

WETUMPKA IMPACT CRATER Discovery AND VISITOR CENTER



4 Art and Science Terms

Art Fundamentals

The fundamentals of two-dimensional or three-dimensional design are:

technique, form, and content.

They are so interdependent that without any one of the three, the work seldom has any importance.

The elements of art and principles of order or design

are quite recognizable in many works. Most develop naturally but not without effort. As artists progress (sculptors, painters, printmakers, graphic designers, architects, interior designers, etc.), the fundamentals are always apparent in their work. These basics were achieved through hard work.

Technique must be mastered, form must be understood, and content must be sought.

Novice artists unnecessarily worry about style. Some are disturbed that their work is not unique enough for its style to be easily recognizable. Often a particular "look" is contrived by a beginner. This is not a good practice because it results in more of a copy than an original work.

Style refers to the particular characteristics acquired from technique, subject matter, skill, instruction and time.

Seldom is a true style obtained early in an artist's career, even though the work may be of good quality. Styles are not to be aimed for artificially, but naturally acquired and evolved. As artists experience various materials and methods, and as their ideas mature, their styles will emerge. Their styles will become as natural, personal and identifiable as their own handwriting.

As art students, we study various styles and techniques, trying to find a way to approach our work and refer to many different examples of styles. In order to facilitate a beginner's work, he / she must examine many different "styles" and approaches to art through art shows and exhibitions, learning how other artists work, looking at and reading articles from art journals and magazines or perhaps the internet. The exploration into the styles, and forms of other artists help to demonstrate technique as well as diversity of content.

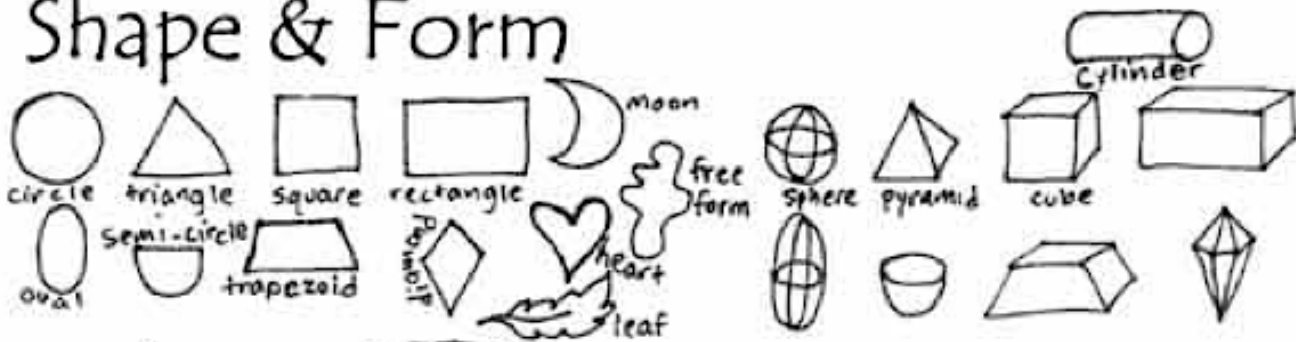
To utilize the elements of art, there is an order, an arrangement of the elements that aids the artist. This arrangement is known as the principles of design or order - the organization of the elements of art into an aesthetic form.

Good art may incorporate all of these principles or very few of them.

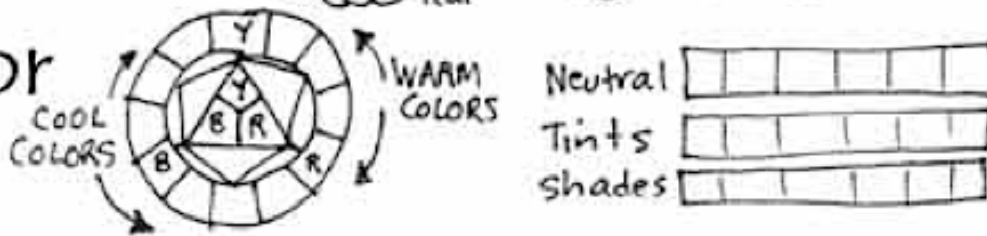
Elements of Art



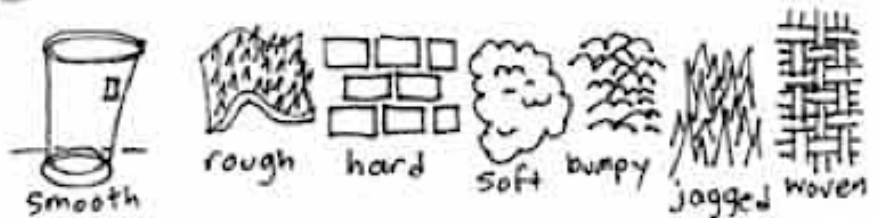
Shape & Form



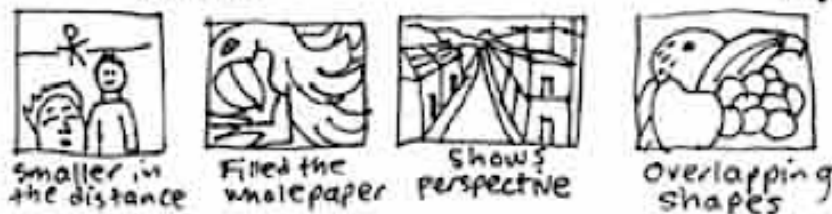
Color



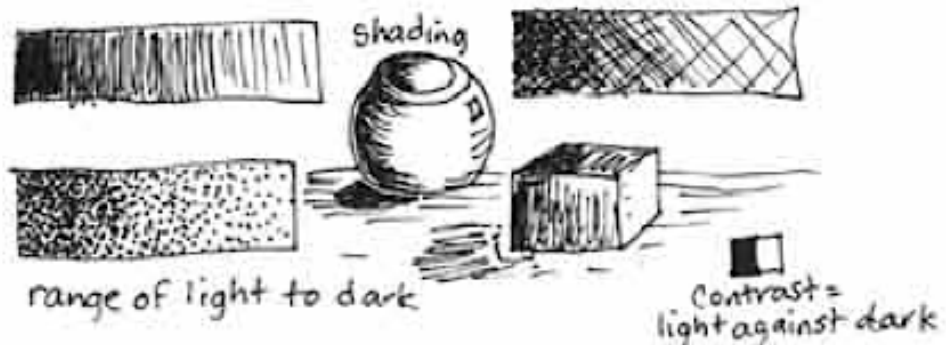
Texture



Space



Value



Line

An Element of Art

LINE: A mark made by a moving point.

Functions:

- outline and form
- movement and emphasis
- pattern and texture
- shading and modeling

- Lines outline shapes, create patterns, indicate space, and can create rhythm. Basic lines include: straight, curved, thick, thin, rough, smooth, soft, hard, rigid, and flexible. The inner quality of a line may suggest feelings and emotions.
- Horizontal lines imply foundations, dividing lines, focal points, where top and bottom meet, where background and middle or foreground meet.
- Vertical lines imply stability, and lack of movement. Horizontal and vertical lines together, are elements of stability.
- Diagonal lines provide motion, tension, and activity, as well as suggest danger, falling, and instability. In other words, diagonal lines suggest action.
- Jagged lines suggest destruction.
- Round lines often express a feminine quality.

Lines in Three - Dimensional Design are referred to as Planes.

Planes are surface areas defined by abrupt variations in direction. A cylinder has a top plane, a bottom plane, and a continuous side plane (only one continuous direction). Often the word line is incorrectly used instead of plane. For example, the word "lines" of a car should be called the "planes" of a car. (Line tends to be a two-dimensional term.) Though sculptures sometimes have a linear quality (shape or space defined by a thin material), they are still composed of planes, whether real or implied. Lines, if used are usually decorations placed on a three - dimensional object.

Line direction and Similarity Grouping:

All lines in any composition must relate to each other in some way, either by similarity or difference. Lines that tend to deviate from the upright and level by the same degree, whether or not they are close to each other, will group together because of their similarity. If a conscious decision is made to distribute lines of related direction in different parts of the composition, the result will be visual grouping that links the separate parts. The result is an integrating action that contributes to the unity of a work.

Line: Line defines a moving point through space and the dominant direction of shape. Line can be the border of contrasting color or suggest mass, texture, light and shadow. Line expresses motion or feeling by being quick, slow, still, nervous or rigid.

TYPES OF LINE:

- Mechanical - Juan Gris (unvarying)
- Spontaneous-Max Beckman
- Virtuoso- Hokusai
- Contour (reinforced by light modeling) -Ingres, Degas, Reubens
 - Negative, Positive, Cross, Blind, Weighted, Non-Weighted
- Fragmented Line - Cezanne
- Calligraphic Line - China, Japan, Rembrandt, Mark Toby
 - Moves from thick to thin, determined by the gesture, which is in interplay with the instrument, media, and surface it is applied to. (varying)
- Lyrical- Les Fauves, Raoul, Duffy (Ease)
- Emphatic - Van Gogh , Emile Nolde (Tension)
- Flowering - Matisse (Airy, Lightness, Lines move effortlessly)
- Crabbed - George Groz (Short stroke, Controlled or crabbed tension)
- Meandering - Edouard Vuillard (meandering irregular movements contribute to atmospheric evocation)
- Encompassing - Maillol (circular lines move over the entire form rather than defining the edges)
- Symbolic
- Implied - Delineating Edge
- Boundary - Lines Formed By Edges
- Gesture- Quick strokes to capture an image quickly
- Actual

LINE

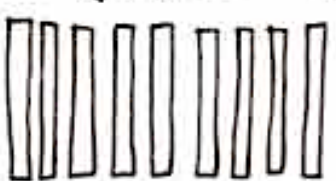
(linea)



BROKEN
(quebrado)



WAVY/CURLY
(ondulado)



VERTICAL
(vertical)



STRAIGHT
(derecho)



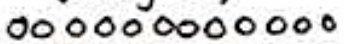
VARIED
(variadas)



THICK
(grueso)



THIN
(delgado)



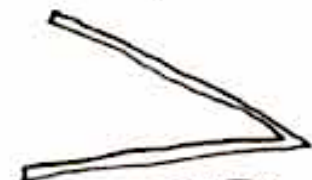
DOTTED
(linea de puntos)



ZIG-ZAG
JAGGED
(zig-zag)



DIAGONAL
(diagonal)



TAPERED
(termina en punta
conico)



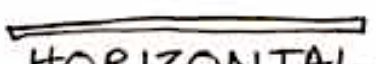
LONG (largo)



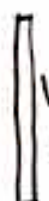
SHORT (corta)



CURVED
(curva)



HORIZONTAL
(horizontal)



VERTICAL
(vertical)



PERPENDICULAR
(perpendicular)



PARALLEL
(paralelas)



SPIRAL
(espiral)

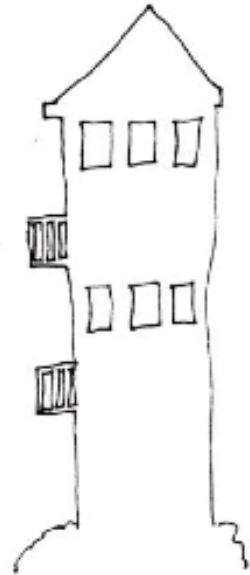
LINE

MORE ABOUT LINES...



Contour
(outline)

= The outer edge/line of an image, object or shape.



Lines can be used to show movement....



Lines can be used to show mood....



More words to describe lines....



M.C.Gillis

Texture

An Element of Art

TEXTURE: The actual and /or visual feel of a surface. Everything in nature and in the man-made environment has texture or pattern.

Tactile Texture

Every substance has tactile texture (which is the texture that is touchable).
Visual texture that which is seen but not felt.

Types of Texture

There are many textures: rough, smooth, soft, hard, shiny, dull, fuzzy, slippery, bumpy, these are only a few. Textures may be used to give emphasis and help give surfaces importance.

Texture is seen in the surface quality of the objects represented. It is inherent in the artists materials used. example) course chalk on rough paper. The artist's personality is seen in the manner of the work and rendered texture will vary with different personalities.

