**INTRODUCTION**

**ART** is everywhere in the world around us, whether we notice it or not. While we may think of art as paintings and statues locked away in a museum somewhere, something that only old, rich people and college hippies care about, the truth is that art defines everything in the world around us: the buildings where we work, the homes where we live, and the television we watch all depend on our culture’s artistic sensibilities. Art both influences and reflects our culture, and studying it provides a fascinating lens both on previous civilizations as well as our own.

Art is a visual medium—no matter how much anyone talks about it, you really do have to see it to understand it. This guide includes many examples of the elements, principles, and techniques discussed in the official materials to help you better understand the fundamentals of art.

Because USAD divides art into two main parts—general and thematic—I have also divided the curriculum in half. This guide will cover the second half of Section I of the USAD guide, which covers the fundamentals of art—artistic techniques, processes, and analysis.

This guide contains a large amount of information not included by the official materials. However, this information is generally confined to footnotes, which are intended to either explain/clarify the material or provide additional information that USAD omits but I think is relevant and interesting. Also, you will notice two different types of picture frames: yellow and black. Yellow-framed pictures are works specifically mentioned by name in the official curriculum; black-framed pictures are works not specifically named but are representative of various styles or artists.

Finally, review exercises are included every few pages to help you test your knowledge, whether you’re learning the material for the first time or the tenth. Answers to these exercises are placed in small, upside-down type right beneath the problems.

Some last tips:

- **Focus on works**: There is quite a lot of information presented here, but abstractly trying to memorize what “intaglio” or “bas-relief” means is a waste of time. Instead, focus on the examples provided. Calling these to mind during the test will be much easier than memorizing lists of words.

- **Ignore super-specific details**. Remember that, for all the facts and information here, this entire guide is just 10% of the art test. If you’re cramming, just focus on the major topics that lead to basic questions (like the different types of printing).

Lastly, don’t panic! With a visual guide to speed you along, you should have no problem mastering the fundamentals of art Good luck!

Stephen Bergauer
About the Author

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SECTION I: ELEMENTS OF ART

This section of the Curriculum Guide may not be the most exciting section, but the elements of art are a crucial aspect of creating or analyzing artwork. There’s a lot to memorize here, especially if you’ve never taken a visual arts class yourself. Many examples of the techniques discussed are included, so look towards those for guidance.

The most important things to know from this section are:

- How the formal qualities of art are used to compose works – this will help you remember them
- The distinctions between different groups of terms – for example, what distinguishes shapes and forms? Positive space and negative space?
- Color theory, especially how colors interact with each other
- Different techniques of creating perspective within artwork

Fundamentals of Art: The Building Blocks

The Big Idea: The fundamental elements of art are lines, shapes, forms, perspective, color, and texture. Artists use all of these objects and techniques to construct their artworks and shape meaning.

- Line
  - Lines are the most fundamental elements of art and are simply defined as the path of a point moving through space
  - Beyond this basic definition, lines can have individual characteristics; they can vary in length, width, and direction
  - Lines can appear hard or soft, bold or light, uniform or varying in thickness (Figure 1-4)

Figure 1: Three major types of lines. Left shows two parallel lines of equal width; center shows two crossing lines of equal width; right shows parallel lines of different thickness
Even if the whole line is not present, our eyes often naturally connect a series of related points to create implied lines (Figure 2).

Lines are ultimately a tool for expression; artists will choose to use a particular type of line in order to embody particular emotions.

- **Horizontal lines** imply stability and are usually thought of as the most calm and peaceful type of line (Work 2).
  - They are commonly used as horizon lines.

- **Vertical lines** also imply stability while emphasizing strength and power (Work 3).
  - The vertical lines found in the architecture of medieval churches caused visitors to raise their heads towards the heavens in awe.

- **Jagged/curved lines** are filled with energy and represent movement, activity, or change (Work 1).

### Shape and Form

- Shape and form are similar: describe the essential structure of a work; however, a **shape** is a two-dimensional object, while a **form** is in three-dimensions.

  - For example, a circle is a shape while a sphere is a form.
A drawing of the human body is a shape that represents a person; however, a sculpture of the human body out of marble is a form (Work 4)

- Artists working in two-dimensional mediums will often give a shape the illusion of being a form through the use of shading and perspective

Shapes and forms can be categorized as geometric or organic

- Geometric shapes/forms have a regular, mathematical geometry and are rarely seen in nature (Work 6)
  - They include squares/cubes, triangles/pyramids, circles/spheres, etc.
  - These shapes and forms are often used in art to represent stability, harmony, and order

- Organic shapes/forms are irregularly shaped and are often found in nature (Work 5)
  - Organic shapes and forms are used in art to show spontaneity, movement, and energy
Another element of art, space, discusses how objects relate to their environment and is important in distinguishing shapes and forms.

- The shapes and forms in a work of art occupy the **positive space**, or the actual “objects” in a work.
  - The central element in an artwork usually occupies the positive space.
  - These central shapes and forms are sometimes called the **figure**.
- The **negative space** is the area surrounding shapes or forms.
  - Sometimes, negative space is referred to as the **ground**.

