artist’s intentions (is it communicating what the artist intended), but beyond the artist’s intentions, as the viewer, we can make our own opinions about whether a piece is visually interesting or not. So, what creates visual interest?

Things that have visual interest draw the eye to them, creating visual weight. **Visual Weight** is the power that something in a composition has to get your attention. The more it draws your eye, the more visual weight it has and the more it affects the overall balance of the composition. For example, imagine a

painting that is all blue and in one spot there is a small bright pink shape. Because the pink shape is so different than everything else it is really going to stand out giving it a lot of visual weight. There are many ways to create visual weight in a composition. For example, through depth, size, placement, contrast, or repetition. Pretty much any way that you can emphasize or draw attention to something creates visual interest and visual weight. We will go more into these concepts in this section.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | **visual tension** | focal point | format | cropping | grid/divisions | implied shapes | directional forces
targets | juxtaposition



Reap What One Has Sown | LiGang | Digital Print | 2017 | Copyright LiGang

Visual Tension is an area of tension within the composition that makes the viewer slightly uncomfortable and therefore gets their attention. We can use our knowledge of the design principles to create tension or do it through Tangents and Juxtaposition.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | directional forces
targets | juxtaposition



Forced Perspective | Kenzie Saunders | Digital Photograph | 2013 | CC BY-ND 2.0

Tangents are two objects or edges that are so close that they are almost touching, creating tension, flattening space, and causing discomfort. This is sometimes called forced perspective.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | directional forces
targets | juxtaposition



Stop Female Genital Mutilation | Esme Contreras | Digital Print | 24" x 36" | 2019 | Copyright Esme Contreras

Juxtaposition is when you put contradictory elements together, like beautiful imagery with tragic subject matter, to catch the viewer off guard.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORvisual weight | visual tension | **focal point** | format | cropping | grid/divisions | implied shapes | directional forces

A Meeting | Marie Bashkirtseff | Oil on Canvas | 75.98" x 69.685" | 1884 | Public Domain

Focal Points are the area, or areas, in a composition that draw the most attention. They are the primary areas of interest, the first place you look, and often considered the subject of the piece. There can be multiple focal points with a hierarchy where the eye moves from one to another in an order based on their visual weight. Where we place the focal points can create more or less visual interest. It can create predictability and stability, or it can create chaos.

In the Marie Bashkirtseff painting, everything draws our eye to the group of boys, and among the boys, the main focal point is the boy in black. He is the tallest, the only one with a hat and bag, and three of the other boys seem to be looking at him. In the Velazquez painting, the man on the far left is the main focal point. All the other men in the painting are looking at him. He is the only one wearing red, he has a wreath on his head and, if that wasn't enough, his head is glowing.



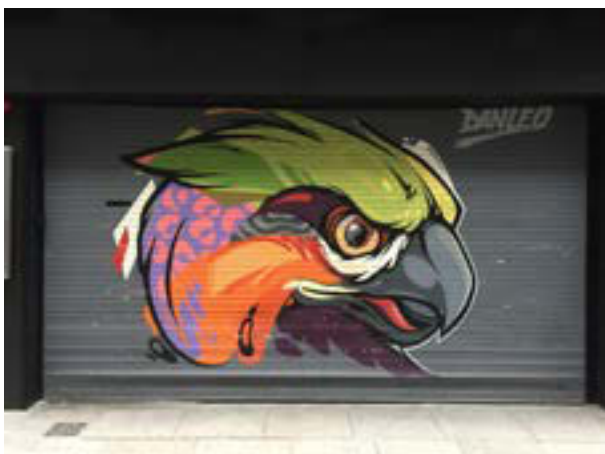
The Forge of Vulcan | Diego Velazquez | 87.7" x 114.1" | Oil on Canvas | 1630 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORvisual weight | visual tension | focal point | **format** | cropping | grid/divisions | implied shapes | directional forces

[invented] Precious and Vulnerable | Emily Gherard | Intaglio on Plaster and Cedar | 72" x 132" x 3.5" | 2020 | Copyright Emily Gherard

When creating a composition the first thing you must decide is the size or dimensions your artwork is going to be. This is called the **Format**. The format can be a horizontal or vertical, rectangle, a square, round, or a random/invented shape. Once you've established the format of your composition, next you have to figure out the size of your focal point and where you are going to place it.

The mixed media piece above, by Emily Gherard, is a good example of a random or invented format. The painting breaks away from the traditional rectangular format in how it's right side is sloping up with the appearance of being held up by stilts or ladders. The other three images show round, vertical, and horizontal compositions.



[horizontal] Untitled | Danleo | Spray Paint | 2009 | Public Domain



[round] The Garden of the Hesperides | Frederic Leighton | Oil on Canvas | 1892 | 66.5" | Public Domain



[vertical] AMON, The Seventh Spirit | Omid Kalantar Motamedi | Digital Print | A0 2017 | Copyright Omid Kalantar Motamedi

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORvisual weight | visual tension | focal point | format | **cropping** | grid/divisions | implied shapes | directional forces

On the Pont de l'Europe | Gustave Caillbotte | Oil on Canvas | 25.5" x 32" | 1876 | Public Domain

How you place the edges of your format in relation to the subject matter is called **Cropping**. The more of the composition that the subject fills the larger it will appear (as if you have zoomed in). And if you give more space around the subject matter then it will appear smaller.

With the proliferation of photography, in the late 1800's artists started using cropping in ways that hadn't been done before. These two artists awkwardly cut off people as they near the sides of the canvas, or show the top of the neck of an instrument popping in at the bottom. This type of cropping was used to give the feeling of everyday life, or a real life moment caught in a way that we would think of as a snapshot. At the time, cropping in this way (not idealistically composing all elements as if on a stage) would have looked very strange.



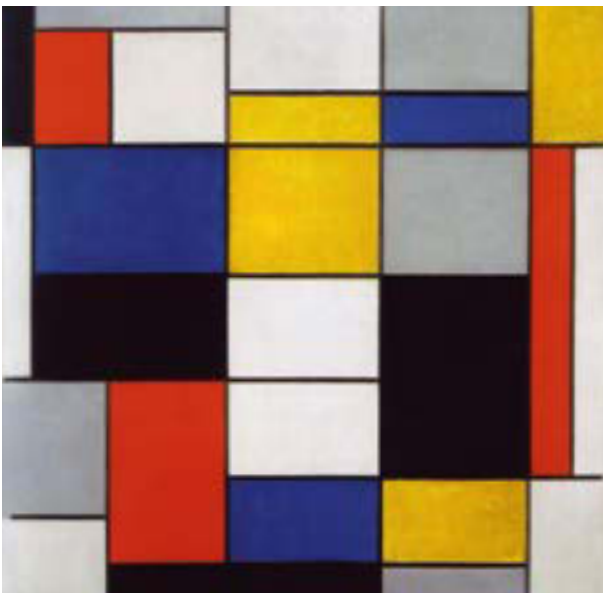
Stage Rehearsal | Edgar Degas | Pastel and Ink on Paper | 20.9" x 28.5" | 1878-1879 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grids** | implied shapes | directional forces
divisions | rule of thirds | iconic | rabatment | reciprocals | golden section



Fig. 54 Showing How to Use Transparent Guides | From 'The Art of Composition' | Michael Jacobs | Publisher: Doubleday, Page & Company | 1926 | Fair Use



Composition A | Piet Mondrian | Oil on Canvas
35.4" x 35.8" | 1920 | Public Domain

A **Grid** is a set of uniformly spaced horizontal and vertical lines that cross each other, usually creating a series of squares or rectangles. Grids, and diagonals based on the grid, can be used as an armature to create an underlying pattern or organization that can give an overall sense of unity or harmony to the composition. Positioning people, arms, legs, etc., so that they are on, or line up with, the grid can create repetitions that support the overall hierarchy of focal points.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grids** | implied shapes | directional forces
divisions | rule of thirds | iconic | rabatment | reciprocals | golden section



[diagonal] Cupid Resting | Rembrandt van Rijn | Etching and drypoint | 33.2 x 25.2 cm | 1600's | Public Domain

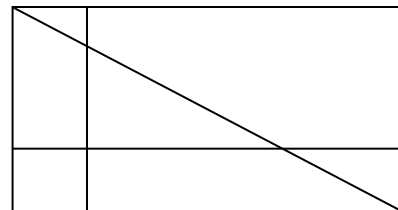


[vertical] The Medical Inspection | Artist | Henri de Toulouse-Lautrec | Oil on Cardboard on Wood | 83.5 x 61.4 cm | 1894 | Public Domain



[horizontal] Title | Frederic Edwin Church | Brush and Oil, Graphite on Paperboard | 175 x 289 mm | 1865 | Public Domain

The basic way to divide up the composition using a grid is through **Divisions** that are **Horizontal**, **Vertical** and/or **Diagonal**. An emphasis on a horizontal format, lines, or divisions will put an emphasis on the feeling of land or sky because of their relation to the horizon line. Horizontals are considered more stable, solid, secure, and the least dynamic of the three. Vertical formats and divisions are slightly less stable, and therefore more dynamic than the horizontal because something that is tall and thin feels easier to tip over than something that is wide and short. Diagonal lines and divisions are the most dynamic and the least secure, because they give a feeling of something that is falling or about to fall.



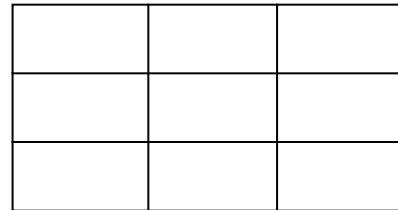
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grid/divisions** | implied shapes | directional forces
rule of thirds | iconic | rabatment | reciprocals | golden section



Christ in the House of Martha and Mary | Diego Velazquez | Oil on Canvas | 23.6" x 40.7" | 1618 | Public Domain

