DIRECTIONS
SIDE LIGHT
BACK LIGHT
FRONT LIGHT
OVER HEAD LIGHT

QUIALITY AND INTENSITY
HIGH LIGHT
SOFT LIGHT

SHADING   HATCHING   GRISAILLE

SHADOW
LIGHT
CAST SHADOW
REFLECTED LIGHT

LIGHT QUALITIES

VOLUME PICTORIALS

LIGHT AND SHADE AREAS

LIGHT AND VOLUME

TONAL KEYS

HIGH   MEDIUM   CONTRASTED   LOW

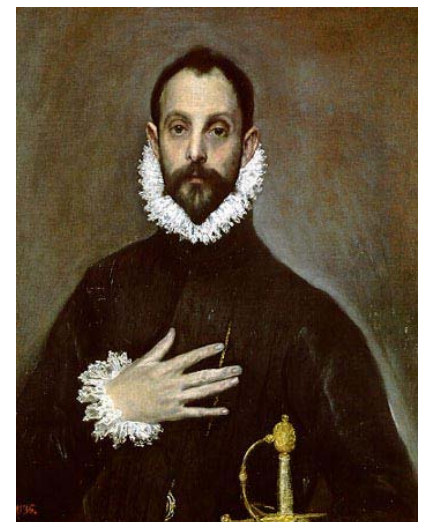**TYPES OF LIGHT**

NATURAL   ARTIFICIAL

EL GRECO VERSUS SOROLLA AND THE TONAL KEYS

El **Greco** was a greek artist working in Spain. He was a Manierist painter whose artwork is particularly known by the use of light. He Used normaly **low** or **very contrasted** tonal keys, his type of paint is called **Tenebrism**. In low tonal keys black and dark hues are used while in contrasted the high and the low tonal keys are combined at a time. His artwork called **"The knight with his hand on his breast"** was restorated in 1996 showing surprisingly afterwards a higher tonal key than what it previsusly showed.

Knight with his hand over his breast 1584. Before restoration.
Source: http://commons.wikimedia.org/

After restoration.
Source: http://commons.wikimedia.org/

Walk on the beach. 1909. Joaquin Sorolla
Source: http://commons.wikimedia.org/

Joaquin Sorolla Self portrait. 1900
Source: http://www.museumsyndicate.com/images/6/51337.jpg

Joaquin Sorolla was a spanish painter known by opposite qualities to el Greco. He ususally painted in high tonal keys depicting very clear scenes. The **Mediterranian light** is one of his main themes even though he painted artworks about all regions of Spain using clear and bright tones in most of his paintings.

A **High Tonal Key** is a quality of an artwork which has very clear tones and in which whites are usually the main characters. A **low tonal key** artwork is the opposite, it shows very low and dark tones, a while black is ususally the main colour. A **contrasted tonal key** is what converges both tonal keys so it shows very hihg and low tones. Tonal keys create moods for the artworks and help to achieve an environmental effect.

TYPES OF LIGHT: INTENSITY AND DIRECTIONS

High light and **soft light** can be used for creating moods or visual impressions. So light is a very important aspect in any pictorial in order to achieve any goal wanted.

The directions of light produce different **visual effects** and types of **cast shadows,** they can also **enhance volumes and shapes**. **Directions** of light are given in Natural light and can be set up with artificial light. The main direction names are **Front** light, **Side light**, **Back light** and **Overhead light**. **Intensity** and **quality** of light can also produce a **high light** which produces **contrasted shadows** while **soft light** barely produces them.

NATURAL LIGHT AND LIGHT DIRECTIONS IN ROUEN CATHEDRAL BY MONET

Monet was an **impressionist** painter. Impressionists tried to capture the moment and its light. Most of the time they thought the light is as important as the object itself. With that purpose Impressionist painters used **gestual coloured brush strokes** using new pigments from their times. When Monet painted the **Rouen cathedral's facade** he had already painted different light versions for other subjects such as **haystacks** with different types of inciding light, but this time he took it more seriously. He rented rooms surrounding the cathedral and painted up to thirty versions in three years.

Rouen Cathedral, Facade (sunset), 1892-18944. Monet
Source: http://en.wikipedia.org

Rouen Cathedral, Full Sunlight 1894. Monet
Source: http://en.wikipedia.org

Take a look at Monet Haystacks series in wikipedia by **clicking on this link** or scan the QR code.

http://en.wikipedia.org/wiki/Haystacks_(Monet)

He tried to depict how light changes over the cathedral during different times on the day, different year seasons and all kinds of weather. It's been said that Monet might have used the **camera obscura** technique to do this paintings and in that case light would have had two roles as depicted and projecting.

