

Visual language and visual poems

Fill in the blanks with the given words. You can take a look at the definitions of some of the given words back in the glossary.

calligrams-Visual-logo-signifier-sender-objective-Advertising-information-code

_____ communication is a mean of transmitting or expressing _____ through images, There are many kinds of visual comunication, but as in any way of comunication there are ways a _____ and a meaning for it as units of information, as well as there is always a message sent by the _____ to the receiver.

Depending on the Visual _____ these will show up in a form or another. Visual language can be _____ or subjective. Art images use visual languages strictly related to the point of view of the authors so visual language in art is mostly subjective.

_____ images show images that can be understood quickly in order to convince the viewer to buy something. Visual advertising usually shows a headline, an illustration or image, some text and a brand or _____ which are the signature elements. Visual poetry, _____ or surrealists art objects goals are somehow the opposite to advertising, trying to make the viewer think or hesitate at the same time than showing aesthetic images.



Gift. Man Ray. 1958
Source: <http://www.moma.org/>



Fur cup. Meret oppenheim.
Source: <http://theredlist.fr/>



Bril. Marcel Marien.
Source: <http://nirnadler.wordpress.com/>

Chema Madoz is a Spanish Photographer who is specialized in visual poems. Take a look at his pictures in [his website](http://www.chemamadoz.com/)



Perception and observation

Perception is the process to acquire information through the **five senses**. So **Visual perception** is the interpretation or differentiation of visual **stimuli** in the images. The perception of images is different for every person because it also depends on cultural and individual experience aspects. **Observing** plays a key role in perception and consists of looking at the shapes carefully and thoroughly studying their visual qualities and meanings.

AFTER RESTORATION

BEFORE RESTORATION



La Gioconda. Leonardo Da vinci. 1503-1519
Source: <http://commons.wikimedia.org/>

El Prado's Gioconda. Leonardo Da vinci's pupil. 1503-1519
Source: http://cultura.elpais.com/cultura/2012/02/01/actualidad/1328129037_819926.html

Gestalt, perceptual principles and visual effects

The **Gestalt** was a school of psychological thought born in Germany. "Gestalt" in German means "**shape**", which dealt with the study of **visual perception**. Around 1950 it was established what is known as "Gestalt laws" which are a set of fundamental principles of visual perception.

With all this knowledge acquired, some artists played with their audience's perception when observing their artwork. Rene Magritte was a surrealist artist who used some of these principles, mainly the Figure and Ground confrontation, as a main subject of his paintings. "**The seducer**" is a painting made in 1953 that shows a ship on the sea, however the ship is not a regular ship but it is filled up with water as if it was the sea's surface. Beyond the horizon and the sky are appreciated.

"**The Empire of light**" is a Painting in which Magritte depicted a bright daylight sky while the landscape and building is dark as if it was illuminated during the night. The house shows some lights on in the inside rooms as well as in the main entrance, this helps to understand Magrittess' idea of confrontation of light and dark in this artwork.



The empire of lights.
Rene Magritte. 1954
Source: <http://www.wikipaintings.org/>

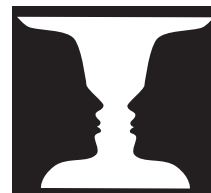


The seducer. Rene Magritte. 1953
Source: <http://www.wikipaintings.org/>

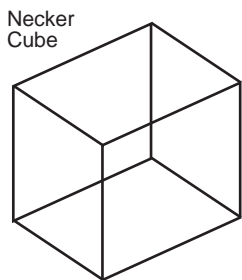
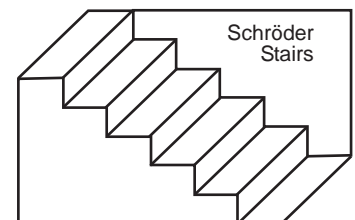
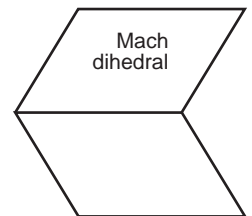
Gestalt Theory of Visual Perception

The Gestalt theorists were the first group of psychologists to systematically study visual perceptual organisation around the 1920's, in Germany. They were Johann Wolfgang von Goethe, Ernst Mach, and particularly of Christian von Ehrenfels and the research work of Max Wertheimer, Wolfgang Köhler, Kurt Koffka, and Kurt Lewin.

The coming to power of national socialism interrupted the fruitful scientific development of Gestalt theory in the German-speaking world; Koffka, Wertheimer, Köhler and Lewin emigrated, or were forced to flee, to the United States where they continued to work, in spite of the dominant theoretical field for that time, of behaviourism.



Ambiguous figure:
Two faces or a vase



Necker
Cube

Gestalt means when parts identified individually have different characteristics to the whole (Gestalt means "organised whole")
e.g. describing a tree - it's parts are trunk, branches, leaves, perhaps blossoms or fruit
But when you look at an entire tree, you are not conscious of the parts, you are aware of the overall object - the tree. Parts are of secondary importance even though they can be clearly seen.

Watch and try this [Visual perception experiment](http://youtu.be/0grANlx7y2E) counting how many times a team passes the ball



So the term Gestalt laws refers to theories of visual perception developed by these German psychologists in the 1920s. trying to describe how people organize the visual elements they see into groups or unified wholes when certain principles are applied.



Optical effects and illusions

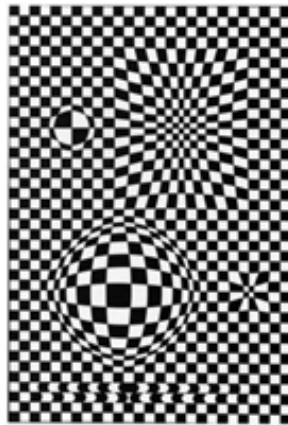
Optical Illusions are images from which we perceive something that is not physically in the image, or distorted elements in shape, size or color. Sometimes a movement is appreciated while actually nothing in the image is moving, those are called Kinetic illusions or kinetic figures.

