

1. THE INGREDIENTS OF ART

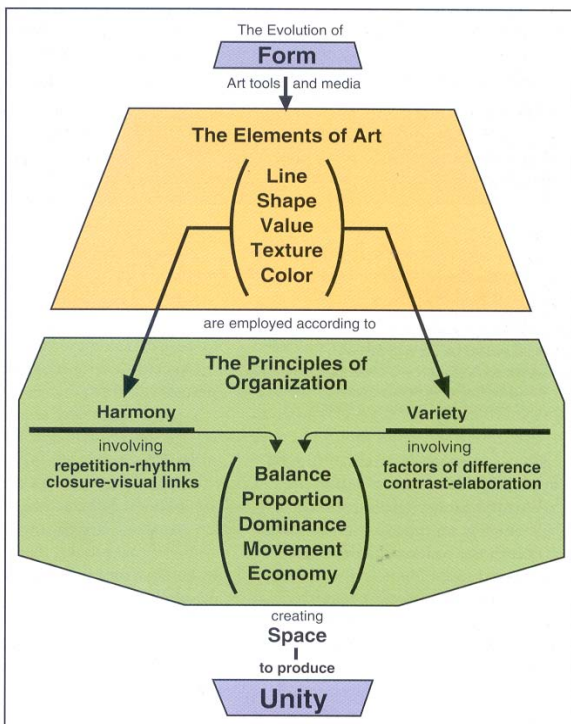
Human beings have always had a need for art, and art has always been produced because an artist has wanted to say something and chose a particular way of saying it. In order to gain some appreciation for the many forms of art to which we have access today, one must understand the basics of art from which they have grown. Analyzing structure may seem a bit cold when applied to a creative field, but structure is necessary to all artistic areas, including music, dance, and literature.



Cueva de los Manos, Negative hand-prints from Patagonia, Argentina, c. 12.000 B.C.

Hand-prints were the oldest human art expression that survives to present day and touches as the example of human imagination and wish to leave something personal that will survive long after their death.

Subject, form and content have always been the three basic parts of a work of art. Traditionally *subjects concerned persons, objects and themes*, the *form* is understood as **the use of elements in constructing an artwork**, and we would define *content* as **the total message of the work as developed by the artist and interpreted by the viewer**.



This is a logical and common order of events in the creation of an artwork – but artists often alter the sequence.

This is still true today except that, in recent years, these parts are often more difficult to identify. Today we understand that in art we have motivation (subject), the substantiation (development of the work) and communication (content).

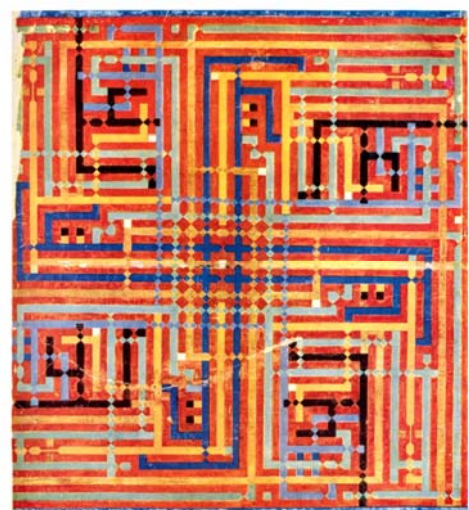
Beyond art's three basic parts, there may be certain **principles of organization (composition)**: *harmony, variety, balance, movement, proportion, dominance, and economy*. All artists deal with these principles either singularly or in combination. In any construction **structural elements** are needed. For Visual Arts they are: *line, shape, value, volume, texture and color*.



Vincent Van Gogh, **The Starry Night**, 1889. Oil on canvas, 73,7 x 92,1 cm. Museum of Modern Art (MOMA), New York.

By looking at the landscape as an inspiration van Gogh experienced it with rare sense of perception and intensity.

These elements can be manipulated to produce either a **two dimensional** (circle, triangle, or square) or **three-dimensional** effect (sphere, pyramid, or cube). When two-dimensional, the elements and whatever they produce seem to lie flat on the **picture plane**, but when the elements are three-dimensional, penetration of that plane is implied.



Turkish illuminated page from *Koran* (15th Century) representing the name for God – **Allah** in a form of geometrically ornamented decoration derived from Arabic letters.

INTRODUCTION

Decorative is a term that we usually associate with ornamentation, but it is also used to describe the effect of art that clings rather closely to the artistic surface. We can say that the space created by them is relatively flat or decorative. On the other hand, if the elements make us feel that we could dive into the picture, the space is said to be **plastic**. Any mass, whether actual (as in a statue) or implied (as portrayed in drawing or painting), can be called plastic.



Michelangelo Buonarroti, **Sibyl**, prior 1510, drawing sketch with red chalk on paper.

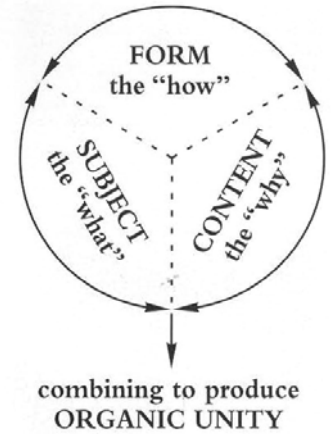
A distinction must be made between plastic and graphic art. The **graphic arts** include drawing, painting, printmaking, and photography. These are arts generally existing on a flat surface that rely on the illusion of the third dimension. By contrast, the plastic arts (sculpture, ceramics, architecture, and so on) are tangible, occupying their own space.



Michelangelo, **Sibyl** – detail from the Sistine Chapel ceiling fresco painting, 1508-12, Vatican.

Every artist begins with an **idea**, and to make idea tangible – as a finished artwork, it must be developed in a **medium** selected by the artist (clay, oil, paint, ink,

photography, etc.). While developing the artwork, the artist will be concerned with **composition**, or formal structure – *the most interesting and communicative presentation of an idea*. As the creative procedure unfolds, the artist hopes that its result will be **organic unity** – meaning that *each part contributes to the overall content, or meaning*.



Phoenix Hall, 1053, Kyoto, Japan

When artist reproduces things from nature faithfully the artist could be called “perceptual” because he or she is drawing inspiration from **optical perception**. However, artists who are more concerned with responses than with commonplace perceptions are called “conceptual” because they are idea-oriented and thus more creative – employing **conceptual perception**.



Minor White, **White Barn**, 1955. Gelatin silver print
Photographers may have the advantage in recording objective reality, but photographer-artists are not satisfied with obvious appearances and use complex technical strategies to achieve their goals.

The artist employs the media to implement **the art elements: line, shape, value, texture, and color**. These elements are the fundamental constituents of any artwork.

2. SHAPE AND FORM

Everything has its **shape**. We can define shape in art as a line enclosing an area. Such shape defined with outline or contour is called *actual shape*, but there can also be shapes without a contour line.



Our minds adjust to read a visible effect of shape – called *implied shape*. This is a principle first put forward by the German *Gestalt* psychologists (German word for form). They stated that our minds tend to “see” organized wholes, or forms, as a totality, before they perceive the individual parts applied to human visual perception.

Shapes that we can see vary from *objective* (derived from observable phenomena), *subjective* (imaginary shapes), *geometric*, and *implied to amorphous* (vague or delicate). They may differ in size, position, balance, color, value, and texture according to their function in the work of art.

Natural objects are often called **biomorphic** since they resemble biological organisms. In contrast to them are **rectilinear** (straight-lined) shapes called geometric because they are based on shapes used in mathematics. **Kinetic forms** are a form of sculpture in motion, for example – Mobiles with their constantly changing relationships of shapes.

Shapes in Visual Art can be lines, values, color, texture, space, and in three-dimensional art – mass. They can be used to *achieve compositional order; to create the illusions of mass, volume and space in graphic art; or to extend observer attention or interest span with movement.*



Rorschach's stain – a psychological test

Shaping is a process of making a shape. It can be done by nature (natural shapes), or it can be a human product

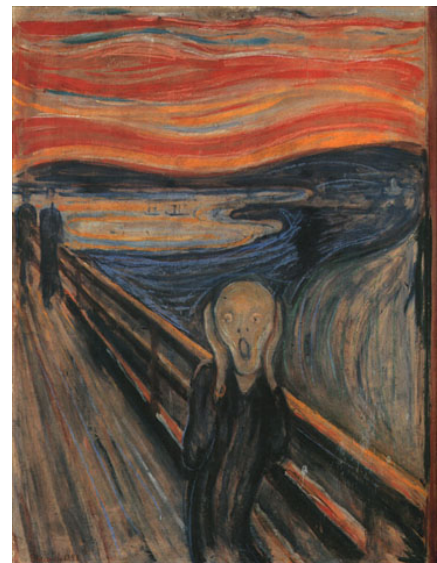
We can even see things that we are not actually looking at. We can rely on our **visual memory, imagination, and the state of mind** (looking on the next picture, every person will see a different shape or multiple shapes).

(technical or artistic shape). The sense of a technical shape, as of technical object – like a pen, is easy to read – it lies in its function, material and in need to fit to a human hand. But artistic shapes in a work of art are more difficult to read. That lies in their form.



Claude Monet, **Water Lilies**, 1920. Oil on canvas
Monet was interested in the effect of shimmering light on color relationships – hence the misty, amorphous nature of shapes.