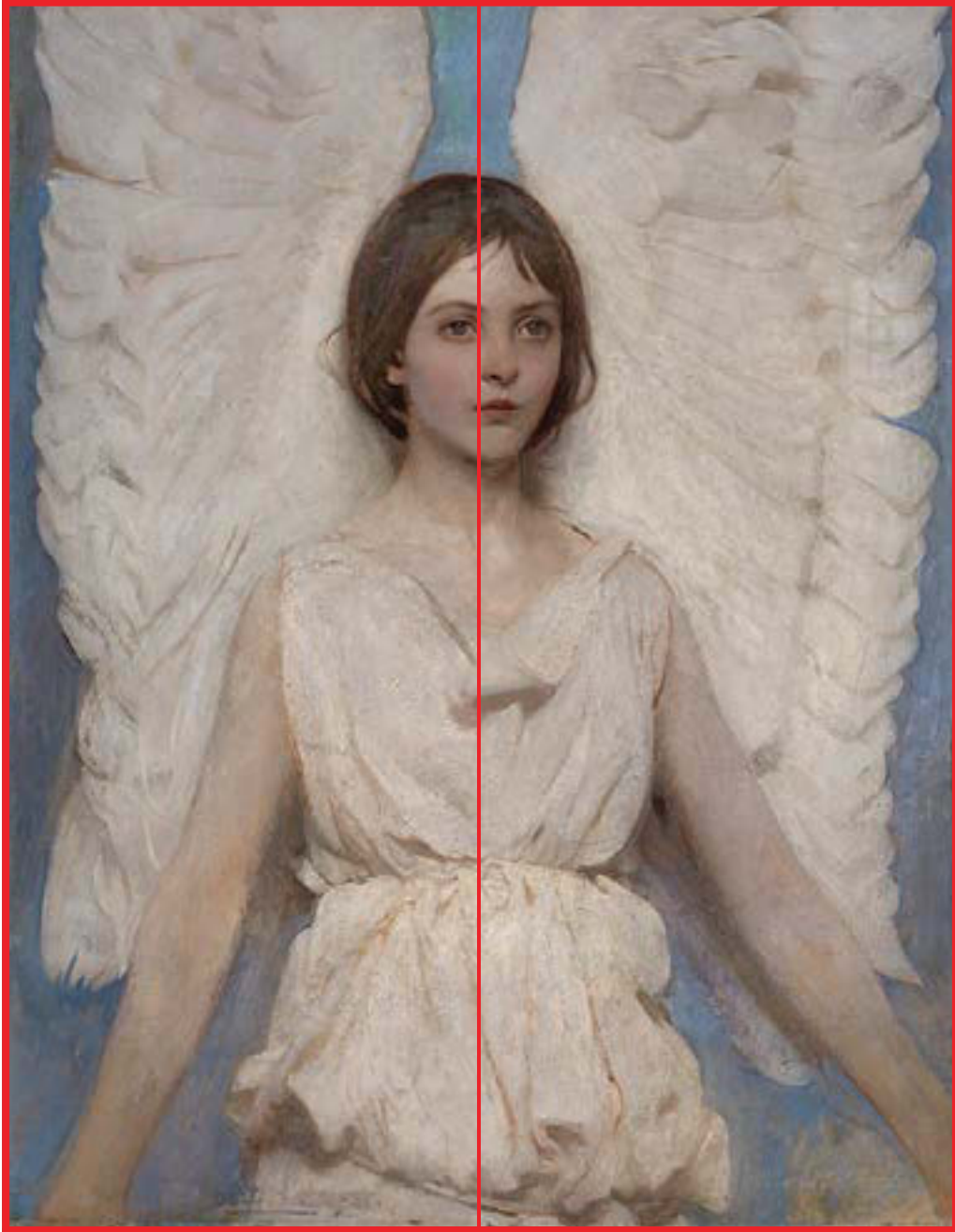
Throughout history artists have used grids to help them set up a composition quickly, particularly photographers who will often have some kind of grid in their camera's viewfinder. The most common use of divisions is the **Rule of Thirds**. The Rule of Thirds is a compositional structure that divides the picture into three equal divisions horizontally and vertically (see example). It gives the artist a structure of where to place their focal point that is not right in the center and not too far off to one side where it might feel off balance. When deciding where to put the focal point, placing it right in the center is very common and therefore boring and predictable. It becomes a bullseye and dominates the rest of the composition.



We can see in this painting that Velazquez was using divisions, something like the rule of thirds, to compose his painting. The heads of all the people are in the top third and the tabletop with all its symbolic contents is in the lower third. The girl's eye is on the left division and the door to the back room is on the right division. Almost every quadrant has something symbolic in it that is directing how your eyes move around the composition.

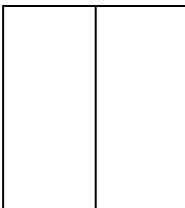
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grid/divisions** | implied shapes | directional forces
rule of thirds | iconic | rabatment | reciprocals | golden section



Angel | Abbott Handerson Thayer | Oil on Canvas

36.25" x 28.125" | 1887 | Public Domain



Central placement is mostly used in artwork where you want the main subject to be **Iconic**, like a portrait painting. By placing objects off-center, or slightly off balance, everything becomes more visually interesting and the eye can move through the whole composition more easily.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grid/divisions** | implied shapes | directional forces
rule of thirds | iconic | **rabatment** | reciprocals | golden section



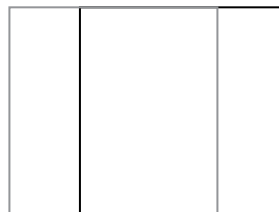
Red Poppy Field | Claude Monet | Oil on Canvas | c. 1875 | Public Domain



The Artist in his Studio | Rembrandt | Oil on Panel | 9.7" x 12.4" | c. 1626 | Public Domain

There are other compositional structures that artists use, such as a Rabatment or Reciprocals, that artists will come up with because they want the feeling of harmony but don't want to do the exact same thing as everyone else. **Rabatments** are divisions created by implied squares on each side of a rectangle.

In the Monet above, the tall tree lines up with an imaginary square based off the left side of the painting. In the Rembrandt, the door frame lines up with a square based off the left side of the painting, and the standing figure lines up with a square based off the right side.



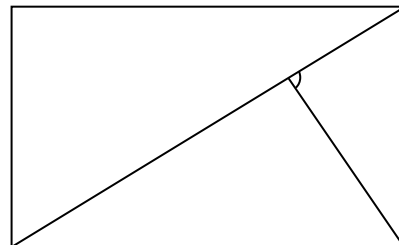
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grid/divisions** | implied shapes | directional forces
rule of thirds | iconic | rabatment | reciprocals | golden section



Jacques-Louis David | The Death of Socrates | Oil on Canvas | 51.18" x 77.165" | 1787 | Public Domain

Reciprocals (also called a Root Rectangle) are where lines intersect along the main diagonals at 90 degree angles. Placing important elements on one or more of the Reciprocals in a composition strengthens the overall design by reinforcing the diagonals.



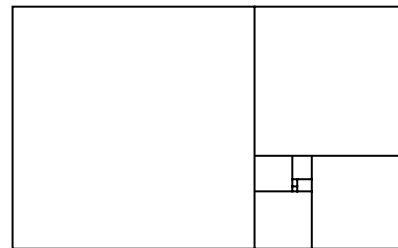
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | **grid/divisions** | implied shapes | directional forces
rule of thirds | iconic | rabatment | reciprocals | golden section



The Sacrament of the Last Supper | Salvador Dalí | Oil on Canvas | 65,625 x 105,125 | 1955 | Fair Use

Some artists might want to give a nod to artists of the past, so they will use the same underlying compositional structure as them. This is often done with the **Golden Section**. The Golden Section (also called the Golden Mean or Golden Ratio) is a ratio found in nature that is 1 to 1.618 (approximately). Many plants subdivide so that each section, branch, or leaf is 1.618 times bigger than the previous section (see image of plant on the right). The story goes that the Greeks discovered this ratio and thought that it must have been put in nature by the gods, so they started using divisions based on the golden ratio in their artwork and architecture. This story may or may not be fiction but it influenced many later artists to use it in their work.



Aeonium Tabuliforme | Max Ronnersjö - Kalugaringon | Digital Photography | 2012 | CC BY-SA 3.0

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORvisual weight | visual tension | focal point | format | cropping | grid/divisions | **implied shapes** | directional forces

Madonna in the Meadow | Raphael or Raffaello de Urbino | Oil on Wood | 44.48" x 34.84"
1505 - 1506 | Public Domain



Napoleon Crossing the Alps | Jacques-Louis David | Oil on Canvas | 1801 | Public Domain

Once you have decided on the format and structure of the composition, you can then start to use the size and placement of the elements to create harmony, or lead the viewer's eye around the composition. You can even create **Implied Shapes** in the composition through the placement of elements. This is where our eye starts to make connections between different areas of interest in a composition, creating implied lines and shapes (see example images). Implied squares, circles, or triangles give an underlying structure and balance that is pleasing to the eye, but not overly obvious. They can also be used to group and unite objects.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
leading lines | gradation | repetition | intervals | the gaze



The Raft of the Medusa | Jean Louis Théodore Géricault | Oil on Canvas | 193.2" x 280.8" | 1818-19 | Public Domain

You can also lead the viewer's eye around the composition with what are called **Directional Forces**. Directional forces are elements in the composition that point to a specific area. You can create a sense of direction through leading lines, gradations, repetitions, or intervals.

In this painting, everything on the raft is leading our eye up to the person at the top waving the reddish cloth. From the angle of bodies, to the more obvious pointing, and then the fact that the person at top is looking off in the distance, all things lead us to a ship barely visible on the horizon line. If not for everything directing the viewer where to look, the ship could easily be missed.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
leading lines | gradation | repetition | intervals | the gaze



After Sir Peter Paul Ruben's Lion Hunt | Schelte Adams Bolswert | Engraving on Laid Paper | 16.9375" x 22.167" | c. 1635 | Public Domain



The Europe Bridge | Gustave Caillebotte | Oil on Canvas
49" x 71.1" | c. 1876 | Public Domain

Leading Lines are actual, or implied lines, that lead the eye directly where you want the viewer to look.

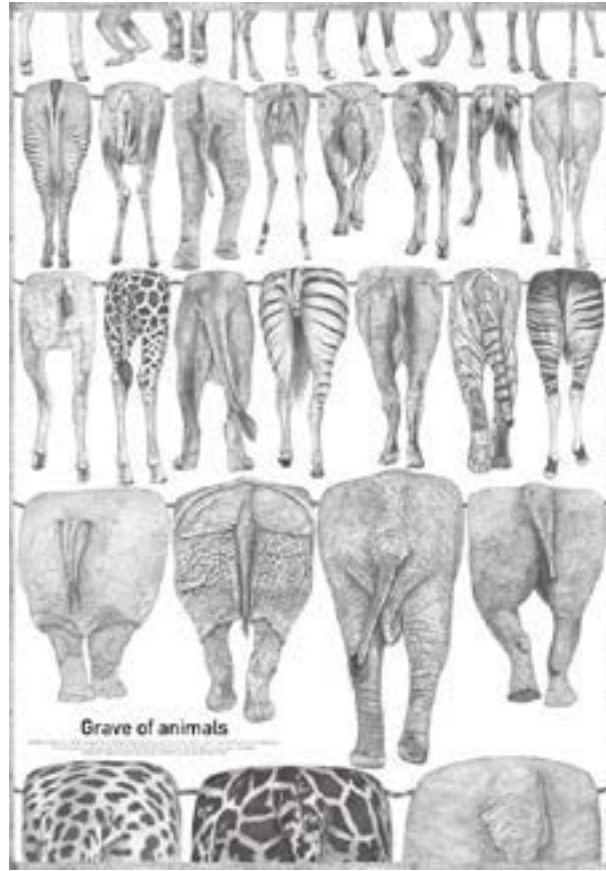
There are a lot of things directing the viewer where to look in these two examples, but the leading lines are obvious, taking us directly to the focal points. In the Bolswert engraving the leading lines are the spears that direct us to the lion in the middle of the chaos, and in the Caillebotte the sides of the bridge, sidewalk, and building all angle back to the walking couple.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
 leading lines | gradation | repetition | intervals | the gaze



18th | Iwona Cichy | Digital Print | A0 | 2017 | Iwona Cichy



Grave of Animals | Hiroyuki Matsuishi | Graphite | A0 | 2016 | Copyright Hiroyuki Matsuishi

Gradation is a gradual change and our eye will follow any gradual change whether it is a change in value, color, or size.



No Rules No Shame | Rachel Smith | Paper
 2013 | Copyright Rachel Smith

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
leading lines | gradation | **repetition** | intervals | the gaze



Here I Come Again | GollyGforce | Digital Photography | 2048 px x 1148 px | 2012 | CC BY 2.0

Repetition is the repeating of elements so that a pattern starts to appear. Our eye will follow the repeating elements like they are a trail of breadcrumbs.