Perception of Multiple Units of Texture

We see similar things as making up a unit. The cornea of the eye records all leaves of a tree, but the mind groups all into units and identifies such units as wholes (closure).

Disciplined Texture

Pen and ink / silver point Albrecht Durer

Uniform Texture

Seurat - gestural lines are applied. These build together to create a uniform texture in values ranging from very dark to almost white

Freely Rendered Texture

Freely sketched lines with unstilted movements that seem to follow the artist's hand and eye in all directions. This uses many combinations of lines.

Texture as Gesture in a Rendering

Becomes the handwriting of each artist.

Three-Dimensional Work and Texture

Texture as expressed in sculpture is either natural or human made.

- Natural texture includes wood grain, found texture of stone and the like.
- Human-made texture is usually part of a planned design such as the overall structure of a surface, or the tool marks that remain. Though some textures may be visually exciting, they do not always affect the viewer's tactile (touch) reactions as they do vision. A good example is a smooth-finished stone with very active visual texture. The tactile sensations received from touching sculpture are one of the most important aspects of three-dimensional artwork.

TEXTURE



SMOOTH



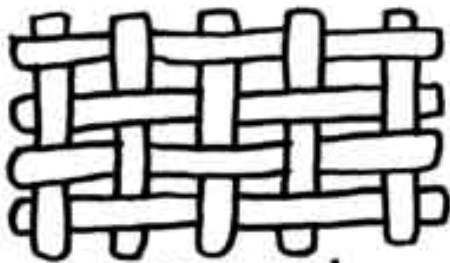
ROUGH



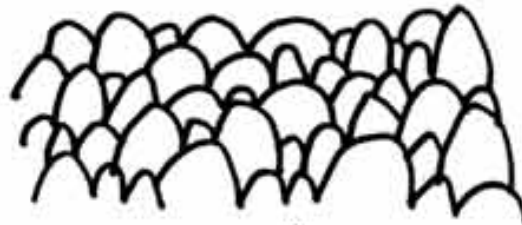
HARD



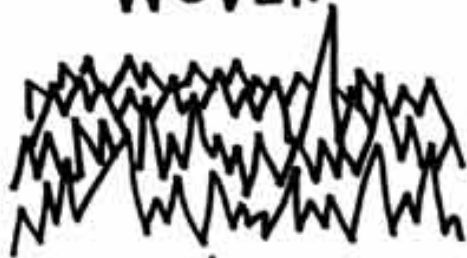
SOFT



WOVEN



BUMPY/LUMPY



JAGGED/IRREGULAR

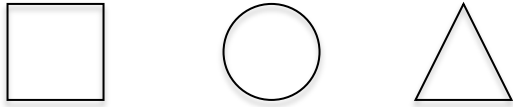


RIDGED

Shape

An Element of Art

SHAPE: Area, mass, form with a specific character and often defined by outline or contrast. All shapes in nature may be reduced to the square, circle, and triangle.



Variations of shapes can be geometric (above) or BIOMORPHIC (which means related to life or living organisms).



Shapes can be altered, changed, or combined to make other shapes. The edges of shapes can either be soft or hard.

Shape and Sculpture (3 - D)

The Shape of Sculpture is the total of its parts. Shape can be drawn in simple terms like an outline of the sculpture and yet it contains much more. It is the total volume. Shape is how the viewer sees the sculpture, the masses of media and yet the penetrations of space through and about the work. It becomes the form that light and dark patterns are demonstrated upon. The easiest shape we recognize is the human shape.

FORM: The illusion of a 3-dimensional object on a flat surface. Sometimes referred to as form & value.

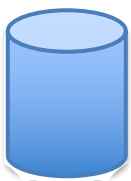
The external shape or appearance of a representation, considered apart from its color or material. This may include sculpture or 3 - d forms and the illusion of 3-d form on a two-dimensional plane. Forms may be geometric, biomorphic, or representational.

3-D Forms have extension in every direction in space: height, width, and depth.

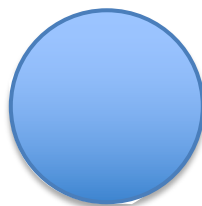
Forms can express feeling or emotion. Form can be regular or irregular. Symmetrically regular forms suggest unity, safety, and inner strength. Irregular shapes and form are more active. Form can be solid or airy.

Five Basic Forms

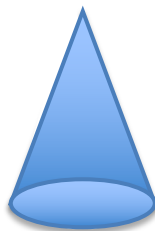
Cylinder



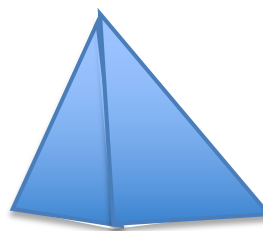
Sphere



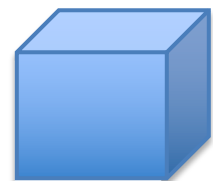
Cone



Pyramid



Cube



SHAPE AND FORM

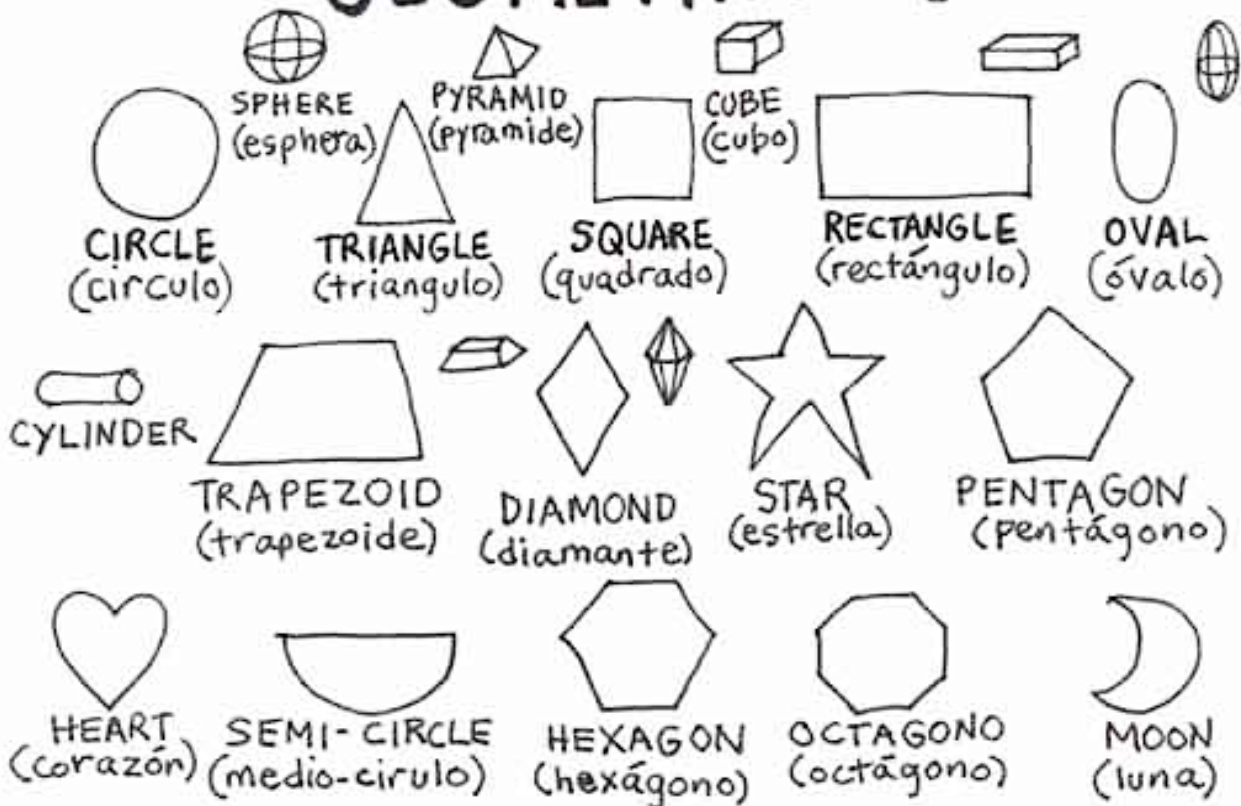
(forma y forma)



LARGE (largo)
and (y)

□ SMALL (pequeño)

GEOMETRIC (geométrica)



ORGANIC / FREE FORM / NATURAL

(orgánico)

(forma libre)

(natural)



Value

An Element of Art

VALUE: Lightness or darkness of an object, caused by the presence or absence of light.

- The relationships between light and dark.
 - The lightest value that we see is white.
 - The darkest value that we see is black.
 - The strongest contrast in art is caused by black/white.

- Artists use values to make contrasts. Contrast adds depth to a work of art. Without value contrast the work would appear flat.
 - Types of contrast are:
 1. High keyed contrast - (light values): works with lots of white and light values. Examples: bright, sunny day, snow. This suggests the dramatic.

 2. Low keyed contrast - (dark values): works with lots of black and dark values. Examples: gloomy day, dusk, night. These create a more even mood.

 3. Value contrast - adds depth to a work of art. Without value contrast the work will appear flat.

Value & Three-Dimensional Works

Value refers to the light and dark areas of sculpture demonstrated by the shadows or lack of them caused by the planes, textures, and shape of the work. Since many sculptures are monochromatic (one color), value is necessary to demonstrate the form. Lighter surfaces allow the greatest use of value since the shadows show up much better, while darker surfaces hide the more minute detail.

Value Vocabulary

- Continuous tone drawing - even usage of pencil values, no presence of line
- Gradation - a gradual change in value, from light to dark or dark to light.
- Achromatic colors - colors on the gray scale that have no hue, or color.
- Cross-hatching - a system for building up tones or values by using a series of lines at various angles.
- Hatching - one stroke drawing, lines do not intersect.
- Value - lightness or darkness of a color.
- Tone - the general effect due to the harmonious combination of light and shade.
- Shade - the value formed by the addition of black to a hue.
- Highlight - the lightest spot or area in a drawing or painting, which is produced by the reflection of the source of light. It usually occurs on the crest of a smooth or shiny surface. It is a reflection of light source.
- Light - light source
- Shadow - opposite of light
- Reflected light -
- Cast shadow - light cannot pass through objects. We are actually seeing the light around an object. The higher the light source the shorter the shadow. The shadow will tell you what time of day it is.
- Rule of simultaneous contrast - lights look lighter next to darks, and darks look darker next to lights. This creates interest or emphasis.

Value Scale

A step-by-step range from light to dark. Most people can see between 30 and 40 different values.



When working with a pencil, we create the value (light & dark) by changing the amount of pressure and the angle of the pencil.

Chiaroscuro and Form


- Clearly defined areas of light and shadow, reflected light and cast shadow.
- Reflected light - light cast back into the shade area by surrounding surfaces, which illuminates the movement of form within the shadow.
- Cast shadow - the shadow thrown by a solid object upon a nearby plane
- Core of darkness - establishes the division between the light and shade

VALUE

IS THE RANGE OF LIGHT TO DARK.

VALUE CHANGES WITH BLACK + WHITE

A VALUE SCALE SHOWS THE CHANGE OF LIGHT TO DARK.



THIS IS A PENCIL VALUE SCALE.

VALUE CHANGES WITH COLOR

TINTING WITH COLOR

TO A LITTLE BIT OF COLOR, ADD INCREASING AMOUNTS OF WHITE TO CHANGE THE VALUE.

SHADING WITH COLOR

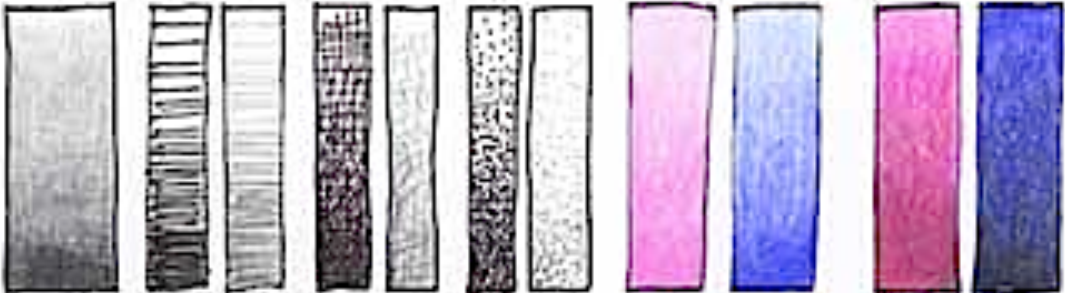
TO A LIGHT OR MEDIUM COLOR, ADD BLACK OR A DARK COLOR, A LITTLE AT A TIME, TO CHANGE THE VALUE.