NATURAL OUTDOORS AND ARTIFICIAL INDOORS LIGHT

The first and main way to sort types of light is attending to its **source** by Natural or Artificial. **Natural** Light, produced generally by the sun, is **fleeting** and **difuse** and varies on direction and intensity depending on the season of the year, the time of the day and even the weather. Impressionist artists like **Courbet** and other current painters who paint **outdoors** need to control painting in **small periods of time** for that reason.

Artificial light is permanent and can hold different intensities directions and characteristics.It is very important in photography, interior decoration, television film making and many other disciplines.

The Meeting. 1854. Courbet
Source: http://commons.wikimedia.org/

Nighthawks. 1942. Edward Hopper
Source:http://www.ibiblio.org/wm/paint/auth/hopper/

Edward Hopper was an American painter influenced by the impressionists. His artworks are likely to show american **costumbrism**, painting **landscapes** as well as **indoors**. When an indoor scene is depicted, different types of light can appear showing different effects.

Cassius Marcellus Coolidge was an American painter mostly known for his funny paintings of dogs playing cards, he also shows a very characteristic use of indoors **artificial light**.


A friend in need. 1910. Coolidge
Source:http://commons.wikimedia.org/wiki/File:A_Friend_in_Need_1903_C.M.Coolidge.jpg

CHIAROSCURO AND LIGHT AREAS

When Drawing chiaroscuro objects show a **High light area** where the light hits them with more intensity or proximity, light direction regarding this area is close to perpendicullar. The **light area** is where the object is illuminated, but not as much as on the high light area. The **Twilight area** is where the light incides with a considerable inclination so the surface of the object starts turning into shadow. The **shadow area** is the surface of the object where the light doesn't hit, sometimes there is some **reflected light** from the layout which leans over the volume of the object. The **Cast shadow** is the shilouette of the object projected by the light over layout or other surfaces.

HIGH LIGHT   LIGHT AREA
SHADOW AREA
CAST SHADOW
REFLECTED LIGHT
TWILIGHT AREA
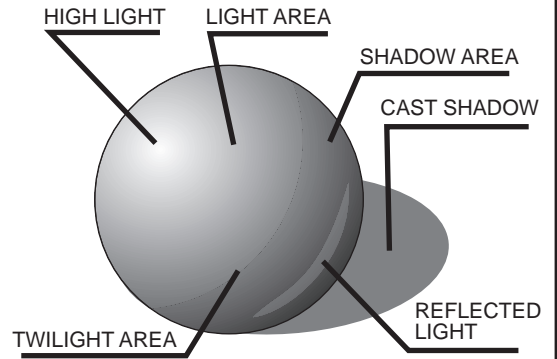
SURPRISING SHADOWS

Shigeo Fukuda, John Lewis, Tim Noble & Sue Webster and many other artists have made different shapeless sculptures with trash or other materials such as silverware, paper, wire or toys which projected on walls show figurative surprising cast shadows.
Ellis Gallagher is an original street artist known for outlining with chalk cast shadows at night.

Check out **Ellis Gallagher web** by clicking on the link or scanning the QR code.

http://www.ellis-gallagher.com/

You can also see **his pictures on facebook** clicking on the link or scanning the QR.

https://www.facebook.com/ellisgallagher/photos

In **this blog entry** cliyou'll find other cool artists and artworks about cast shadows.

http://www.hongkiat.com/blog/shadow-art/

Dirty White Trash (with Gulls), 1998
Source:http://www.timnobleandsuewebster.com/

GOYA'S CAPRICES

There are different techniques to obtain chiaroscuro. A chiaroscuro pictorial can show either a regular shading or a lined shading or hatching showing the textures of lines that fill the dark areas. Grisaille is a good way to create chiaroscuro in any pictorial. But there are other techinques such as painting or engraving. Francisco Goya used engraving to create 80 images called **The Caprices**. These are monochromatic, only using gray scales, so they are a good expample as **chiaroscuro** artworks.