### Vocab Review

**Line:** path of a point through space

**Shape:** 2D object in a work

**Form:** 3D object in a work

**Geometric:** mathematical shape/form

**Organic:** natural, irregular shape/form

**Positive space:** the “figure” or main shapes

**Negative space:** the “ground” or space around the shapes

### Perspective

- Artists use **perspective** to make a two-dimensional artwork appear three-dimensional by creating the illusion of depth.
- Perspective can be created through a variety of methods and techniques.
  - Shadows and highlights can be added to make a shape appear 3D (Work 8).

---

1 Negative space is frequently illustrated by the optical illusion *Rubin’s Vase* (Work 7). The vase occupies the positive space of this composition; the negative space forms two faces.

2 Adding shadows and highlights is also known as adding *value*. We'll discuss this more when we get to color.
Objects placed lower in the composition will appear closer to the viewer while objects placed higher in the composition will seem farther away.

- Larger objects will look closer to the viewer than smaller objects.
- The more detailed an object is, the closer it will appear to the viewer.

- **Aerial perspective** (or **atmospheric perspective**) replicates how objects in the distance appear to be lighter and more neutral in color.
  - Aerial perspective will often make objects in the distance “bluer” to emphasize the greater neutrality of color.
  - Objects will also often be hazier, making them less distinct.

- **Linear perspective** is a mathematical technique used to create the appearance of depth in 2D works.
  - This type of perspective was developed during the Renaissance.
  - It is based on the idea that, when lines recede, they eventually appear to converge on the horizon at a place called the **vanishing point**.
    - Artists use one or more vanishing points\(^1\) with a network of carefully placed lines in order to create realistic environments (Work 10)\(^4\).

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\(^{1}\) One vanishing point is used in one-point perspective, two vanishing points are used in two-point perspective, and so on.

\(^{4}\) On the next page, the use of vanishing lines is painfully obvious, to the detriment of the work’s aesthetic quality. As the Renaissance wore on, artists became much better at disguising and breaking these lines; just compare this work to Raphael’s *School of Athens*, which also uses a vanishing point but much more skillfully.
LINE, SHAPE/FORM, AND PERSPECTIVE REVIEW QUIZ

1. What is the most basic element of art?
2. Which will appear closer to a viewer, a smaller object or a larger object?
3. Which is a form, a square or a pyramid?
4. When was linear perspective developed?
5. What do organic shapes/forms imply when they are used within a work of art?

● Color
  ○ A **hue** is simply the name of a color, like red, purple, and blue-green
  ○ Hues are organized into a diagram called a **color wheel**\(^\text{5}\)

\(^{5}\) USAD focuses on the subtractive color wheel, which organizes colors made from pigments. Don’t confuse this with the additive color wheel, which is made up of colors of light.
This was developed by Sir Isaac Newton in the seventeenth century

Color wheels help us understand the relationships between different hues and predict what will happen when hues are mixed

Hues are categorized as **primary, secondary, or tertiary colors**

- The **primary colors** are red, yellow, and blue
  - Primary colors make up all of the other colors on the color wheel
  - No colors can be mixed to make a primary color
- **Secondary colors** are orange, green, and violet, and are created by combining two primary colors
- There are six **tertiary colors**\(^6\), which are created by combining a primary color and an adjacent secondary color
  - The tertiary colors are blue-green\(^7\), blue-violet, red-violet, red-orange, yellow-orange, and yellow-green

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\(^6\) Tertiary colors are also often referred to as **intermediate colors**

\(^7\) The proper way to name a tertiary color is by listing the name of the primary color followed by the name of the secondary color. For example, blue-green is correct while green-blue is incorrect.
<table>
<thead>
<tr>
<th>Color Mixing Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary Colors</strong></td>
</tr>
<tr>
<td>Yellow + Red = Orange</td>
</tr>
<tr>
<td>Yellow + Blue = Green</td>
</tr>
<tr>
<td>Red + Blue = Violet</td>
</tr>
<tr>
<td>Red + Orange = Red-orange</td>
</tr>
<tr>
<td>Red + Violet = Red-violet</td>
</tr>
</tbody>
</table>

- Black and white are **not hues** but are instead called **neutrals** (as are shades of grey)
- **Complementary colors** are colors located across from each other on the color wheel
  - Green and red are complementary colors
  - Complementary colors are often paired together and “go” well together aesthetically
- **Value** describes how dark or light a color is
  - A hue is lightened (a **tint**) by adding white

\[
\text{Green and white make light green} \quad \text{Green} + \text{White} = \text{Light green}
\]

- A hue is darkened (a **shade**) by adding black

\[
\text{Green and black make dark green} \quad \text{Green} + \text{Black} = \text{Dark green}
\]
Additionally, an artwork can be made up of mostly light values, mostly dark values or show contrast between the two (Work 11-12)