Some of those illusions are produced by the visual perceptive organs such as our brain or our eyes. Some other times the Gestalt Laws or perceptual principles cause the distortion in our visual impression.

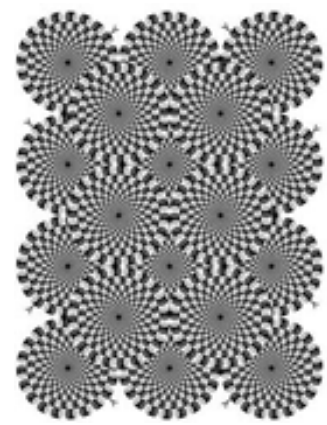
Op art artists liked to play with colours and shapes not creating optical illusions but effects of bending, movement or different chromatic effects that caused some sort of surprise to us.



Arrest. Bridgete Riley. 1965
Source:<http://www.wikipaintings.org/>



Vega. Victor Vasarely. 1957
Source:<http://www.wikipaintings.org/>



Rotsnake
Source:<http://www.ilusionario.es/>

Check out this [webpage](http://www.moillusions.com/) to see some new and current optical illusions

<http://www.moillusions.com/>



Purposes of images

Images usually hold a function, purpose or goal. Depending on the type of image the goal will be one or another. Most images usually hold more than one function, but one of them is normally the main one, lets see some of the main images functions:



Anachronistic psychological laboratory".
J. W. M. Thomassen.1975.
Source: <http://tadamasasawada.blogspot.com.es/>

Descriptive: It explains shapes of objects, events or situations in an objective and accurate way.

Informative: They are images that illustrate news, advertisements or catalogs.

Aesthetics: They try to express an ideal of beauty, they are usually artistic photos or artworks.

Expressive: They are Images that transmit emotions, thoughts or thought-provoking.

Communicative: They are three groups of images:

Brand or logo: a hallmark image whose purpose is to claim, to call or the differentiation and identification of a product or company.

Signs: They are images that express an indication, or prohibition. They are usually pictograms which are clear and simple images with few colors represented as silhouettes.

Symbol: They are images that represent an idea or belief, memories or thoughts.



PERCEPTION AND OBSERVATION

Visual perception: It is the interpretation or differentiation of visual stimuli in the environment. In this process different objective aspects take part, such as colors, shapes, size, relationships, etc; and subjective, related to the experience, culture and circumstances of the recipient or person who interprets the images. The perception of images is different for every person.

Observation: It consists of looking at the shapes carefully and thoroughly studying their visual qualities and meanings. It plays a key role in perception.

Analytical observation: It tries to identify and recognize the shapes and elements of the images.

Functional observation: It is related to the meaning, purpose or action of the elements of an image.

OPTICAL ILLUSIONS

Optical Illusion: It is an image in which we can perceive something that is not real or is not physically in the image, it also shows distorted elements in shape, size or color. Sometimes it comes to ambiguous drawings or images that can be interpreted in opposite or different ways. They can also be images or spaces representing objects that are impossible.

Mach dihedral: It is the depiction of two planes that can be interpreted as arranged in a concave or convex way.

Schröder illusion: consists of presenting a series of objects, figures or faces whose planes can be interpreted as arranged in one way or another. This visual effect is called reversible perspective.

Thiery figure and necker cube: They are figures that are similar to the illusion of Schröder.

Kinetic figures: They are images that produce the sensation of movement

Moiré effect: Consists of two overlapped set of lines that when they move in relation to each other provide the feeling of a different derived movement.

VISUAL COMMUNICATION

Visual Communication: It is a process of production, transmission and reception of information through images.

Context: Set of circumstances in which there is visual communication.

Meaning: it is what the visual message stands for.

Signifier: the set of visual elements that form the image that conveys information.

Visual code: Set of rules and procedures relating the meaning and the significant so that the image conveys the information properly.

Sender: It is person or group that transmits information through images.

Message: The information contained in the image.

Receiver: A person or group that receives or interprets the information contained in the images.

Medium or Channel: It is the entity through which the image is transmitted, it can be television, internet, newspapers, etc.

VISUAL LANGUAGE

Visual language: It is a communication system that uses visual elements to express the messages.

Objective Visual language: It tries to convey information unambiguously and without giving rise to possible interpretations.

Advertising visual language: it provides information that is understood in a quick, easy way to get to sell a product. It further attempts to attract attention through attractive and evocative images.

The main elements of the advertising visual language are:

Headline: It is a sentence, usually on the top of the image, that tries to capture the attention.

Illustration or image: The image is also aiming to attract attention, convey the idea of the advertisement and convince the viewer.

Text: It explains in detail the holder the advertising content through written language.

Signature elements: It tries to close the message, it is usually the product name, brand or company logo.

GESTALT LAWS AND PERCEPTUAL PRINCIPLES

Gestalt: It was a school of phsycological thought born in Germany. "Gestalt" in German means "shape", which dealt with the study of visual perception. Around 1950 it was established what is known as "Gestalt laws" which are a set of fundamental principles of visual perception.

Figure-Ground: Among various shapes, it is perceived more easily the one that stands out for its shape, size, position or color. Figure and Ground (or background) cannot be perceived simultaneously.

Closure: Figures or shapes with an incomplete outline are completed by our perception provided when the directions of the contours are arranged continuously and in a specific direction.

Bright light: A bright light on a figure or body separates it visually from its shadow and background.

Simple configuration: A simple way is perceived more easily than more complex ones around.

Experience in perception: A figure or image is perceived more easily than others if it is part of the experience of the observer.

Proximity: Elements of the image that are closer to each other, are perceived as a figure or as a group.

Similarity: The same or similar elements are perceived as a single figure.

Continuity: The elements that are arranged in the same direction are perceived as one.

Contrast and homogeneity: the principles of the figure and the background can be altered by contrast effects (highlight of figure over ground) and homogeneity (integration of the Figure with the background).

TV ENVIRONMENT AND FEATURES.

Television is a **mass media** which includes human, literary, technical and spatial elements among others. **TV channels** are businesses which are groups of people who need to keep an audience. They organize and carry out their own filmings in **TV studios**. They also buy programs to other channels or production companies.