[THESE ARE BLENDING TECHNIQUES.]

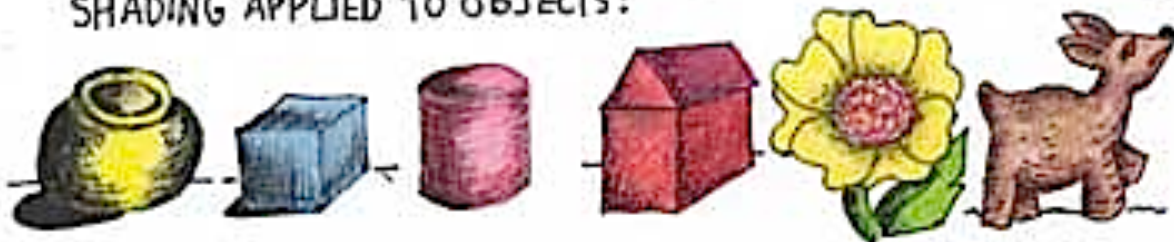
THE PENCIL SHADING WITH LINES [THESE ARE LINE TECHNIQUES.]

THE PENCIL SHADING WITH CROSS-HATCHING


THE PENCIL SHADING WITH STIPPLING



SHADING APPLIED TO OBJECTS:



CONTRAST = TO SHOW UNLIKENESS (SOMETHING DIFFERENT, OPPOSITE, OR DISSIMILAR)



LIGHT AGAINST DARK (BLACK + WHITE)

LIGHT AGAINST DARK (COLOR)

PATTERN AGAINST NO PATTERN (BLACK + WHITE)

PATTERN AGAINST NO PATTERN (COLOR)

Background is detailed, busy, active space.

Subject, bird, is peaceful, uncluttered, simple space.

DETAILED AGAINST UNDETAILED SPACE

I WILL LOOK FOR VALUE AND CONTRAST, BOTH NATURAL AND MAN-MADE, IN MY ENVIRONMENT.

Space

An Element of Art

SPACE: Indicates areas in a drawing (positive and negative) and /or the feeling of depth in two-dimensional works of art.

Two-Dimensional Space

The picture plane

The surface on which an artist works.

Flat Space

- When flat shapes touch each other on the picture plane, the space seems compressed and a flatness is felt, because no depth is experienced.
- Outlined shapes tend to appear flat when there are no shadows or when no shading appears on the shapes.
- Flatness is produced by closely related values, colors, and pattern
- When values (darks and lights) are closely related, space appears to be flattened.
- Closely related colors (all containing one common color) will appear to be flat.
- A picture plane covered with pattern eliminates a feeling of depth. Repeating shapes, lines, or colors in a regular system develops a strong two-dimensional feeling.

The Illusion of Depth in Art

- Overlapping flat shapes produces a feeling of depth (the third dimension)
- Size variation also shows depth.
- Objects of similar size appear smaller when they are farther away.
- Objects closer to us will overlap some that are farther away.
- Closer objects and surfaces are more detailed and defined than those farther away.
- Objects and shapes placed higher on the picture plane seem farther away.

Deep Space

The depth or shallowness of a space is relative. You can see depth when objects of a known size, such as mountains, seem tiny in the distance. The smaller an object appears, the deeper the space. Often objects of a known size seen in the foreground help to create the illusion of deep space because they give a sense of scale to the total scene.

Perspective (Ways to Create Space in a Work of Art)

Foreground, Middle Ground, Background

Objects in the foreground appear larger because they are closer and they usually are located at the bottom of the picture plane. Objects in the middle ground appear a little smaller because they are further away. Objects in the background are much, much smaller and are usually located near the top of the picture plane.

Linear perspective

The art of delineating solid objects upon a plane surface so as to produce the same impression of relative positions and magnitudes or of distance as the actual objects do when viewed from a particular viewpoint. It shows three-dimensional space on a two-dimensional surface, and uses lines to show depth.

- Baroque artists:
 - Correggio
 - Tiepolo
 - Reubens
- Mannerist painters
 - Parmigianino
 - Tintoretto
 - El Greco

One Point Perspective

- Linear perspective was devised during the renaissance and used to give the appearance of depth through receding line. Renaissance artists discovered that when parallel straight lines move away from the observer, they seem to converge at a point in the distance called the vanishing point. The vanishing point is the place where objects seem to disappear. An example of this is train tracks.
- In one point perspective there is only one vanishing point and only one side of an object is being drawn parallel to the picture plane.

Two Point Perspective

- This type of perspective deals with objects sitting at odd angles with the viewer's eye. The receding parallel lines seem to converge at two points set far apart. Boxes or city buildings are examples of this type of perspective.
- In two-point perspective there are two vanishing points and the edge of an object is parallel to the vertical side of the picture plane.

Three Point Perspective

In three point perspective there are three vanishing points.

Aerial Perspective

- Based on 2 observations:
 1. Air is not completely transparent and a thin ever-increasing layer of obscuring atmosphere gradually comes between the seen objects and the viewer.
 2. As objects go into the far distance and appear to become smaller, the eye gradually fails to perceive individual forms and the separate facets of light and dark that makes up individual forms.
- In aerial perspective values blend together and cancel out one another, leaving a general prevailing middle value, which in turn, is further obscured by the intervening layer of light-colored air to become a medium light value.
 - Forms blur and become less distinct
 - Values and colors loose their intensity
 - Texture becomes less evident

Point of View

Conventional spatial relationships change as your angle or point of view changes. This can produce dramatic or provocative spatial effects.

- Birds eye view
Looking at an object from above. The size of the object's appearance depends on the distance between the object and the viewer.

- Ants eye view
Looking at an object from below. Objects will appear very large.

- Child's eye view
Looking up at objects, seeing the underside of objects.

Isometric Perspective

Objects do not get smaller as they recede into space.

Tiered Space

Levels of action placed one on top of another like the Egyptians did.

Horizon Line or Eye-Level Line

An imaginary line that represents the level of the observer's eye. The curve of the earth obscures what is beyond this imaginary line.

Vanishing Point

The point on the horizon line at which parallel lines seem to converge. Located on the horizon line or eye-level line.

Using the 8 Rules of Perspective

- 1 Diminution: (Diminishing sizes) objects appear to diminish in size as they become more distant. This gives the illusion of depth.
- 2 Overlapping Forms: Objects close to the viewer look as though they overlap and obscure more distant objects when they are in the same trajectory of vision. This makes the overlapping (front object) appear closer to the viewer.
- 3 Foreshortening and Convergence: Parallel lines such as a wall or road appear to converge as they become more distant.
- 4 Detail and Focus: Distant objects appear less distinct. Objects, which are extremely far away from the viewer often, appear out of focus.
- 5 Value: Distant objects appear lighter in value.
- 6 Intensity of Color: The colors in distant objects will appear grayer or lower in intensity.
- 7 Color Temperature: Distant objects will appear cooler than those, which are closer to the viewer.
- 8 Position and Placement: A distant object that is on the same level with other objects is usually placed higher on the picture plane. This does not apply with various surface elevations. (Hills, valleys, or objects in the sky)

Three-Dimensional Space

Three-dimensional space adds depth to the concepts of height and width. It includes solidity, volume and mass. We are not only concerned with the object we create or view. We should also be concerned with its surrounding or negative space. Space often evokes a sense of depth. Good sculpture demands space, an area about the sculpture that belongs to it that it cannot do without.

- Space - the immediate area around the sculpture that is not a mass
- Space flows through things:
- Holes in forms connect one side of the form with the other side of the form. A balanced relationship develops: space invades the form and the form occupies its surrounding space.

Shallow Space:

Low relief - illusionary space. Like deep space shallow space is relative. We can often identify shallow spaces because of the shadows that are cast in them. When the light changes the sense of space might disappear and then the surface would tend to become flat.

- Protrusions above any surface into the surrounding shallow space produces a roughness, or texture, that can be felt.
- Depressions into any surface allow space to enter the surface; they also produce texture.

Congested Space

Space that is filled with something. Lack of openness - the fullness of the enclosed area. Getting very close to some things may give you a sense of congestion. Artists may capture the sense of congestion by actually showing congested situations or by using colors, shapes, and lines in abstract or even non- objective ways, which suggest congestion.

Inside Space

Space is also inside things. When we look into things, many times we cannot see the inner details because the space inside looks dark or even black. This is because the light has not reached the interior space and it appears dark by contrast with the outside form. Shadows help to define the inside space curved shadows indicate a round form straight edged shadows indicate a linear form

The Effect of Light on Space

- Light is necessary for three-dimensional space to be seen correctly. If light is not present or is diffused or filtered, depth may be flattened or nonexistent. Awareness in the changes in value makes drawing and painting interior space more understandable and easier. You can see three-dimensional space most accurately when the light source (sun or light bulbs) is above or to the side of an object.
- Objects throw shadows (cast shadows) that will help our eyes to read the depth and space.
- Back lighting occurs when the light source is behind the object and shining at us. Back lighting tends to flatten the object.
 - Less light tends to flatten objects and space.
 - Diffused light tends to create a flatter look.
 - Shadows and space
 - Insufficient light flattens space.
 - Abundant light emphasizes space.
 - Cast shadows are caused by bright light.
 - Bright light causes objects in its path to cast shadows, our eyes read the results between objects and shadows.
 - Shadows make things appear three-dimensional and give them form. We sense texture and shallow relief because of shadows.
 - The amount of light between an object and its shadow will determine the sharpness or fuzziness of the shadow.

Subjective Space

Our eyes see what is actually in front of us, but if we also use our imagination and emotions, we can surpass the best camera lens in our ability to detect space.

Cubism redesigned space:

Pablo Picasso

George Braque

Juan Grips

These artists believed that painting was not intended to imitate nature and the space on their canvasses did not have to appear like actual space in nature. They flattened space, fractured forms, experimented with color, added lines where none existed and generally reshaped nature.

Ambiguous Space

- Artists who depict ambiguous space show space that is not what it appears to be.
- Reflections, mirrors, distorted glass and metal show ambiguous space.
- Contemporary artists deceive the eye with line, shape and color causing us to question whether the space is flat or dimensional. Renee Magritte, Op artists

Figure-Ground Interdependence

- It is difficult to see things in isolation from their surroundings. Whatever the focus of attention may be, we see it usually only within the context of a larger field of vision. In design, we make an arbitrary definition of the field.
- In two-dimensional design, the field may be defined by a sheet of paper or a field marked out on the sheet, or it may be defined by a canvas on a stretcher.
- It may also be defined by the size and shape limitations of any number of other materials.
- The field of action, or ground, must be considered to be important in the conception of the whole.
- Any action determined by an introduction of figure to ground creates an important point of emphasis, but it must be always viewed as part of the whole.
- The figure can have no independent existence apart from the ground.
- An understanding of the interdependence of figure and ground is an important first step in understanding the process of perception.
 - Frame of Reference,
 - Picture Plane or Ground
 - Negative Space
 - Positive Space,
 - Figure

SPACE



CONSIDER COMPOSITION



DRAW BIG



FILL THE WHOLE PAPER



LINES OFF THE PAPER



PLACEMENT IN RELATION TO HORIZON



**SMALLER IN DISTANCE
LARGER CLOSER UP**



**DARKER CLOSER UP
LIGHTER FARTHER AWAY**



OVERLAPPING



**FOREGROUND
(near space)**



**MID GROUND
(middle space)**



**BACKGROUND
(far space)**



POSITIVE SPACE
the objects or subject in the work of art, not the space around them



NEGATIVE SPACE
the "empty" space around the subject or objects

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Color

An Element of Art

COLOR: One of the most exciting aspects of our environment. It appeals directly to our senses and emotions and is universal in appreciation. It identifies natural and manufactured things in our environment as being red, yellow, blue, orange, etc.