Hounds Tooth Textile | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
leading lines | gradation | repetition | intervals | the gaze



The Torment of the Poet | Giorgio de Chirico | Oil on Canvas | 52.7 x 41 cm | 1914 | Public Domain

Intervals are a gradual increase or decrease in the size or spacing of elements creating a directional pathway for our eye to follow.

In the painting above, there are intervals in the building and in the grey disc that both lead our eye to the figure in white. The image on the right is doing the same thing, creating movement through the change in size of its intervals..



Opposite Attractions | GollyGforce | Digital Photography

733 px x 1028 px | 2012 | CC BY 2.0

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

visual weight | visual tension | focal point | format | cropping | grid/divisions | implied shapes | **directional forces**
 leading lines | gradation | repetition | intervals | the gaze



Wedding | Zoey Frank | Oil on Linen | 96"x 140" | 2018 | Copyright Zoey Frank

Our knowledge of the frontal direction of an object (such as a person or a car) reads as a directional force pointing us in the direction we expect the known thing to go. We know a person is moving in a certain direction because of our knowledge of how the body/car/bike works. This also works for a person's gaze. Just like an arrow we read direction in where people are looking, facing, or pointing (in art this is dramatically called **The Gaze**). These all become visual cues that direct the eye in a certain direction.

In Zoey Frank's painting Wedding, the gazes of the people move our eyes all around directing us to the bride being held up in the chair. In the Vermeer, the man's gaze lets us know the importance of the globe to the narrative of the piece.



The Astronomer | Jan Vermeer | Oil on Canvas
 19.685" x 17.7" | c. 1668 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | movement | balance



Defend Dignity | Shepard Fairey | Spray Paint | 2019 | Copyright Shepard Fairey

The **Design Principles** are tools we use to guide us in the how, what, and where of placing elements in a composition to communicate different things. We now know that we can create visual interest depending on how we treat the elements of our composition, but how we place things can either help or hinder the message we are wanting to communicate in a work of art. The Design Principles are strategies that you can use for arranging the different elements in a composition and their main purpose is to show you ways that you can create unity, movement, visual interest, or emphasize a specific point. There is a fine line between order/boring and chaos/exciting and the design principles give us ways to evaluate the effectiveness of a composition. If we are not aware of what we are doing, we can create chaos when we were

wanting harmony. But whatever your intent, harmony or chaos, the rules are the same. It is important to realize that the design principles are just guidelines. They are not intended to be a formula, no one principle is usually done in isolation, and the possibilities are endless. Generally speaking, the design principles can be broken down into these six categories: Economy, Unity, Variety, Emphasis, Movement, and Balance.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR
 economy | unity | variety | emphasis | movement | balance



Recycle or Die | Michael Schwab | Screen Print | 1991 | Copyright Michael Schwab Studios

Economy is the use of the minimal amount of visual information to convey a message (simple, but not too simple). It is a composition that is pared down to the essential, most necessary, elements to communicate an idea. For an artwork to maintain the viewer's focus it must have fewer elements than the eye sees in nature, or else it will get overwhelmed. It is important to keep the eye moving in and around the space, never stopping in one spot too long, but too much going on creates visual competition and the eye does not know where to look. The motto of economy is 'less is more.'



Standing Rock | David Choe | Digital Illustration | 2019 | Copyright David Choe

In the Michael Schwab, Mother Nature is being choked by humanity's lack of commitment to recycling. His simplified image of the female form choking is an incredibly quick read and the audience is instantly put into a position of self-reflection. In the David Choe, this mark was created in solidarity with the Standing Rock Sioux Tribe's protest against the DAPL (Dakota Access Pipeline) It quickly communicates the Sioux' sadness to the damage that the pipeline could cause.

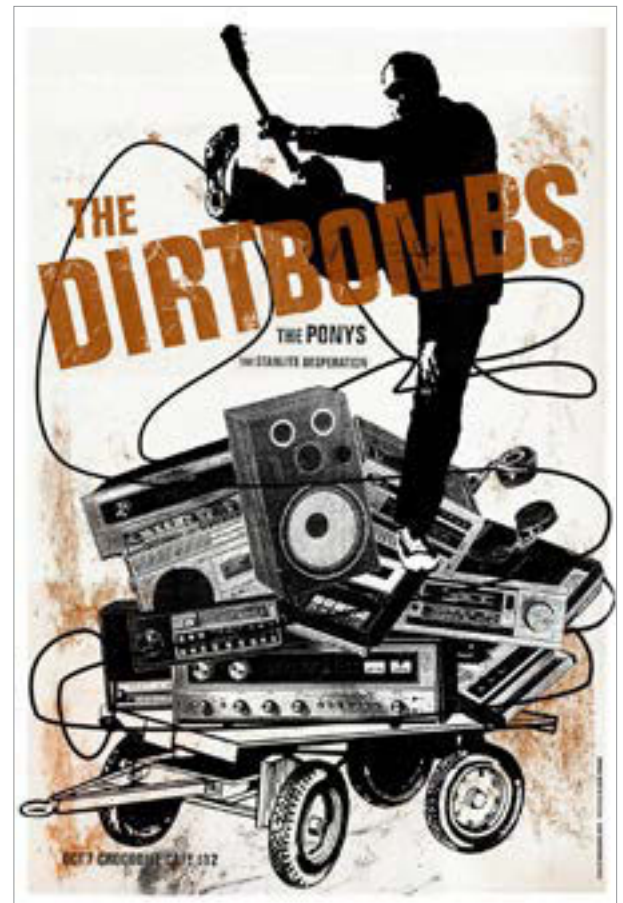
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | movement | balance

repetition | similarity | alignment | proximity | scale



Geezer Fest | Robynne Raye & Michael Strassburgert | Screenprint | 2007 | Copyright Modern Dog

We Are Scientists | Robynne Raye & Michael Strassburgert
Screenprint | Copyright Modern Dog

The Dirtbombs | Robynne Raye & Michael Strassburgert | Screenprint | Copyright Modern Dog

Unity, also called visual harmony, is how the composition holds together and how it conveys a sense that all of the parts belong together. A design with unity has an overall sense of harmony versus chaos or discord. With unity, the challenge is that if you unify things too much they will become predictable and boring. You can connect the different parts of a composition to create unity through repetition, similarity, alignment, proximity, and scale.

In all three of these posters from Modern Dog, unity is achieved through the interaction of type and illustration. In Geezer Fest, the three dimensional head seamlessly connects to the two dimensional body creating an image that reinforces the hierarchy of the type. A nice touch in this poster is the use of red in the cigarette to tie the composition together with the red type. In We Are Scientists, the magnet's direct interaction with the type and unifies the illustration with the text so that all parts of this composition rely on each other to communicate the message. In The Dirtbombs, unity is achieved not only through the interaction of type and illustration, but with the line that weaves the composition together.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | **unity** | variety | emphasis | movement | balance

repetition | similarity | alignment | proximity | scale

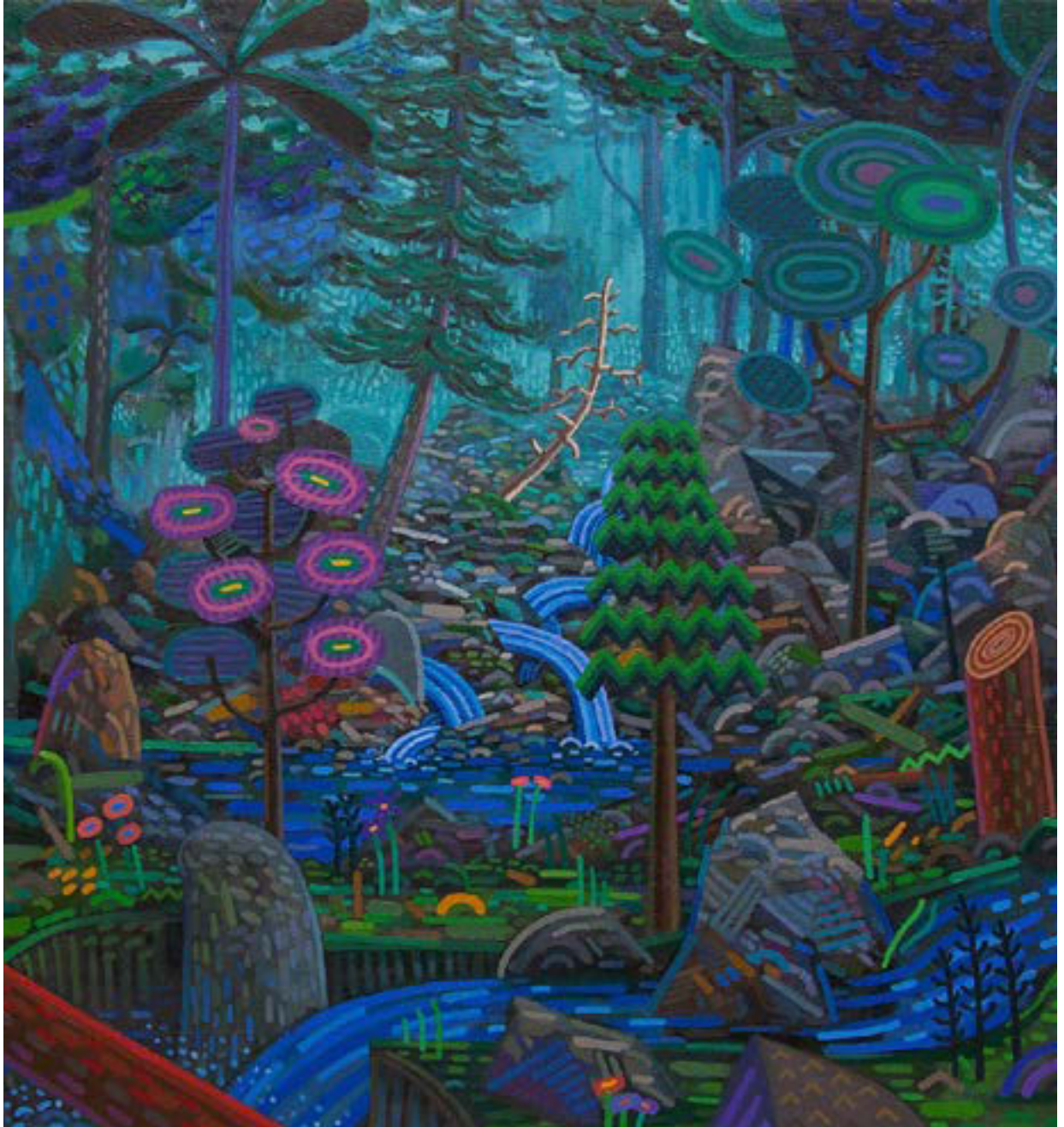


Mollusca | Preston Graves | Ink and Oil on Panel | 20" x 20" | 2019 | Copyright Preston Graves

Unity through **Repetition** is when any element in a composition is repeated to enhance cohesion. You can repeat actual or implied shapes, diagonals, lines, etc. The most common way to give an overall sense of repetition is through the use of pattern. A **Pattern** is the systematic repetition of elements with a design that is usually based on a grid. Patterns have precise unity but can inspire limited interest if they are too structured or predictable.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | **unity** | variety | emphasis | movement | balance

repetition | similarity | alignment | proximity | scale



Ghost Tree | Cable Griffith | Oil on Muslin | 40" x 38" | 2019 | Copyright Cable Griffith

A **Similarity** is something that makes elements that are different from each other appear similar and therefore unifies them. For example, you can give a similar color, stripe, or pattern to shapes that are otherwise very different. When we perceive similarities our eye recognizes a pattern or common relationship, like a group of people that enter a room all wearing the same t-shirt.