Form is a visual shape of content (Ben Shahn); meaning: the totality of the physical artwork. It involves all of the visual devices available to the artist in the material of his or her choice. Using these devices artist is trying to make the most effective arrangement for what is being expressed.



Edvard Munch, **The Scream**, 1893. Oil, pastel and casein on cardboard, 90.8 x 73.7 cm. National Gallery, Oslo.

The ability to express emotional or intellectual message, a statement, expression, or mood through the artwork is called artistic imagination. Artists can use several degrees of abstraction to achieve that. **Abstraction** is a process of stripping-down to expressive and communicative essentials. An artist can represent a subject through its **naturalistic, realistic, stylistic, symbolic, and abstract form**.

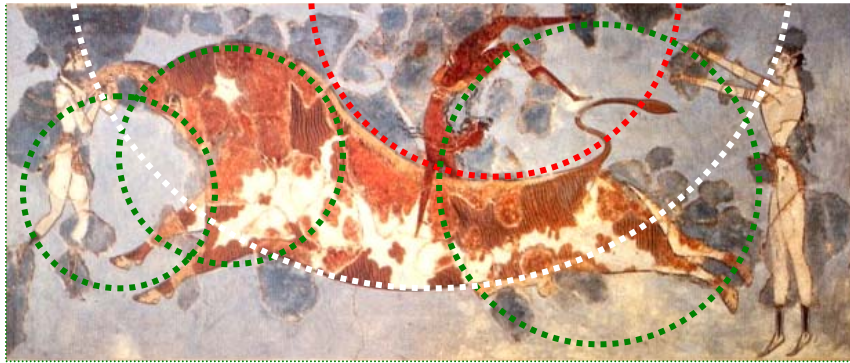
In this process the artist attempts to make **organic unity**, containing nothing that is unnecessary or distracting, with relationships that seem inevitable. And the good artwork is the one that has such form that we can't imagine better one to express its content.

3. PRINCIPLES OF ORGANIZATION (COMPOSITION)

Composition understands order of elements and their relations in one unity (lat. *con* = with, and *ponere* = together, meaning putting things together). This definition is not only worth in art, but in general, for example on Beethoven's "Moonlight sonata" or a simple train composition. While in music and film, the composition has a time frame; in Visual Art composition is spatial.

The principles of organization those elements are: **1. harmony, 2. variety, 3. balance, 4. proportion, 5. dominance, 6. movement, and 7. economy.** But these principles are not laws, they are not ends in themselves, they only help in finding certain solutions for unity, so following them will not always guarantee the best results. The use of the principles in artwork is highly subjective and intuitive.

Unity and organization in art are dependent on a dualism of similarity and contrast – a balance between harmony and variety.



Toreador Fresco, from Knossos, c. 1500 B.C., 81.3 cm high, Archeological Museum, Herakleion, Crete.

The circular lines show unique sense of composition and unity of elements in circular relationships.

Harmony & Variety

Harmony is cohesion of various picture parts creating pleasing interaction. This is achieved by **repetition** of characteristics that are the same or similar. When visual units are repeated, **rhythm** is established. Sometimes harmony may create the feeling of boredom or monotony when its use is carried to extremes. But, properly introduced, harmony is a necessary ingredient of unity.

Repetition in art means repetition of elements of art, characteristics of those elements, or certain motifs produced by a combination of the elements. **Pattern** is a formation or set of characteristics that is created when the basic pattern (model) is repeated. Patterns (made of regular or irregular repetitions) can be used to create harmony and rhythm with pauses and beats that cause flow and connections between parts.

Rhythm, in art as in music, results from repeated and measuring similar or equal parts. The rhythm may be *smoothly flowing* or *less regular* and even *jerky* in the

visual movements as dictated by the artist (much like by a musical composer).



Katsushika Hokusai, **Under the Wave off Kanagawa** (from series "The Thirty-Six Views of Fuji"), 1829-33, colored woodblock print, 26,7 x 38,1 cm, Takahashi Collection

Hokusai has given us a dramatic sense of the rhythmic surging of the sea in this print.

Harmony can be achieved not only through repetition, but also with **closure** (people tend to see incomplete pattern or information as complete or unified wholes) or visual grouping; or when shapes share space (**overlapping**) or **common edge**; or with **transparency** of shapes; or with **extensions** – implied and subjective edges/lines/or shapes.

It's easy to recognize harmony achieved by concepts where there are jointly shared edges, shared areas by overlapping shapes,

similar transparency of surface; these often are used to relate items relatively close to each other. However, the concept of **extensions** – implied edges, lines, or shapes – provides the artist with a visual alignment system. It is used to integrate all areas within the composition, relate, bring together, or harmonize areas, images or shapes in different and distant locations.

Extensions create hidden relationships. They harmonize by setting up related directional forces, creating movement, and providing a repetition of predictable spacing between units.

Variety is counterweight of harmony. While an artist might bring a work together with harmony, it is with variety that the artist achieves individuality and interest. Overly harmonious composition can be static, lifeless, and unemotional. By adding variation to the visual forces, the artist introduces essential ingredients for enduring attention.

This separation (variety) is achieved by different use of **contrast**.

Contrast occurs when the elements are repeated in a way that makes them appear unrelated, opposite – even contradictory. As contrasts are heightened, the areas involved become less harmonious but increase proportionately in visual excitement.

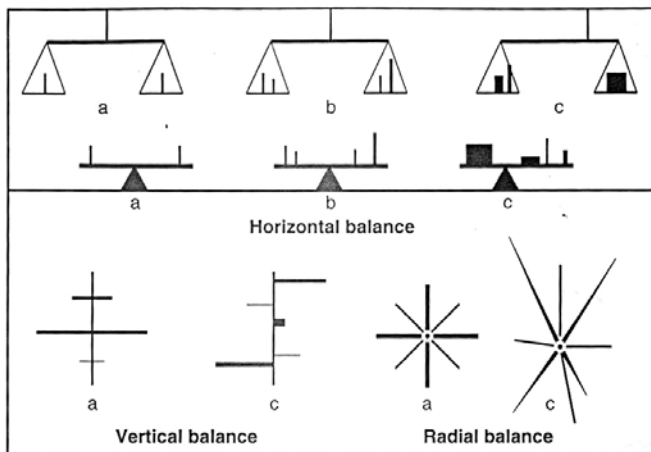
Balance

Balance is a sense of equilibrium achieved through implied weight, attention, or attraction, by manipulating the visual elements within an artwork.

We deal with **balance** daily as we know or expect it to function with gravitational forces. Similarly in art we deal with the expectation of counteracting gravitational forces. Most artworks are viewed in a vertical orientation – in terms of top, sides and bottom. Visual compositional balance is achieved by counteracting the downward thrust and gravitational weights of the components. For example, a ball placed high in the pictorial field produces a sense of *tension* (we expect it to drop); while a ball placed low provides a sense of peace or resolution.

As the eye travels over the picture surface, it pauses momentarily at the significant picture parts. These points of interest represent moving and directional forces that counterbalance one another and may be termed *movements of force*. In seeking balance, the artist should recognize that the varied elements create the movements of force, and their placement will result in some kind of tension.

There are three types of *balancing scales*, as seen on diagrams below:



Here are also illustrated: a) symmetry, b) approximate (near) symmetry and c) asymmetry.

A **symmetrical image** displays a portion on one side of the format that is repeated on the other side. It is a “mirror” view and the simplest form of artistic balance. Because of the nature of symmetry, unity can be easily achieved, but the artist is challenged to keep us looking with various decorative details.



Double-headed serpent, 10th century, stone with enamel tiles
This Aztec ornament from Mexico is an example of Symmetrical balance.

The potentially boring qualities of symmetry can be reduced by deviations from its repetitive nature.

Therefore, **approximate symmetrical** balance is achieved with different components that are still positioned in the same manner.



Le Corbusier & Harrison, **UN Headquarters** 1948-51, New York
This is an example of approximate symmetrical balance achieved with balanced vertical and horizontal counterparts.

Radial balance can create true or approximate symmetry, while forces are distributed around a central point. This kind of balance has more movement; it is not as static as symmetrical.

If we were to replace the objects with nonobjective entities their psychological weight would be created by their shape, value, and/or color and our view of their balance again would change.

We can call it **optical balance** of “heavier objects” (sharper shapes, distinctive values, intensive or warm colors etc.) in contrast with “lighter objects” (rounded shapes, mild values, pale in color, or in cold colors etc.). But when we use different shapes, values or colors in the same picture, we call it asymmetrical balance.



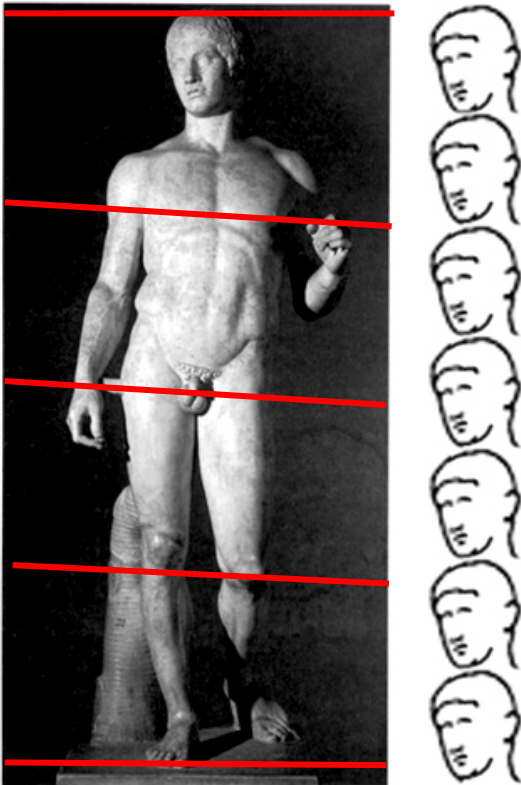
Pablo Picasso, **Family of Saltimbanques**, 1905, oil on canvas, 213 x 230 cm, National Gallery of Art, Washington
An intuitive balance is achieved through the juxtaposition of varying shapes and the continuous distribution of similar values and colors.