Different types of professionals work on TV programs in different phases. The Television **producer** is the person responsible for all the processes. **Pre-production** is the phase in which filming is prepared: technical scripts, titles, graphics, etc. are created and determined.

Match the concepts given in the two columns:

MASS MEDIA	TEACHING
GENRE	FORMAT
PRODUCER	TV REALIZATION
POST-PRODUCTION	REALITY SHOW
ENTERTAINING FORMAT	CHAPTERS
FICTION FORMAT	BIG AUDIENCE
DOCUMENTARIES	EDITING AND ASSEMBLING

During the **Production phase** the staff tunes up all the technical elements, actors get prepared in rehearsals and the final filming is carried out. Finally, during **Post-production**, the recordings are edited and assembled. **Formats or television genres** are the specialized programs that appear on television, each of them with their own features. **Entertainment formats** are contests, reality shows, magazine programs, etc. that make use of humor, emotion and surprise to engage with the audience. **Fiction formats** are mainly television series, soap operas, miniseries, etc. that tell stories and consist of a certain number of chapters. **Documentaries** are a genre of disclosure showing different realities. Its objectives are to teach, inform, describe or report facts.

LANGUAGE OF TELEVISION:

Television: It is a mass media way of communication which includes human, literary, technical and spatial elements among others. Television or the different channels are businesses and therefore groups of people who have the need to maintain an audience.

TV Studio: This is where the channels organize and carry out their own filming or programs.

Television producer: Responsible for the realization processes, his/her principal figures are the producer and the director.

Pre-production: It is the preparation before filming. In this stage, technical scripts, titles, graphics and so on are created and concreted.

Production: It includes different stages such as tuning of technical elements, preparation of actors, rehearsals and the final recording.

Post-production: It is about editing and assembling all the shots.

Script: It is a text that contains everything that happens in the visual narrative

NARRATIVE STRUCTURE AND TECHNICAL SCRIPT

A **Technical script** shows in detail all the **shots**, the **scenes** (actions that happen in the same place, which contain a certain number of shots) and sequences (narrative units containing different scenes), in addition to the respective **dialogues**. A **Graphic script** shows how the shots look like and have some notes regarding **sound effects, timings**, and other details.

Narrative structures are the fundamental parts that form the development of the full story. They can be split into **Acts**. Normally every story can be divided in three main parts or acts: **start up, confrontation and resolution**.

IMAGE SEQUENCE:

Image sequences are **set of images** following an order in which one picture follows another, it is a successive arrangement of images **telling a story or showing a motion**.

We can find image sequences in **prehistoric art**, in all **art history**, as well as in **current cinema or comics**.

On the left we can see a **medieval wall painting** telling us the death of Christ. This sequence lasts about three or four days. But we can also find sequences that depict only a few seconds.



Watch this [Vimeo Tutorial](https://vimeo.com/60902794) on how current professional photographers can make image sequences

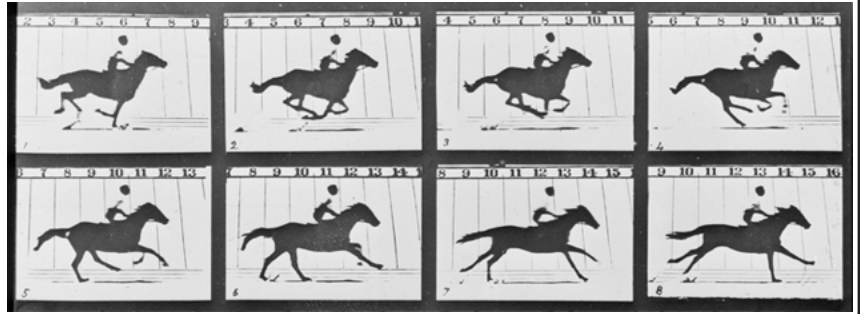
<https://vimeo.com/60902794>



Medieval wall painting showing the sequence of Crucifixion Hamra church. Gotland. Sweden. XV Century
Source: https://commons.wikimedia.org/wiki/File:Gotland-Hamra_kyrka_08.jpg

FROM ANCIENT CINEMA TO NEW TECHNOLOGIES AND IMAGE

Cinema is based on **motion pictures** collected by the **projection** on the **screen** at **24 frames** or pictures per second. **Eadweard Muybridge** was a photographer known for his pioneering work on animal locomotion in the late 19th century. He used **multiple cameras to capture motion** in stop-action photographs. He invented a device for projecting motion pictures, that was the seed of animation and **cinematography**. By then multiple devices, more or less complicated came out to show pictures animations: **Zoetrope**, **Praxinoscope**, etc.



Horses. Eadweard Muybridge.
Source: <http://www.eadweardmuybridge.co.uk/>

See these frames animated in a out this [Youtube video](#)

<http://youtu.be/IEqccPhsqgA>



Zoetrope
Source: <http://www.stageninedesign.com/>

Most of the Cinema visual **special effects** were obtained, at its beginning, drawing **animations** that appeared to be real in the **films** or making alterations of the 24 frames sequences. Fine arts such **sculpture** or **painting** kept on evolutionating till they acquired the video as a medium to express ideas in the 20th century. Also new technologies in image have developed most of their features.

Currently Art holds disciplines such as **infographic design**, which shows digitally made images. Digital images can be vectors made, which are held by mathematic formulas that describe **shapes**, or bit maps, images formed by **pixels**. These new current digital images can show animations as well, all created by computers. Video Games are made using **infography**. **Video art** is one of those new art branches that use any of these resources.

See how it looks like when you see an animation in a zoetrope in [this link](#)



<http://andrew-hoyer.com/experiments/zoetrope/>

By watching this [Youtube video](#) you will learn how pixels were born from ancient photography to modern TV devices



<https://youtu.be/DR2dRWfr7m0>

VIDEO GAMES:

Video games are part of an industry that moves lots and lots of money. Video Games have a lot to do with cinema. They tell a story, they have visual and audio information, etc. with the difference that they are interactive. A video game is made out with different people that carry out different aspects or parts of each videogame.