- **Intensity** is the purity of a hue
  - Primary colors are considered the most intense colors because they are unmixed
  - When primary hues are mixed together, they become less intense (orange is less intense than red or yellow)
  - When hues are mixed with a neutral (black or white), they become less intense (pink is less intense than red)
  - When complementary colors (such as red and green or blue and orange) are mixed, the resulting color is less intense
    - If they are mixed in equal parts, a brown tone is produced
- Colors can carry symbolic meaning
  - **Warm colors** include red, yellow, and orange and are often associated with warmth, heat, violence, and passion
  - **Cool colors** include violet, blue, and green and often represent plants, water, peace, and calm
  - A combination of warm and cool colors can create space in an artwork
    - Warm colors tend to advance towards the viewer while cool colors tend to recede into the background (Work 13)
- Colors can be categorized as **local**, **optical**, or **arbitrary**
  - **Local color** is the natural color of an object when viewed in normal day light and at a close distance
    - For example, yellow is the local color of a banana, and orange is the local color of a carrot

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8 We’ll talk more about Caravaggio and his *chiaroscuro* technique in the Art History guide.
9 To parallel sound, intensity is like timbre; it’s not an actual note but rather the sound “quality” of the note.
Optical color depends on factors such as lighting or distance. For example, think about how objects in your room appear to be one color when the lights are on but a different color when the lights are turned off. The true color of my bed sheet is white, but in darker lighting it appears to be gray.

Arbitrary color is color that is normally unnatural but is used by an artist to create an emotional impact (Work 14). A dog might be brown in real life, but an artist could chose to depict it as purple in his painting. This became increasingly common in Modernism.

Scientists in the nineteenth century discovered that colors are relative, meaning that they don’t have fixed values. The same color blue will appear lighter on a black background and darker on a light gray background.

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**Color Review Quiz**

1. What are the secondary colors?
2. How do you change the value of a hue?
3. Which colors are considered to be the most intense?
4. If mixed in equal parts, what color will a mixture of complementary colors make?
5. What is the local color of a white marshmallow under a purple light?

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10 It’s amazing how they tend to turn black when the lights are turned off.
Texture

- **Texture** is the surface quality of a shape or a form; it can be **actual texture** or **visual texture**
  - **Actual texture** is a physical quality and can be felt (Work 16)
    - Paint can be applied thickly to a canvas to give the painting a bumpy texture
    - Grainy clay can be used to form a ceramic pot
    - Marble is sculpted to replicate the folds in clothing
    - Actual texture most often occurs in 3D art but can also be found in 2D art
  - **Visual texture** is only an illusion (Work 15)
    - In two-dimensional art, the artist can give a shape the appearance of having a texture
      - A painter can manipulate paint to resemble the fur of a cat or the slick peel of an apple

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**Elements of Art: Section Review Quiz**

1. What type of line is created when our eyes naturally connect a series of related points?
2. In atmospheric perspective, how do the colors of objects in the foreground compare to the objects in the background?
3. What is the optical color of white snowball under a red light?
4. What is the relativity of color?
5. What type(s) of texture does a painting of a dog with a shaggy coat made with thick globs of paint have?
Principles of Art: Composition

The Big Idea: Composition takes all the elements previously discussed and arranges them within a work of art. The artist uses all of these raw materials and then shapes them to form his/her own artistic vision.

- Composition
  - Composition refers to the arrangement of the elements of art within an artwork
    - It can apply to two-dimensional or three-dimensional art
  - Aspects of composition include rhythm, pattern, balance, contrast, and proportion/scale

- Rhythm, Pattern, Balance
  - Rhythm is associated with visual movement and is created by the deliberate repetition of the elements of art, covered in the previous section
    - Recall that these elements include line, shape, color, and texture
    - An artist uses rhythm to direct a viewer’s eye around a composition
    - It is particularly important in Modernist/Cubist works (Work 17)
  - Patterns are created when visual elements are repeated
    - A motif is an individual element of a pattern
    - Regular patterns are based on a grid system, such as a checkerboard pattern
  - Balance refers to the distribution of visual weight within a composition
    - Symmetrical balance occurs when elements are repeated exactly the same on each side of the composition (Work 19)
    - Approximate symmetry is similar to symmetrical balance, but the objects on either side of the composition are slightly varied to avoid monotony (Work 18)
**Asymmetrical balance** features objects that do not mirror each other on either side of the composition (Work 20)
- This is the most complex form of balance
- It is created by placing larger objects towards the center of the composition and smaller objects near the edges of the artwork

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**Contrast, Proportion, Scale**
- **Contrast** is the difference between color, value, shape, size, line, or texture
- An area that contrasts with the rest of the composition is the **focal point**; the artist wants the viewer to first notice this point

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**Composition in Practice**

_In this painting, a deep blue, warm gold, and bright red are repeated throughout to give the artwork rhythm._

_The large area of red on the woman’s dress _contrasts with the dark background and demands the attention of the viewer, making her the **focal point**._

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_Asymmetrical balance_ features smaller objects towards the edges of the painting and larger objects towards the center of the painting.
- **Proportion** and **Scale** are two types of size relationships that affect balance and the viewer’s interest.
  - **Proportion** refers to the size relationship between different elements within a composition.
  - **Scale** refers to the overall size of an artwork when compared to our own human size.
    - A twelve foot high painting is large-scale while an illustration in an illuminated manuscript is small-scale.