Asymmetrical (occult or dynamical) balance means visual control of contrasts through felt equilibrium between parts of a picture. There are no rules for achieving asymmetrical balance; there is no center point and no dividing axis. If, however, the artist can feel, judge, or estimate the opposing forces and their tensions so that they balance each other within a total concept, the result will be vital, dynamic, and expressive organization on the picture plane.

Proportion

Proportion is comparative relationship between parts of a whole or units as to size.

Proportional parts are considered in relation to the whole and, when related, the parts create harmony and balance. The term **scale** is used when proportion is related to size and when those sizes are constant standard (specific unit of measure relative to human dimensions). For example, the human figure is most often considered the “norm” by architects for scaling buildings and often by artist for representations in their works.



Polyclitus of Argos, **Doryphoros (Carrier of a spear)**, Roman copy. C. 450. B.C. Marble, 2,12 m high

Artists have been seeking the “ideal” standard for proportional relationships since ancient times. Holding the human figure in highest esteem, the ancient Greeks devised special proportional standards for their figurative works. These standards are found in their sculpture. The scale was based on certain canons of mathematical rules that established ideal relations of human parts (seven heads tall figure, from top of the head to the chest = one quarter of total height, etc.).

The Greek sculptor Polyclitus was the first to issue such a canon in a form of a written treatise, and the idea of affording pleasing proportional relationships extended into all areas of daily Greek life. The Polyclitus style was characterized by harmonious and rhythmical composition, and influenced Roman culture.

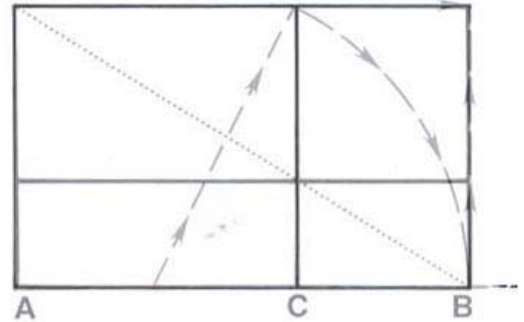
Classical Greek philosophy established the **Golden Mean (Golden Section)** to represent the ideal standard for proportion and balance in life and art. The Golden Section, as it applied to works of art, stated that a small part relates to a larger part as the larger part relates to the whole. It may be seen in a geometric relationship when a line is divided into what is called the mean and extreme ratio. When a line AB is

sectioned at point C, AC is the same ratio to AB as CB is to AC.



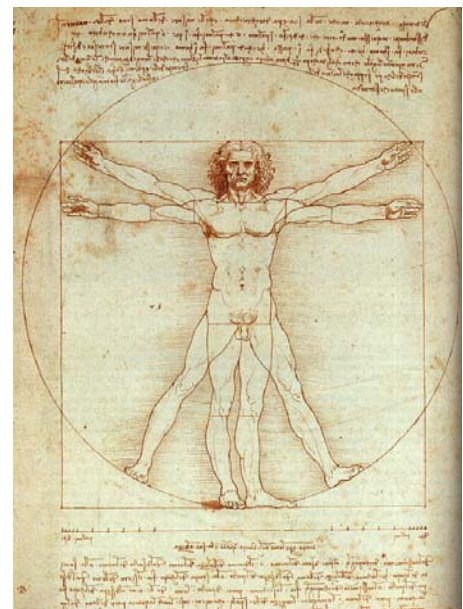
$$AC:CB = AB:AC$$

This extreme and mean ratio has a numerical value of 1.6180 (Fibonacci Series of numbers, where every number combines two previous ones: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 56 ...; has the same ratio). Applying this concept to geometry, the Greeks found the most beautifully proportioned rectangle that could be created out of a square (The Golden Rectangle):



A Golden Rectangle with a diagonal line creating another rectangle with the same proportion ratio

Today, scientists recognize the Golden Section in nature – in expanding curve of the nautilus shell, the curve of a cat’s claw, the spiral growth of a pinecone ... The spiraling curve may be demonstrated in the continuing projection of the Golden Rectangle into progressively larger and larger units.



Leonardo da Vinci, **Proportions of the Human Figure** (after Vitruvius), c. 1485-90, pen and ink, 34,3 x 24,8 cm, Academia, Venice, Italy.

Here Leonardo investigated the proportional relationships of the head, body, arms and legs. Note that the figure’s height is equal to its stretched arms and that the square’s center is located where the legs join while the circle’s center is the bellybutton.

Most artists seek balance and logical proportions, but some artists choose to disregard the essentials of proportions, in order to emphasize the extremes of scale.

Dominance

Dominance - the principle of visual organization where certain elements assume more importance than others in the same composition or design.

In every work of art, the artist intends to call attention to the significant parts of the work, thereby making them dominant. These differences between various parts in a work of art can be achieved by:

1. *Isolation* or separation of one part from others
2. *Placement* – “center stage” is most often used
3. *Direction* – a movement that contrasts with others draws attention
4. *Scale* – larger sizes normally dominate
5. *Character* – a significant difference in general appearance is striking



Hugo van der Goes, **The Portinari Altarpiece**, c. 1476, tempera and oil on panel, 2,5 x 3,1 m, Galleria degli Uffizi, Florence

Madonna is such a dominant unit that little eye movement is required – effect achieved simultaneously by isolation (surrounding her with other characters), placement in the middle of painting and enlarged proportions.

Artist who neglect dominance in their work imply that everything is of equal importance; such art creates a confusing visual image where the viewer is given no direction.

Movement

Movement - eye travel directed by visual pathways in a work of art.

The artist makes the eye of observer travel comfortable and informative by providing roadways and rest stops. Those roadways are, in fact, transitions between optical units. The eye movements directed by these transitions are produced by the direction of lines, shapes, contours, and motifs that cause us to relate them to each other.

Most sculpture and all picture surfaces are static and any animation in such works must come from an illusion of movement created by artist through configuration of their parts. The written word is read from side to side, but a visual image can be read in a variety of directions. The artist must ensure that all areas are exploited with no static or

uninteresting parts, constantly drawing attention back into the work.

The spatial positioning of the elements causes another kind of movement.

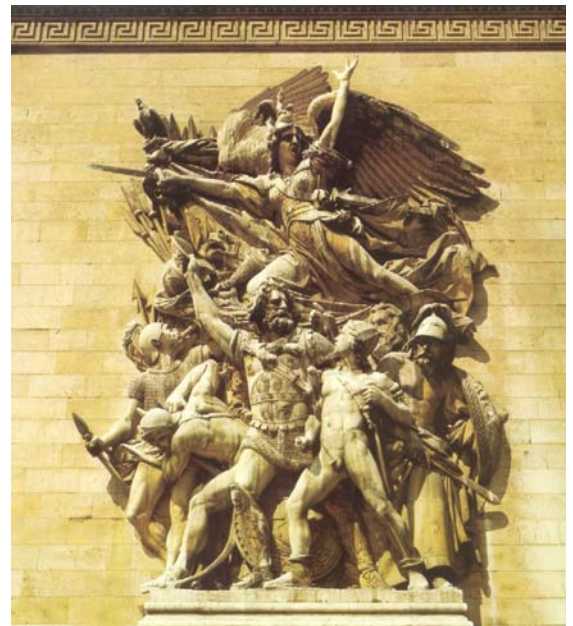
Some art even incorporates the element of time into its movement. For example, Greek sculptors tried to add movement to their static figures by organizing lines in the draperies of their figures to accent a continuous direction; or in medieval times, artists tried to tell a story by repeating a series of still pictures; and in more recent art, the Italian “Futurists” tried to suggest movement by superimposition of many stationary views of the figure or its parts in a single picture.



Giacomo Balla, **Dynamism of a Dog on a Leash**, 1912. Oil on canvas, 89.9 x 109.9 cm. A.K. Gallery, Buffalo, NY

In sculpture, also, the most common type of movement is **implied movement**, but in some, like kinetic sculpture, we have **actual movement**. Those movements of sculptures, or a part of sculptures, are set into motion by air, water, or mechanical devices.

The principle of movement is inherently related to the art elements of time and space.



Françoise Rude, **La Marseillaise**, 1833-36, stone, approx. 128 x 79 cm, Arc de Triomphe, Paris

The position of figures and their orientation on this romantic relief implies a strong impression of movement from left to right.

Space

Space - the interval, or measurable distance, between points or images.

Some authors have taken the position that space is not an element (that is, not one of the principles of organization) but a byproduct of the elements in an artwork. But the concept of space is unquestionably of crucial importance. For example, once an element (like a line) becomes visible, it automatically creates a spatial position in contrast with its background.