User interface designer constructs the user interactions and feedback interface, like menus or heads-up displays. **Gameplay** is the interactive aspects of video game design. It involves player interaction with the game, usually for the purpose of entertainment, education or training.

Many games have **narrative elements** which give a context to an event in a game.

Audio design is the process of creating or adding all of the sound effects or soundtrack to the game.

Content design is the creation of **characters**, items, puzzles, and missions or levels.

IMAGE AND NEW TECHNOLOGIES VOCABULARY:

Interactive Art: It is a recent mode in which the viewer, unlike traditional art such as sculpture or painting, can modify or interact with the artwork. Usually works containing electronics, robotics and computer graphics.

Installation art: It is an art form with which the artist expresses the ideas using a series of objects arranged in space. Currently most of the installations make use of new technologies as a way of storytelling and script expression. The traditional narrative disappears giving place to all types of shapes and sounds with a purely artistic intention.

Video Art: It is an art form based on the moving image as a means of expression.

Infographic design: The image processed by computer. There are many types such as bitmaps, vector image, static or animated as well as three-dimensional vector images.

Bit Map: It is an image whose information is registered as pixels that are small colored squares that form the image. The most common computer formats for bitmaps are BMP, JPG and GIF that can display a sequence of images leading to an animation.

Vector images: These are images whose information is saved in form of vectors which are lines that can acquire properties such as outlines, curves, and color variations in thickness or enclose shapes with fills and strokes. Vector images can be static, two dimensional, three-dimensional and animated.



Super Mario Land Video game screenshot
Source: <http://www.zehngames.com/>

Shot types.

Audiovisual language is a communication system that integrates all kinds of visual elements (figurative, abstract, schematic, etc.) and sound elements such as sound effects and music to transmit the information. Cinema is a means of mass communication, influencing the likes and sensibilities of people. It is also an art, including various disciplines such as image, sound, choreography and interpretation, it tells a moving story in a certain space and time.

A shot is the portion of space taken by the camera from one point to focus on the scene or its elements. Each type of shot offers different kind of expressive values.

The School of Athens is one of the master pieces by the Italian Renaissance artist Raphael. It shows many classic philosophers in one single space that seems to be a scene of a movie with all their characters.

ACTIVITY__ Read by pairs the types of shots written below and take turns to describe every of the five pictures at the bottom of the page, after describing them label them with the type of shot name.

TYPES OF SHOTS:

Shot: It is the portion of space taken by the camera from one point to focus on the scene or its elements. Each type of shot offers different kind of expressive values.

Long shot: It covers much of the stage, describes environments without getting into specific descriptions of characters or objects. It is usually used to set the scene or at the beginning of an action.

Medium shot: It Covers from the waist to the head. If the plane shows from the knees to the head is called the **American (or cowboy) shot**.

Close-up: The frame shows the head and shoulders, showing the expression of the character.

Extreme close-up: It shows the character's head from chin to forehead.

Cut-in shot: It consists of focusing on part or detail of an object.



Athenas school . Rafael. 1512. Extreme Long shot
Source:<http://commons.wikimedia.org/>



CINEMA

Audiovisual language: It is a communication system that integrates all kinds of visual elements (figurative, abstract, schematic, etc.) and sound elements such as sound effects or music to transmit the information.

Film: It is a means of mass communication, influencing the likes and sensibilities of people. It is also an art, including various disciplines such as image, sound, choreography and interpretation, it tells a moving story in a certain space and time.

Film language: Its structure is based on motion pictures collected by the projection on the screen at 24 frames per second.

Frame: It is the space taken up by the camera or film.

Image sequence - An order in which one picture follows another, it is a successive arrangement. In cinema, a series of single film shots so edited as to constitute an aesthetic or dramatic unit, an episode.

CAMERA MOTIONS

They are used to streamline the story and accompanying movements of the characters, there are three main.

Pans: They are made with the camera on a tripod, turning to guide the viewer's gaze.

Dolly: The camera moves on a rail. **Dolly-in** means step towards the subject with the camera, while **dolly-out** means to step backwards with the camera.

Truck: The camera also moves on a rail, but follows the action sideways.

ANGULATIONS OF THE CAMERA

Depends on the point of view that the camera displays. They are used to transmit certain feelings. anxiety, superiority, oppression, etc..

Eye level: The camera focuses parallel to the ground, at the height of the characters.

Tilt: The camera focuses up and down.

Worm's eye: The camera focuses the scene from the bottom up. Opposite is the **Bird's eye** in which the camera focuses the scene from below.

NARRATIVE IN FILM

Technical script: Shows in detail all the shots, the scenes (actions that happen in the same place, which contain a certain number of shots) and sequences (narrative units containing different scenes), in addition to the respective dialogues.

Narrative structure: they are the fundamental parts that form the development of the full story

Set up: A string or several which presents the characters and settings introduces the story.

Confrontation: It is the most extensive of the film consists of several sequences.

Resolution: It is the conclusion or the end of the story.

TELEVISION GENRES

Format or television genre: They are the types of specialized programs that appear on television each of them with their own features.

Entertainment formats: contests, reality shows, magazine programs, etc. that make use of humor, emotion and surprise to engage the audience.

Fiction formats: they are mainly television series, soap operas, miniseries, etc. that tell stories and consist of a certain number of chapters.

Documentary: A genre of disclosure showing different realities. Its objectives are to teach, inform, describe or report facts.



Composition in Visual arts is the arrangement or organization of the visual elements such as dots, shapes, lines, colors, or any other element that appears in the artwork. Depending on the locations of every object or element the depiction can cause different visual impressions or moods. So it is important for the author to keep in mind this aspect of art making. Composition encloses some aspects, like the **format**, the **rythm**, the **compositional scheme** and **balancing the image**. And there are also some **rules** that help to carry out a good composition.