## Classical Proportions

The standards that we still use today when drawing or sculpting the human form were developed 2500 years ago during the Classical Period of Greek Sculpture. The Greeks considered the human body to be the measure of all things, and these idealized proportions were very important in their society. Even their structures were based on these measurements.

<table>
<thead>
<tr>
<th>Body</th>
<th>Face</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ideal human body was determined to be seven and one half heads high¹¹</td>
<td>The corners of the eyes are halfway between the top of the head and the chin</td>
</tr>
<tr>
<td></td>
<td>The bottom of the nose is halfway between the eyes and the chin</td>
</tr>
<tr>
<td></td>
<td>The lips are halfway between the nose and the chin¹²</td>
</tr>
</tbody>
</table>

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¹¹ According to USAD, seven and one half heads is the standards used by the Greeks; however, I have also heard eight heads or seven heads.

¹² He’s no model, but this face follows the rules of Greek proportions pretty accurately.
PRINCIPLES OF ART REVIEW QUIZ

1. What is the purpose of rhythm within a composition?
2. What is an individual element in a pattern called?
3. Which type of balance is the most complex?
4. According to the ancient Greeks, how many heads high was the ideal man?
5. What is a focal point?
SECTION II: PROCESSES AND TECHNIQUES

PAGES 36-42

This part of the guide focuses on how art is made. In order to truly understand what you are looking at, it’s a good idea to have a basic overview of the different art media and their uses. After reading this section, you’ll understand the things you see in art museums and the art history section a little better. If you really want to understand graphite, acrylic paint, or some other medium, you’ll probably have to go out and try it for yourself. However, this information should help get you through the art fundamentals portion of your exam just fine.

The most important things to know from this section are:

- A basic understanding of the different mediums—how do they look and how are they used?
- The distinctions and differences between the different media, particularly in how they affect the final work.
- Don’t focus too much on memorizing every single step for each medium. Focus on the general ideas.

Two-dimensional Techniques: The Flat Stuff

The Big Idea: Major techniques in 2D art include drawing, printmaking, painting, and photography. Each different style uses many different mediums and techniques to achieve the desired effect.

- **Drawing**
  - Drawing is often considered the most basic art making process
  - The most common media include pencil, pen and ink, charcoal, crayon\(^{13}\), and felt-tip pens (see table on next page)

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\(^{13}\) USAD isn’t just referring to your childhood box of Crayolas. Crayon is a broad term that includes any colored stick of wax or chalk. This includes oil pastels, chalk pastels, and Conté crayons.
Drawings can be created on a variety of surfaces, including rocks (favored by our early ancestors) and paper (the most common drawing surface in modern civilization).

<table>
<thead>
<tr>
<th>Media</th>
<th>Example</th>
</tr>
</thead>
</table>
| Pencil (Graphite) | ![Image](image1)  
**Work 22:** Mme Victor Baltard and Her Daughter, Paule, by Jean Auguste Dominique Ingres, pencil on paper, 1836 |
| Pen and Ink       | ![Image](image2)  
**Work 23:** Poet on a Mountaintop, by Shen Zhou, ink on paper, date unknown |
| Charcoal         | ![Image](image3)  
**Work 24:** Reflection in the Mirror, by Henri Matisse, charcoal on paper, 1923 |
| Crayon           | ![Image](image4)  
**Work 25:** Study for “Les Poseuses”, by Georges Seurat, Conté crayon on laid paper, 1886 |
• Drawing is primarily based on lines
• Different mediums will create different types of lines
• Drawing mediums are **pressure sensitive**
  • More pressure creates darker values and less pressure creates lighter values (Work 26)
• **Shading** creates the illusion of volume in a drawing
  • **Hatching** is a method of shading that uses parallel lines to create the illusion of value
    • The closer the lines are placed together, the darker the value will be
  • **Crosshatching** is similar to hatching, but the lines cross over each other instead of running parallel to each other (Work 27)
• **Stippling** value is created by the precise placement of dots
  • The proximity of the dots to each other determines how dark the value will be (Work 28)

**Work 26:** Study of a Veiled Female Figure, by Adolphe Bouguereau, pencil on paper, c. 1800s

**Work 27:** Veronica, by Albrecht Durer, engraving, 1513 (above); detail showing hatching and crosshatching (right)

**Work 28:** Light and Day, by Christine Adams, stippled felt tipped pen on paper, 2008
Color is added to drawings with mediums such as pastels and colored pencils.

- **Pastels** are soft sticks of color that can be easily blended (Work 29)
  - They became popular in the 1700s and were used frequently for portraiture
  - Pastels are a fragile medium, and finished drawings must be handled gently
    - Use of a spray fixative will help stop a pastel drawing from smudging
- **Colored pencils** have the ability to blend like pastels, but they are also more durable

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**DRAWING REVIEW QUIZ**

1. What are the five most common drawing media?
2. How would applying more pressure to a pencil when drawing affect the value?
3. Which technique to add value is based on the precise placement of dots?
4. How is a darker value created when hatching?
5. How can spray fixative help a pastel drawing?