Pablo Picasso, **Woman and a Mirror**, c. 1947. Oil on canvas

In transferring nature's space to the drawing board or canvas, the artists have long been faced with problems that have been dealt with in various ways in different historical periods. Sometimes artists are satisfied with flat two-dimensional representation since it is in nature with flat surface in drawing and painting. This type of space is called **decorative space** because the absence of real depth is confined to the flatness of the picture plane.

But, quite often the effect sought is one that has the observer viewing the frame as a window in the space. Such space is called three-dimensional or **plastic space** because of the illusion of depth. There are several types of plastic space: **shallow space** can be compared to the feelings of one might experience if confined to a box or stage – in those paintings there is more control of the placement of decorative shapes as purely compositional elements; **deep space** is a landscape that rolls on and on - achieved with size, position, overlapping images, sharp and diminishing details, converging parallels, and perspective. **Infinite spatial** concepts, allied with atmospheric perspective, dominated Western art from the beginning of the Renaissance to the middle of the 19th century.



F. E. Church, **Sierra Nevada**, c. 1870. Oil on canvas, National gallery of Art, Washington.

Romantic landscape painting aimed at maximum illusion of visual reality emphasized the concept of infinite space.

There are many artistic methods of **spatial representation** and we can only try to number some of them:

Size – Space can be suggested by various size of similar objects. However, in many periods and styles of art (and in the works of children), large scale is assigned according to importance, power, and strength, regardless of spatial location.

Position – The position of objects is judged in relation to the horizon line in which the bottom of the picture plane is seen as the closest visual point (**vertical perspective**).

Overlapping plane or volume over the visible surface of another one suggests that the first one is nearer.

Transparency is closer spatial relationship in which a distant image or element can be seen through a nearer one.

Interpenetration is when planes, objects or shapes pass through each other, locking them together with specific area of space.

Fractional representation is when the most representative aspects of the different parts of an object (or a body) are combined in the same image, thus creating effect of flattening space (Egyptian art, Cubism etc.).

Converging parallels can make a shape appear to recede into the pictorial field.

Perspective is any graphic system used in creating the illusion of 3D images and spatial relationships on a 2D surface. There are several types of perspective:

Linear (geometric) perspective develops the optical phenomenon of diminishing size by treating edges as converging parallel lines, which extend to a vanishing point.

Reverse perspective is when artists (east Asian artists, Medieval painters, etc.) uses **oblique projection** in which a 3D object is presented with the front and back sides parallel to the horizon base and the other planes drawn

as parallels coming off the front at 45° degree angle.

Isometric projection is an oblique projection in which the object is presented starting with the nearest vertical edges of the object drawn at a 30° angle and all verticals are projected perpendicularly from a horizon base.

Atmospheric (aerial) perspective is when the illusion of deep space is produced by lightening values, softening details and textures, reducing value contrasts, and neutralizing colors in objects as they recede.

Color perspective is a technique that uses the spatial characteristics of colors in which objects in warm colors appear closer than objects colored in cold colors.



Raphael, **The School of Athens** (detail), 1508. Fresco, Vatican, Rome. In this painting we can recognize obvious linear perspective with vanishing point between Plato and Aristotle. In addition the arches are getting lighter with distance in strong atmospheric perspective.

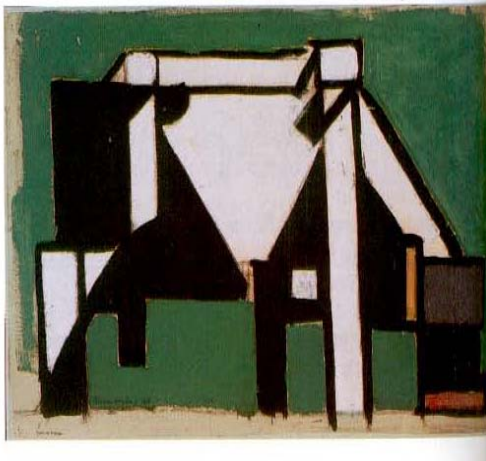
Modern artist, equipped with new scientific and industrial materials and technology, have extended the search into nature. **Four-dimensional space** is a highly imaginative treatment of forms that gives a sense of intervals of time or motion.

Economy

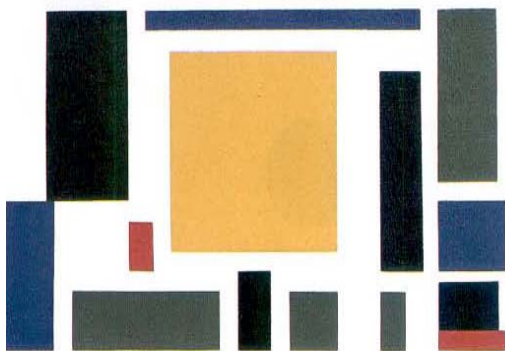
Economy - distilling the image to the basic essentials for clarity of presentation.

Very often, as a work develops, artist found that the solutions to various visual problems result in unnecessary complexity. This lack of unity artists can override by returning to significant essential, eliminating elaborate details, and relating the particulars to the whole. Economy has no rules and it must be an outgrowth of the artist's instincts. If something works with respect to the whole, it is kept; if disruptive, it may be rejected.

Economy is often associated with term "abstraction".



Three versions of a cow by **Theo van Doesburg**: First – study I with pencil on paper; Second - study with tempera, oil and charcoal on paper from 1916; Third – final oil painting on canvas called "**Composition (The Cow)**" from 1917; today in MOMA, New York.



These works show specific **development toward Abstraction**: 1. Object from nature; 2. **Realism** (representational but emphasizing the emotional – more subjective); 3. **Semi-Abstract** (Objective Abstraction - simplified and rearranged) and 4. **Nonobjective Abstraction** (nonrepresentational – without any reference to subject).

Abstraction implies an active process of paring things down to the essentials necessary to the artist's style of expression.

Economy is easily detected in many contemporary art styles. Abstraction is a relative term because it is present in varying degrees in all works of art.

Developing toward Abstraction:

Object from Nature is often the starting point for artists (especially for photographers);

Naturalism is fully representational, impersonal depiction of the natural that tends to imitate specific effects of the camera;



Henry Peach Robinson, **She vanishes**, 1858.

The emotional factor in the content of this photograph is evident, but artist-photographer has enhanced the content by handling of the situation.

Realism is representational appearance, which is subjectively modified by the artist to emphasize the emotional universal meanings;

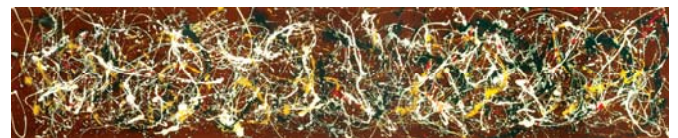


Ilya Jefimowich Repin, **The Volga Boatmen**, 1872. Oil on canvas, 131 x 281 cm. Russian State Museum, St Petersburg.

Realistic hard toil of the men dragging the boat (emphasized by the diagonal composition) has universal meaning; it is a statement about the drudgery, and hardships faced by men of the period.

Semi-Abstract is partly representational, but simplified and rearranged ("distorted") with further loss of recognizability (Stylized);

Objective Abstraction is a representation by altering or distilling natural object to their essence (Symbol);



Jackson Pollock, **No. 2**. Oil on canvas, 100 x 500 cm.

Nonobjective Abstraction is nonrepresentational, started without any reference to subjects and assuming artistic value resides in form (elements and principles) and content completely – pure design.

Line is the path of a moving point that was made by a tool or medium as it moves across an area. A line is usually made visible because it contrasts in value with its surroundings. **Three-dimensional lines** can be made using string, wire, tubes, solid rods etc.



So called “**Chinese horse**”, cave painting from the cave *Lascaux* in France (c. 12000 B. C.) shows the use of contour line in representing the physical presence of the animal

Everywhere in nature we perceive as lines phenomena as cracks in a sidewalk, rings in a tree, or the linear masses such as spider webs and tree limbs. More easily seen lines are those that graphic artist makes with instruments such as pencils, pens and crayons. The artist uses lines as visual instruction of something observed; for example, line can describe an edge, or it can be a meeting of areas where value, textural, or color differences do not blend; or it may be a contour when defining the limits of a drawn shape. Artists use different type of lines to suggest spatial change, movement, or animation.



Henri Matisse, **Head of a Girl**, 1915, print (etching)
With the same thickness of fluid curves Matisse achieved elegant slow motion of hair suggesting restful and peaceful gesture.

Lines differ in **measure** (short or long, thin or thick); type (straight, angular or curved); **direction** (zigzag or serpentine); and **character** (geometrical, calligraphic or expressive line), etc. The qualities of those lines are many, and can be described in terms of general states of feeling – tired, energetic, alive etc. For example - **Calligraphic lines** are flowing and rhythmical; intriguing to the eye as it enriches an artwork; one can see the qualities of grace and elegance.

Line can possess color, value, texture and it can create shape. In creating shape, line serves as a continuous edge of a figure, object or mass. **Contours** are lines that describe an area, while **cross-contours** provide information about the nature of the surfaces contained within those edges (like a topographical map).