TWO-DIMENSIONAL FORMATS

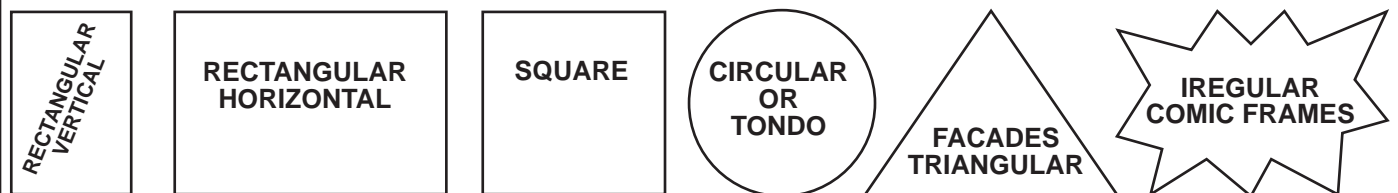
The **format** is the size, the shape and the disposition in the space of the surface on which an artwork is done. In **two dimensions** the format is usually a **canvas**, a **board** or any **flat surface** which are used as a medium to create the depiction.

When making a painting or a drawing the first thing is to decide the type of format to be used. First thing to decide is the **shape of the format**.

Most formats, for two-dimensional artworks, are **rectangular**. About these rectangular formats the first decision to be taken is the arrangement. A **vertical format** should be taken for depicting long raising elements such as human figure standing, trees or towers. **Horizontal formats** are more likely to be used in still life, lying people or landscapes. Many times the rectangular formats attend to mathematical ratios between the long and the short side. It is also common to find **square formats**.

Sometimes it is possible to find **round or circular formats**, these are called **tondi** (**tondo** in plural) which is an italian word. Tondi were popular in the renaissance period.

Not as usual are **Triangular** formats that can be found in buildings facades. And **irregular** formats can be found in comic frames.



THREE-DIMENSIONAL FORMATS

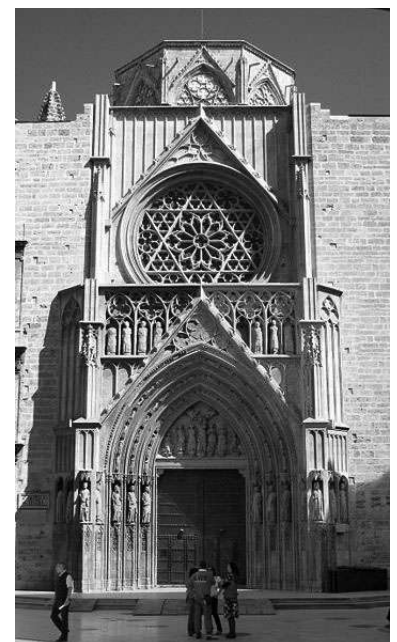
When a format is three-dimensional it means it has to be related to any **volumetric** figure such as buildings, objects or rooms. Greek **temples' facades** show a triangle on the top. These triangles are called **pediments** and usually hold **sculptures**. **Domes** are spheric roofs for some buildings like churches and on their inner face they usually show **murals**. And most churches access doors have a **tympanum** over them that also hold sculptures. All these are good examples for three-dimensional formats



Sagrario dome.
Granada's Carthusian monastery.
Source: <http://commons.wikimedia.org/>



Neoclassical Pediment.
Greek National Academy. Athens.
Source: <http://commons.wikimedia.org/>



Apostles' Gate.
Valencia Cathedral.
Source: <http://www.foroxerbar.com/viewtopic.php?t=7467>



Oma's forest. Agustín Ibarrola
Source: <http://www.traveler.es/>

In [this webpage](http://www.muralalarcon.org/) you can learn about Alarcon's murals, a good example about three-dimensional formats.

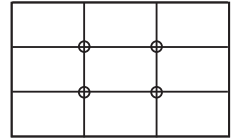


<http://www.muralalarcon.org/>

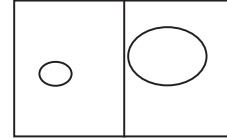
A COUPLE COMPOSITION RULES

The **rule of thirds** is mainly used in photography and graphic design, it consists of trazing a **grid** in the rectangle dividing it in nine smaller rectangles which structure the image and **distribute** the elements. This is achieved **dividing** the main **rectangle sides in three equal parts** and drawing two horizontal and two vertical axes through these divisions. The **four middle intersections** correspond with the image elements that have more **visual weight** or importance in the composition.

RULE OF THIRDS



RULE OF BALANCE OR COMPENSATION



A chair factory at Alfortville. 1897. Henry Rousseau.

Source: <http://www.wikipaintings.org/en/henri-rousseau/the-chair-factory-at-alfortville-1>

Seminarians playing soccer. 1959. Ramón Masats.
Source: <http://www.elmundo.es/magazine/2005/280/1107976642.html>

The **rule of the balance or compensation** is a simple way to compose an image. When using it, the visual weights, shapes and colors, are spread to both sides of an **imaginary middle axis**. So the **most important element** is **located towards the center** while the other elements, not as important, towards the edge.

In this **Youtube video** you'll watch a funny puppets sketch criticizing vertical videos.
<http://youtu.be/Bt9zSfinwFA>

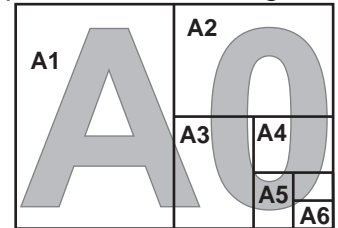


RECTANGULAR FORMATS IN COMPOSITION

Any figure such as circles, squares or triangles can be the format for an artwork. But most of the formats for paintings and images are rectangular. There are infinity of proportions for rectangles. But two of them are singular and more popular.

THE SILVER RECTANGLE

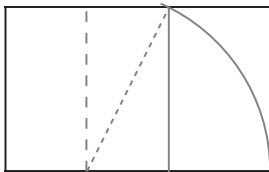
The **Silver rectangle** has the property that if its cut by the middle of its long side it **originates two similar rectangles** to the first one, but half of its size. This rectangle is used as a standard for paper sheets and industry and it is called formally **DIN, UNE OR ISO**. Depending on the size they are called DIN **A0**, the biggest, DIN A1, A2, A3, A4...