- Neutral Color: A color not associated with a hue - (Black, White, Gray)
- Hue: The common name for a color in or related to the color spectrum. Another word for color.
- Primary Color: Red, Yellow, Blue - Pure color - All other colors are made through the combination of two or more primaries.
- Secondary Color: Orange, Green, Violet. These are made by mixing two primaries.
- Tertiary or Intermediate Color: Made by mixing one primary color and one secondary color together. Red-orange, Red-violet, Blue-green, Blue-violet, Yellow-orange, Yellow-green.
- Value in Color: The darkness or lightness of a surface. Value depends on how much light a surface reflects.
 - Tint: Light values of pure color. Can be made by the addition of white to a color,
 - Shade: Dark values of a color. Can be made by the addition of black to a color.
- Chroma: The intensity of a color - The brightness of a hue.
- Intensity: The brightness or dullness of a hue.
 - Pure Hue - is called high intensity color
 - Dulled Hue - is called low intensity color. Best achieved by mixing a color with its
 - compliment.
- Complimentary Color: Colors which are directly opposite of one another on the color wheel.
 - Red - Green
 - Blue - Orange
 - Yellow - Purple
 - When compliments are mixed together, they make a neutral brown or gray.
 - When they are used next to each other they create strong contrasts.
 - Looking at a color for a long period of time creates after-image sensation in the eye and brain, and they appear as complimentary colors.

- Color Spectrum: Band of colors produced when light shines through a prism. The prism separates the light into different wavelengths. Visible colors are always seen in the same order, from the longest wavelength to the shortest: Red, Orange, Yellow, Green, Blue, and Violet. A rainbow displays the color spectrum. A color wheel shows the spectrum arranged in a circle.
- Color Wheel: Circular chart (sometimes) of colors of the visible spectrum. Commonly used to remember color relationships when working with pigments
- Warm Colors: Red, Orange, Yellow. They are so called because they are often associated with the sun and remind people of warm places, people, and things. They have the longest wavelengths in the color spectrum. They also seem to advance or come forward as you look at them.
- Cool Colors: Blue, Violet, Green. They are so called because they remind people of cooler places, things or feelings. They also appear to recede.
- Warm vs. Cool: Warm colors advance & cool colors recede.
- Rule of Simultaneous Contrast: Deals with the contrast of related hues. For example, in a monochromatic color scheme of Blue - some of the colors will appear warmer and advance, while others will appear cooler and receding. The same is true for any other color scheme: warm, cool, analogous, etc.
- Analogous Color: Colors that are closely related because they have one hue in common. They appear next to each other on the color wheel. You might even think of them as a color family. Ex. Blue, Blue-violet, Violet.
- Split Complimentary Color: A color scheme based on one hue and the hues on each side of its complement on the color wheel. Ex. Orange, blue-violet, blue-green.
- Triadic Harmonies: Primary, Secondary, Tertiary colors - which are located equal distances apart on the color wheel.
- Monochromatic: Made of only one color or hue and its tints and shades.
- Polychromatic: All or many colors.
- Earth Colors: Colors associated with the earth or natural world.
- Achromatic: Free of Color.
- Chromatic: Having Color
- High Key Effects: Painting with many light or bright colors. It could have many tints, sometimes a single color, but not always.
- Low Key Effects: Painting with many dark colors.
- Transparent Effects: Allowing light to pass through so that the underlying layers on the surface can be clearly seen. Watercolor, Acrylic Glazes.

- Translucent Color: Allowing light to pass through so that the exact colors and details of underlying layers cannot be seen clearly, but they can be vaguely seen. Glaze, thin layers of paint.
- Opaque: Not allowing light to pass through. You cannot see through an object that is opaque.
- Impasto: Very thick textured layer of paint.
- Harmonic: The placement of color or elements of a composition in a way that is pleasing to the eye.
- Chiaroscuro (Key - AH - ro SKUH - ro): An Italian word meaning light and shadow. In 2-D art it is the gradual or sharp contrasts which make something look 3-D. It is also called modeling or shading.
- Trompe l'oeil (trump l'oy): French for "fool the eye" or "trick they eye". A term for painting in which objects look so 3-D that the viewer may wonder if the image is a painting or a real object.

Color Scheme: Plan for selecting and organizing color. Common color schemes might include:

- Warm
- Cool
- Neutral
- Earth
- Monochromatic
- Analogous
- Complimentary
- Split-Complimentary
- Triadic
- Primary
- Secondary

Optical Color: Color seen by the viewer due to the effect of atmospheric or unusual light on the actual color. Successive, Simultaneous, Color Constancy (afterimage).

Arbitrary Color: Color chosen by the artist to stand for an idea or express an idea.

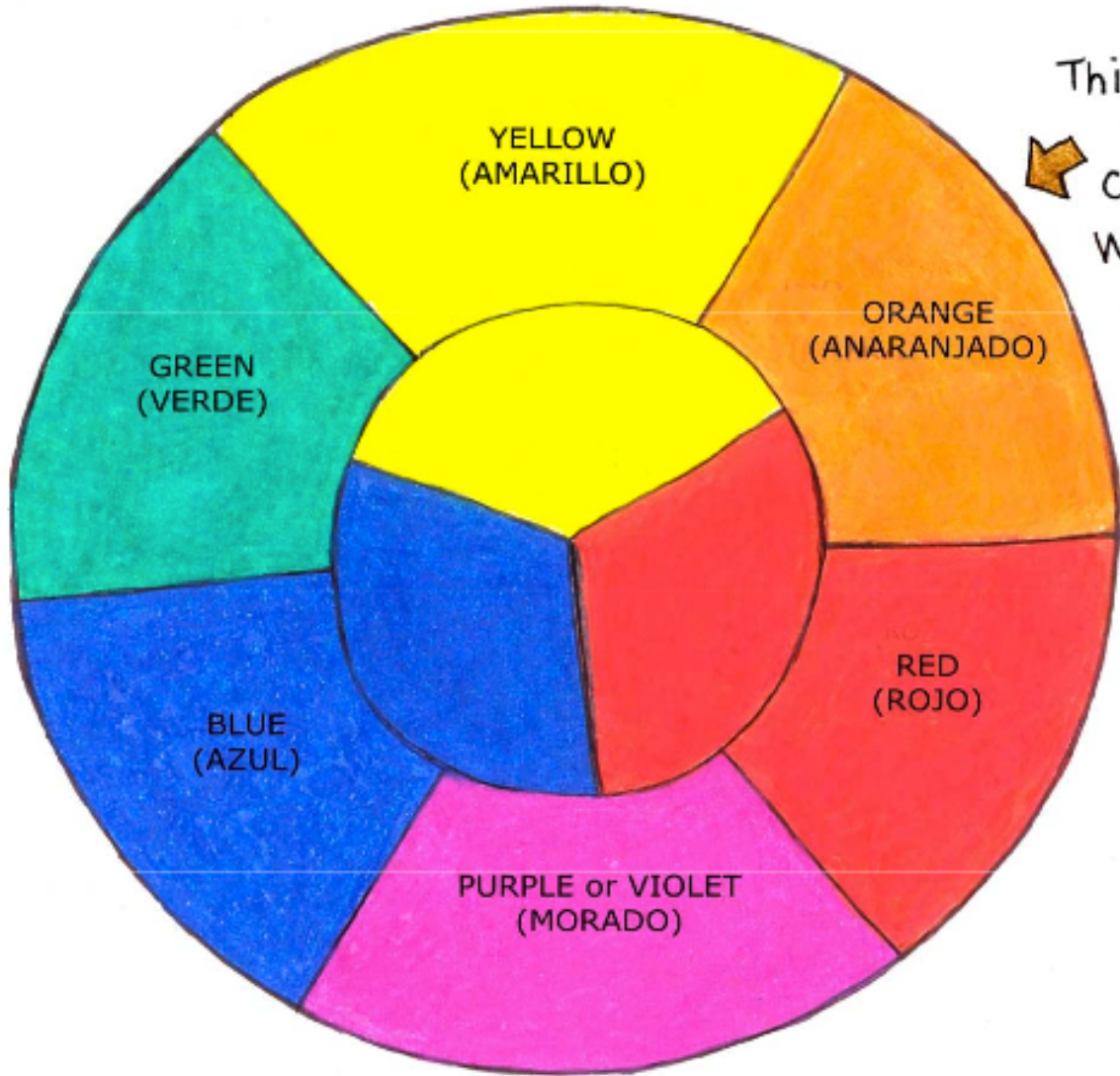
Decorative Color: Color, which is chosen to fit a purpose. For daily living these may be chosen to give a restful background.

Impressionistic Color: Looks like shimmering light, usually no black is used.

Color in Sculpture

Color in sculpture usually is a natural aspect of the medium, such as a natural wood colors or clay colors. Sculpture takes up real space; so human-made color is not a necessity as it is with illusionary painting. Sculptors will often intermix media of different hues to create color, rather than resort to paint. Some sculptors add surface color to enhance a medium such as ceramics or steel. Caution must be exercised, however, so the natural beauty of the media is not destroyed.

COLOR



This is a color wheel, a simple one.

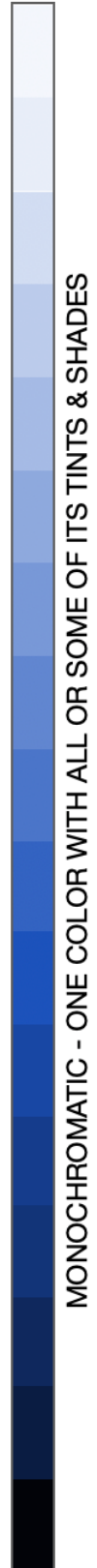
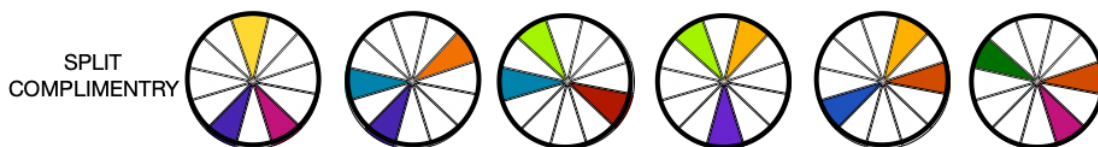
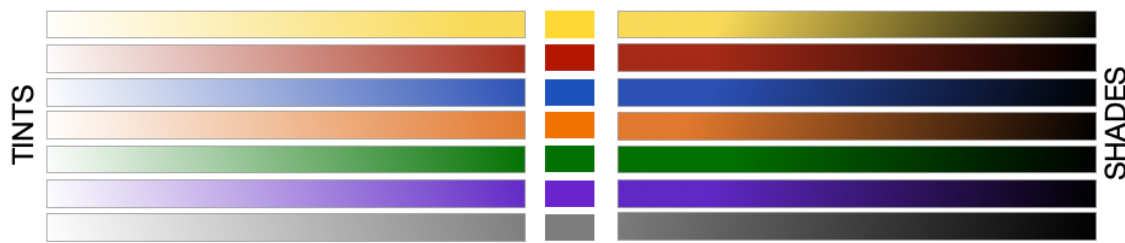
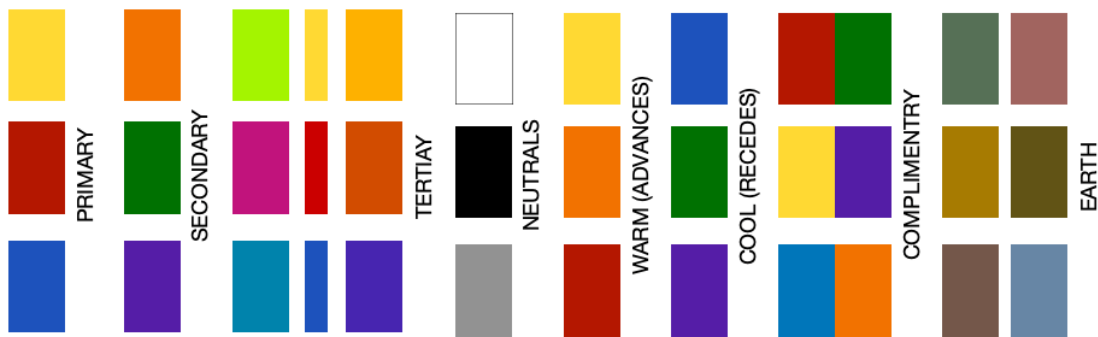
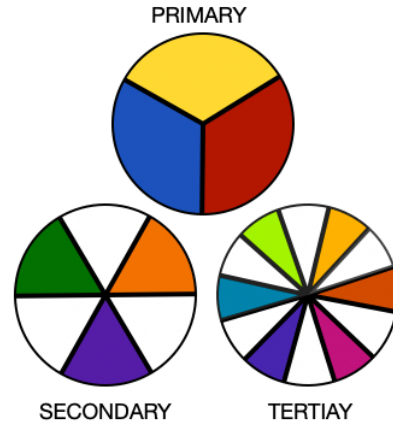
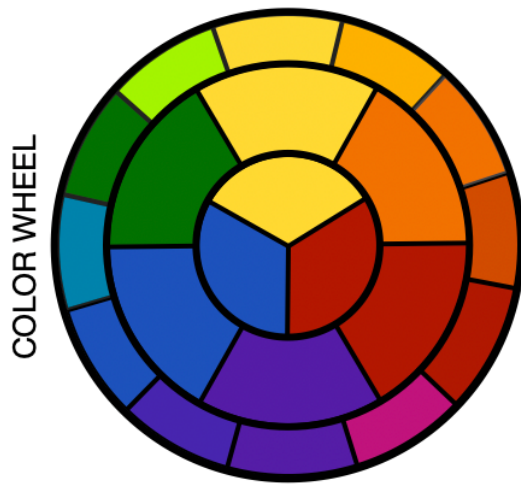
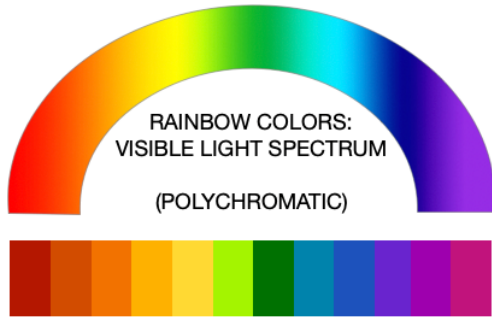
COLOR SCHEMES (PLANS)