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- **Printmaking** are two-dimensional art-making processes that allow for multiple copies to be made
  - Printmaking is often aided by the use of a printing press
  - This medium is popular for mass production because additional copies are fairly cheap
    - Because of this, it is often used in propaganda, like during the Mexican Revolution (and many other popular movements)
  - It has been used to illustrate books and newspapers since the invention of the European printing press in the 1400s
  - Popular printmaking processes include **relief printing**, **intaglio**, **lithography**, and **screen printing**
    - All of these techniques utilize a **matrix**, or printing plate, on which an image is created
      - Ink is applied to the matrix allowing the image to be transferred to paper or fabric
    - In **relief printing**, an artist carves away at a surface in order to create an image
Visualizing a giant rubber stamp may help you understand this technique.
Matrices are most often made of wood or linoleum in relief printing.
Both woodcuts and linocuts are forms of relief printing.

- Matrices are cut using linoleum cutters or wood carving tools
- Ink is applied to the uncut areas with a **brayer** while recessed areas are left without ink
- Paper is placed on top of the inked matrix and a print is made by running the plate and paper through a printing press or rubbing the plate with a **burnisher**

*Figure 8: Relief printing process*

*Work 30: The Four Horsemen of the Apocalypse, by Albrecht Durer, intaglio woodcut, c. 1498*
- **Intaglio** also involves an image being carved onto a matrix; however, it can be considered the **opposite of relief printing** since the ink goes into the cut, not uncut, areas.
- Intaglio plates are usually copper but can also be made of other soft metals or wood.

<table>
<thead>
<tr>
<th>Cut</th>
<th>• A shallow image is carved into a metal or wood matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ink</td>
<td>• Ink is applied to the plate and forced into the shallow grooves of the image</td>
</tr>
<tr>
<td>Wipe</td>
<td>• A cloth is used to wipe the ink from raised areas of the plate while leaving ink in the carved areas</td>
</tr>
<tr>
<td>Soak</td>
<td>• The paper must be soaked in water for a short time before the print is made so it can be pushed into the grooves of the plate</td>
</tr>
<tr>
<td>Print</td>
<td>• Intaglio prints must be printed with a printing press because a huge amount of pressure is needed to make a print</td>
</tr>
</tbody>
</table>

Figure 9: The general Intaglio printmaking process

- There are multiple types of intaglio printmaking techniques, including **engraving** and **etching**
  - **Engraving** requires carving tools to cut into the matrix
  - **Etching** uses acid in order to dissolve parts of the matrix (Figure 10, Work 31)

<table>
<thead>
<tr>
<th>Wax</th>
<th>• The metal matrix is covered in a layer of wax prior to printing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut</td>
<td>• An image is cut into the wax layer, exposing some parts of the metal plate</td>
</tr>
<tr>
<td>Acid</td>
<td>• The plate is immersed in acid that eats away the exposed metal</td>
</tr>
<tr>
<td>Ink</td>
<td>• The wax is removed and ink is applied in the same way as other intaglio methods</td>
</tr>
<tr>
<td>Print</td>
<td>• The plate is printed in the same way as other intaglio methods</td>
</tr>
</tbody>
</table>

Figure 10: The general etching printmaking process
Lithography is a type of planographic printing, meaning that the matrix is flat instead of being carved.

- An image is drawn directly onto the matrix with a greasy crayon and dries.

- Once dry, the plate is saturated with water.

- Before the water begins to evaporate, an oil-based ink is applied using a brayer. The ink sticks to the greasy crayon marks but resists water.

- The image is then transferred to paper with the use of a lithography press.

Work 31: Christ Preaching, by Rembrandt van Rijn, etching, c. 1648

Screen printing is generally used to print designs on t-shirts but is also seen in the fine arts.

- In screen printing, ink is passed through a sheet of silk that has been stretched and attached to a frame.
  - Parts of the silk sheet have been blocked off with an impermeable substance to form a stencil.
- The frame is placed on top of the paper or fabric to be printed on.
- Ink is dragged over the stencil and forced through the silk using a squeegee.

Andy Warhol is probably the most famous screen printer of all time and used the process to ridicule the art world.
Separate stencils are needed for each color used

PRINTMAKING REVIEW QUIZ

1. Which process uses acid to carve grooves into the matrix?
2. What tool is used to apply ink to the matrix?
3. Which printmaking process is based on the concept that oil and water don’t mix?
4. Why is the cost of a print so much cheaper than the cost of a painting?
5. Which type of printmaking is considered most accessible? Why?