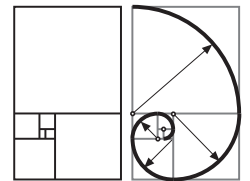
The silver rectangle, ISO, DIN UNE A0: ISO standarization rule #216

THE GOLDEN RECTANGLE

The **Golden rectangle** is structured by the **golden ratio which is 1,618**, this number is the result of dividing its long side by the short one.



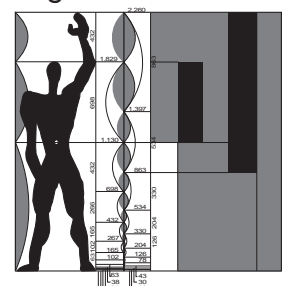
A golden rectangle can be divided in a square and another rectangle that is also golden. This operation can be applied to the resulting rectangles over and over, getting smaller and smaller golden rectangles and squares inside. This repeating operation can lead to inscribe a spiral in the main rectangle.



This proportion also **appears in the regular pentagon** and is very present in nature and human figure. Artists, architects and designers have been using this rectangle as a pattern for composition since centuries before Christ.

ACTIVITY- Match each label on the left with the corresponding picture on the right.

- 1- This Painting contains characters who are forming a pentagon or a pentagram whose proportions are strictly related to Golden ratio.
- 2- In this Painting the artist used the Golden ratio and arranged the elements following an inscribed golden spiral.
- 3- The author of this drawing compared the human figure to golden ratio and both to architecture, he was an architect.



Giant Flying Mocca Cup with an Inexplicable Five Metre Appendage . Salvador Dalí
Source: <http://www.dali.com/blog/giant-flying-mocha-cup-with-an-inexplicable-five-meter-appendage-reveals-enigma-humor-of-dali/>

Sacred Family. 1503-1505
Michelangelo Buonarroti
Source: <http://www.ibiblio.org/wm/paint/auth/michelangelo/holy-family.jpg>

Le Modulor. Le Corbusier
Source: Drawing by laslaminas.es

SEGMENTS GOLDEN SECTION:

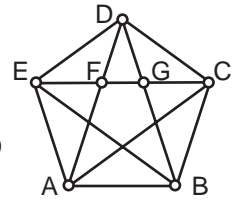


The **golden section of a segment** is a point which divides it into two parts so that:

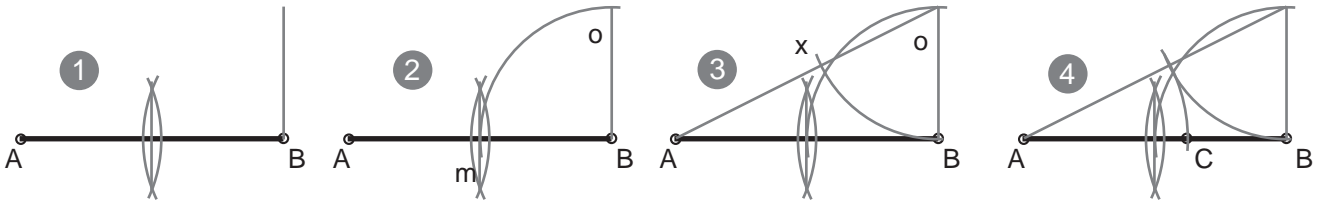
$$AC / AB = AB / BC = \Phi = 1'6180\dots$$

Φ is directly related to the regular pentagon dimensions and the star pentagon, also related with the Fibonacci sequence: 1,1,2,3,5,8,13 ...

1,618
 Φ
AB/BD
EF/EF

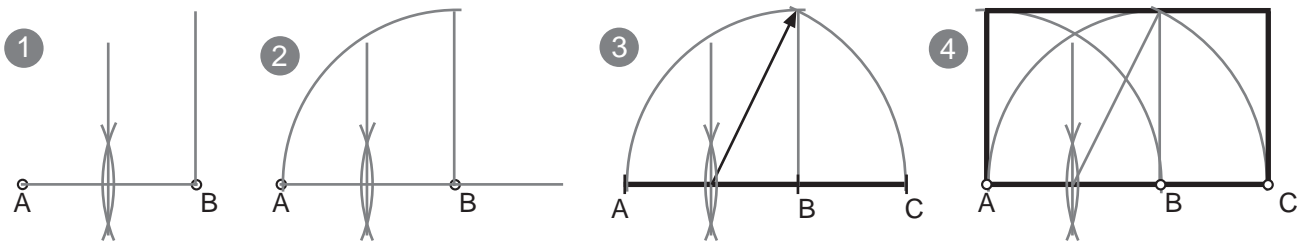


GOLDEN DIVISION (C) OF A SEGMENT AB



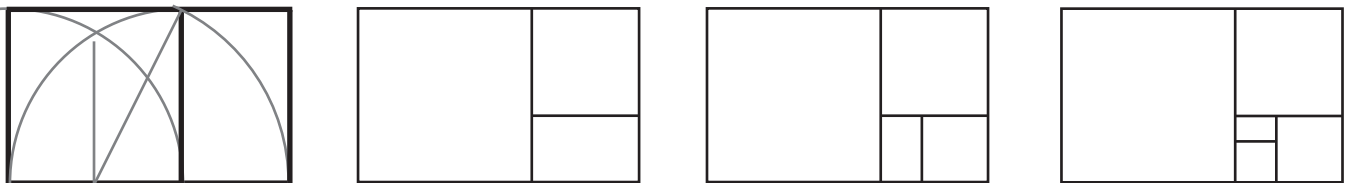
- 1 - We draw the segment's perpendicular bisector and raise a perpendicular by one end point.
- 2 - With center at B and radius half of AB, we turn half of the segment's length to meet the perpendicular line, getting the point (o). We draw an arc with radius (o) B centered at (o).
- 3 - Connecting A with (o) we obtain x in the intersection with the last arc drawn .
- 4 - With center A and radius Ax we turn that length on the segment AB obtaining C.

