LIGHT AND VOLUME

SUMMARY

1. LIGHT AS AN ELEMENT OF EXPRESSION

Both light as shadows it produces, are a very valuable element of expression for creating environment, spaces and special effects, completely transforming the look of any scene.

1.1. Types of light

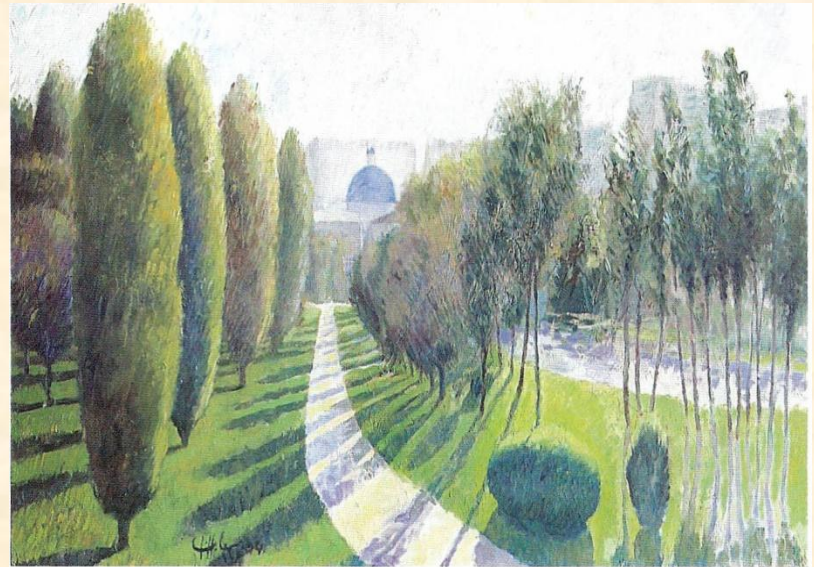1.2. Tonal keys

1.1. TYPES OF LIGHT:

According to the source, there are two types of light.

Natural Light   Artificial 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 colour, intensity varies depending on the source used. Can be arranged at will and we can use as many sources as needed.

Edward Hooper: *Cine en Nueva York*, 1935

1.2. TONAL KEYS:

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

High tonal key   Low tonal key   Contrasted tonal key

High tonal key:

When an image has more light 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.

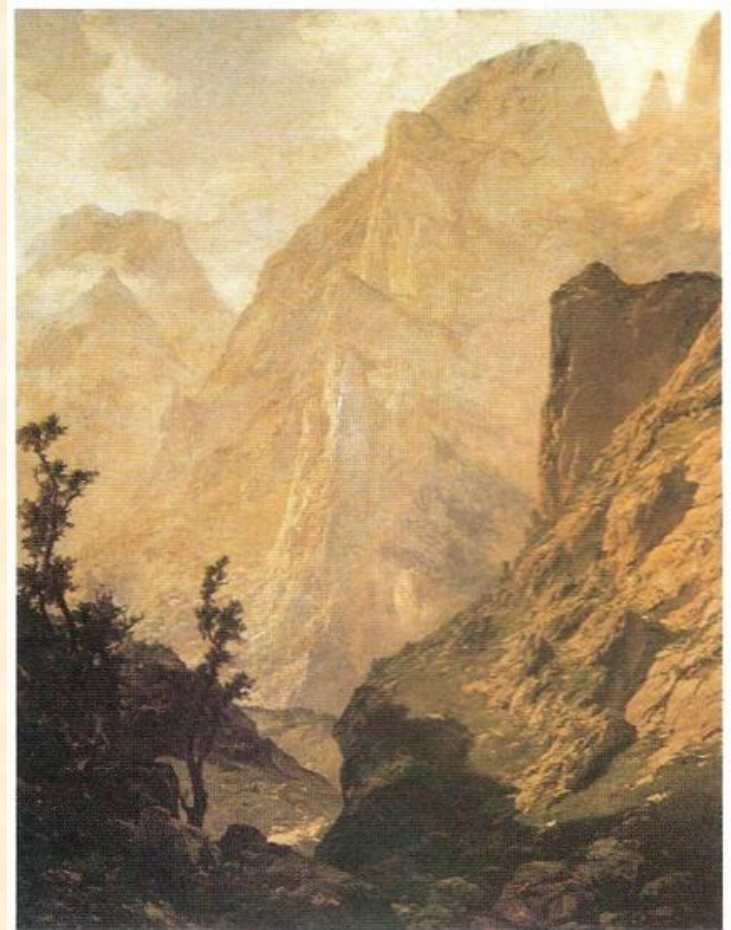HIGH TONAL KEY

Low tonal key:

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

LOW TONAL KEY

Contrasted tonal key:

Occurs in images that have brightly lit and also dark areas. The shapes are usually seen clearly through the boundaries marked by lights and shadows.

CONTRASTED TONAL KEY

2. QUALITIES OF THE LIGHT

Beyond colour, light is marked by a direction a quality and a intensity. These are all consequences of the light sources.