Painting

- There are a large variety of media and techniques under the category of “painting”
- All paints are made of three different components: pigments, binder, and solvent (Figure 12)

**Pigment** is what gives paint its color

- These finely ground particles can be natural or synthetic
- Natural pigments originate from minerals, plants, and insects

**Binder** holds the pigments together and adheres them to the painting

- Common binders include egg yolks, wax, and linseed oil

**Solvent** changes the consistency of paint and alters its drying time

- Water and oil are both solvents

Paint can be applied to a variety of surfaces

- The most common include canvas, walls, wood, and paper
- Almost anything can be used as a tool to apply paint
- Fingers, sticks, paint brushes, and pallet knives are just a few tools

**Frescoes** are one major form of painting with a long and important history

- When creating a **buon fresco** (true fresco), artists mix powdered pigments into wet plaster and paint directly onto ceilings or walls
  - The paint is permanently bound to the plaster; if the artist makes a mistake, he must re-apply the plaster and do the entire section again
- **Secco fresco** (dry fresco) involves applying paint to dry plaster and is less punishing
- Frescoes have been found in the ruins of Pompeii as well as in medieval and Renaissance churches (Work 33)
- Diego Rivera is a more modern artist famous for painting frescoes; he reintroduced the style to artists in the 1900s
Tempera was the most commonly used paint prior to the invention of oil paint in the 1400s (Work 32)
- It is a water-based paint that often uses egg as a binder
- It dries quickly so it cannot blend with other colors once it is applied to a surface
- Tempera does not come in many tones and requires great skill
- Tempera has shown its ability to retain a colorful vibrancy even after hundreds of years

Oil paint replaced tempera paint in the 1400s and is a much more versatile medium
- It can be thinned into glazes and painted on in many translucent layers
  - This creates a luminous effect that is impossible with tempera (Work 36)
Impasto is a technique in which oil paint is applied very thickly to a surface with evident brush strokes\(^\text{15}\) (Work 35)

Oil paint dries very slowly and has the ability to stay wet for weeks, allowing artists to easily manipulate the paint for long periods of time.

---

Watercolor is the most common water-based paint (Work 34)

- It is transparent, so an artist must work from the lightest colors to the darkest colors.
- Tints are created by adding water to the paint instead of adding white.
- White cannot be added later, so light areas of the paper must be preserved.
- Mistakes are difficult to fix, so a lot of planning must go into creating a watercolor painting.

Gouache is similar to watercolor, but it is opaque\(^\text{16}\) (Work 37)

- It dries slower than watercolor and is good for painting fine details and bright colors.
- Acrylic is one of the most recently developed mediums in the world of painting.

---

\(^{15}\) This is a technique best seen in the paintings of Vincent Van Gogh.

\(^{16}\) Meaning that light cannot easily travel through it.
- It was developed after World War II and is made up of synthetic materials and plastics
- It can be extensively modified to mimic many other media and also has unique qualities (Work 38-39)

### Work 37: Portrait of a Woman, by Eugene de Blaas, pencil, watercolor, gouache on canvas, c. 1931

### Work 39: Air Crash, by Cham Hendon, acrylic and rhoplex on canvas, 1983

### Work 38: Delta Group II, by Jack Whitten, acrylic on canvas, 1975

<table>
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<tr>
<th>Acrylic</th>
<th>Oil</th>
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<tr>
<td>Water based</td>
<td>Oil based</td>
</tr>
<tr>
<td>Fast drying time</td>
<td>Slow drying time</td>
</tr>
<tr>
<td>Lacks subtlety of oil paint</td>
<td>Can be used for luminous effects</td>
</tr>
<tr>
<td>Good for artists who are allergic to oil paint</td>
<td>Can contain toxic pigments</td>
</tr>
</tbody>
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### Acrylic Vs. Oil

- **Photography**
  - One of the newest 2D media, **photography** was developed during the mid-nineteenth century and quickly became a popular way to document visual information
  - Painters no longer had to depict objects realistically and began to explore other forms of art\(^\text{17}\)
  - It wasn’t originally considered an art form but has gained acceptance as a fine art
  - New technology continues to develop and change how photographs are created
  - Film and video art have also become art forms

\(^\text{17}\) Artists originally tried to compete with photography for realism; however, they soon gave up that quest and moved instead toward abstract art that no camera could ever create.
**Painting/Photography Review Quiz**

1. What are the three components of paint?
2. Which is a “true” fresco, secco fresco or buon fresco?
3. Which type of paint was developed shortly after WWII?
4. What is the name of the painting technique where oil paint is applied thickly to a painting’s surface?
5. How was photography liberating for painters?

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**Three-dimensional Techniques: You Don’t Need 3-D Glasses for This Section**

**The Big Idea:** The major form of 3D art is sculpture, which can be created using several different construction methods and can be freestanding, in-the-round, or truly massive, as with Earthworks.

- **Sculpture**
  - **Sculptures** are three-dimensional creations made using a variety of methods
  - They can be freestanding or relief sculptures
  - When we normally think of sculpture, we think of **freestanding sculpture**
    - These are sculptures you can walk all the way around and are meant to be seen from all sides
    - Examples include the *Venus de Milo* (Work 41) or Michelangelo’s *Pieta* (Work 40)
  - **Relief sculptures** are attached to a surface and can only be seen from a limited range

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*Work 41: Venus de Milo,* by Alexandros of Antioch, marble, c. 100-130 BC.