GOLDEN SEGMENT (AC) of another (AB), Golden Rectangle:

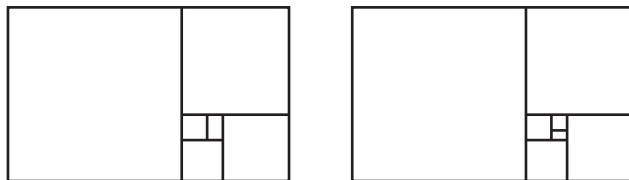


- 1 - We draw the segment's perpendicular bisector and raise a perpendicular through one end point.
- 2 - With center at B and radius AB we turn the segment's length to meet the perpendicular line raised.
- 3 - With center at the midpoint of the segment and radius to the upper end of the perpendicular distance we turn that length on the extension of the segment AB finding C.
- 4 - To draw the golden rectangle we build the rectangle with short side and AB and long side AC.

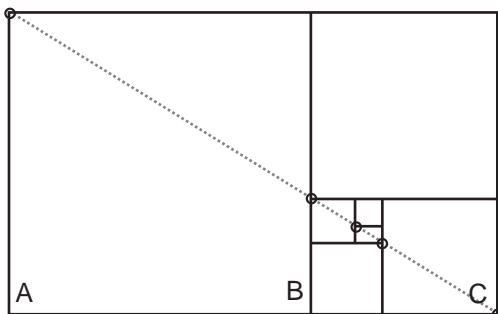
Once we got the golden rectangle we can observe it is divided by a vertical line in a square and another rectangle which is also golden. So we need to proceed with the same type of division for that golden rectangle.



So this way we divide the golden rectangle in squares and other smaller golden rectangles. It is very close to what fractals are in nature. This type of growth is called "gnomic growth".



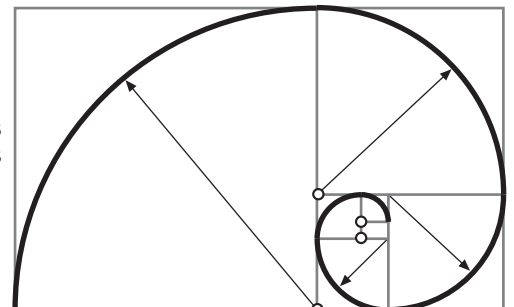
The diagonal for the bigger rectangle matches with two vertices of all other golden rectangles.



Having the rectangle divided in this way, draw the spiral by joining the opposite corners of each square with arcs with center in another of the vertices of each square, so that the arcs are inner links of tangent circles.

In this [Youtube video](http://youtu.be/YVODhFL0mw) you'll watch Donald the duck explaining the golden section.

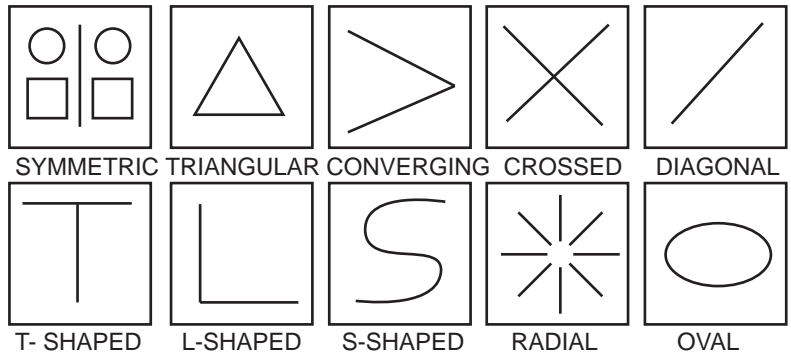
<http://youtu.be/YVODhFL0mw>



COMPOSITIONAL SCHEMES

Compositional scheme: Set of lines and basic geometric shapes on which the image is supported. Sometimes the composition can be guided by modular patterns. The compositional schemes can be classified in simple or composed depending on their complexity.

Simple compositional scheme: They are normally formed by one or several basic geometric figures or lines. The most common are: symmetrical, triangular, two converging lines, cross, diagonal, forming an "S" or "L", radial, circular, oval, spiral, etc.



In [video](#) you'll watch a funny speech about a image book called "tidying up art" in which his author destroys famous artworks' compositional schemes.

http://www.ted.com/talks/ursus_wehrli_tidies_up_art.html



Composite compositional scheme: A representation, as it is analyzed in a meticulous way, can contain several simple compositional schemes. The compositional schemes can vary depending on the observer that performs the analysis, because to obtain them different criteria can be met such as the gaze directions, the positions of the different principal elements of the artwork, and the orientations of the elements or movement of the characters.

COMPOSITIONAL RYTHMS:

The **compositional rhythm** is a **regular succession**, rhythmic and harmonic of **shapes or colors**. It performs an **active and dynamic aspect**, both in nature and music as well as in art composition, to **enrich the expressive or aesthetic artworks senses**. There are different types of rythms and they can be applied either in two or three dimensions.

Rhythms regarding the shapes:

Rectilinear: It expresses seriousness and order.
Broken: It transmits nervousness, tension, dynamism and aggressiveness.
Curved: It expresses little movement.
Wavy: It enhances the sense of movement.

Rhythms for the disposition in space:

Continuous: They are monotonous.
Alternate: It gives feeling of controlled movement.
Discontinuous: It expresses freedom of movement
Increasing: It enhances the effect of depth.

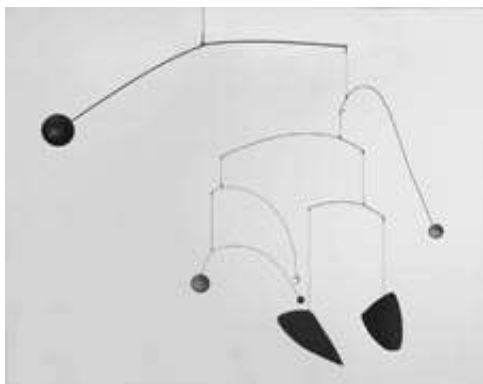
RHYTHM IN PAINTINGS AND SCULPTURES: VAN GOGH AND CALDER

Van Gogh was a Dutch painter in the late 19th century. One of his artworks main features is the prominent use of paint in very big amounts creating textures and even giving his paintings certain relief. He sometimes even used the paint straight from his **paint tubes**. This feature provides the paint an aspect in which it is easy to observe every **brush stroke**. Depending on how Vangogh arranged the brush strokes on the canvas, the artwork would show one rhythm or another.