In this painting by Cable Griffith unity is created through using a similar type of brush mark throughout. Everything from the rocks to the trees are made up of a brushstroke that has the same thickness and round ends.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | **unity** | variety | emphasis | movement | balance

repetition | similarity | alignment | proximity | scale



Windows Open Simultaneously | Robert Delaunay | Oil on Canvas | 17.9" x 14.7" | 1912 | Public Domain

Alignment is lining things up. Placing elements so that they line up with each other in some way, in a row or through the use of a grid, gives an overall sense of interconnection. An alignment of certain elements can create a Continuity (or continuation), which is a visual pathway through a composition, actual or implied. A Continuity is highly effective in connecting disparate elements in diverse or varied compositions.

The shapes in this painting, by Robert Delaunay, align with each other vertically and horizontally as if lined up on a grid, giving structure and unity to the overall composition.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | movement | balance
repetition | similarity | alignment | proximity | scale



Unity through **Proximity** is the visual organization of elements by grouping them close together. Even when very different objects are placed closely together they will start to relate visually.

In this Jacob Lawrence painting, we see shapes come together to create people and people come together to make up two distinct groups. Although the people are similar, we see two groups, not one, because of the proximity of the people to each other.

The Migration Gained in Momentum | Jacob Lawrence | Casein Tempera on Hardboard | 12" x 18" | 1940-41 | Fair Use

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | **unity** | variety | emphasis | movement | balance
repetition | similarity | alignment | proximity | scale



Cacti | Jess Griffith | Watercolor and Gouache on Arches Paper | 8.5" x 12.5" | 2019 | Copyright Jess Griffith

Scale (also known as **Proportion**) has to do with the relative size of objects. Unity through scale is created by having different elements grouped together all by their similar size. We give more visual weight to larger elements, so you can direct the eye where to look through a visual hierarchy of scale, along a pathway from larger groupings to smaller groupings. Big differences in size create visual interest.

While we might look at this watercolor of a cactus and think of it as just one thing, there are two different size stems that allow us to break the cacti into two groups based on scale, larger and smaller. This gives a visual hierarchy where we first look at the larger stems and then they direct us in to the smaller stems at the center of the plant.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | **variety** | emphasis | movement | balance

Composition VII | Vassily Kandinsky | Oil on Canvas | 79" x 119" | 1913 | Public Domain

Variety refers to differences in values, colors, spacing, size, shapes, etc., within a composition. Variety can keep the eye moving through a composition or maintain visual interest. But more doesn't always mean more interesting; it can easily become too busy, illegible, or complicated. For example, the painting above has so much variety that it borders on chaotic. Variation is what regulates the energy of the composition. Try to keep your variation more engaging by being less predictable. Predictable compositions tend to be horizontal or vertical, have central placement, even spacing, or equal sizes. Compositions that are less predictable are organic and dynamic; they may include diagonals, contrast, and variety.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | **emphasis** | movement | balance
contrast | isolation | direction



The Skeleton of the People's Editor (Antonio Vanegas Arroyo) | José Guadalupe Posada | Photo-Relief and Letterpress on Brown Paper | 15.75" x 12" | 1907 | Public Domain

Emphasis is highlighting or drawing attention to a particular element in a composition through any means necessary, but we will talk about contrast, isolation, and direction. Emphasis usually pertains to a specific area of interest in a composition such as a focal point, and can enhance the theme. Emphasis can be placed anywhere, but it is risky to put it too close to edges or corners, because this can create balance or tension issues.



The Outsider | Tyler Spangler | Digital Print | 24" x 36" | 2015 | Copyright Tyler Spangler

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | **emphasis** | movement | balance

contrast | isolation | direction



Nymphs | Claude Monet | Oil on Canvas | 26" x 41" | c. 1897 | Public Domain

Contrast is difference. The more different something is to what is around it, the more contrast it has. You emphasize with contrast by making an element in your composition very different than what is around it. You can have contrast in scale, position, complexity, value, or color; in other words, pretty much anything. Opposites have the most visual contrast, for example, black and white. Emphasis through contrast can also create an Anomaly, which is something that draws attention to itself due to its surprisingly different nature to the overall design. You can also use contrast to create a feeling of Dominance, Conflict, or Opposition through extreme contrasting differences, such as scale, where one element of a composition is overwhelming another.

In these two paintings we can see the effects of high and low contrast. In the Monet the very light colored flowers in an otherwise very dark painting stand out because of high contrast. In the Hassam, the woman on the rocks almost completely disappears because of low contrast (her clothes are almost the same color as the rocks). When things are similar to their surroundings they tend to blend in. So if you want something to get the viewer's attention, make sure to have some kind of contrast.



The South Ledges, Appledore | Childe Hassam | Oil on Canvas | 34.25" x 36.125"
1913 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | **emphasis** | movement | balance
contrast | isolation | direction



Vision After the Sermon | Paul Gauguin | Oil on Canvas | 8.7" x 36.2" | 1888 | Public Domain



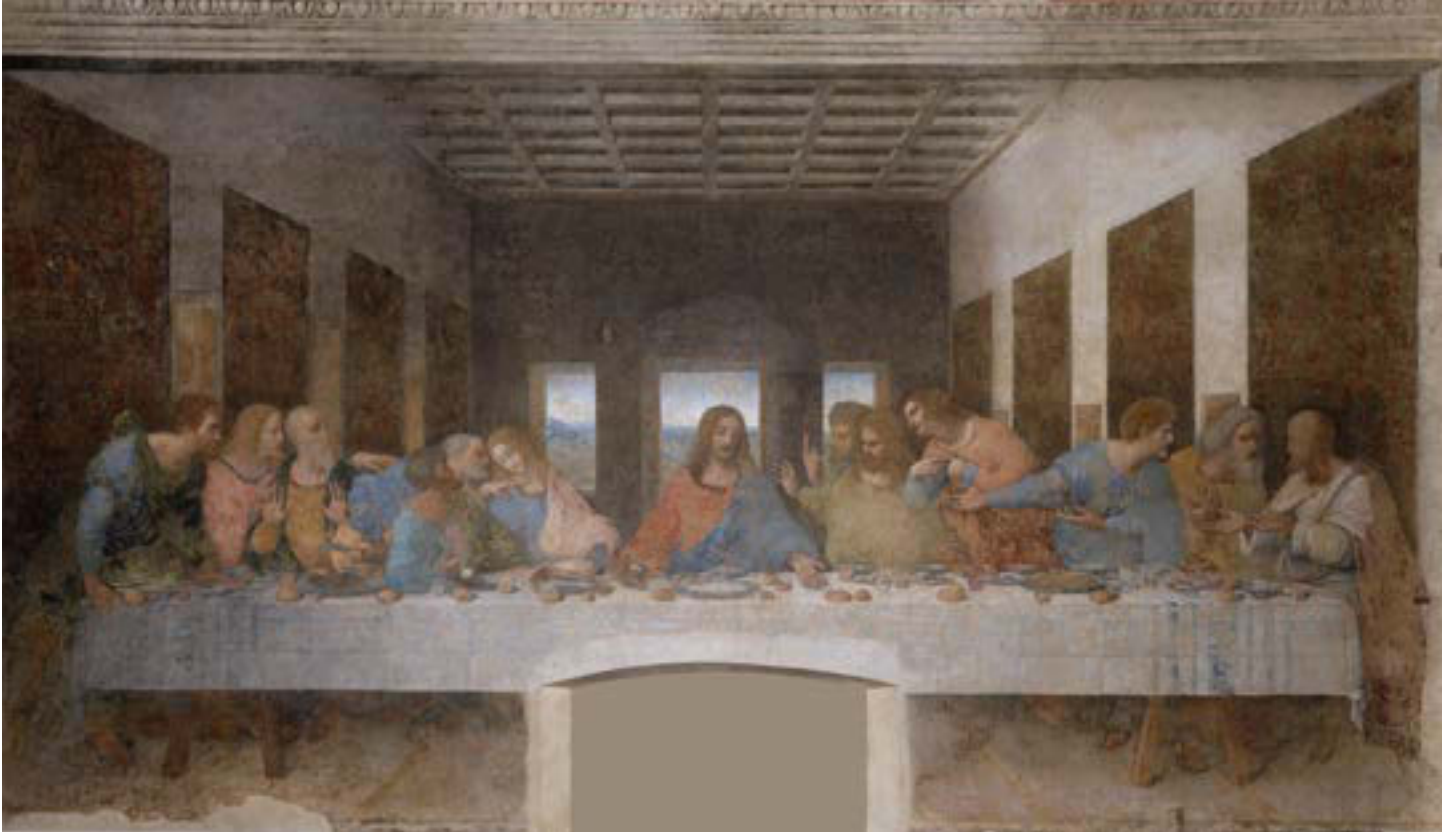
The Governess | Richard Redgrave | Oil on Canvas | 28" x 36" | 1844 | Public Domain

Isolation is the physical separation of a specific area or item from the rest of the composition. Isolation can be created through Distance, which is setting the element you want to emphasize apart from other elements by a large area of negative space. Another way to give a sense of isolation is through Separation. Separation creates emphasis when an element is isolated from other elements via some kind of barrier, wall, or by enclosing it in something like a box.

In the Redgrave painting the woman in black is alone in the foreground while all of the other women are together in the background. This isolation through distance, combined with the fact she is the only person wearing black, let us know that she is the main focal point of the narrative. In the Gauguin, there is a tree visually separating everyone from an angel wrestling with a man in black. If the wings didn't already get our attention, this isolation cues us in to what the main focal point is.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | **emphasis** | movement | balance

contrast | isolation | direction



The Last Supper | Leonardo da Vinci | Tempera on Gesso | 700 x 880 cm | 1495-98 | Public Domain

Direction, or Directional Forces, are elements that guide the eye to specific points of interest in a composition through the use of intervals, gradations, tension, diagonals, implied or actual lines, etc. The elements become subtle arrows that point to, and therefore emphasize, a specific element. (See the section on Movement below, and the Directional Forces section in Composition, for more specifics).

In this mural by Leonardo Da Vinci, everything in the room leads our eye to the central figure. As if central placement wasn't emphasis enough, the rectangular alcoves on the sides get smaller as they go back, the diagonals of the room radiate out of a central point, and almost all of the other people in the room are either looking at Jesus or pointing in his direction.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | **movement** | balance

implied | repetition | rhythm | gradation | intervals | hierarchy



Rebirth | Laura Ball | Watercolor and Graphite on Paper | 51.5" x 50" | 2015 | Copyright Laura Ball

The appearance of **Movement** in 2D Design is achieved through implied movement, repetition, rhythm, gradation, intervals, and hierarchy. Our eye follows changes in a composition creating literal movement by leading the viewer to look from one place to the next.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | **movement** | balance
implied | repetition | rhythm | gradation | intervals | hierarchy

Implied Movement is the perceived illusion of movement through effects like blurring, sequential views, movement lines, etc. Even a movie or animation is essentially implied movement since it is just the flip book effect of quickly changing still images creating the feeling of actual movement. To create a sense of actual movement, an artist could include a moving element within their composition, but that quickly starts to blur the lines between 2D and 3D art, so most movement in 2D works of art is implied movement.