*Work 40: Pieta,* by Michelangelo, marble, 1499
- **High-relief** sculptures project significantly from the surface they are mounted on (Work 43)
- **Low-relief** sculptures project only slightly (Work 42)

Sculpture is created in four basic ways: **carving, modeling, casting, and construction**

- **Carving** is a *subtractive process*, meaning that material is removed instead of being added
  - Wood is carved away to make a totem pole, and marble was chipped away to create the *Venus de Milo* (Work 41)

- **Modeling** is an *additive process*, the opposite of a subtractive process
  - This can include mediums such as clay, wax, plaster, and papier-mâché
    - These materials are soft and sticky, allowing for more to be added to the surface
  - The surface can be shaped by hand or with tools

- **Casting** uses a unfired clay or wax center to become the basis of a mold
  - The original form is covered in plaster; when the plaster hardens, it is removed from the original form and can then be used as a mold
  - This mold allows for the creation of multiple copies of the original object
  - They can be cast in a variety of materials including plaster, metal, plastic, and resin

- **Construction** of a sculpture uses a variety of methods in order to connect several different pieces – it’s a catch-all, final category for works that do not fit the other styles (see table on next page)
  - Methods to connect disparate elements include welding, glue, and nails
  - There are infinite possibilities for different materials
## CONSTRUCTION METHODS

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<th>Description</th>
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<tr>
<td><strong>Welding</strong></td>
<td>A sculptural process that joins materials (usually metals) by melting the pieces meant to be joined and adding a filler material. When cooled, this filler becomes a strong joint. Forge welding is a welding process that joins pieces of hot metal by hammering them together.</td>
</tr>
<tr>
<td><strong>Glue</strong></td>
<td>Glue is simply an adhesive that bonds different parts of a sculpture together. Glue can join to different types of materials together, but it often takes time for glued joints to cure so the bond is not instantaneous.</td>
</tr>
<tr>
<td><strong>Nails</strong></td>
<td>Nails are fasteners of hard metal used in construction, especially woodworking. They are driven into the materials to be joined with a hammer.</td>
</tr>
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- Sculptures can have moving parts\(^\text{18}\)

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\(^\text{18}\)These are also known as kinetic sculptures.
• Many artists utilize materials such as motors, pulleys, robes, and pumps to create this motion
• **Alexander Calder** made mobiles with forms suspended by wires the move in the wind (Work 47)
• Large scale sculptures that are constructed in nature or about nature are referred to as **environmental art** or **Earthworks** (Work 48)
  • They were first made in the 1960s and redefine the space in which they are installed
  • They often require collaboration with the community or government
  • Earthworks are usually designed to be impermanent and change through time
    o Photos are essential when documenting environmental art because of this

![Work 47: Red Mobile, by Alexander Calder, painted sheet metal and metal rods, 1956](image1)

![Work 48: Spiral Jetty in the Great Salt Lake, by Robert Smithson, 6500 tons of basalt, 1970](image2)

**SCULPTURE REVIEW QUIZ**

1. What are the four basic ways in which sculptures are created?
2. Which type of sculpture is meant to be viewed from all sides?
3. What is a subtractive process?
4. What is the difference between low-relief and high-relief sculpture?
5. Which method allows for the creation of multiple copies of a sculpture?

**Other Art Forms: Odds and Ends**

**The Big Idea:** Particularly in the 1900s, artists began exploring new, more radical media for expressing their ideas. Mixed media and performance art are two such categories. Also, while “art” used to refer to “fine art,” the media previously discussed, craft/folk art that serves utilitarian purposes has been recognized in recent decades.

• **Mixed Media**
  • Mixed media can be two-dimensional or three-dimensional and, as the name implies, combine a variety of materials together
  • Traditionally, many cultural groups have created masks with mixed media
    o These are carved from wood and embellished with paint, feathers, grass, and beads
  • **Collage** is a common form of mixed media art in which artists combine different mediums that can be attached to a surface
    o They can include photos, paper, ticket stubs, and almost anything else
  • **Pablo Picasso** and **Georges Braque** introduced this medium around 1912

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19 Whereupon it was immediately copied by millions of elementary-school students.
- **Robert Rauschenberg** is possibly the most well-known collage artist; he combines screen prints with paint (Work 51)
- **Assemblages** are created using all found objects, both 2D and 3D (Work 50)
- **Joseph Cornell** is known for filling open boxes with symbolic items (Work 49)

**Performance Art**
- In *performance art*, the artist engages in some type of performance, sometimes including the viewers
  - Unlike traditional art, it lacks permanence and must be recorded
  - Some use this style as an escape from the commercialization of art, since performance art can't be bought or sold
  - Performance art challenges what we decide is art and can be used to speak out against social issues
- The **Guerilla Girls** is a group of female artists that uses performance art to speak out against male domination in the arts
  - These women wear gorilla masks to conceal their identities while pasting up posters and flyers and giving public speeches

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![Work 51: Untitled “Combine,” by Robert Rauschenberg, collage, 1963.](image1)

![Work 50: Mask (Buk, Krar, or Kara), artist unknown, turtle shell, wood, cassowary feathers, fiber, resin, shell, paint, c. 1850-1900](image2)

![Work 49: Untitled (Soap Bubble Set), by Joseph Cornell, 1936.](image3)