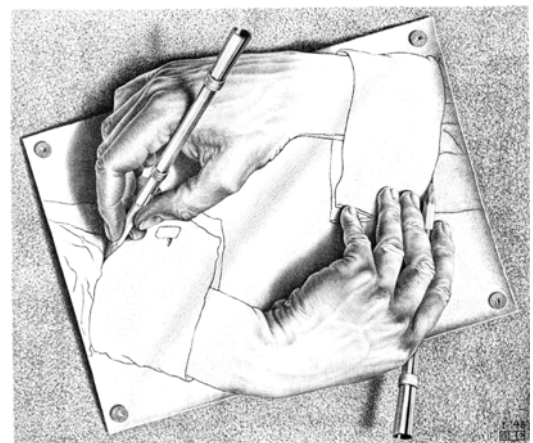


Leonardo da Vinci, **Study of a Girl's head**, 1475, pencil on paper

Groups of lines create areas that can differ in value (wide lines = dark surface, narrow lines = light). **Hatching**, repeated strokes producing clustered lines, is a way to produce value, and the strokes can even define the direction of a surface.

Groups of lines can also combine to produce *textures* that suggest a visual feeling for the character of the surface. In combination with certain colors, lines can represent different *emotional* states.

The *spatial* characteristics of line are subject to control by the artist – for example, individual line with varied values throughout its length may appear to writhe and twist in space.



M. C. Escher, **Drawing Hands**, 1948., lithograph, 28,5 x 34 cm

Line creates representation on both abstract and realistic levels. Artists are using all line properties to suggest almost everything – from merely utilitarian line in architectural drawings, or words on paper to convey feelings and emotions in drawings and paintings.

Gestural drawing in any medium displays lines that are drawn freely and quickly, and used more conspicuously can present motion of the drawn subject.

Value (tone, brightness) can be understood as the relative degree of light and dark (achromatic value), or as characteristic of color determined by light or dark, or the quantity of light reflected by color.

Achromatic value comes in gradation of middle value to black (low key values) and middle value to white (high key values). Many printmakers and photographers prefer to work entirely with achromatic values to produce successful works with rich darks and sparkling lights.

Value can be used in describing objects, shapes and space.



Edward Weston, **Succulent**, 1930. Photograph.

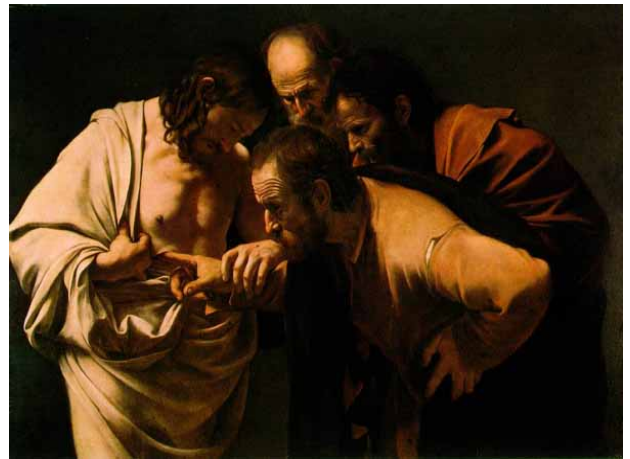
A solid object receives more light on one side than the other, while shadows occur where the light is blocked. Curved surfaces exhibit a gradual change of value, whereas angular surfaces give sharp changes: (A) Highlight; (B) Light; (C) Shadow edge; (D) Shadow core; (E) Cast shadow; and (F) Reflected light.

Descriptive qualities can be broadened to include psychological, emotional, and dramatic expression.

The type of expression sought by the artist ordinarily determines the balance between light and dark in work: dark areas create an atmosphere of gloom, mystery, drama, or menace, while light areas produce quite the opposite effect.

Chiaroscuro (Italian: light and shadow) is a technique of creating the illusion of 3-D objects in space or atmosphere by distribution of contrasting light and dark in *modeling* an object in a painting. Chiaroscuro reappeared in western art during the Renaissance, and Leonardo extended the range of values with his technique known as *sfumato* (extremely subtle transitions from light to dark or dark to light).

A technique of painting that exaggerates the effects of chiaroscuro is called **tenebrism**. Tenebrists (Caravaggio, Rembrandt, etc.) used the strong contrast to highly dramatic, even theatrical work.



Michelangelo Merisi, called Caravaggio, **The incredulity of Saint Thomas**, c. 1609. Oil on canvas.

Some art styles ignore conventional light sources or neglect representation of light altogether, and stress decorative effects (**decorative value**). This is characteristic of the works of children and primitive and prehistoric tribes, traditional East Asians, and certain periods of Western art (Middle Ages, Byzantine art, Modern and Contemporary art).



Henri Rousseau, **The Snake Charmer**, 1907. Oil on canvas, 169 x 189.5 cm. Musée d'Orsay, Paris.

Most creative artists think of value as a vital and lively participant in compositional structure. These artists use the arrangement or organization of values that control compositional movement and create a unifying effect throughout a work of art – **value pattern**. Value patterns may be thought of as the compositional skeleton that supports the image.

There are two approaches for developing the value pattern – closed-value or open-value compositions. In **closed-value** compositions, values are limited by the edges or boundaries of shapes; while in **open-value** compositions, values can cross over shape boundaries into adjoining areas.

TEXTURE

Texture is the surface character of a material that can be experienced through touch (actual texture) or the illusion of touch (simulated texture).

Everything has a texture, from the hard glossiness of glass through the partial roughness of lampshade to the soft fluffiness of a carpet. We don't have to touch the objects (**tactile** experience) to perceive its texture; we can see (**visual** experience) texture and predict its feel. Therefore, in a picture, we may recognize objects through the artist's use of characteristic shapes, colors, and value patterns.

Texture is really **surface**, and the feel of that surface (tactile or visual) determines how we see it and feel it. Rough surfaces intercept light rays, producing contrasting (dynamic) lights and darks. Glossy surfaces reflect the light more evenly (smooth), giving a less broken appearance.

Textures can provoke psychological or emotional responses in us that may either pleasant or unpleasant. Textures also have symbolic or associative meanings.



Auguste Rodin, **The Kiss**, 1886-98. Marble, larger than life-size. Rodin's museum, Paris.

The sculptor has polished bodies of figures in order to bring out the natural textures of marble. In addition, he made rough texture of the stone pediment to make contrast of cold and hard shapes that make smooth lines and emotional gesture of figures livelier.

Actual texture has been a natural part of 3D art, but has rarely been present in graphic arts. Adding textures in 2D art began with Cubists (Picasso, Braque, Gris, etc.) in early 20th century when they pasted a piece of wall paper to a drawing. That was the first examples of *papier collé* (French: glued paper), soon known as **collage** – a pictorial technique where real materials that possess actual textures are added to the picture plane surface, often combined with painted or drawn passages.

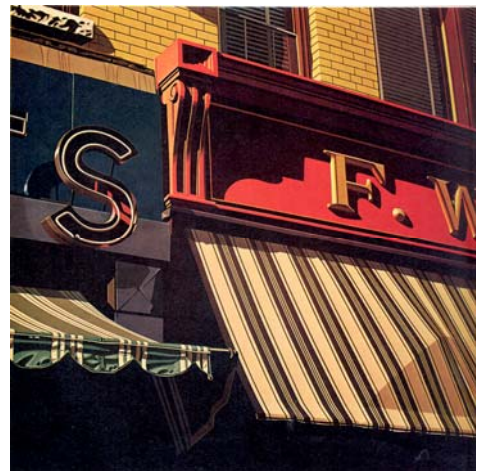


Juan Gris, **Fantomas**, 1915. Collage and oil on canvas, 59.8 x 73.3 cm. National Gallery of Art, Washington.

In this painting we can see a collage in which artist used actual textures of glued wood and created simulated textures of wallpaper.

If items in a collage are displayed rather bulky so they keep their individuality and look more like 3D art than a painting; we call that an **assemblage**.

Simulated texture is a surface character that looks real, but, in fact, is not. Simulation is a copying technique, a skill that can be quite impressive in its own right; but it is far from being the sum of total art. Simulated textures are useful for making things identifiable, and we experience a rich tactile enjoyment when viewing them. This texture is often associated with **illusionist paintings** (*trompe l'oeil*) which attempt to “fool the eye”.



Robert Cottingham, **F. W.**, 1975. Oil on canvas, 200 x 200 cm. Artists collection.

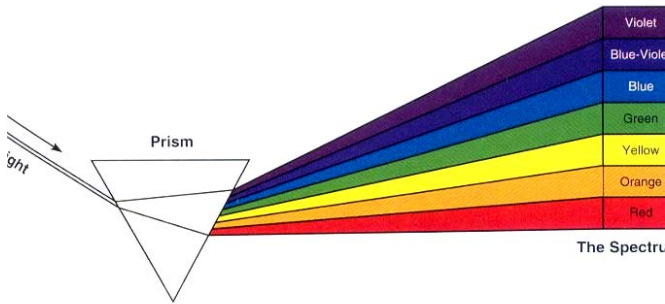
Abstract texture is simplified, stylized or rearranged appearance of an actual surface to satisfy the demands of an artwork. These textures function in a decorative way to enrich the picture.

A created texture whose only source is in the imagination of the artist is called **invented texture**. It generally produces a decorative pattern and should not be confused with an abstract texture.