Through repeated gradually shifting shapes inspired by time lapse photography, Duchamp has abstracted the action of a person walking down a staircase using all the tricks of implied movement.



Nude Descending a Staircase | Marcel Duchamp | Oil on Canvas

57.857" x 35.125" | 1912 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | **movement** | balance

implied | repetition | rhythm | gradation | intervals | hierarchy



Cash | Hatch Show Print | Letterpress | 1995 | Copyright | Hatch Show Print

Repetition is repeating elements in a regular way where the elements stay the same to move the eye across the composition.

The repeating elements in each image of Johnny Cash, in the poster above, move our eye across the page creating a more dynamic image than if there was just one central figure.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | **movement** | balance
implied | repetition | **rhythm** | gradation | intervals | hierarchy



The Dance (I) | Henri Matisse | Oil on Canvas | 8' 6.5" x 12' 9.5" | 1909 | Public Domain US

Rhythm is repeating elements in a varied way that create a visual beat. This creates a sense of progression or direction. Depending on how we gradually change, space out, and repeat different elements we can create a varying sense of rhythm.

Rhythm is created in this Matisse painting through the repeating undulating arms curving up and down that lead our eye from person to person. There is a never-ending loop that is almost broken by the fact that the two figures in the front aren't holding hands, except the leg of the woman in the background perfectly fills in the gap continuing the broken circle.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | **movement** | balance
 implied | repetition | rhythm | **gradation** | intervals | hierarchy



In the North the African American had more Educational Opportunities. | Jacob Lawrence | Casein Tempera on Hardboard | 12" x 18" | 1940-41 | Fair Use

Movement by **Gradation** is where the eye follows subtle changes in scale, value, color, position, texture, etc. A gradual change in scale from bigger to smaller creates a subtle arrow pointing the eye in one direction. With the other gradations, like value or color, our eye looks first to the area of the highest contrast and then follows the change like a pathway. With gradations that don't have an area of higher contrast, our eye will just move back and forth along the change depending on where we looked first.

Gradation refers to the gradual change of anything, and in this painting our eye follows the gradual change in height of the three girls. Since, in our country, we read books from left to right we instinctually start with the girl in red and move our way up the numbers from 2 to 4.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | **movement** | balance
implied | repetition | rhythm | gradation | intervals | hierarchy



Spiral Stairs (Nebotičnik) | Petar Milošević | Digital Photograph | 2016 | Creative Commons Attribution-Share Alike 4.0 International

Movement with **Intervals** happens by changing the size and spacing between different elements. This change in spacing is just another form of gradation that will lead the eye.

In this photograph our eye is led up the stairwell by the gradually decreasing size of the intervals between each level of the staircase as it goes up. As elements are placed closer to each other, the more visual tension there is between them, and our eye is drawn to the spot with the most visual tension.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | **movement** | balance
 implied | repetition | rhythm | gradation | intervals | hierarchy



Madonna with Angels and Saints | Duccio di Buoninsegna | Tempera on Wood | 84.2" x 13.5" | between 1308 and 1311 | Public Domain

Hierarchy is a system where the visual elements in a composition are ordered or ranked based on on some characteristic such as size or color. This creates movement because our eye follows the change in the elements, seeing the elements with the most contrast first and the least contrast last.

This painting has a hierarchy of scale that lets us know the order of importance placed on all the people in it. We give visual weight to larger things unless there is some other more dominating characteristic, such as high contrast or central placement, but since Mary has all those things, we automatically look to her first. So, the hierarchy in this painting goes from Mary, to the saints on her left and right who are all roughly half her size, and then we move on to the even smaller people in the balcony.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | movement | **balance**

symmetry | asymmetry | radial | all over balance



Fillmore Jazz | Michael Schwab | Screenprint | 2007 | Copyright Michael Schwab Studios

Balance: Balance is the equal distribution of visual weight where all elements contribute to a general sense of stability. There are four different ways to create a sense of balance in a composition: symmetry, asymmetry, radial balance, and all-over balance.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | movement | **balance**

symmetry | asymmetry | radial | all-over



Insect | Julie Alpert | Collage | 29" x 19" | 2020 | Copyright Julie Alpert

Symmetry is perfect balance on both sides of a central axis. Symmetry is like a mirror image on both sides of the axis, like a Rorschach test. Compositions with symmetrical balance are more predictable, static, and stable. But, as we can see in this collage by Julie Alpert, just because symmetrical balance is stable and predictable doesn't mean it can't be visually interesting.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | movement | **balance**

symmetry | asymmetry | radial | all-over

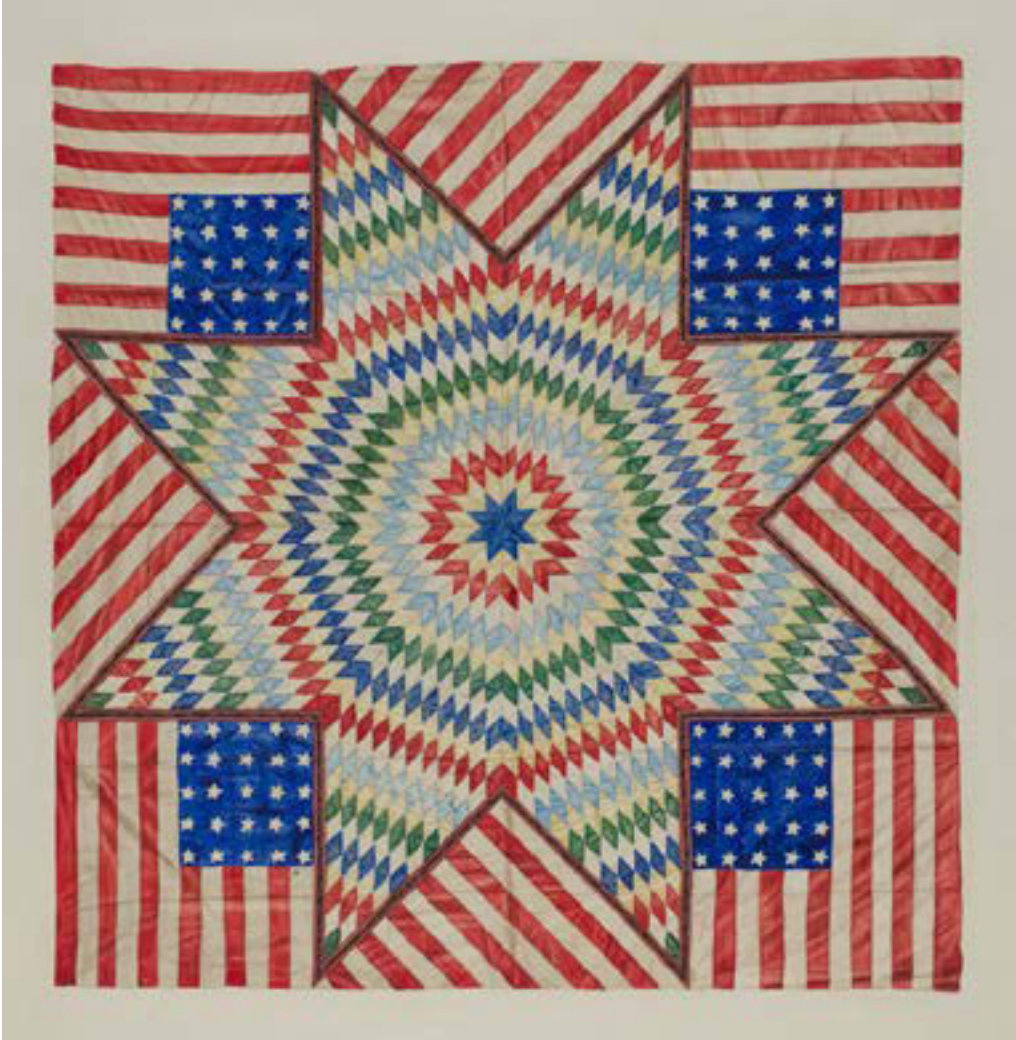


Under the Wave off Kanagawa | Katsushika Hokusai | Woodblock Print on Paper | 10.125" x 14.9375" | c. 1830–32 | Public Domain

Asymmetry is created by balancing shapes based on their visual weight, not their similarity, so a large shape might have the same visual weight as a small shape with brighter color. For example, in this woodblock print by Hokusai, the large wave is asymmetrically balanced by the mountain and boats. To put something off-center creates visual interest but it can also create an unstable composition if it is not balanced by something else.

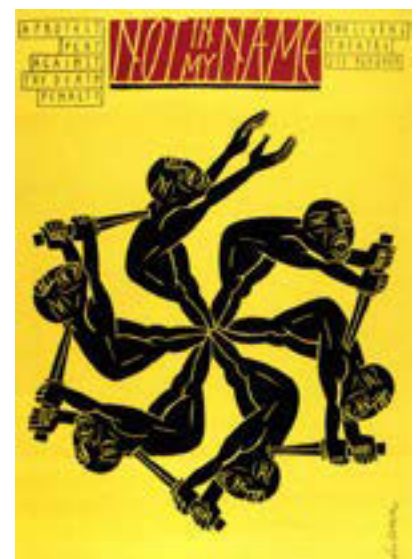
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOReconomy | unity | variety | emphasis | movement | **balance**

symmetry | asymmetry | radial | all-over



Star and Flag Quilt Design | Fred Hassebrock | Watercolor and Graphite on Paper | 19.9375" x 16.0625" | c. 1941 | Open Access

Radial Balance is when the elements of the composition radiate out from a central point in a circular repeating pattern like a mandala or bicycle spokes.