Starry night. 1989. Van Gogh.

Source: <http://commons.wikimedia.org/>



Mobile. 1932. A. Calder.

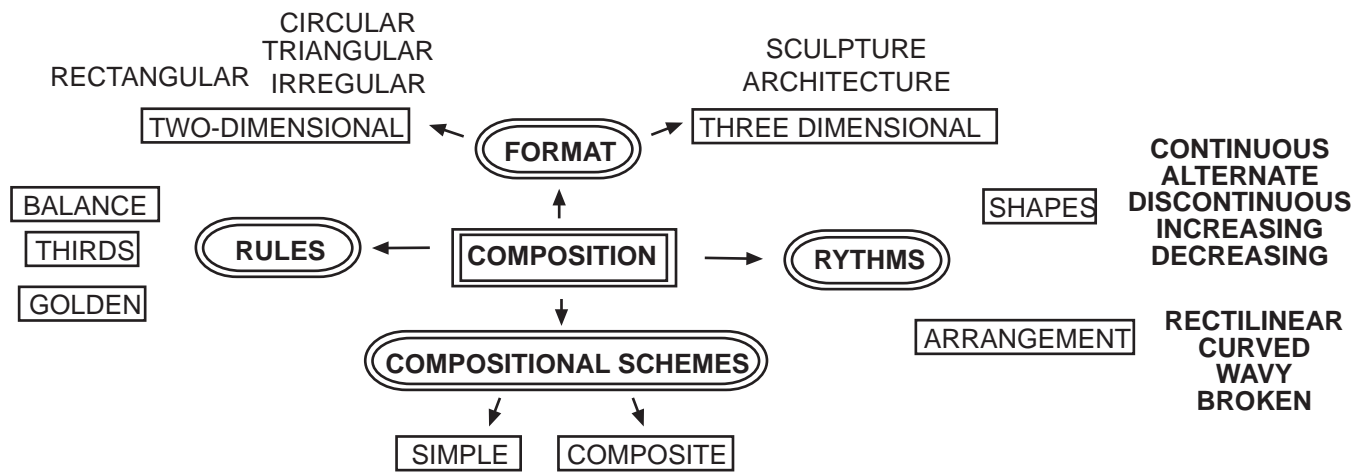
Source: <http://www.tate.org.uk/art/artworks/calder-mobile-l01686>

Alexander Calder was an american artist, mainly sculptor famous for his **Mobiles**, which were the beginning of **kinetic art**. He also made **non moving sculptures** called **Stabiles**. Mobiles are sculptures made with **wire** and **metal leaves** forming abstract organic and geometric shapes that determine a rhythm by their shapes and sizes and also by their movement along with air currents in the rooms.

Check out this [webpage](#) to learn more about rythms and patterns in art or design.



<http://flieschool.com/content/repetition-rhythm-and-pattern>



Composition: It is an arrangement or organization of visual elements (dots, shapes, lines, colors, etc) that constitute an artistic expression.

FORMAT

Format: It is the size, the shape and the disposition in the space of the surface on which an artwork or two-dimensional image is done.

Flat or two-dimensional formats:

Rectangular: It is the most frequent of the flat formats; if its disposition is vertical it can produce elevation sensation, balance and lightness. If it is placed horizontally it can transmit peace, stability, firmness and solidity or heaviness.

The golden rectangle: Meets that the longest side divided by the shortest side is equal to the sum of the two sides divided by the larger side. This proportion appears in nature, in most of the artistic disciplines and it was discovered by the ancient Greeks. The golden rectangle can be divided in a square and other golden rectangle and this division can be applied over and over obtaining smaller squares and golden rectangles. This proportion suggests harmony and naturality.

Square: This format focuses the vision and transmits stability.

Circular: It is not that frequent and can be marked by the architectural support. It can suggest a radial motion, or an enclosure and suspension where the shapes are floating.

Triangular: It is also rare, can be found on pediments or over the doors of buildings, it restricts propagation of the forms on the top enclosing them, but produces a strong feeling of stability. In many artworks even though the format of the support is rectangular the compositional scheme is triangular.

Three-dimensional formats: They fit the spaces and they can be found in sculpture or in mural paintings.

Irregular formats: They are rare, especially those found in comics and advertising. They are dynamic and transmit motion and speed.

COMPOSITIONAL TECHNIQUES / VISUAL EQUILIBRIUM

Weight or visual forces: They are shapes and colors and other elements of an image that call the attention and attract the observer's eye.

Static compositions: They get the balance in a composition distributing the elements on both sides of one or more axes as they are generally symmetrical and are meant to be stable.

Dynamic compositions: If the shapes and colors are distributed only on one side of one or more axes getting a single visual weight, or a visual weight that dominates others, compositions with unstable balance or asymmetric or unbalanced are obtained.

Rule of the balance or compensation: It is a system to compose an image. The visual weights, shapes and colors, are distributed on both sides of a middle axis. The bigger mass is located towards the center while the smaller mass towards the edge.

Rule of thirds: It is used mainly in photography and graphic design and consists on dividing the format rectangle in nine smaller rectangles which structure the image and distribute the elements. This is obtained by dividing its sides in three equal parts and drawing two horizontal and two vertical axes through these divisions. The four intersections of the four axes correspond with the parts of the image that have more visual weight in the composition.

Golden divisions: The Golden Ratio in many cases is used to distribute the visual weights. The golden rectangle can be divided into smaller squares and golden rectangles and place on the golden spiral. These divisions can make the artworks composition in a balanced way.