Color

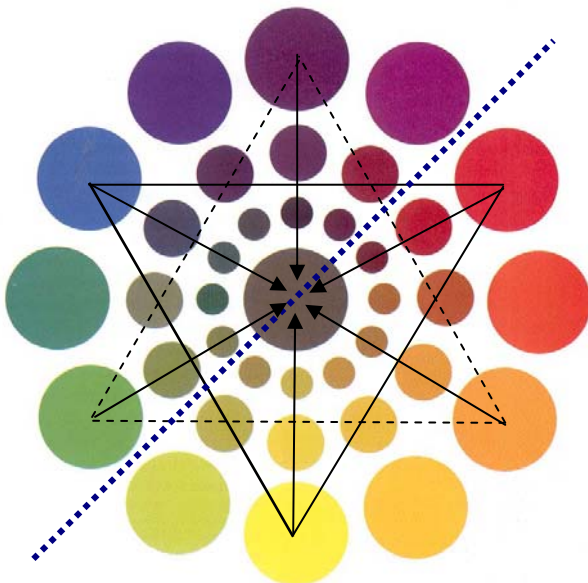
Color - The visual response to the wavelengths of sunlight identified as red, green, blue etc.; Having the physical properties of hue, intensity and value.

Color is derived from light; every ray of light coming from the sun is composed of waves that vibrate at different speeds. The sensation of color is aroused in the human mind by the way our senses of vision responds to the different wavelengths. If a beam of white light passes through a triangle-shaped piece of glass (a prism), the ray of light will bend and reflect as different colors. These colors in a narrow band we call **spectrum**. The same effect is created in nature in a rainbow.



The angle at which the rays are bent is greatest at the violet end and least at the red end.

The spectrum consists out of three **primary** (red, blue, yellow) and three **secondary** colors (orange, green, violet). These colors, however, blend gradually so that we can see several **intermediate** colors between them. Some pigments like black, white, or gray, do not look like any of the hues of the spectrum. They are **achromatic** – we recognize them merely in the quantity of light they reflect (black is absence of light, while white is the light). That’s why they are also called **neutrals**.



This **color wheel** includes **primary, secondary and intermediate hues**. **Analogous colors** are those that appear next to each other on the color wheel. Opposite colors are **complementary colors**. The smaller circles indicate the lessening of **intensity** due to the mixing of these complementaries. The inner circles are result from the mixture or neutralization of one primary by its complement. Complete neutralization occurs in the center. The blue line indicates distinction between **warm and cool colors**, and darts indicate **complementary contrasted** colors.

The Characteristics of Color

Every color must be described in terms of three **physical properties**: *hue, value and intensity*.

Hue is generic color name which indicates its position in the spectrum or on the color wheel. Every color actually exists in many subtle variations, although they all continue to bear the simple color names on the twelve-step color wheel. Adding it to another hue can change color’s hue.

Adding black or white to a hue can produce a wide range of color value variations. So **value** is quantity of light reflected by the color.

Intensity (*saturation or chroma*) refers to the quality of light in a color, or purity of a hue. A vivid color is of high intensity while a dull color is of low intensity.

Combinations and arrangements of color express content or meaning. The successful use of color depends upon an understanding of some basic color relationships. Some of the basic are *color “temperature”, complementary and simultaneous contrast*. All of the colors can be classified into one of two groups: **“warm” colors** or **“cool” colors**. Red, orange and yellow are associated with the sun or fire, and are considered warm, while any colors containing blue are associated with sky and water, and are considered cool.

Greatest contrast will occur when we use two colors that are directly opposite each other in on the color wheel (**complementaries**). But if we mix them together we will get neutral gray.

Whenever two different colors come into direct contact, their similarities seem to decrease and the dissimilarities seem to be increased. We call this **simultaneous contrast**.

Colors may be organized according to their ability to create compositional depth. Artist can create the illusion of an object’s volume using advancing and receding characteristics of certain colors – so called **plastic colors**. For example, a spot of red on gray surface seems to be in front of that surface; while a spot of blue on the same surface seems to sink back into the surface. In general, warm colors advance, and cool colors recede.



Paul Gauguin, **The Vision After the Sermon (Jacob Wrestling with the Angel)**, 1888, oil on canvas, 73 x 92,7 cm, Edinburgh, Scotland
Gauguin has used the nature of plastic color to reverse the spatial effect and make it shallow. He painted the foreground in cool colors while the background advances because of its warm reds.

The Psychological Characteristics of Color

Every color has some psychological influence on humans – we cannot escape the emotional effects of color because it appeals directly to our senses and is a physiological function of sight itself. Color in artwork may be organized according to its ability to create mood, symbolize ideas, and express personal emotions. For example – blue can present a state of dignity, sadness or serenity – generally easy going or relaxed notions (this is a reason why hospitals interiors are often painted blue). Reds are thought of as being cheerful and exciting - generally they are disturbing our eyes (that's why they have distinctive use in traffic signs, traffic lights, colors of dangerous machines, etc.).



The variety of color on this mosaic in San Vitale in Ravenna, Italy (6th century) represents the wealth of **Queen Theodora with her maids**. Her purple gown stands for royalty while gold background represents the heavens stressing her relationship with the Christian church.

Also, different values, intensities of hues in a color range may affect their emotional impact (strong contrast can give vitality, while closely related values and low intensities can create feeling of subtlety and calmness).

Light, bright colors make us feel joyful; warm colors are generally stimulating, cool colors are calming, while dark or sober colors are depressing.



Chaim Soutine, **Beef carcass**, c. 1924, oil on canvas, 118,1 x 82,5 cm, Institute of Fine Arts, Minneapolis

In this Expressionist contrast of clashing complements, heavy neutralizing lines of black creating harsh and dramatic scene stabilizes pattern.

Symbolically, every culture understands the danger of fire (reds) and the great vastness, mystery and freedom of heavens and the seas (blues). For many western cultures black is sign of lost and death; white is something pure and honest; green is the sign of regeneration, hope and life; blue stands for reliability, loyalty and freedom; reds suggest danger, bravery, sin, passion and even death; purple stands for royalty and mysticism etc. However, not all color has the same application in each culture – in India white is the color of funeral processions (meaning lost of colors); in pre-Colombian cultures red symbolized renewal and rebirth in blood; in China the color of emperors was deep copper red because it was hard to achieve in glazing ware.



“Festival of colors” in Holi, India, 30th of January 2007
For Indians the colors are similarities to life itself, so white as absence of color is representing sadness.

We are continually exposed to the application of color's emotive power in consumer marketing – sparkling white = cleanliness and purity; strong plastic colors = irresistible as jewelry; warm intensive letters = easily noticeable; light cool colors = larger packing etc.



Jasper Jones, **The Flag**, 1958, encaustic on canvas, 103,1 x 151,8 cm, Jean-Cristophe Castelli Collection

The symbol on this painting is so blunt that artist wants us to ask ourselves – is this a painting or a flag? In the same time the artist is answering by using the complicated technique of encaustic.

Even before that, artists have used the power of color to symbolize ideas, enriches their metaphors and to make their work stronger in content and meaning. Many artists have even evolved a personal color style that comes primarily from their feelings about the subject rather than being purely descriptive. For example, the color in the paintings of Leonardo da Vinci are unified in tone and light so they are quite close – representing stable and dignified emotions; while color in Van Gogh's paintings are usually vivid, hot, intense, and applied in snakelike ribbons of pigment that expresses his intense personality.

Photography

Photography means literally “drawing with light” (from the Greek *photos* = “light”, and *graphe* = “drawing” or “writing”).



Lewis Hine, **Little Weaver Girl in Textile Factory** (Augusta, Georgia), 1903, Gelatin silver print. George Eastman House Collection, Rochester, New York

Documentary photographs were supposed to capture social circumstances of poor and provoke emotional reaction in public.

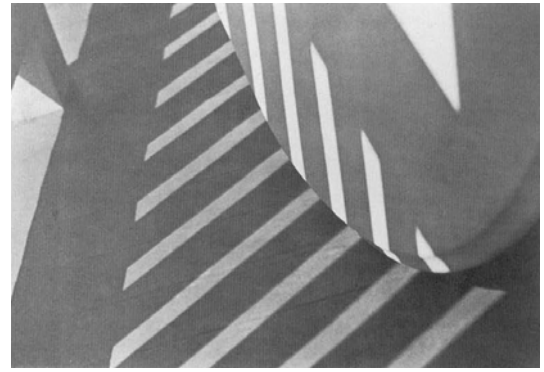
The invention of photography in late 1830s (Louis Daguerre – *daguerreotype*) made possible for a large number of people who did not have any artistic knowledge to create images. Photographs were cheap, quick, and reliable and could multiply in countless copies. Photography achieved great popularity, and its potential use for both portraiture and journalism was widely recognized. That’s why the artistic aspect of photograph was disputed for a long time. Today, Photography and Film (which sprung from photography) have achieved the status of art forms in their own right.



Anselm Adams, **Moonrise**, 1941, Gelatin silver print, 38,1 x 47 cm, MOMA

Improvements and refinements of photography went from reverse print on copper plate, “negative film” and print on light-sensitive paper, shortening exposure time from 15 minutes to capturing motion, and from color photography (1907 by Lumière brothers) to contemporary digital photography.

We often say that photography represents the world as it is, however, even though it is a product of a technical machine, it is made by human hand. We should be aware the fact that the photographer is showing only that part of reality (60° out of 360°) and the moment of his own interest. In fact, the composition in photography depends from which objects photographer chose to put in, and from certain angle he chose to represent them in.



Paul Strand, **Abstraction, Porch Shadows**, Twin Lakes, Conn. 1916, Satista print, 33,2 x 23 cm, Art Institute of Chicago
In this high-angle close up, Paul Strand has created a handsome abstract shadow photograph with rich dark and brilliant whites.