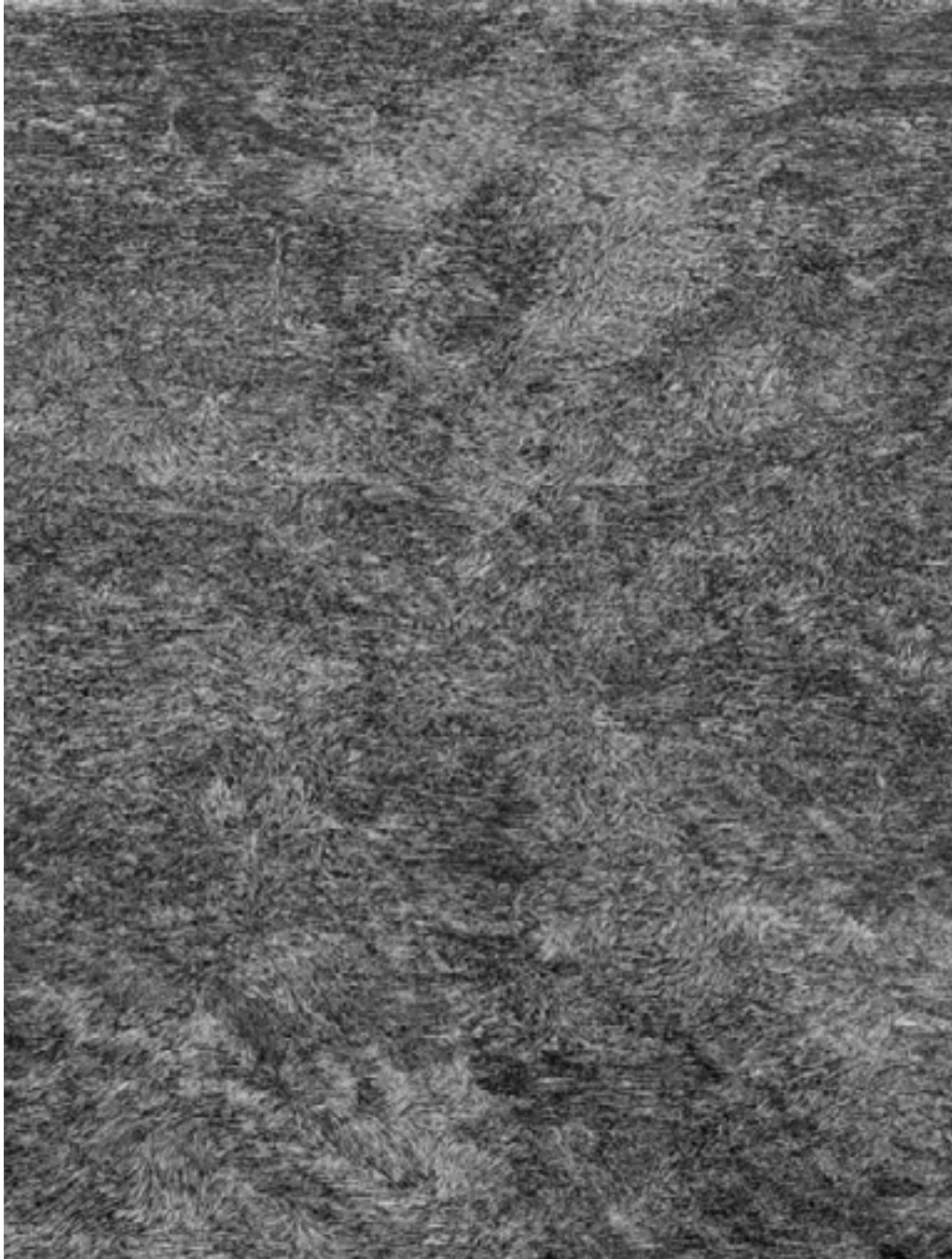


Not in My Name | Luba Lukova | Offset Printed | 24" x 36" | 1997 | Copyright Luba Lukova

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

economy | unity | variety | emphasis | movement | balance

symmetry | asymmetry | radial | all-over

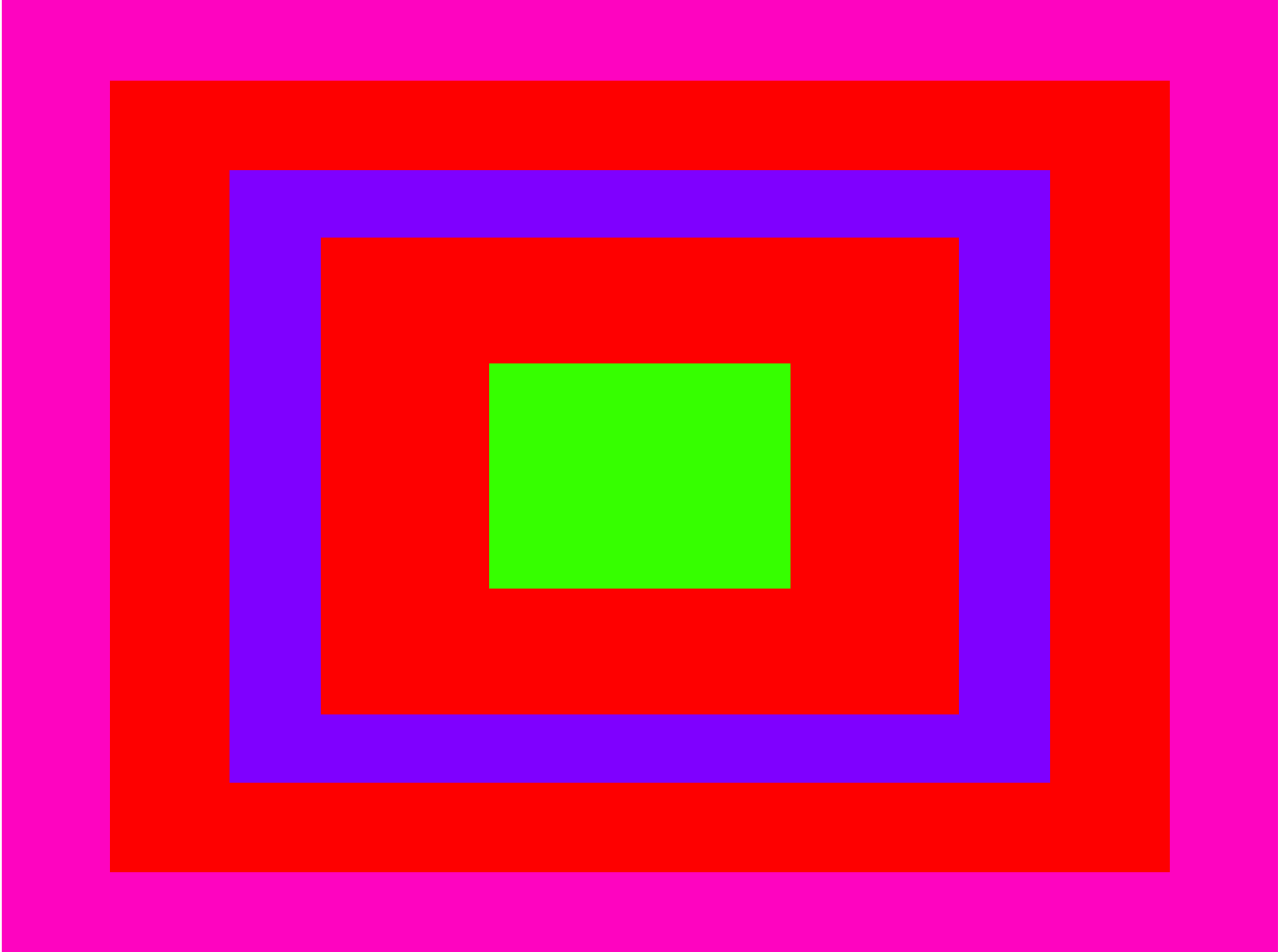


This Trembling Turf (The Shallows) | Mary Ann Peters | White Pigment Ink on Black Clayboard | 60" x 48" | 2019 | Copyright Mary Ann Peters

All-Over Balance, also called crystallographic balance, has equal balance throughout the whole composition with no focal point or hierarchy to the elements, evenly integrating both the positive and negative spaces. This approach usually becomes textural as in the piece above by Mary Ann Peters.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color



Designing with Color: In the previous section we were talking about seeing and defining color, but we also want talk about how we use color for compositional purposes. In order to do this, all we have to do is apply the different compositional and design principles to color. For example, we can use color to create a feeling of unity or we can use our color to create contrast and opposition. Harmony and balance can be achieved through color similarities, equal or balanced proportion of colors, or repetition of color. Color Discord is when colors do not balance one another. A feeling of color discord can be achieved through doing the opposite as you would to get color harmony, such as having unbalanced proportions or having extreme color contrasts. The overall use of color throughout a composition is a composition's Color Scheme.

This is an example of Color Discord. The high saturation brightness of all the colors clash with each other in a way that tends to put the viewer at unease.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes

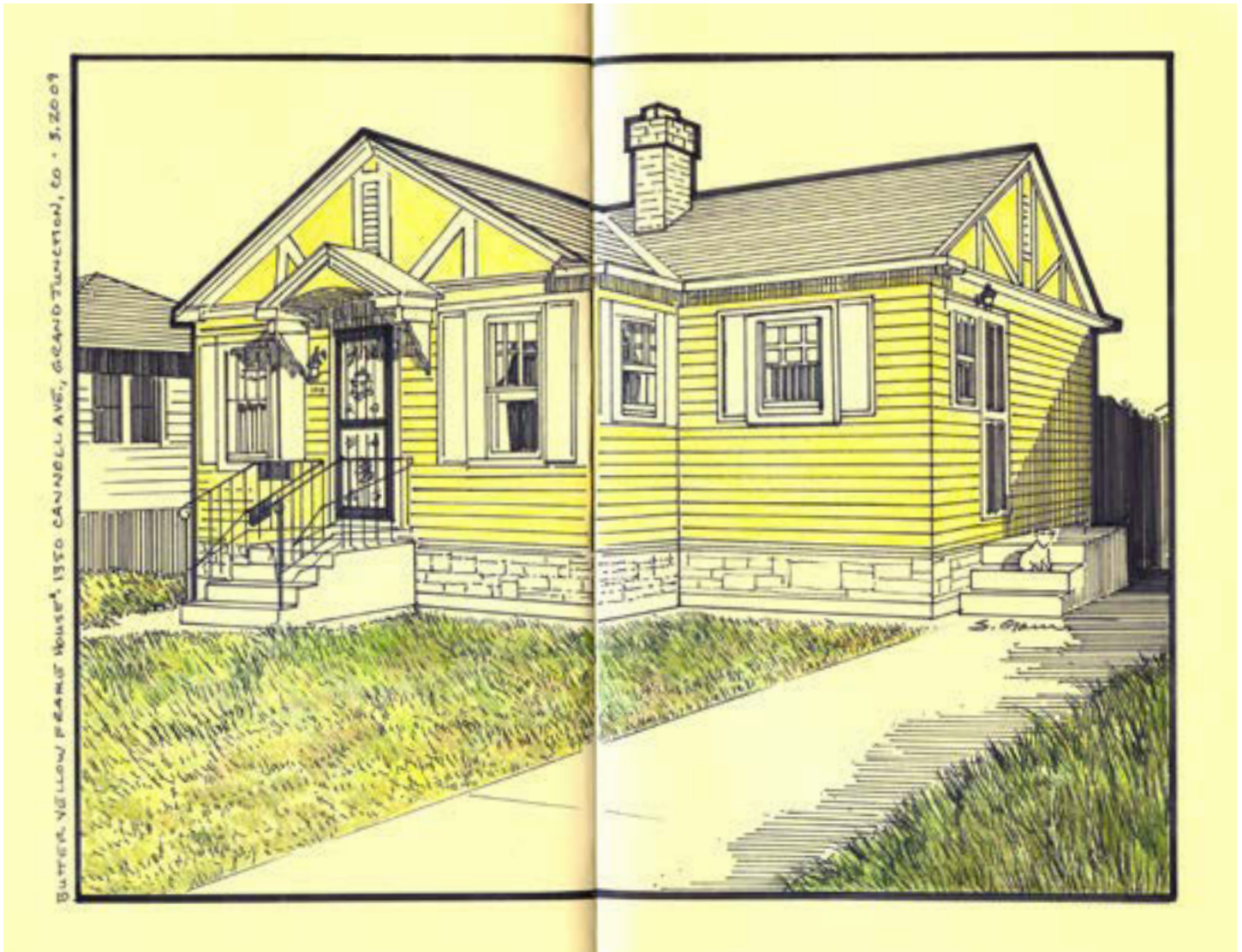


Interior Strata | Laura Carpenter Truitt | Oil on Linen | 60" x 48" | 2018 | Copyright Laura Carpenter Truitt

Color Schemes are the overall use of color throughout an entire composition to create harmony, structure, or unity. In this section we will discuss simple, contrasting, balanced and informal color schemes.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
achromatic | monochromatic | analogous