Caprice No. 1 Self Portrait
Source: http://en.wikipedia.org/

No.37 Might not the pupil know more?
http://en.wikipedia.org/wiki/Caprichos

Goya was a court painter painting **portraits** for the spanish royal family. However he also depicted a criticism to the current society of Spain. With that purpose he did 80 **engravings**. An engraving is a technique that consists of marking a metallic surface that later is used as a **template** to **stamp** the artwork. There are different variations of this technique. **Aquatynt** helps shadowing an artwork leaving **no textures** shown but plain shades, aquatynts look like watercolours but monochromatic. **Etching** or **dry point** is used to create lines in engravings so they make possible to obtain a **lined shading** or **hatching effect**. Goya combined the three diferent types of engraving or shading to create his Caprices.

In **This wikipedia link** you'll find a description of Goya's Caprices and all the 80 engravings.

TECHNIQUES TO GET CHIAROSCURO

Lined shading or hatching: It consists of assessing the lighting zones through paths. It is usually made with graphite and ink. As the value decreases the lines are closer to each other even getting to interbreed. This appearance is also called striped graphics.
Shading: In this case light and dark areas are not smooth and show no graphics but spots of light and shades.
Grisaille: It is a technique consisting of making the entire surface of the work with a middle value shadow, reserving the clear values or recovering them afterwards. Then the dark areas are determined to be blend with the intermediate values.

TYPES OF LIGHT

Natural light: it usually comes from the sun, but also could come from the moon or the fire. Sunlight is fleeting, produces long shadows early and late in the day and almost no shadows at noon. As hours and seasons of the year go by, shadows and light quality change in direction, size and intensity.

Artificial light: It comes from spotlights or lamps. Its color, intensity varies depending on the source used. It can be arranged and we can use as many sources as needed.

TONAL KEYS

Tone Key: The level of brightness or darkness that exists in the images.

High tonal key: When an image has more lighted areas than dark. Bright tones, high values and white stay. It occurs when the scene is very bright. For these images it is advisable to leave some dark areas not so, by contrast, light is enhanced.

Low tonal key: It is caused by poor lighting, the image is dim and dark. Dark tones, black and low values are predominant.

Contrasted tonal key: It occurs in images that have been brightly lit and also dark areas. The shapes are usually seen clearly through the boundaries marked by lights and shadows.

QUALITIES OF THE LIGHT

Qualities of light: Beyond color, light is marked by a direction, a quality and an intensity. These are all consequences of the light sources.

Light Direction: Depending on the focus position and the scene or content of light, it will come one direction or another. The direction of light can change the appearance of objects or spaces and helps elements to be received with the desired intent.

Front light: The light source is facing the object or scene. Decreases the sense of relief, volume or depth and it almost doesn´t produce any shadows.

Sidelight: It boosts or increases the feeling of volume and relief, it let us appreciate the textures. It produces lots of cast shadows. Depending on the position and intensity passes smoothly over the surfaces creating degraded shadows or producing strong contrasts.

Overhead light: Its spotlights are located on the scenes or objects so that the rays fall perpendicularly on the object and depending on the volumes only cast shadows are shown at the bottom of the objects. It produces in elements a certain sense of flatness.

Backlight: The light source is behind the object so that the object on stage is observed as a dark silhouette. The background is usually much brighter than the object.

INTENSITY OF LIGHT

Hard Light: The spotlight emits a bright light or is very close to the illuminated surfaces, the greater the intensity and proximity of the source the better splendor and brightness on the objects and sharper and more defined shadows.

Soft Light: The spotlight is far from the scene or the elements, or it doesn't impact on them directly. It takes place on cloudy days or in areas where the sun does not reach directly. This kind of light doesn´t praise volumes and the shadows that it produces are very vague or nonexistent.

VOLUME REPRESENTATION WITH CHIAROSCURO

Chiaroscuro: The study of light, bright and dark areas, by any graphic technique of the model or scene.

Tonal values: These are the different degrees of illumination or shadows that appear in a depiction.

Light area: The area of the object that receives the light directly and thus is more iluminated in the depiction. Depending on the direction of light and the proximity of the spotlight this area can show greater or lower intensity.

High light: It is a small specyfic area located generally in the light area where light hits the object with stronger intensity of all the depiction representation. It is usually the only clear white spot in the drawing.

Twilight area: It receives light directly but with a considerable inclination, so the surface is illuminated but with less intensity than the light area itself.

Shadow area: they are the parts of objects or bodies that do not receive light directly from the focus. If the surface is not flat or curved this zone melts or blurs with the Twilight area, if the surface contains faces with edges its limit is perfectly defined.

Reflected Light: Sometimes the layout reflects part of the light on the shadow area marking the volume of the object.

Cast shadow: They are shadow areas caused by interruption of the rays of light from the bodies or objects that are usually darker than the shadow areas.