are ways I can use color to improve my art work.

- PRIMARY  RAINBOW 
- SECONDARY  WARM  COOL 
- COMPLIMENTARY  NEUTRAL 

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LEARNING ABOUT COLOR



Principles of Art

- Balance: Refers to the equalization of elements in a work of art.
-There are three kinds of balance:
 1. symmetrical- formal, divided in half same
 2. asymmetrical- informal, divided in half not same
 3. radial- circular, design starts from center > out
- Unity/Harmony: Relates to the sense of oneness, wholeness, or order in a work of art. Combining similar colors, shapes, lines, textures, and patterns in an artwork can create harmony.
- Movement: Refers to the arrangement of parts in a work of art to create a slow to fast action of the eye.
- Rhythm: It is a type of movement in an artwork or design often created by repeated objects.
-There are different types of rhythm:
 1. Regular- Example: 9s9s9s9s9s9
 2. Irregular- Example: qqeeqqeeyy
- Emphasis: refers to placing greater attention to certain areas or objects in a piece of work.
-Emphasis can be created through sudden and abrupt changes in opposing elements.
(Example: bright yellow dot in large black area)
- Pattern: is created by repetition of (not limited to) shape, line, color, or texture
- Variety: It is achieved through diversity and change. Using different line types, colors, textures, shapes.
- Contrast: Refers to the difference in value, colors, textures, shapes and other elements. Contrast creates visual excitement and adds interest to the artwork.

Principles of Art

Pattern

Repetition of the elements of art



Emphasis

Focus - Main idea
What "grabs" your attention



Variety

An assortment of lines, shapes, colors and other elements of art in the art work



Unity

How the elements work together, fit together, so the art work looks complete



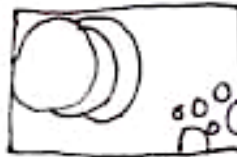
Balance

Symmetrical



same design on both sides of a midline.

Asymmetrical



A balance that is not even

Radial



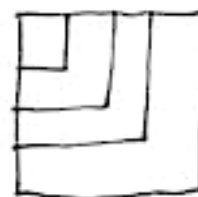
Rhythm & Movement

A regular repetition of the elements of art to create a sense of rhythm and/or movement



Proportion

How parts fit together to make a whole - Size relations
(Includes scale, monumental, miniature, exaggeration...)



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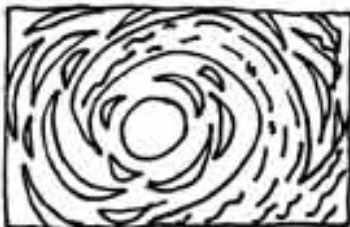
RHYTHM



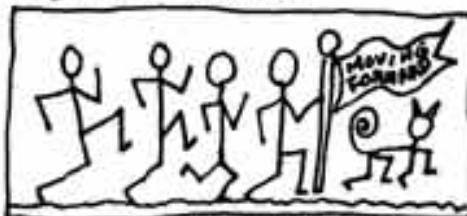
A REGULAR REPITITION OF THE ELEMENTS OF ART CAN
CREATE A SENSE OF MOVEMENT/RHYTHM.



Trees blowing in the wind...



Non-objective design...



People marching...



The day has a rhythm to it.
Sunrise... sunset...
Sunrise... sunset...



The city has a rhythm.

RHYTHM
IS
ALL
AROUND
US.



The ticking of a clock
is rhythm.

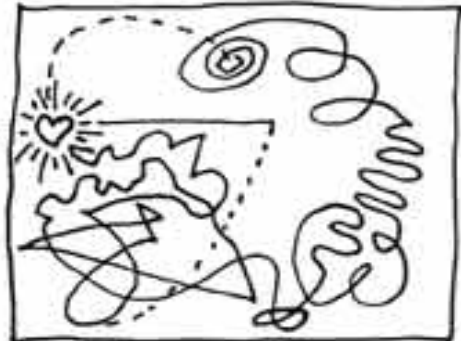
EMPHASIS

FOCUS-MAIN IDEA-WHAT "GRABS" MY ATTENTION?

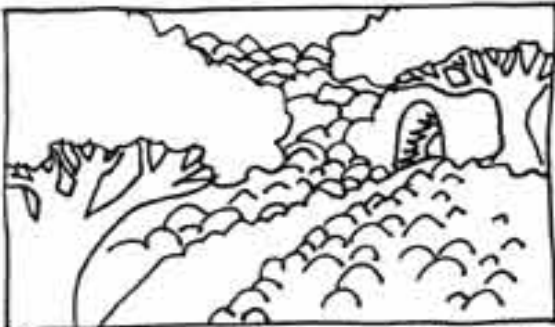


A beautiful flower growing in a grey, dismal setting.

It can be to make a point or for a message. It can simply be used as a design element.



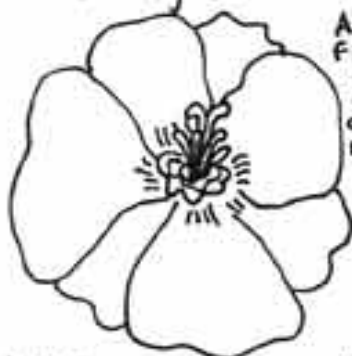
A non-objective design.



The light at the end of a tunnel



A house that stands out from the rest



A flower with more detail in the center draws our eyes to the center.



Shiny, bright things like jewelry attract our attention.

LOUD NOISE DRAWS OUR ATTENTION.

PEACE!!!



Big Lettering draws our focus. Fast movement in a still setting grabs our attention.



I will notice what "grabs" my attention in my day to day travels.

PATTERN

IS THE REPETITION OF THE ELEMENTS OF ART OR ANYTHING ELSE.

PATTERNS OF LINES



PATTERNS OF SHAPES

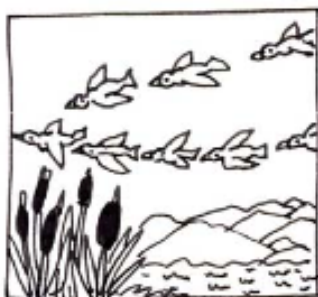


Non-objective Design Portrait Landscape Leopard City

PATTERNS OF COLOR



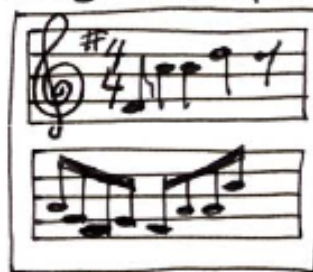
Rainbow Flower Butterfly Clothing Wall Paper



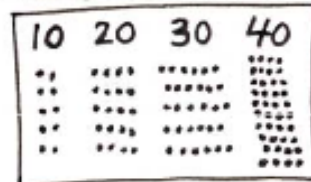
Birds flying in formation are a pattern.



Cars stopped in traffic makes a pattern.



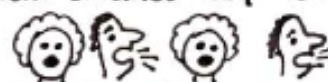
Music has patterns.



Mathematics has patterns.



Jumping jacks are a pattern.



Inhale, exhale. Inhale, exhale. Breathing is a pattern.

PATTERN IS EVERYWHERE!

PATTERN



If I look carefully, patterns I see.
 Man-made, in nature, and patterns in me.
 Pattern is a principle... a principle of art.
 I see it, say it, use it. Yes, I am art smart.



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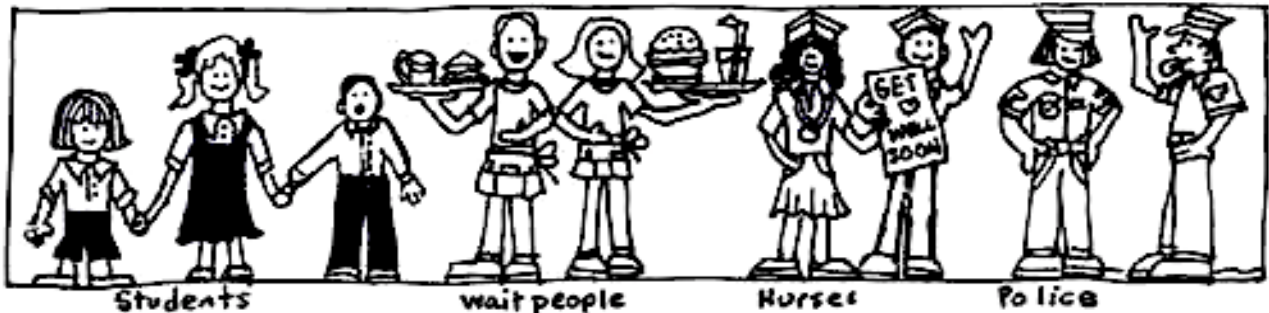
UNITY

UNITY SHOWS WHAT THINGS HAVE IN COMMON, HOW THEY ARE ALIKE.

UNITY IS THE THING THAT JOINS THE PARTS TOGETHER.

SAMENESS... ONENESS...

Uniforms show we are joined as a team.



In art, the elements work together, fit together, in the artwork so it looks complete (some art looks more unified than other art).



Tints (white added)



Analogous colors (neighbors on the color wheel)



Shapes unify.

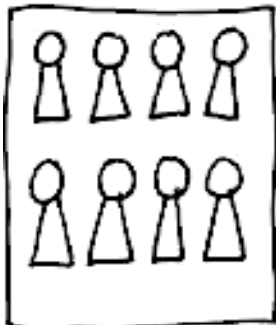


Line unifies.



Black line unifies.

Repetition of line, shape or color can unify an image.



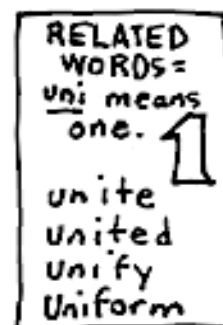
Uniform - united by size and shape



Not uniform - a variety of size and shape.



When people join hands and unite, they become stronger.