![Work 52: Poster, Guerrilla Girls, c. 2000](image4)
Craft and Folk Art
- This term usually refers to art that has utilitarian purposes but is still decorated/valued for aesthetics
  - People have always sought to make every-day objects more beautiful
  - It can include pottery, jewelry, fibers, glass, and wooden objects
- Pottery is created from clay found naturally in the earth
  - Pottery can be formed by hands aided by simple tools
  - Basic pots can be formed by pinching clay into a bowl shape, stacking coiled clay, or joining slabs of clay with slip (liquid clay)
  - A potter’s wheel allows for thin-walled pots in a wide variety of shapes (Figure 13)
    - Potter’s wheels were used by ancient cultures and are still in use today
    - Pots made on a wheel are referred to as “thrown”
  - Clay must be fired in a special oven called a kiln to remove any remaining moisture and chemically alter the clay
    - This causes pots to harden permanently
  - Glazes made of clay and minerals can be painted over fired pots to add color and shine (Work 53)
    - After adding glaze, the pot is fired for a second time
    - The glaze melts in the kiln and form a glassy, waterproof exterior
- Fiber arts includes woven and nonwoven textiles
  - Weaving is a technique with a long history in the production of textiles
    - Some techniques rely on a loom while braiding, crochet, and knitting can be done by hand
  - Quilting is another fiber art practiced by fine artists as well as everyday people
- Since it was first made in the Middle East in the third millennium B.C.E., glass has become a widely used decorative art medium
  - Glass is most often made of silica, which is derived from sand, flint, or quartz
    - Combining other colors with silica adds color
  - Glassblowing allows the formation of glass objects (Work 54)
  - Stained glass became a dominant art form in the medieval period
    - It was used for windows in cathedrals (Work 55)
    - It also became popular for lampshades and residential windows in the 19th century, after the creations of Tiffany (Work 56)
- Wood has been traditionally used to make functional objects including furniture, homes, boxes, and boats
  - Today’s wood artists aim to make aesthetically pleasing objects that are sometimes functional
  - Even functional objects like tables and chairs can become art when they have unique design, superb craftsmanship, and beauty
Architecture: Constructing Culture

The Big Idea: Architecture, the final category of traditional “fine” art, is particularly associated with power and prestige – building big buildings asserts dominance over both people and nature.

○ Architecture\(^{20}\)
  ○ Architecture is the art and science of designing and constructing buildings; specialists in designing structures are known as architects
  ○ People have always built shelters to meet the individual needs of their society, and so various methods of construction have been developed to meet particular needs
    ○ Early materials included sticks, mud, grass, animal skins, ice, wood, and eventually brick and stone
    ○ Today, steel and concrete are favored for commercial buildings and multi-family housing, while wood and brick are commonly used for residential homes
  ○ Post-and-lintel construction was the first important architectural development
    ○ It features a long stone or wooden beam (the lintel) placed horizontally across upright posts
      ○ This technique can be seen in the Greek Parthenon (Work 57)
    ○ It is still common today when using steel and wood
  ○ Other important architectural developments include the arch, the vault, and the dome
    ○ Each of these allowed for greater height and more interior space

\(^{20}\) Although a brief discussion of architecture is included here, we will discuss it in further detail when we reach the Medieval and Gothic periods of art history, since the dominant art form of those periods was architecture.
- The Gothic period featured a skeletal building style with *flying buttresses* and *stained glass windows* (Work 58, Work 55 respectively).
- The Industrial Revolution developed many new materials and techniques.
  - The *Crystal Palace* in London (Work 59) and the *Eiffel Tower* in Paris (Work 60) both originated from these developments.

  ![Work 60: The Eiffel Tower, Gustave Eiffel, 1889](image1)
  ![Work 59: The Crystal Palace, Sir Joseph Paxton, cast-iron and plate-glass, 1854, destroyed 1936. Photograph by Philip Henry Delamotte, 1854.](image2)

- In Spain during the late 1800s and early 1900s, Antonio Gaudi created *organic buildings*.
  - He defied “box shape” construction and changed how we think of buildings.

  ![Work 61: La Sagrada Familia, des. Antonio Gaudi, 1882 -](image3)

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21 When the Eiffel Tower was first revealed, critics and the public were outraged and disgusted, calling it a monstrosity. Amazing how times have changed.
OTHER MEDIA REVIEW QUIZ

1. Which form of art challenges what we decide is art?
2. What are three ways to create a basic pot?
3. What is the purpose of a glaze?
4. Which architectural developments allowed for greater height and more interior space?
5. Which architectural technique features a horizontal beam placed on upright posts?

PROCESSES AND TECHNIQUES REVIEW QUIZ

1. Which element of art is drawing primarily based on?
2. Which medium has the ability to blend like pastels but is also more durable?
3. What is the technical name for a printing plate?
4. What tool can be used in place of printing press when relief printing?
5. What type of printmaking uses a squeegee?
6. What are three common binders in paint?
7. What kind of effect will glazes create in an oil painting?
8. When using watercolor, how is a tint created?
9. What was photography first used for?
10. Which mediums are examples of additive processes?
11. What type of large scale sculpture is meant to be impermanent and change through time?
12. Who is credited with introducing collage?
13. Which weaving techniques do not require the use of a loom?
14. What is glass most often made of?
15. Which architect added organic forms and varying materials to his works?
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