If the photograph can transfer some message, express some meaning, invoke emotions, or show profound truth in some events, than we can call it **art photography**. Art photography catches not any moment but **decisive moment** in which composition of objects or some happening invokes deeper sense and truth, or human face expresses the character of a person.

Power to express deepest thoughts and feelings belongs only to Arts, and only true artist can catch it with photo camera.

Photography uses the same means of expression as Visual Arts. Beside composition (it’s most important mean of expression), the two basic are: value and shaping. The relationship between shadow and light (value) can be regarded in **amount of light** (light or dark photo) or in **quality of light** (soft lighting or contrast lighting). **Shaping** in photography means an ability to make objects appear more recognizable or to hide their shapes. If shadow & light are showing the shapes of an object we say that the light is building the object, and if the light only shows parts of an object, in contrast with its contours, than the light is demolishing the object.



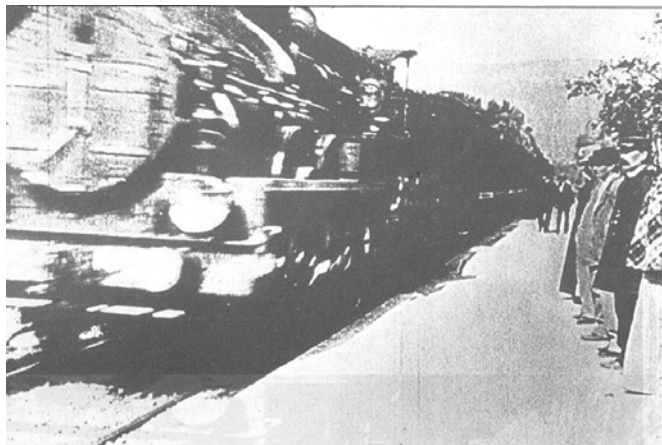
Lucas Haas, **The Pair**. 1947, Gelatin-silver print, Chicago

At the end, we can say that the photograph can be “looked” but we cannot “see” it quickly. Since we are seeing with our brains (not only with our eyes), seeing is a kind of *visual thinking*. That process demands a certain amount of time, and durability of a visual art depends on how long we are looking on it. Time spend looking onto work of art is the best way of appreciating one. Masterpiece is a kind of work of art that offers to its viewers always something new every time they look upon it; while “superficial” work of art is drained very fast.

VISUAL LANGUAGE OF MOVING PICTURES

Introduction to Film

Film or “seventh art” is one of the youngest forms of art, but amongst arts it has taken the first place in modern life. From the first “moving pictures” of brothers August and Louis Lumière and their invention of *cinematograph* in 1895, film has grown into a powerful mean of visual expression.



A scene from a short movie called “Arrival of a train” by Lumière brothers, 1895.

Today, Film has achieved the status of self-sufficient art form, and as such it is a synthesis of several means of expression from other arts like literature (scenario), theater (acting), music, and visual arts (light & shadow, color, makeup, scenes and costumes, etc.). However, the basic mean of expression in film is **moving pictures**.

Moving pictures still have a lot in common with pictures in Visual Arts, but there are some basic differences. In a painting or in a photograph composition is composed of spatial order of elements, while composition in film is similar to composition in music and it is happening in some **time** stream.

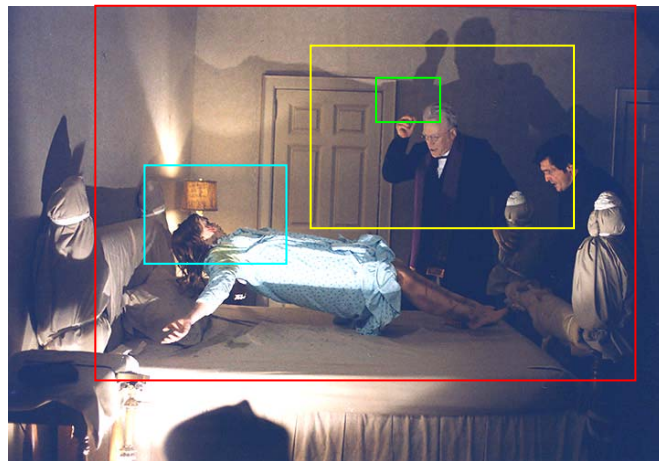


A scene from a 1936 movie **Modern Times** by Charlie Chaplin

A **shot** is the shortest unit of a movie – unstopped sequence of camera filming. A **scene** is usually composed of a several shots taken in a same environment. But composition can alter in a single shot as camera moves, and movement becomes a part of composition. There are several types of shots like total, portrait, landscape, detail and American.

Cutting shots and putting them together is important part of making a movie. Composition and rhythm in a movie is achieved with a stream of shots that are coming one after the other. With longest shots the rhythm is slower, and with shortest shots the rhythm is quicker. In fact, the most important characteristic of a film is that it includes an aspect of time. The length of a movie also has some psychological and artistic purpose.

Sequencing is a way to determine relationship between shots and the meaning of a scene. Rules of sequencing are special film language.



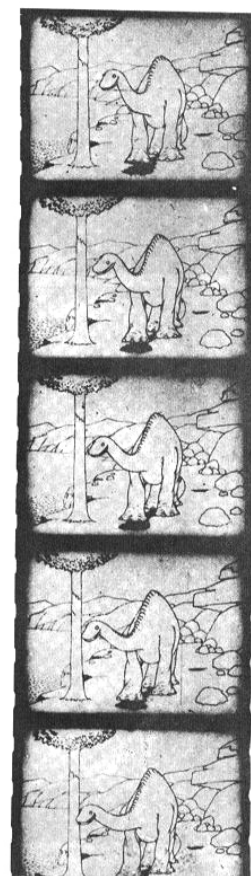
Basic film shots are shown here on this example from a film **Exorcist** by Alan Parker from 1975: Total (red), American or Middle Plan (yellow), Close Up (blue) and Detail (green).

Directors that have created the language of film were D. L. W. Griffith, S. M. Eisenstein, C. Chaplin, C. Th. Dreyer, E. von Stroheim, etc. With the invention of found movies the structure of film completely changed and authors that gave full genre wideness were: F. Lang, J. Ford, L. Bunuel, J. Renoir, H. Hawks, A. Hitchcock, R. Breson, L. Visconti, F. Felini, M. Antonioni, A. Kurosawa, J. L. Godard etc.

Today we recognize various genres of movies (documentary, thriller, horror, comedy, etc.) but most linked to Visual Arts is certainly Animated movies.

Animation appeared in the very beginning of film and it is based on putting in motion still images or drawings, 24 in a second. Animators from the USA as Winsdor McCay, and Fleischer Brothers created first animated characters, while the most rewarded and most famous one Is still - Walt Disney.

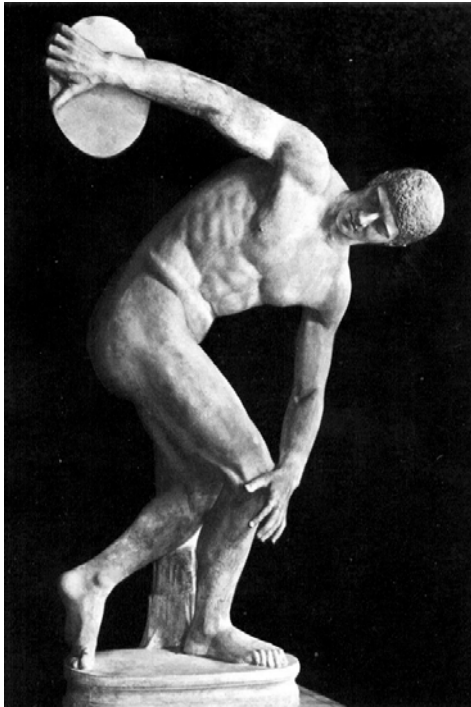
At the end let’s say that film, out of all arts, is closest to a stream of human thought, or the way we see and think.



Dinosaur Gherty was the first animated movie from 1909, by Winsdor McCay.

SCULPTURE

Sculpture is three-dimensional art of shaping **volumes** in actual space. Volume is the amount of space the mass, or bulk, occupies; negative to open spaces.



Miron, **Discobolus** (disc thrower), c. 450 B. C. 2 m high Roman marble copy of Greek bronze original.

Graphic arts have two dimensions (height and width), and exist on flat surface, while sculptures have third dimension of **depth**. Therefore a sculpture has multiple positions or views, and we can also observe a sculpture by touch.

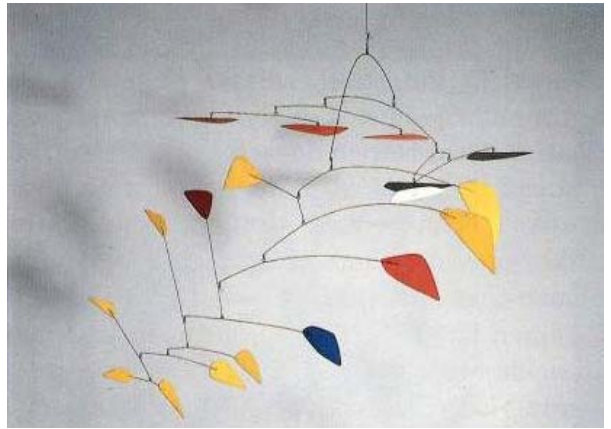
The term sculpture derives from the Latin verb *sculpere*, which refers to the process of **carving**, cutting, or engraving. Earlier Greeks' definition included the **modeling** of materials as clay or wax. Modern sculpture is no longer limited to carving and modeling. It now refers to any means of giving intended form to all types of three-dimensional materials. These means include welding, bolting, riveting, gluing, sewing, machine hammering, and stamping of such materials as steel, plastic, wood, and fabric (etc.).