RELATED WORDS =
uni means one. 1

unite
united
unify
uniform



White line unifies

M.C. Gillis

VARIETY

IS A NUMBER OF DIFFERENT TYPES OF THINGS.

VARIETY SHOWS CONTRAST.

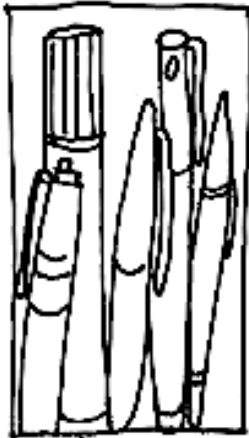
THERE IS NO END TO THE VARIETY IN NATURE AND MAN-MADE THINGS.



A variety of people



A variety of insects



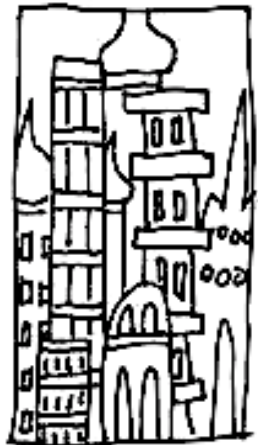
A variety of pens



A variety of flowers

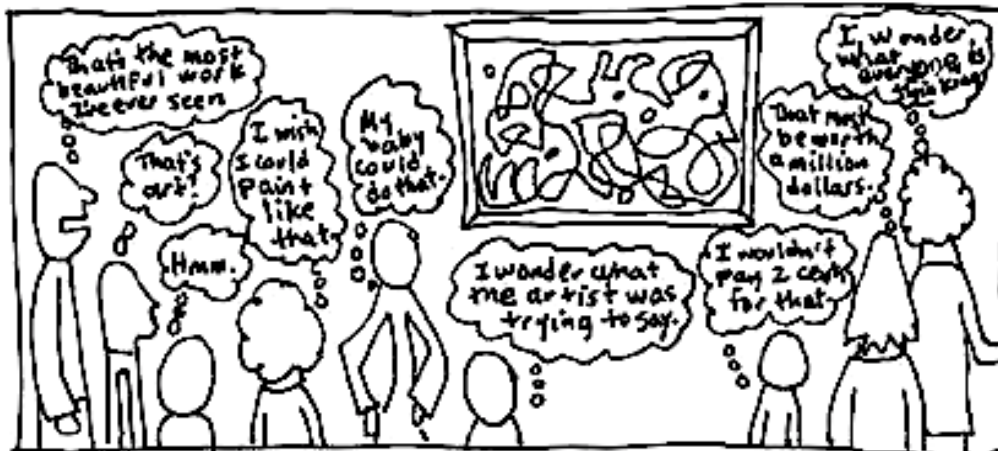


A variety of emotions



A variety of buildings

People can have variety of ideas about the same thing.



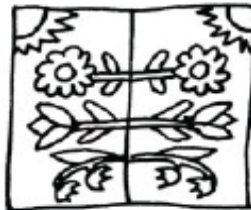
I will notice the limitless variety all around me.



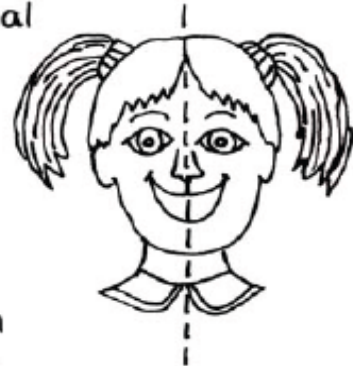
BALANCE

Symmetrical

I create symmetrical balance when I evenly.



place images on both sides of a mid-line.



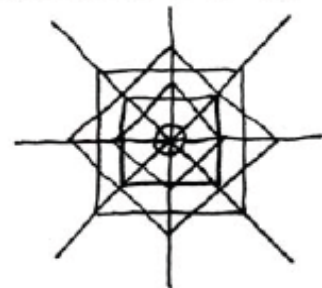
Asymmetrical



I create asymmetrical balance when I balance by size and weight and variety of images, but not evenly from the mid-line.



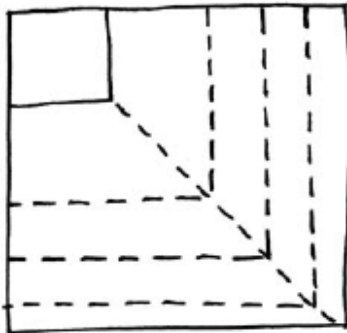
Radial



I create radial balance when I repeat shapes and images evenly from the center outward.

PROPORTION

Proportion is the size relationship between two or more objects.
It can be how the parts fit together to make a whole.



Scale



Proportions of the head

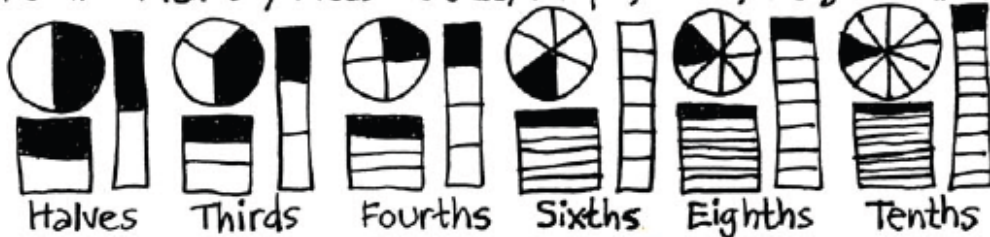


Exaggeration

A change in proportion can change the way we look at things.
Accurate proportions are used more when creating realistic images.
Distorted proportions are used more for cartoons and imaginary images.



I approximate and think about volume when I work with proportions.
It's math. I mentally measure size, shape, mass, weight and volume.



Halves

Thirds

Fourths

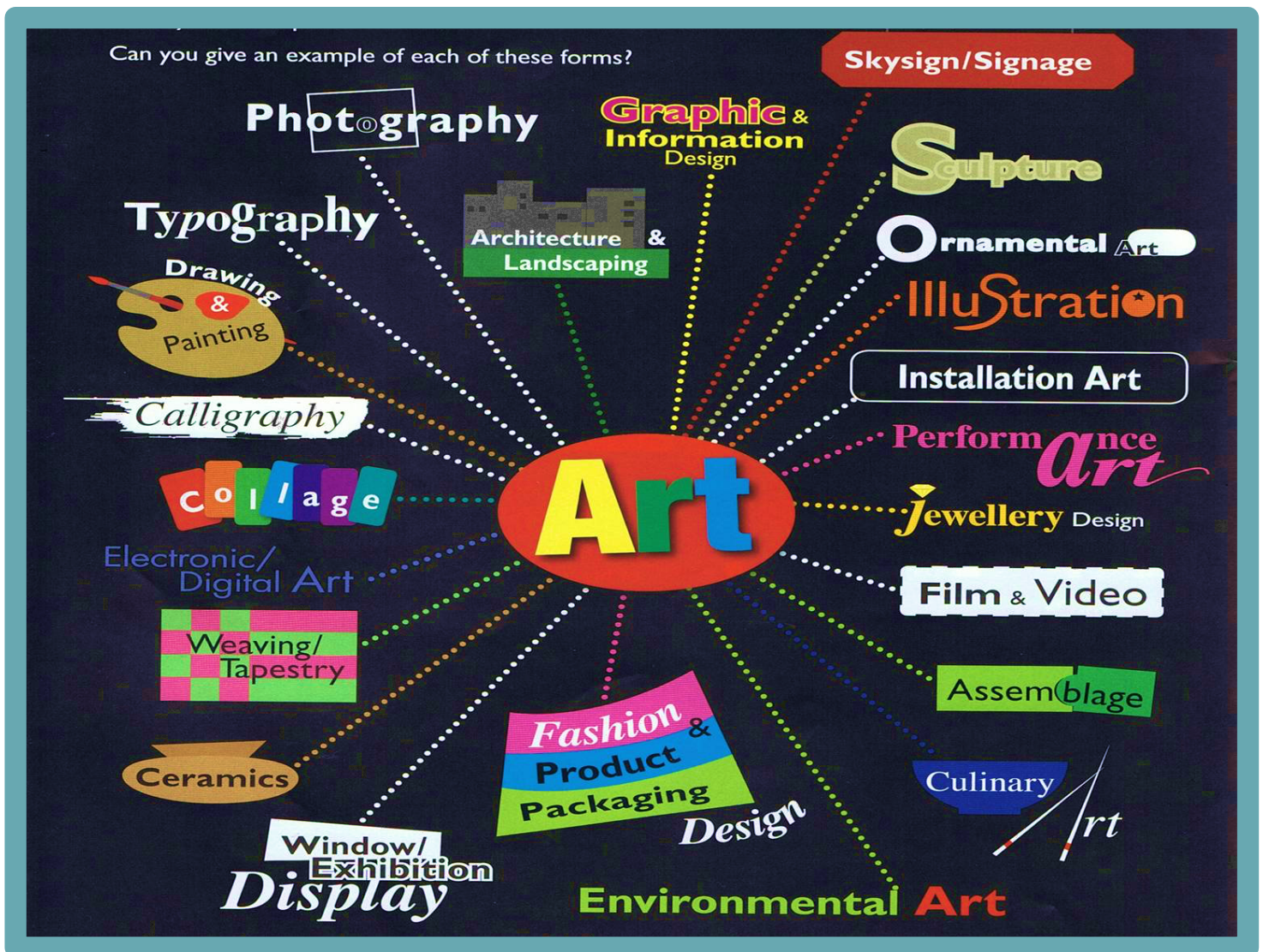
Sixths

Eighths

Tenths

TYPES OF ART

& ART TERMS



ABSTRACT OR NON-REPRESENTATIONAL WORKS OF ART: Not realistic, though the intention is often based on an actual subject, place, or feeling. Pure abstraction can be interpreted as any art in which the depiction of real objects has been entirely discarded and whose aesthetic content is expressed in a formal pattern or structure of shapes, lines and colors. When the representation of real objects is completely absent, such art may be called non-objective.

ASSEMBLAGE: The technique of creating a sculpture by joining together individual pieces or segments, sometimes “found” objects that originally served another purpose.

BIOMORPHIC ARTWORK: is art that, while remaining abstract, evokes the form and shape of natural and living organisms. The term was first used relating to art in the mid-1930s and has been connected with Surrealism and Cubism. Antoni Gaudí’s Sagrada Familia is an example of architecture that has been characterized as biomorphic.

BRUSHWORK: This term refers to the way a painter applies paint to a surface with a brush. Brushwork is typically characterized by the size, texture, and precision of the strokes. For instance, brushwork may be described as “tight” or “loose” depending on how visible they are to the naked eye.

CERAMIC: Clay objects that have been fired twice, the second time with a glaze.

CHARISCURO: Italian for “light-dark,” chiaroscuro is the use of strong contrasts between luminosity and shadow to achieve a sense of volume and dimensionality. This unique technique was developed during the Italian Renaissance by Leonard da Vinci, the Baroque period by Caravaggio, and the Dutch Golden Age by Rembrandt.

COLLAGE: The technique of creating a pictorial composition in two dimensions or very low relief by gluing paper, fabrics or any natural or manufactured material to a canvas or panel. Collage evolved our use of papiers colles (a French term for pieces of paper glued together). It was a 19th century “art recreation” in which decorative designs were made with pasted pieces of colored paper and adapted to the fine arts about 1912-1913 when Picasso and Braque began to incorporate into their Cubist paintings a wide variety of prosaic materials.

COMPOSITION: Composition is the structural design of a work whose basic consideration is a sense of symmetry or balance of parts. Good composition will guide your eye through the use of elements, line, color, etc., to various parts of a painting and will return your eyes to the starting point.

COMPUTER GENERATED ART: Art made with the use of a computer program.

CONTENT: The message conveyed by a work of art - its subject matter and whatever the artist hopes to convey by that subject matter.

DESIGN: Design is a means of ordering visual and emotional experience to give unity and consistency to a work of art. Design is visual control, and the artist arranges the visual elements (line, form, color, texture, light and space) in a manner compatible with his ideas and feelings. Design coordinates harmony, rhythm and movement.