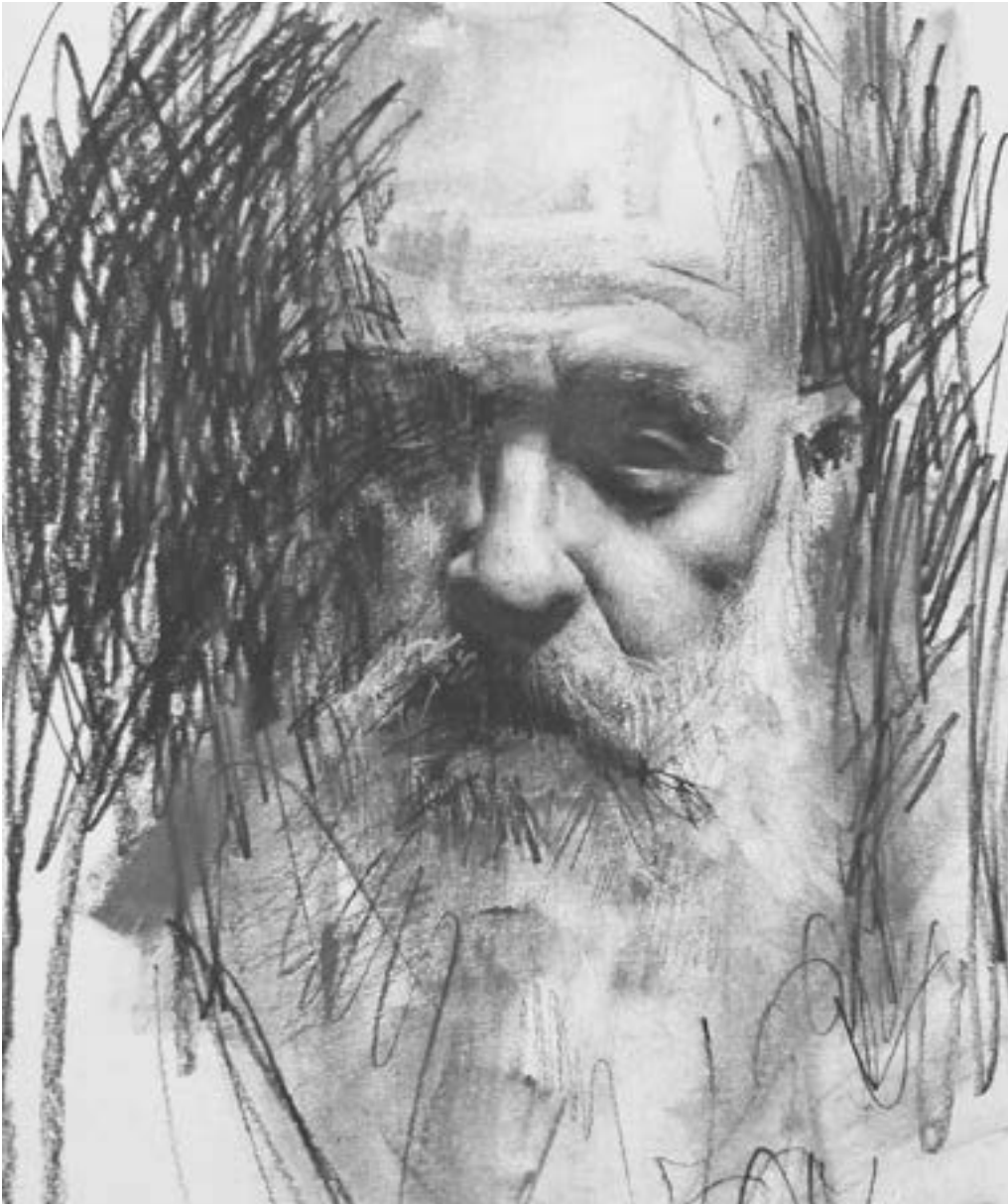


Butter Yellow Frame House | Suzie Garner | Ink & Marker | 2009 | Copyright Suzie Garner

Simple Color Schemes are Achromatic, Monochromatic, and Analogous. Simple Color Schemes are used if you are wanting a strong cohesive color unity, but the drawback to these color schemes is that they are less dynamic, some might even call them simple.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
 simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
achromatic | monochromatic | analogous

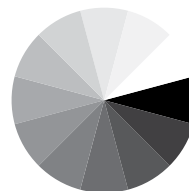


John A. Carrasco | Gorilla Brigade | Charcoal | 2018 | Public Domain



The Mutants | Unknown | Collage | 1977 | Public Domain

Achromatic means no color; a black and white picture with just different values of grey.



COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
achromatic | monochromatic | analogous



Woman with Folded Arms | Pablo Picasso | Oil on Canvas | 32" x 23" | 1901-02 | Public Domain

Monochromatic means one color, so light and dark variations (tint and shades) of one color.

This Picasso painting is basically monochromatic, made up of lighter and darker values of blue. But there are some exceptions, such as the hints of greenish color in some areas and the subtle warmth to her skin tone.

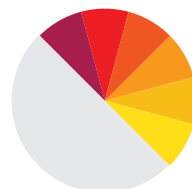
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
achromatic | *monochromatic* | *analogous*



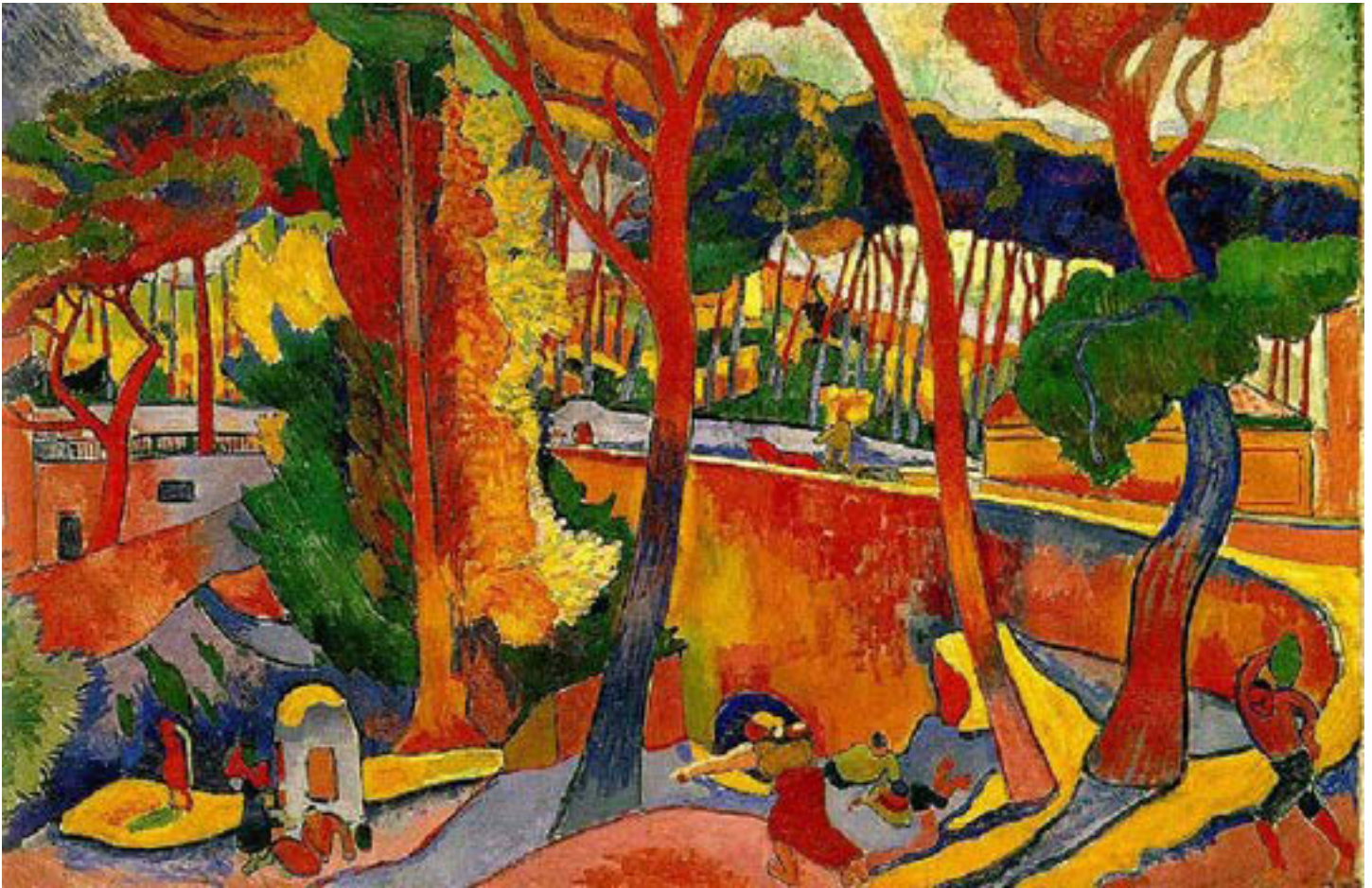
Canna Red and Orange | Georgia O'Keeffe | Oil on Canvas | 20" x 16" | 1922 | Public Domain

Analogous means colors close to each other on the color wheel, like the reds, oranges, and yellows of this painting by Georgia O'Keeffe.



COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
complementary | warm/cool | double complementary | split complementary



L'Estaque | Andre Derain | Oil on Canvas | 14" x 18" | 1905 | Public Domain

Contrasting Color Schemes are Complementary, Cool/Warm, Double Complementary, and Split Complementary. Contrasting Color Schemes create more visual interest than simple color schemes, the more contrast the more drama, but be aware that as the amount of contrast increases so does the tension, discord, and chaos.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
 simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
complementary | warm/cool | double complementary | split complementary



Balcony | Kathy Liao | Collage, Woodcut Prints, and Gouache on Paper | 15" x 13" | 2019 | Copyright Kathy Liao

Complementary Schemes use an opposing pair of complementary colors (two hues from opposite sides of the color wheel), such as the blues and oranges in *Balcony*, by Kathy Liao, and the purples and yellows of *California Cruisin*.

California Cruisin | Kathy Liao | Gouache Collage Washi Tape on Paper | 12" x 8" | 2016 | Copyright Kathy Liao

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
complementary | warm/cool | double complementary | split complementary



Mulatto Baptism | Addie Kae Mingilton | Acrylic on Canvas | 24" x 36" | 2018 | Copyright Addie Kae Mingilton

Warm/Cool Color Schemes use colors of opposing temperatures. For example, in this painting by Addie Kae Mingilton, there are warm yellows and browns contrasting the cool pinks and blues.

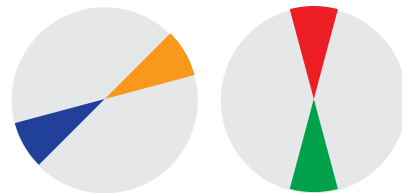
COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
 simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
 complementary | warm/cool | double complementary | split complementary



Window in the Afternoon | Zoey Frank | Oil on Linen | 35" x 44" | 2017 | Copyright Zoey Frank

Double Complementary is the use of two sets complementary pairs, such as blue and orange along with red and green. This scheme softens and expands the complementary color scheme or can create more structure to a warm/cool color scheme.