2.1. Light direction
2.2. Intensity of light

2.1. 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.
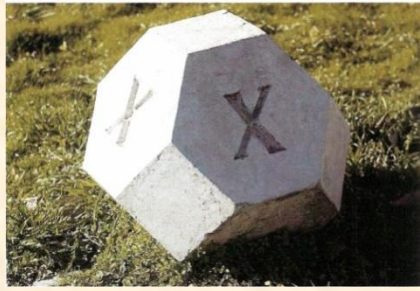
Sidelight:
Boosts or increases the feeling of volume and relief, lets appreciate the textures. Produces lots of cast shadows. Depending on the position and intensity, passes smoothly over the surfaces degrade or produces strong contrast.
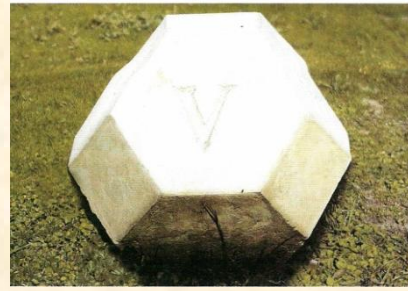
Overhead light:
Its spotlights are located on the scenes or objects so that the rays fall perpendicularly on the object and depending on the volumes only cast shadows are shown at the bottom of the objects. It produces in elements a certain sense of flatness.
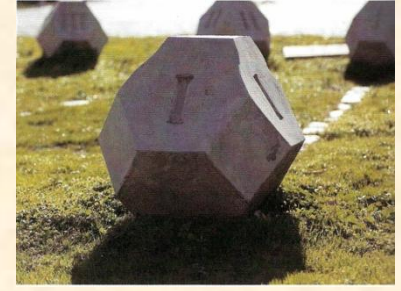
Backlight:
The light source is behind the object so that the object on stage is observed as a dark silhouette. The background is usually much brighter than the object.
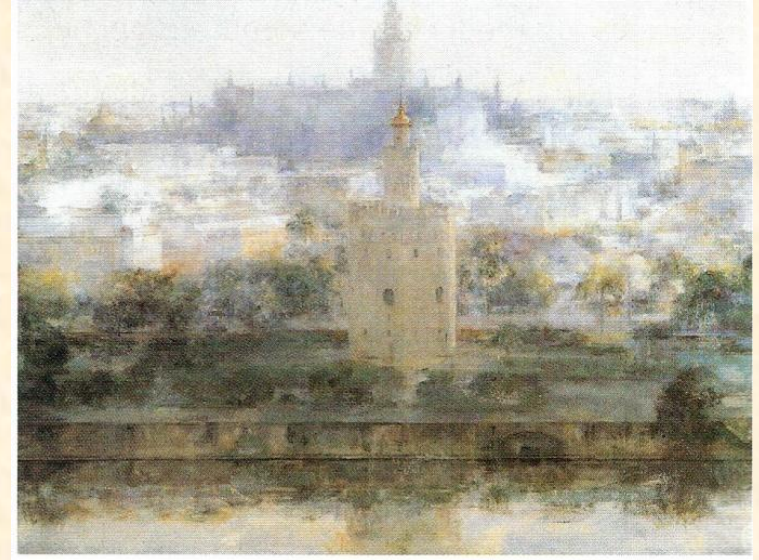
2.2. Intensity of Light

The hardness or softness of the shadows are indicators of the quality and 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 splendour and brightness on the objects and sharper and more defined shadows.

Soft Light:
The focus is far from the scene or illuminated elements or has no 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.

3. VOLUME REPRESENTATION WITH CHIAROSCURO

Chiaroscuro:

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

3.1. Tonal values
3.2. Techniques to Get Chiaroscuro

3.1. TONAL VALUES:

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

Light area   High light   Twilight area   Shadow area
   Reflected Light   Cast shadow

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

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.
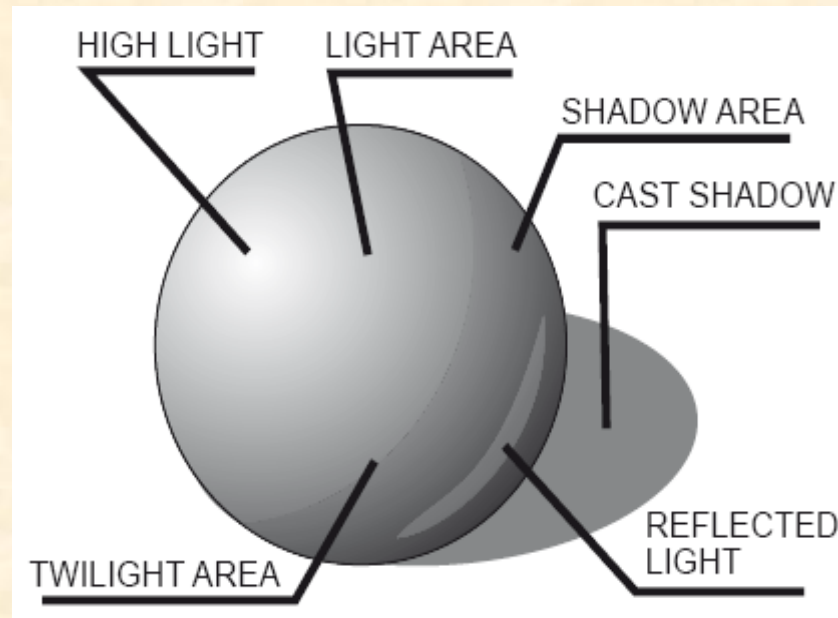
Ver vídeo

High light:
It is a small specific 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.

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

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

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

3.2. TECHNIQUES TO GET CHIAROSCURO :

Chiaroscuro can be done using different techniques, both in color and in black and white.

Lined shading or hatching   Shading   Grisaille

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:
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 blended with the intermediate values.

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DIRECTIONS

SIDE LIGHT

BACK LIGHT

FRONT LIGHT

OVER HEAD LIGHT

QUIALITY AND INTENSITY

HIGH LIGHT

SOFT LIGHT

SHADING   HATCHING   GRISAILLE

VOLUME PICTORIALS

LIGHT QUALITIES

LIGHT AND SHADE AREAS

SHADOW

LIGHT

CAST SHADOW

REFLECTED LIGHT

LIGHT AND VOLUME

TONAL KEYS

HIGH   MEDIUM   CONTRASTED   LOW

TYPES OF LIGHT

NATURAL   ARTIFICIAL