Donatello, **Chellini Madonna**, c. 1424, bronze, 50 x 50 cm.

The sculptor who assembles materials may also enclose *negative volumes* (space enclosed by planes, linear edges or wire) to form unique relationships.

The diversity of newfound materials and techniques has led to greater individual expression and artistic freedom with three-dimensional forms like wire constructions and moving sculptures - **mobiles**.



Alexander Calder, **Mobile on two planes**, 1954. Wire and metal plates.

Materials and techniques

Materials and techniques play larger roles in sculpture than in graphic art. Through hundreds of years the range of materials has expanded from basic materials as stone, wood, and bronze to steel, plastic, glass, laser beams (holography), and so on. Such materials offer new relationships of subject, form and content, but also put limitations on the structures that can be created and the techniques that can be used.

The four primary technical methods for creating sculptures are **subtraction**, **manipulation**, **addition**, and **substitution**.

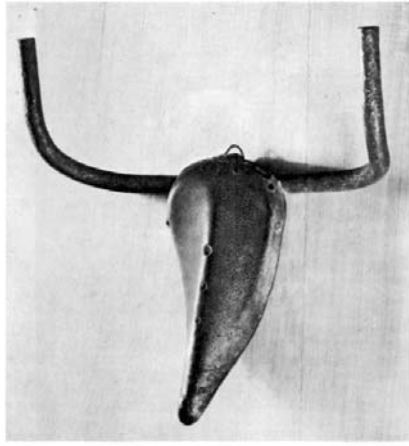
Subtraction means cutting away materials capable of being carved (**glyptic** materials), such as stone, wood, cement, plaster etc.



Terracotta soldiers, c. 215 B.C. More than 10,000 life-size figures from King Ch'ins tomb in Lintong, Shanansi province, China.

Manipulation (modeling) relates to the way **pliable** materials as clay, wax, and plaster are handled. Because most common manipulable materials are not durable, they usually undergo further technical change. For instance, clay may be fired or cast in a more permanent material like bronze.

Substitution, or casting, is a technique for reproducing an original sculpture. Basically, a model in one material is exchanged for a duplicate form in another material, called the **cast**, and this is done by means of a **mold**.



Pablo Picasso, **Head of a Bull**, 1943, Seat and steering hands of a bicycle, 42 x 41 x 15 cm. Picasso Museum, Paris.

Addition is most recent technique and it includes **assemble** materials as metal, wood, and plastic with tools and fasteners. The additive methods, with great range, freedom, and diversity, offer many challenging sculptural form solutions.

The Elements of Three-dimensional Form

Three-dimensional form is composed of the visual elements: shape, value, space, texture, line, color, and time (the fourth dimension).

Shape implies the totality of the mass or volume lying between its contours including any projections and depressions, and even interior planes. In sculpture the visible shape depends on the viewer's position. A slight change of position results in a change in shape.



Queen Nefertiti, c. 1348-1336 B.C. Limestone, height 48.3 cm. National Museum in Berlin.

Value in sculpture is the quantity of light actually reflected by an object's surface. Surfaces that are high and facing a source of illumination are light, while surfaces that are low or facing away from the light source appear dark. Any angular change between them results in changed value contrasts. The sharper the angular change, the greater the contrast.

Space in sculpture is boundless or unlimited extension of occupied areas. Concerning relationships between volume and space we can recognize two major types of sculptures: **free-standing (full volume)** sculptures and **reliefs** – sculptures bounded to the surface. *Shallow-relief* is a type of sculpture that uses thin shallow spaces trying to indicate and

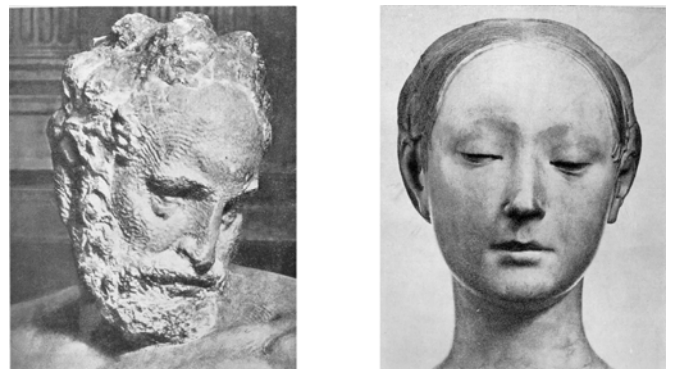
distinct figures or shapes. *High-relief* is a relief where the forms nearly break loose from the surface, and shadows are stronger and have more interesting value patterns.



Niccolo Salvi, Pietro Bracci and Filippo Della Valle, **Trevi Fountain** in Rome (1732-63) is actually a high relief group sculpture.

Negative shape is a 3D open area that seems to penetrate through or be contained by solid material. **Open shapes (voids)** are areas that surround or extend between solids. In linear sculpture, enclosed void shapes become so important that they often dominate the width, thickness, and weight of the materials that define them.

Textures enrich a surface, complement the medium, and enhance expression and content of sculptures. Artists use different textures, from gloss, polished ones to rough ones, to encapsulate the distinctive qualities of the subject.



Different textures on this renaissance portrait sculptures are trying to emphasize notions of rough and firm masculinity (left) and soft and delicate femininity (right).

Line is a phenomenon that does not actually exist in nature or in the third dimension. **Spatial line** is recognized as thin shapes of linear sculpture comprising wires and rods. We can also recognize lines as meeting of planes or the outer edges of sculpture.

Color is also an inherent feature of sculptural materials, and can be used or denied by an artist. Paint is added by artists when the material needs enrichment or when the surface requires color to bring out the form more effectively.

In plastic work, as sculpture, the additional fourth dimension (**time**) means that the work must turn or that we must move around it to see it completely. In the case of kinetic sculpture, the artwork itself moves. Mobiles, for example, present a constantly changing, almost infinite series of views.

Origins of Design

Objects have always been beautified in some way. Before the industrial production there was no difference between the process of creation of an applied object and piece of art, both were individual and original products. Therefore, the influence of figurative art in making of applied objects was spontaneous and logic.



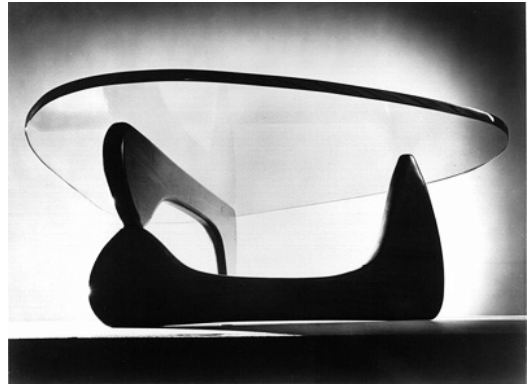
Benvenuto Cellini, **Saltcellar of Francis I.** 1539-43. Gold with enamel, 26 x 33,3 cm. Kunsthistorisches Museum, Vienna.

When the production of objects becomes industrial, it ceased to be creative and from then we distinguish two types of objects: **unique (handmade) objects** and **designed (industrial) objects**. First industrially made objects were shaped in such manner that they resembled the objects they replaced, or they were over decorated. Over decorated or bad designed objects we call **Kitsch** objects.



Three types of chairs: 1. Renaissance folded chair, 2. 19th century restaurant chair and 3. 20th century office chair

At the end of 19th century, in England derived the idea of connecting artist and industrial production in process of beautifying objects – the movement of William Morris was called “**Arts and crafts**”. However, largest role in creating modern design had German school for arts and crafts – **Bauhaus** in Dessau (1919-1931). In that school the artists (as W. Gropius, L. Feininger, G. Muncha, P. Klee, O. Schlemmer, W. Kandinski, L. Móholy-Nágy ...) cooperated with engineers and artisans to create living spaces and suitable objects that would be unique, functional and simple. There they created **principles of modern design**: *unity of function, process of industrial production and respect of the materials in simple but beautiful shaped objects*. According to Bauhaus beautiful object is the one that achieved function through creative process.



Isamu Noguchi, **Table**, 1944, Glass & wood.

Every object has its meaning and purpose that can be read from its shape and choice of materials. Functional object is one that is shaped in such way that its form follows its function. Most objects are shaped according to the shape or to fit the human body - Ergonomic shape. Good object is always made out of material that goes along with its function but does not loose the characteristics of the chosen material. Industrial production helps to make objects rapidly and mass production lowers their cost.



Cover of Esquire Magazine is an example of graphic design

Today, word **Design** means much more than originally as sketch, or visual idea, today it represents an artistically shaping of objects for mass consumption. Modern design is divided into **product design** (industrial design – objects, appliances, machines, automobiles, etc.), **interior design** (shaping the living spaces), **graphic design** (commercial marketing, stickers, billboards, etc.), and **fashion – textile design**.

In a world of mass capitalistic production and the constant technical development we are transformed into a consumer society. Good designer must be well informed of all modern opportunities to use the technical development for good of all.