DIGITAL ART: 2D ANIMATION is used to create the illusion of movement in 2-dimensional art, which is a necessary art form in nearly all cartoons, games and on websites. There are 2 major types of 2D animation - sprite or frame-based, and skeletal-based. In frame-based animation, objects are drawn multiple times, each drawing (known as 'frames') slightly altered from the previous drawing. When played quickly in sequence, the changes in the drawings make it look like the drawn object is moving. It is normal to draw 24 frames per second of animation, which makes this a laborious technique. In skeletal-based animation, the art of the object is divided into parts and assigned 'bones' to be moved individually, much like we have a skeleton that consists of bones. The animator decides where each bone will move at each point in time. This is typically less laborious than frame-based animation, but can also produce more artificial-looking results.

DIGITAL ART: 3D ANIMATION is also skeleton-based, and is used to create the illusion. Just like skeleton-based 2D animation, parts of the 3D object are assigned bones, and the animator decides the movement of each of these bones at specific moments in time, to craft the illusion that the 3D object is moving. 3D animation is used in most modern games, but also in movies and television shows, to bring characters and creatures to life. of movement in characters, creatures, and vehicles created by 3D modelers and sculptors. And just like 2D animation, 3D animation is a complicated discipline with its own set of fundamental skills. Because of this, in a typical professional setting the models and sculpts will be already created by other artists, and the animator will be given finished objects to animate. Maya, 3DS Max and Blender are all softwares that are used to create 3D animations.

DIGITAL ART: 3D MODELLING is used to create a digital, 3-dimensional representation of characters, environments and objects for use in things like movies, games and illustrations. Similar to vector art, the artist designates points in a digital 3D canvas, which the software will draw lines and planes between. Multiple planes grouped together are called a 'mesh', and the artist will manipulate and create planes to craft a mesh to look like the desired object.

DIGITAL ART: 3D SCULPTING (A newer form of 3D modeling) is designed to emulate the traditional method of sculpting with something like clay. Just like sculpting in real life, artists start with a simple block of digital clay, and push and pull it into the desired shape. Just like traditional sculpting, they can add and subtract digital clay when they want to, or stamp it with texture and smooth it out. Because 3D sculpting is a little faster for creating organic shapes than 3D modelling is, it will frequently be used to sculpt characters and creatures. The most well known program for 3D sculpting is Zbrush, but the free and open source software Blender has been gaining a lot of recognition for its 3D sculpting capabilities.

DIGITAL ART: MATTE PAINTING is similar to digital painting, but also integrates heavy use of photographs and occasionally 3D modeling to create photorealistic landscapes and environments. Matte painting is most often used in movies, when a scene is required to have a realistic background that is either too expensive to film in, impossible to film in, or simply doesn't exist. Matte painters will instead craft a background that seamlessly blends with the actual live-action footage, using photographs, 3D modelling and digital painting techniques in a piece of software such as Photoshop. These techniques have allowed most modern Blms to have huge sweeping vistas and mind-blowing scenes that are fantastical but still convincingly realistic. Photomanipulation is closely related - the techniques and purpose are extremely similar to matte painting, using photos, 3D and painting to craft images, but typically will be used to make character-based art for things like book covers.

DIGITAL ART: PIXEL ART- A type of digital art that was born out of necessity of the era, when games needed graphics but ran on hardware that wasn't powerful enough to display large or complicated art. Game artists were forced to depict characters and objects in extremely simple 'sprites', now known as pixel art. The art is made out of large blocks of color (called pixels), typically with limited colour palettes and each object restricted to a maximum size of 8x8 pixels, or 16x16, 32x32 etc. This forces the artist to get clever about how they design each piece of art, so it is recognizable in such a simple format.

DIGITAL ART: VECTOR ART produces a similar end result to digital painting, but with a distinctive cleanliness to its aesthetic. This kind of art is often used on t-shirts, logos and graphic elements - anywhere that a clean finish is desired. Illustrations are also perfectly achievable with vector art. Put simply, instead of making pixel-based strokes as if with a brush or pencil, as you would in digital painting, vector artists designate points for the software to draw a line or shape between. The artist can then manipulate the straightness or curve of that line, or of the edges of the shape, and fill the shapes with solid colors or gradients. Layered and built up enough, the lines and shapes can be used to compose a piece of art. This is done using a piece of software such as Adobe Illustrator. Vector art often blurs the line between graphic design and art, as usually it has a very strong core of composition, shape design and color theory, just like graphic design. Layered and built up enough, the lines and shapes can be used to compose a piece of art. This is done using a piece of software such as Adobe Illustrator. Vector art often blurs the line between graphic design and art, as usually it has a very strong core of composition, shape design and color theory, just like graphic design.

DIGITAL ART: describes the use of technology in creative thinking and art making. Ranging across a wide variety of mediums, digital art spans from computer, generative, robotic, kinetic, and net art, through to post-internet, virtual reality, and augmented reality art.

DIGITAL ART: DRAWING & PAINTING: Digital Painting is often used for imaginative illustration work, particularly in the fantasy and science fiction genres for games, films and books. Digital Painting emulates traditional painting, such as oil, acrylic and watercolor painting. You use a stylus either on something like an ipad, or with a drawing tablet plugged into a computer, in conjunction with some art software like Adobe Photoshop, Clip Studio Paint, Krita or Procreate. The artist moves the stylus over the tablet like they would a brush over a canvas; the art software on their computer interprets this movement as a digital brushstroke on a digital canvas, formed of pixels.

DIPTYCH: A two-part work of art; especially a painting, meant for placement together.

DOMINANCE: The principle of visual organization which suggests that certain elements should assume more importance than others in the same composition. It contributes to the organic unity by emphasizing the fact that there is one main feature and that other elements are subordinate to it.

DRAWING: Representations on a flat surface usually made with pen, pencil, crayon, chalk or paint with an emphasis on line.

ELEMENTS OF ART

ENVIRONMENTAL ART

1. Art that is large enough for viewers to enter and move about in.
2. Art designed for display in the outdoor environment.
3. Art that actually transforms the natural landscape.

FIGURE – GROUND

FOCAL POINT: An artwork's focal point is where its visual interest sits. Compositions can undoubtedly have more than one focal point and artists can employ different techniques to draw the viewer's eye to particular focal points. Color and contrast, as well as perspective, can be used to pull focus. An artwork without any focal point can appear chaotic and unfocused to the viewer.

GENRE: A genre refers to a type of art (typically painting). Examples of genres include landscape and still life.

GRAPHIC DESIGN: Graphic design is the creation of visual elements used in magazines, advertisements, posters, and other media. Graphic designers use software like Adobe Photoshop and Illustrator as well as other digital tools.

HATCHING: Shading or modeling with fine, closely set parallel lines. When a second series of lines crisscrosses the first set, the technique is called cross-hatching. By varying the size and closeness of the lines, an artist is able to indicate tones and suggest light and shadow in drawing, linear painting, engraving and etching.

ICONOGRAPHY: Loosely, the “story” depicted in a work of art; people, places, events, and other images in a work, as well as the symbolism and conventions attached to those images by a particular religion or culture.

ILLUSTRATION: An image that accompanies written text and aids in interpreting it.

IMPASTO: Paint applied in outstanding heavy layers or strokes; also, any thickness or roughness of paint or deep brush marks, as distinguished from a flat, smooth paint surface.

INSTALLATION ART: Installation art is an art movement characterized by large-scale, mixed-media constructions, often designed for a specific place or for a temporary period of time. Installation art typically involves the creation of an enveloping aesthetic or sensory experience in a particular environment, often inviting active engagement or immersion by the spectator.

LANDSCAPE: A generalization for any artist’s depiction of natural scenery. Figures and other objects should be of secondary importance to the composition and incidental to the content.

MAQUETTE: In sculpture, a small model in wax or clay, made as a preliminary sketch, presented to the client for approval of the proposed work, or for entry in a competition. The Italian equivalent of the term is bozzetto, meaning small sketch.

MEDIA: Media refers to the materials and techniques used by the artist, the physical properties of the piece, such as oil on canvas, pen and ink, printmaking, sculpture, photography, etc., and its execution. Media is plural, medium is singular.

MEDIUM (pl. Media): The fluid or semi-fluid in which pigments are dissolved, such as water, egg yolk, oil. The term also applies to the technique or material used in the execution of a work of art.

MIXED MEDIA: Descriptive of art that employs more than one medium – e.g., a work that combines paint, natural materials (wood, pebbles, bones), and man-made items (glass, plastic, metals) into a single image or piece of art.

MOBILE/STABILE: Terms coined to describe work created by Alexander Calder. The mobile is a hanging, movable sculpture and the stabile rests on the ground but also may have moving parts.

MOLDING: Ornaments on a building in the shape of long, narrow bands in relief to provide variety to the surface.

MONOTYPE: A one-of-a-kind print made by painting on a sheet or slab of glass and transferring the still wet painting to a sheet of paper held firmly on the glass by rubbing the back of the paper with a smooth implement, such as a large hardwood spoon. The painting may also be done on a polished plate, in which case it may be either printed by hand or transferred to the paper by running the plate and paper through an etching press.

MONTAGE: A picture composed of other existing illustrations, pictures, photographs, newspaper clippings, etc. that are arranged so they combine to create a new or original image. A collage.

MOOD: Mood refers to the emotional properties of a piece, the feelings produced by looking at a piece of art. The emotional response an artwork can elicit through its use of color, placement and design.

MOSAIC: An art form in which small pieces of tile, glass, or stone are fitted together and embedded into a background to create a pattern or image.

MOTIF: In the visual arts, a motif is an element of iconography. In paintings, a motif can refer to any pictorial feature of the composition. In the decorative arts and architecture, it often denotes a recognizable symbol that repeats.

MURAL: Of the Latin word murus. A painting either on a wall or on a surface to be attached to a wall. A huge painting executed directly on a wall (fresco) or separately and affixed to a wall.

NARRATIVE PAINTING: A painting where a story line serves as a dominant feature.

NATURALISTIC: Descriptive of an artwork that closely resembles forms in the natural world. Synonymous with representational.

OIL PAINTING: A painting executed with pigments dissolved in oil; in the beginning on a wood panel prepared with gesso, and since late 15th century on a canvas, stretched and primed with white paint and glue.

OPACITY, TRANSPARENCY: These terms refer to the ability of a substance to transmit light. An opaque paint is one that transmits no light and can readily be made to cover or hide what is under it. A transparent material transmits light freely; when a transparent glaze of oil color, for example, is placed over another color, it produces a clean mixture of the two hues without much loss of clarity.

PAINTERLY: Descriptive of paintings in which forms are defined principally by color areas, not by lines or edges. Where the artist's brushstrokes are noticeable. Any image that looks as though it may have been created with the style or techniques used by a painter.

PAINTING MEDIA: Acrylic Composition = pigments + synthetic resins; soluble in water (relatively recently developed) Advantages: permanence, wide range of varied effects, quick drying Disadvantages: inflexible, value changes when drying.

PAINTING MEDIA: EGG TEMPERA COMPOSITION = pigments + egg yolks Advantages: quick drying, semi-gloss finish which can be buffed, permanence Disadvantages: insoluble, yellowing, storage of media.

PAINTING MEDIA: ENCAUSTIC COMPOSITION = pigments + wax (heat) Advantages: permanence, capable of buffing surface Disadvantages: insoluble, inflexible, loss of control, heat.

PAINTING MEDIA: FRESCO COMPOSITION = pigments + water + egg white (plaster: wet = fresco; dry = secco) Advantages: permanence, quick drying, flexible Disadvantages: easily affected or damaged, fading of colors, lack of luminosity.

PAINTING MEDIA: OIL COMPOSITION = dry pigments + oil such as linseed; soluble in turpentine, alcohol, etc. Advantages: flexible, easily manipulated, wide range of varied effects, permanence, rich color and depth, great range of textural possibilities. Disadvantages: yellowing, disintegration of paint film, long drying time.

PAINTING MEDIA: TEMPERA COMPOSITION = pigments + water; soluble in water Advantages: quick drying, cheap Disadvantages: flaking, non-permanent, easily affected by environment.