The area in the painting above with the most variety of saturated color is the objects in the tray on top of the microwave, and this grouping is made up of a double complementary color scheme. The blue tea box complements the orange-brown tray, and the red tea box is complementary to the green tea box and bowl. And, if we expand to include the rest of the painting, we can even find some subtle purples and yellows as well to give us a triple complementary scheme.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
 simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
complementary | warm/cool | double complementary | split complementary

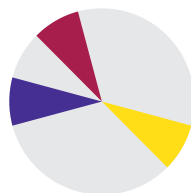


Split Complementary is the use of one color and the two colors on each side of its complement, such as blue with red-orange and yellow-orange. This scheme softens and expands a complementary color scheme, making it less harsh and obvious. Both of these paintings use split complementary color schemes. *Bags* has red with blue-green and yellow-green, and *Your Space/My Space* has a palette of yellow with red-violet and blue-violet



Bags | Kathy Liao | Oil on Canvas | 40" x 30"

2017 | Copyright Kathy Liao



Your Space/My Space | Kathy Liao | Oil on Canvas | 60" x 48" | 2018 | Copyright Kathy Liao

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | informal color schemes | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
triad | tetrad



Swimming Pool #1 | Zoey Frank | Oil on Linen | 66" x 72" | 2019 | Copyright Zoey Frank

Examples of **Balanced Color Schemes** are Triad and Tetrad. Balanced Color Schemes are based on geometric figures (triangles and rectangles) placed within the color wheel. These color schemes give variety and contrasting colors while still maintaining an overall balance that gives a feeling of structure and therefore unity.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | informal color schemes | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
triad | *tetrad*



The Tribute Money | Titian | Oil on Canvas | 44.1" 40.6" | 1540 | Public Domain

Triad: A triadic color scheme is the use of three hues that line up to make an equilateral triangle within the color wheel. A triad can use primary, secondary, or tertiary colors. For example, a primary triad like in the Titian painting above, with its dominant use of red, yellow, and blue.



COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | informal color schemes | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes
triad | *tetrad*



Still Life with Fruit Dish | Paul Cézanne | Oil on Canvas | 18.25" x 21.5" | 1879-80 | Public Domain

Tetrad is the use of four hues that line up to make a square or rectangle within the color wheel. This scheme gives more complexity, flexibility, and depth than a triad. In this Cézanne, there is a tetrad color scheme of red, blue, green, and orange. Note that when a square tetrad is used, it lines up to make a double complementary scheme.



COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color
simple color schemes | contrasting color schemes | balanced color schemes | informal color schemes



Composition VI | Wassily Kandinsky | Oil on Canvas | 77" x 118" | 1913 | Public Domain

Informal Color Schemes are color schemes that do not seem to have an overall structure. Informal color schemes tend to be more custom made, with arbitrary colors that seem to have no relation to the object they are depicting, maybe chosen by the artist for their symbolic, emotional, or expressive significance.

For example, in both of these works of art, there are no obvious color schemes organizing them. Whatever logic there is to the colors chosen, only the artist knows.



Humanity | Keith Kitz | Digital Collage | 24" x 36" | 2019 | Copyright Keith Kitz

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | **keys** | color families | color contrast | color balance | color depth | symbolic color
 high/low key | high/low saturation | warm/cool



[low key] The Adoration of the Shepherds | El Greco | Oil on Canvas | 56.875" x 39.875" | c. 1605 | Public Domain



[low saturation] Arrangement in Grey and Black No. 1 | James McNeill Whistler | Oil on Canvas
 56.8" x 63.9" | 1871 | Public Domain



[cool key] The Olive Trees | Vincent Van Gogh | Oil on Canvas
 28.7" x 36.2" | 1889 | Public Domain

Color Keys refer to putting colors into the same key so that they are all similar. This comes from music where a key refers to everyone singing in the same tone or pitch. The primary keys in art are high or low saturation, high or low value, and warm or cool temperature. For example, a high key painting is all very light values. Keys can be instrumental in creating visual coherence or harmonizing a large range of colors by having them share one common color characteristic.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | **keys** | color families | color contrast | color balance | color depth | symbolic color
high/low key | high/low saturation | warm/cool



[high key] The Magpie | Claude Monet | Oil on Canvas | 35" x 51" | 1869 | Public Domain

High or Low Key refers to the overall value of a work of art. A High Key painting is very light in value like the Monet painting above. Low Key refers to pieces that are very dark, like the painting by Klee on the right.



[low key] Fire in the Evening | Paul Klee | Medium | 13" x 13" | 1929 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | **keys** | color families | color contrast | color balance | color depth | symbolic color
high/low key | high/low saturation | warm/cool



[low saturation] Young Woman Holding a Black Cat | Gwen John | Oil on Canvas | 21" x 18" | c.1920-5 | CC BY-SA 4.0



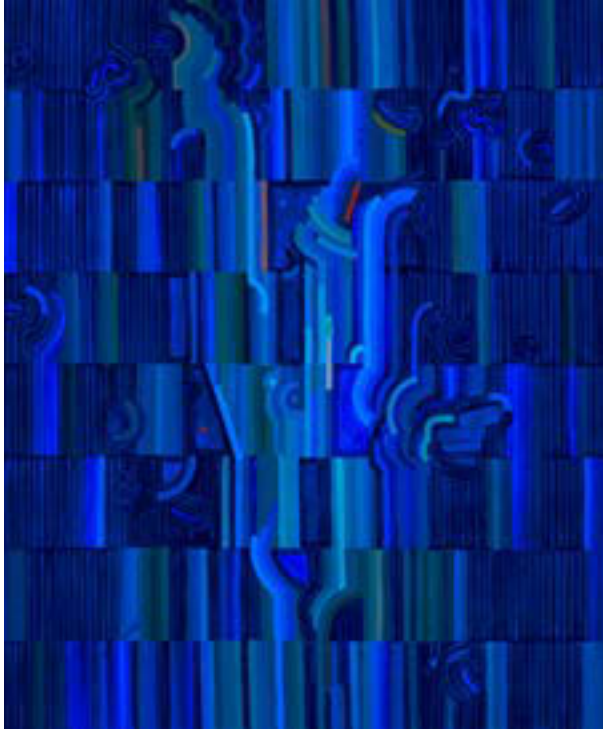
[high saturation] Twilight, Venice | Claude Monet | Oil on Canvas | 28.7" x 36.4"

1908 | Public Domain

High or Low Saturation is a key that refers to the overall brightness or purity of color in a work of art. The color in a High Saturation painting is very bright and intense, like the painting on the right. Low Saturation refers to when all of the colors in a work of art are more grey and neutral, like the painting on the left.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | **keys** | color families | color contrast | color balance | color depth | symbolic color
high/low key | high/low saturation | warm/cool



[cool key] Risk | Ilana Zweschi | Oil on Canvas | 30" x 36" | 2020 | Copyright Ilana Zweschi



[warm key] Kopak Tree | Ilana Zweschi | Oil on Canvas | 32" x 40" | 2019
Copyright Ilana Zweschi

Warm & Cool Keys refers to when the majority of colors in a work of art lean towards a specific color temperature. Warm Key artworks have a majority of colors from the warm side of the color wheel, like orange, yellow, and red. A Cool Key work of art is when most of the colors are from the cool side of the color wheel, like blue, green, and violet. In the two paintings above, the Cool Key is on the left and the Warm Key is on the right.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color



Hunter on Horseback | Gustave Courbet | Oil on Canvas | 119.4 × 95.3 cm | 1864 | Public Domain

Color Families are groupings of colors that are similar to each other. Color Families can be colors in the same key or that are analogous.

The colors in the painting above are all neutrals (greys and browns), so we can say that the colors in this painting have a color family of neutrals or low saturation.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORcolor schemes | keys | color families | **color contrast** | color balance | color depth | symbolic color

Late Saturday Afternoon | Norman Lundin | Oil on Linen | 40" x 44" | 2019 | Copyright Norman Lundin

Color Contrast: We can also use color to emphasize a part of the composition and in order to do this you have one color that contrasts all the others. You can create a color contrast through value, saturation, temperature, or hue. For example, having a composition that is all monochromatic blue except one small area of the painting that is yellow. This yellow spot will draw the eye to it through its color, value, and temperature contrast.

In the painting by Norman Lundin, there are various light and dark values of neutral greys and browns. The only note of saturated color in the whole painting is the blue and red of the spray bottle on the windowsill. This color contrast not only draws our attention, but also has enough visual weight to balance all the other objects on the table and the light hitting the edge of the windowsill. The Georges De La Tour painting is an overall low-key dark composition, but the narrative is emphasized by the strong value contrast of the light values silhouetting the hand touching the skull.



The Repentant Magdalen | Georges De La Tour | Oil on Canvas | 44.48" x 36.49"

c. 1635 – 1640 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color



Open Window, Collioure | Henri Matisse | Oil on Canvas | 21.75" x 18.125" | 1905 | Public Domain US

Color Balance is the spreading out of a color to move the eye around the page or to create a sense of balance. If a color is not balanced then that spot of color contrast draws the attention too much to one spot.

In Open Window by Henri Matisse, there are a variety of light and dark highly saturated colors, but no one area of color is placed in isolation. They are all balanced by small amounts of the same color evenly distributed throughout the painting.

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLORcolor schemes | keys | color families | color contrast | color balance | **color depth** | symbolic color

Staubbach Falls Near Lauterbrunnen Switzerland | Albert Bierstadt | Oil on Canvas
38" x 60.5" | c. 1865 | Public Domain



Untitled | Shane Walsh | Oil on Canvas | 64" x 70" | 2010 | Copyright Shane Walsh

Color Depth: Within the system of color contrasts one side tends to come forward in space more. The colors that come forward in space are those that get our attention more. For example, warm colors come forward and cool colors recede; bright/saturated colors come forward and dull colors recede. Higher contrast of everything tends to come forward and lower contrast colors tends to blend in with the background and therefore recede back in space.

In the Bierstadt, there are darker colors in the foreground that are high contrast compared to the rest of the painting, and as we move back in space the colors get lighter and have less contrast until they almost blend in with the sky. In the Shane Walsh painting a similar thing happens, only the darker colors in the foreground are warmer and they get progressively cooler, bluer, and less contrasty as they go back into space. And in the El Greco, the colors are more saturated in the foreground and they become duller, less saturated colors, with less contrast as they go back in space.



Christ Healing the Blind | El Greco | Oil on Canvas | 47" x 57.5" | c. 1570 | Public Domain

COMPOSING: COMPOSITION | DESIGN PRINCIPLES | DESIGNING WITH COLOR

color schemes | keys | color families | color contrast | color balance | color depth | symbolic color



Bloodline - Big Family: Family No.2 | Zhang Xiaogang | Oil on Canvas | 39"x 51" | 1995 | Copyright Zhang Xiaogang

Symbolic Color is the use of an invented or informal color scheme for expressive or emotional effect versus just using the observable color. Color can mean different things depending on a person's background or culture. An example of symbolic color would be the different faces in the paintings on this page. Whether a face is painted flesh tone, grey, yellow, or green each gives a very different overall feeling, connotation, or symbolic meaning.



Woman with a Hat | Henri Matisse | Oil on Canvas | 31.7" x 23.5" | 1905 | Public Domain

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The Fireside Angel |Max Ernst| Oil on Canvas | 24 x 36 cm | 1937 | Public Domain

In the past , students that took 2D Design had to spend over \$100 on a textbook for this class. In a mission to save students money, the univeristy and the art department have worked together to create this digital book for you. We hope you enjoy reading it and feel free to give us any feedback you might have to make it better for future students.

*Thank you,
The CMU Art & Design Department*