PAINTING MEDIA: WATERCOLOR COMPOSITION = pigments + gum arabic + water Advantages: brilliance and luminosity of color, wash effects Disadvantages: fading, easily affected by environmental conditions, not as permanent as other media.

PAINTING SURFACES: GROUND - A surface specially prepared for painting. The support on which a painting or drawing is executed (canvas, paper).

PAINTING SURFACES: SUPPORTS - Untreated object which is prepared to receive the paint. Cloth, canvas, wood, cardboard, paper products, walls, etc.

PAINTING SURFACES: TOOLS - Brushes, palette knives and palettes.

PALEO-ARTIST

PANEL: A wooden surface used for painting, commonly in tempera, and as a rule prepared with gesso. Panels of masonite and other composite materials are more recently being used as panels.

PAPER MACHE: Art works made with newspaper strips that have been moistened with wallpaper paste or laundry starch.

PAPER: Writing material made of various fibrous materials. Invented in China in the 2nd century AD, known in Europe early, but came into general use there, replacing parchment with the emergence of printing in the 15th century.

PARCHMENT: A paper-like writing material made of thin bleached animal hides, invented in the Greek city of Pergamum in Asia Minor in the 2nd century BC. Used in the Middle Ages for manuscripts. A superior quality parchment made of calfskin is called vellum.

PASTEL: A colored crayon that consists of pigment mixed with just enough of a aqueous binder to hold it together; a work of art produced by pastel crayons; the technique itself. Pastels vary according to the volume of chalk contained...the deepest in tone are pure pigment. Pastel is the simplest and purest method of painting, since pure color is used without a fluid medium and the crayons are applied directly to the pastel paper. A painting executed with drawing sticks of pigments, ground with chalk and mixed with gum water, resulting in soft subdued colors. Texture is obtained from the substance it is used on. It is a fragile medium, a fixative must be used to keep it from powdering away.

PHOTOGRAPH

PHOTOMONTAGE: Using cut photographs to create a work of art.

PICTORIAL SPACE: The illusory space in a painting or other work of two-dimensional art that seems to recede backward into depth from the picture plane, giving the illusion of distance.

PICTURE PLANE: An imaginary flat surface that is assumed to be identical to the surface of a painting. Forms in a painting meant to be perceived in deep three-dimensional space are said to be "behind" the picture plane. The picture plane is commonly associated with the foreground of a painting.

PIGMENT: Colored substances, organic, inorganic, or synthetic in origin, mixed with or suspended in a liquid medium before use in painting.

POLYCHROME: Multi-colored.

POLYTYCH: A work consisting of four or more panels.

POTTERY

PRINCIPLES OF ART: An order, an arrangement of the elements that aids the artist. This arrangement is known as the principles of order or principles of design - the organization of the elements of art into an aesthetic form. Good art may incorporate all of these principles or very few of them.

PRINT: Color Blocks, plates, screens or two or more stones may be used, one for each color, printed on top of each other to produce the final print. Restrikes and Canceled Plate Proofs: Both are original prints but from unlimited editions usually printed after an artist's death. An "original print" is the image on paper or similar material made by one or more of the processes described here. Each medium has a special, identifiable quality, but because more than one impression of each image is possible, "original" does not mean "unique." The artist's intention and level of participation throughout the process to create an original print is the key to the "originality" of the finished work. For example, if he or she first conceives of a watercolor, then has the result copied by woodcut, the result is not "original" but merely a reproduction. The total number of prints made of one image is an "edition." The number may appear on the print with the individual print number as a fraction such as 5/25 meaning "edition was 25 examples with this example numbered 5." If intended for use with a written text, original prints will not likely be numbered (or hand-signed) and may be produced in very large editions.

PRINT: AQUATINT - A copper plate is protected by a porous ground which is semi-acid resistant. The white (non-printing) areas, however, are painted with a wholly acid-resistant varnish. The plate is then repeatedly put into acid baths where it is etched to differing depths. The final effect is an image on a fine pebbled background (imparted by the porous ground). Aquatint is usually used in combination with line etching.

PRINT: ARTIST'S PROOF: An Artist's Proof is one outside the regular edition. By custom, the artist retains the A/Ps for his personal use or sale.

PRINT: CALDOGRAPHS are the innovation of artist Csaba Markus. By using the dye sublimation process (see below), an image is transferred onto a wood panel. This incorporates the grain of the wood into the imagery. The panel is then protected with a coat of varnish, and from there can be hand embellished.

PRINT: COLLAGRAPH - Printing surface is built up on the plate or block by applying various materials which may also be incised.

PRINT: DRYPOINT - The sunken lines are produced directly by diamond-hard tools pulled across the plate. The depth of line is controlled by the artist's muscle and experience. The method of cutting produces a ridge along the incisions, called a burr. This gives the dry-point line the characteristically soft, velvety appearance absent in the clean-edged lines of an engraving or etching.

PRINT: DYE SUBLIMATION - Dye sublimation is the process that transfers imagery onto materials such as metal, glass and plastic. The original image is made into a digital matrix, and from there the artist has total control over how the colors will appear on the final work of art. The image is transferred onto paper using special inks. The paper is then applied to a surface, such as aluminum plates or wood panels, and heat and pressure are applied. The ink transforms from a solid to a gas, transferring to the surface before becoming a solid again. The image bonds to the surface on a molecular level, creating a crisp, vivid, and clear image.

PRINT: FROTTAGE - In frottage the artist takes a pastel or pencil or other drawing tool and makes a rubbing over a textured surface. The drawing can be left as it is or used as the basis for further refinement. While seeming similar to brass rubbing and other forms of rubbing intended to reproduce an existing subject, and in fact sometimes being used as an alternate term for it, frottage is different in being a chance act and random in nature.

PRINT: GICLÉE - The word giclée (pronounced “ghee-clay”) is a French term, which literally translates into “spraying of ink.” A giclée print is produced by a very precise spraying of ink. In the giclée process, an original artwork is digitized and the scan or transparency of the original art is stored in a computer file. The computer is the controlling element of a highly specialized precision ink jet, which sprays several million droplets per second onto paper or canvas mounted on a rotating drum. The material printed upon is normally the type of medium an artist may use for an original painting (watercolor paper or cotton/poly canvas, for instance). The artist is an integral part of the giclée printing process. A print is made, the artist “red lines” the proof, changes are made and another print is made. This process continues until the artist is satisfied with the result. Once the final settings are decided, the final print is made, approved by the artist and the edition is created.

PRINT: INTAGLIO - A printmaking process in which a design is cut, scratched or etched into a printing surface of copper, zinc or aluminum. Ink is then rubbed into the incisions or grooves, the surface is wiped clean and the paper is embossed into the incised lines with pressure from a roller press. Intaglio processes are the most versatile of printmaking methods, as they can produce a wide range of effects.

PRINT: LINOCUTS - A print created from a design carved into a piece of linoleum.

PRINT: LITHOGRAPHY - The artist draws directly on a flat stone or specially prepared metal plate (usually using greasy crayon). The stone is dampened with water, then inked. The ink clings to the greasy crayon marks but not to the dampened areas. When a piece of paper is pressed against the stone, the ink on the greasy parts is transferred to it.

PRINT: MEZZOTINT - An intaglio process in which the work is done in two stages. Initially, a metal plate is grained by working it over systematically with a spiked tool known as a rocker (which has a thick blade with a serrated, semicircular cutting edge). This creates a multitude of fine dots all over the plate’s surface. If inked at this stage, the plate would create a rich black. The second stage of the process consists of smoothing away parts of the roughened surface, with the aid of a scraper and a burnisher, to create the white and highlighted parts of the resulting image. The scraping of the plate is a skillful job; delicate, tonal transitions can be obtained if it is done well, whereas the flat appearance of some mezzotints is an indication of the difficulties involved. This flatness is also caused by the fact that mezzotint plates wear down very quickly. Color mezzotints can be created with several plates, one for each color.

PRINT: MONOTYPE - A unique impression on paper, printed from a smooth surface, such as metal or glass, painted on in ink by the artist.

PRINT: SCULPTOGRAPH - Sculptographs bridge the gap between graphic works and sculpture. They are remarkable three-dimensional works where the artist is able to bring together different colors, textures, and layers into one solid sculpted work of art.

PRINT: SERIGRAPHY - The artist prepares a tightly-stretched screen, usually of silk, and blocks out areas not to be printed by filling up the mesh of the screen with a varnish-like substance. Paper is placed under the screen and ink forced through the still-open mesh onto the paper.

PRINT: SERIOLITHOGRAPH - A combination of the two print making processes — serigraphy and lithography. Also known as a “seri-lithograph.”

PRINT: WOOD ENGRAVING - Made by engraving a block made up of pieces of end-grain extremely hard wood. The block, being naturally much harder, enables the artist to engrave (rather than cut) a much finer line than is possible on the softer plank surface used for woodcuts.

PRINT: WOODCUT - Made by cutting into the broad face of a plank of wood, usually with a knife. (The linocut is made by the same method, except that linoleum is substituted for wood.) In working the block, the artist cuts away areas not meant to print. These cut away areas appear in the finished print as the white parts of the design, while the ink adheres to the raised parts.

REALISM: Any art in which the goal is to portray forms in the natural world in a highly representational manner. Specifically, an art style of the mid 19th century, which fostered the idea that everyday people and events are worthy subjects for important art.

REPRESENTATIONAL WORKS OF ART: Works of art that closely resemble forms in the natural world. Synonymous with naturalistic.

RUBBING: A reproduction of a relief surface by covering it with paper and rubbing with a chalk, pencil or similar object.

SCULPTOR

SCULPTURE: BAS RELIEF- In low or bas relief sculpture, the figures project only slightly, and no part is entirely detached from the background (as in medals and coins).

SCULPTURE: THREE-DIMENSIONAL

SERIES OF WORK

SFUMATO: Predominantly associated with the paintings of Leonardo da Vinci, sfumato (derived from fumo or “smoke” in Italian) is a method of shading and color-blending that evokes a soft, “smoky” haze. This technique is apparent in the blurred background and softly-defined facial features of the Mona Lisa.

SKETCH: A preliminary drawing of a composition.

STUCCO: Cement or concrete used to cover a wall or a building. Also, a type of plaster used for architectural ornamentation such as reliefs, cornices and others.

STUDY: A detailed drawing or painting made of one or more parts of a final composition, but not the whole work.

STYLE refers to the artists particular characteristics acquired from technique, subject matter, skill, instruction and time.

STYLIZED: Descriptive of works based on forms in the natural world, but simplified or distorted for design purposes. See also abstract.

SUBJECT: Subject matter is most simply defined as recognizable objects depicted by the artist. Representational art has clearly recognizable objects; abstract art has a basis in identifiable objects; and non-objective art has no direct reference to such objects, that is no subject matter other than color and design or the properties of the specific media.

SYMBOL: An image or sign that represents something else, because of convention, association, or resemblance.

TAPESTRY: Textile fabric in which wool is supplied with spindle instead of shuttle, with design formed by stitches across the warp. Used for covering walls, furniture, etc.

TECHNICAL PROCESS: Identify the way or ways the work of art seems to have been made, the tools needed to execute the work, what the artist did to achieve the texture, the medium used, etc. Again, describe the effect or results of the technical processes on the lines, shapes, colors, forms , values.

TERRA COTTA: Italian word for cooked earth. An earthen ware of natural reddish color, used in pottery, sculpture or to cover a building.

THEME: Theme refers to content or message, the intellectual properties of a piece.

TRIPTYCH: A three-part work of art; especially a painting, meant for placement on an altar, with three panels that fold together.

TROMP L'OIL: A French term meaning "deception of the eye." A painting or other work of two-dimensional art rendered in such a photographically realistic manner as to 'trick' the viewer into thinking it is three-dimensional reality.

VISUAL ARTIST

VISUAL RHYTHM: An artwork's visual rhythm refers to an artist's ability to successfully direct the viewer's eye across the piece and create flow. It can be created by placing similar colors next to each other or organizing positive spaces and negative spaces next to each other in a way that creates movement.

WASH: A thin layer of translucent color applied in watercolor painting, brush drawing and sometimes in oil painting.

Major Milestones in Visual Art: