WELCOME

Lima Akter

Junior Instructor

Architecture And Interior Design Technology

Email: lima@bsdi-bd.org

Contact no: 01785742497

Subject Name: Perspective Drawing & Rendering.
Subject Code: 68744

Chapter-01

General Features Of Perspective Drawing.

1.1 Define the meaning of perspective drawing.

1.2 Explain classification of perspective drawing.

1.3 Outline the importance of orthographic drawing.

1.4 Describe the methods of perspective drawing.

What is Perspective Drawing?

Perspective is what gives a three-dimensional feeling to a flat image such as a drawing or a painting. In art, it is a system of representing the way that objects appear to get smaller and closer together the farther away they are from the viewer.

Perspective is key to almost any drawing or sketch as well as many paintings. It is one of the fundamentals that you need to understand in order to create realistic and believable scenes.

Key Takeaways: Perspective

- Perspective is used to represent the ways objects appear smaller as they move farther into the distance. It adds depth and dimension to flat images.
- In art, there are three types of perspective: one-point, two-point, and three-point.

Classtification of Perspective Drawing:

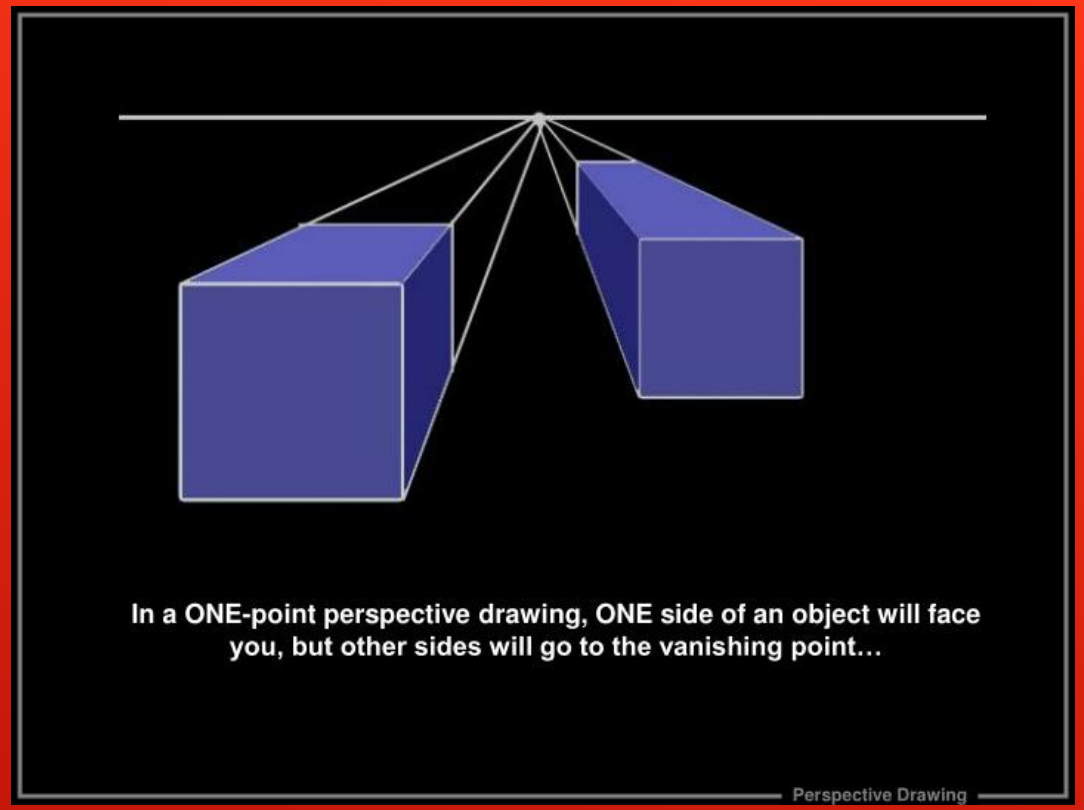
There are many types of perspective drawing. Linear perspective refers to using a set of rules that guide a drawing's lines towards various vanishing point(s). This converging of lines is what helps an artist achieve the illusion of depth within a drawing. You'll see exactly how an artist uses a vanishing point in the upcoming illustrations. You'll quickly be able to use what I'm about to share in your next drawing or painting. Whether still life or landscape , knowing which form of perspective to use will serve you extremely well

Linear Perspective helps us draw geometric, box-like forms and environments that appear grid-like. As a result, linear perspective is most helpful for drawing architecture, interiors, and box-like still life objects. Perspective drawing is less helpful when drawing portraits and other organic objects.

There are 3 main types of linear perspective (Depending on Vanishing Point):

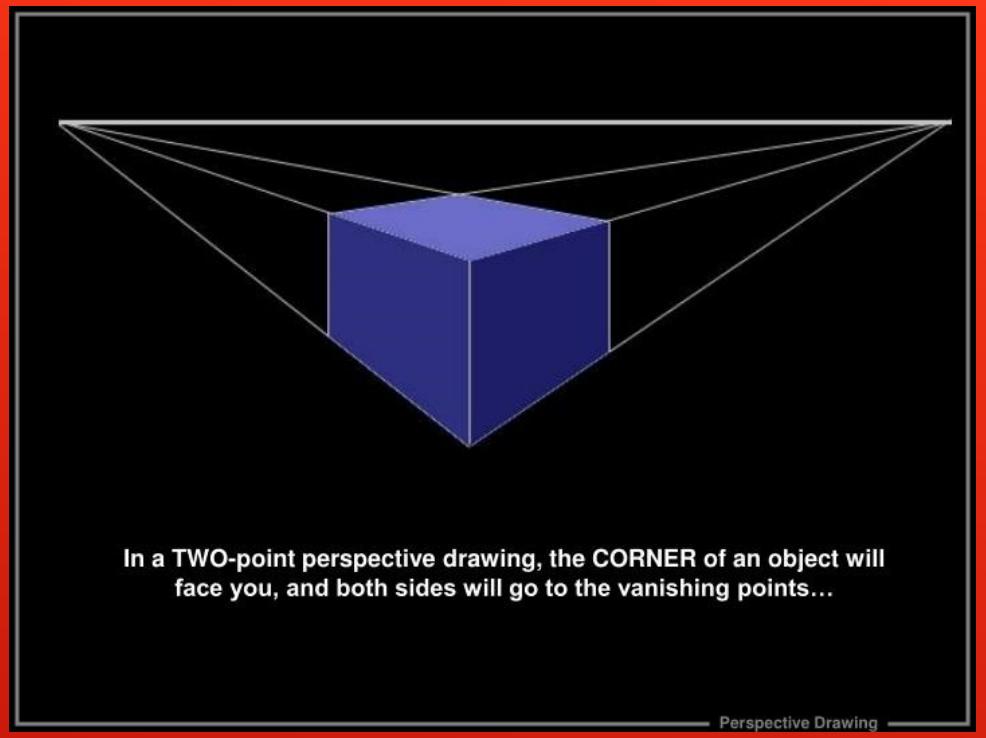
1. One Point Perspective
2. Two Point perspective
3. Three Point Perspective

I'll be giving a brief overview of each type of linear perspective drawing. Most importantly I'll be describing the circumstances under which you should use each.



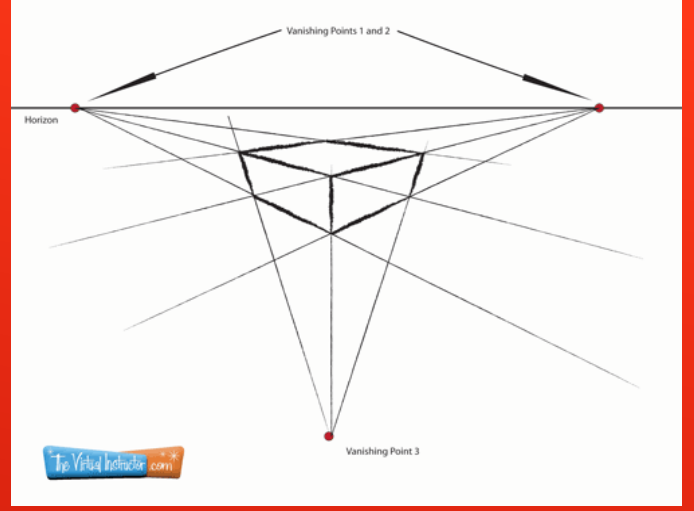
One Point Perspective

One point perspective is a type of linear perspective drawing that uses a single vanishing point to create the illusion of depth in an artist's drawing. Simply begin by drawing the closest side of any geometric object and connect its corners to a single vanishing point. The vanishing point represents a point infinitely far away. You'll want to end the object prior to reaching the actual vanishing point.



Two Point Perspective

An artist will get a more realistic look to his drawing when using the two point perspective method of drawing. Under most circumstances you will want to include your vanishing points outside of your actual drawing, far away from the scene you are creating. Two point perspective is useful for any realistic drawing that is not intended to show any extreme height (low or high).



Three Point Perspective

Once you understand two point perspective, three point perspective is a slight adaptation to the technique. By adding a third vanishing point either below or above one's drawing an artist can convey the illusion of height in their artwork. Notice in the illustration below how the vertical lines of the box are no longer parallel? That's precisely what differentiates three point perspective from two point perspective. Three point perspective accounts for the height of the scene being drawn.

There are 3 main types of perspective View (In General):

I'll perspective drawing. Most importantly I'll be describing the circumstances under which you be giving a brief overview of each type of linear should use each.

Aerial or Birds eye or Eye top Perspective View:

The terms aerial view and aerial viewpoint are also sometimes used synonymous with bird's-eye view. The term aerial view can refer to any view from a great height, even at a wide angle, as for example when looking sideways from an airplane window or from a mountain top. Overhead view is fairly synonymous with bird's-eye view but tends to imply a less lofty vantage point than the latter term. For example, in computer and video games, an "overhead view" of a character or situation often places the vantage point only a few feet (a meter or two) above human height. A **bird's-eye view** is an elevated view of an object from above, with a perspective as though the observer were a bird, often used in the making of blueprints, floor plans, and maps.

Normal or Eye level Perspective View:

Anyone who has ever been to the seaside will have seen a horizon (as long as it wasn't foggy). This is the line you see far away, out to sea. It's the line where the water stops and the sky starts. There are horizon lines everywhere, but usually you don't see them because something like a hill or a tree or a house is in the way. Horizon line/eye level refer to a physical/visual boundary where sky separates from land or water. It is the actual height of the viewer's eyes when looking at an object, interior scene, or an exterior scene.

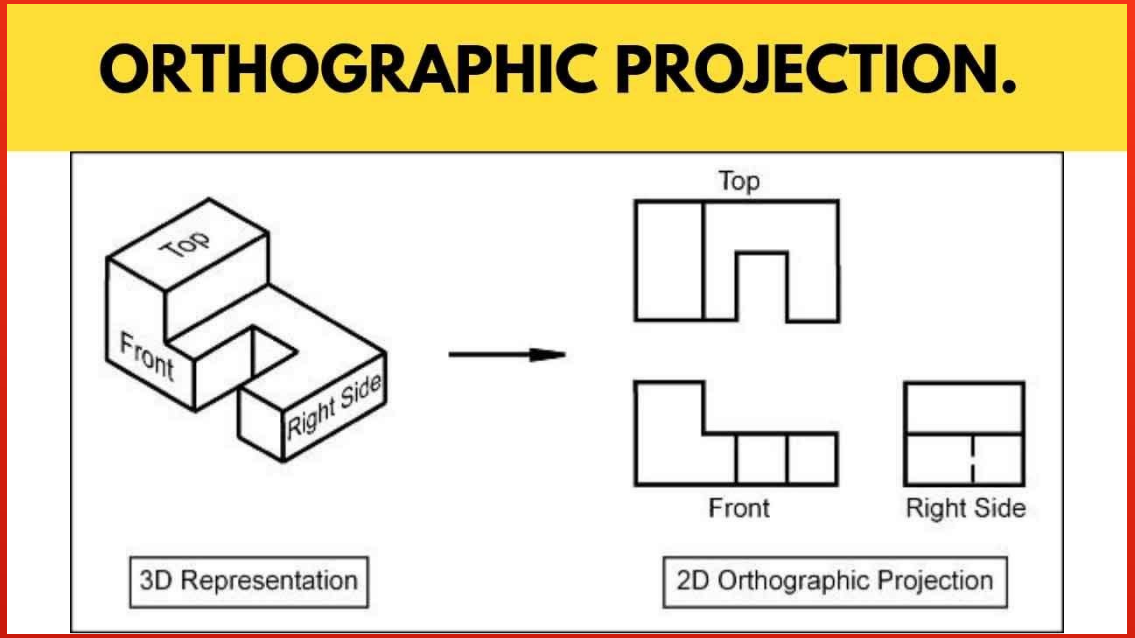
Insects Eye or Eye low Perspective view:

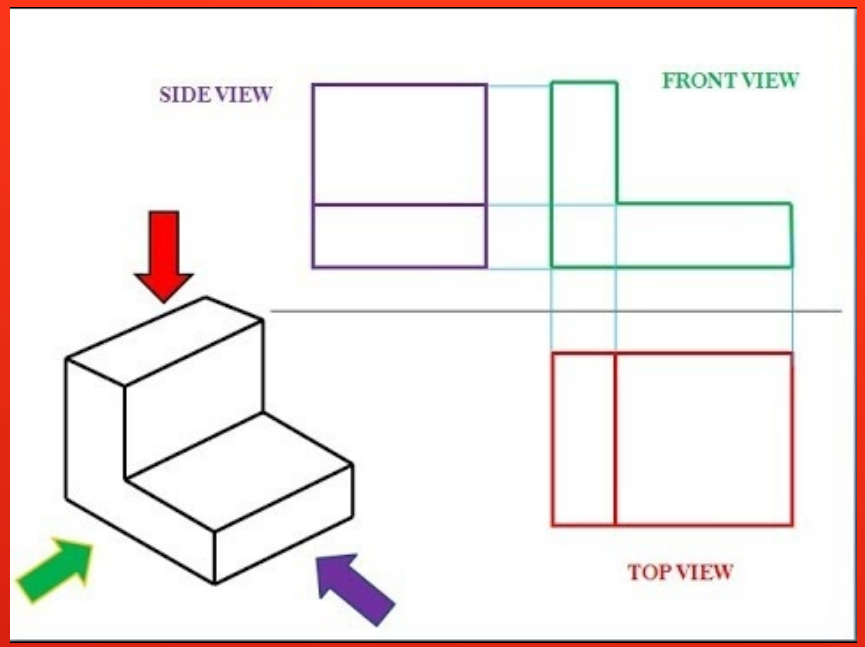
A low eye level can be used for great dramatic effect in landscape painting. By lowering the viewpoint, you emphasize the height and power of objects in the foreground. This has the effect of making the viewer feel very small and the landscape seem very powerful.

A low eye level is ideal for landscapes where the sky plays an important role in creating the mood of the work. Using a low eye level in perspective drawing creates the space for a large area of sky. This increased area of sky then becomes a major element which can impact upon the scale, tone, color and mood of the picture.

Importance of Perspective Drawing:

Artists use **perspective** to create convincing representations of our three-dimensional world on the two-dimensional surfaces of their **drawings**. When **perspective** is used effectively, objects in a **drawing** appear recede into the distance, and they seem to exist in three-dimensional space





Importance of Orthographic Drawing

the importance of **Orthographic drawing** is a basic understanding of presentation drawing, wherin 3 main views of an object are presented in correct dimension of the height, width aOrthographic drawings require the representation of 3D objects on 2D surface.

See, these types of drawing require perfection from all views because even if a single view collapses , it will ruin the 3D effect.
Lets take an example…

By watching the front view only you can have a good idea about how this will look(if its given that you have to get 3D out of 2D) but you cant gain any knowledge about the design if only the side or top views of 2D are given .
So according to me ***FRONT VIEW*** is most important.

The characteristics of Perspective Drawing

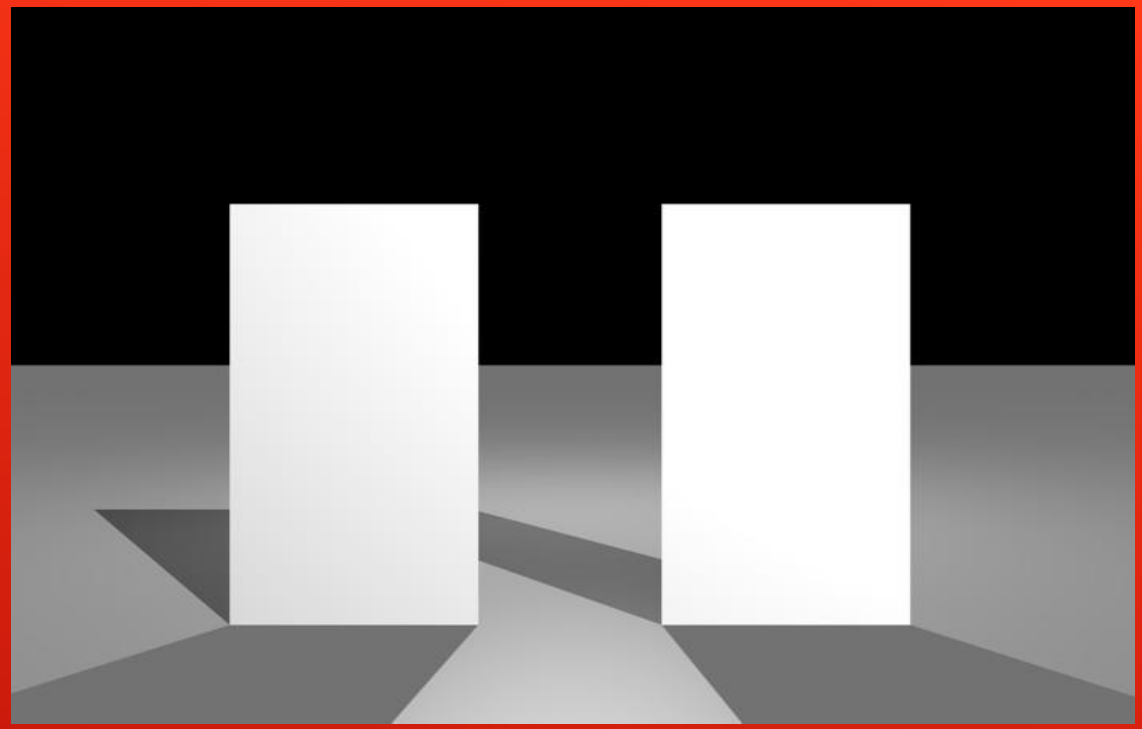
- The perspective Projection of vertical line must be vertical.
- The perspective Projection of horizontal line must be horizontal.
- The perspective Projection of all parallel line must be parallel.
- The perspective Projection of all vertical plane must be vanish in vertical vanishing point.
- The vertical line projection of picture line must be vanish in the station point.
- Must be one picture plane.
- Must be one vanishing point.
- Must be one Ground line.
- The measurement must be taken from true height line.

The Methods of Perspective Drawing

a) Freehand sketching, common in arc
b) Graphically constructing ,common in architecture
c) By perspective grid
d) Direct projection method / office method.

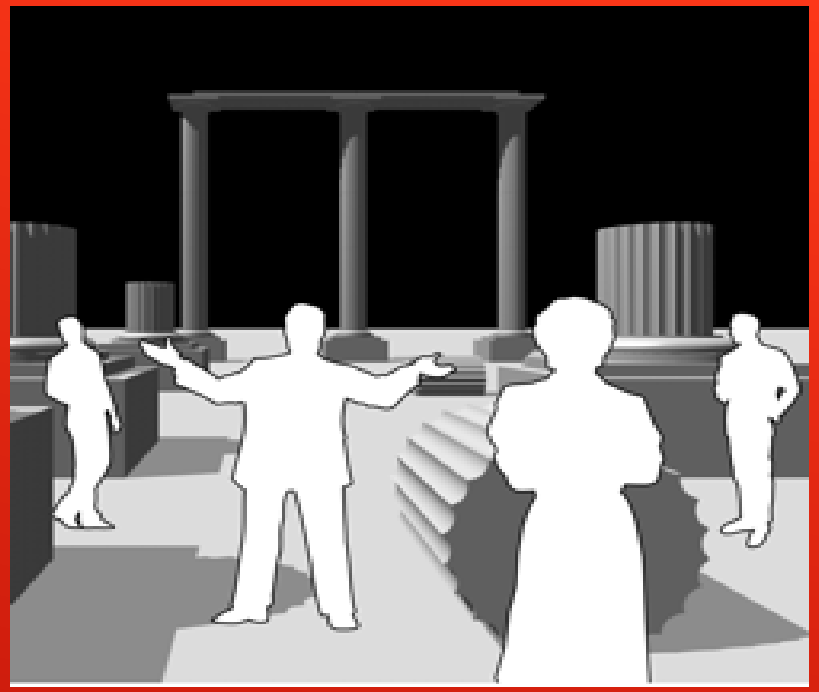
The element of Perspective Drawing

I. Picture Plane
II. Line of sight
III. Station point or Eye point
IV. Ground Plane
V. Ground line
VI. Horizontal plane
VII. Horizontal Line
VIII. Center of vision
IX. Center plane
X. Angle Or Cone Of Vision
XI. Vanishing point



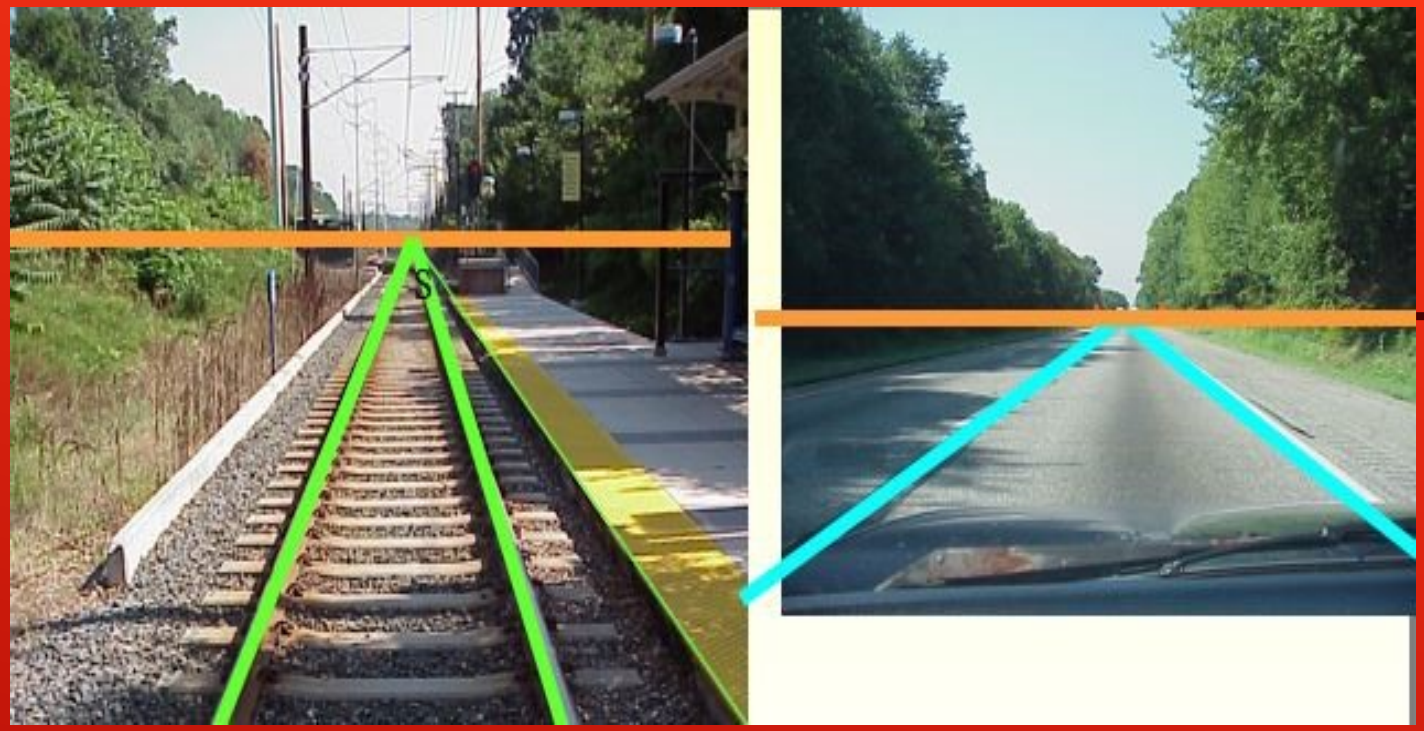
Picture Plan:

The Picture Plane is the flat two-dimensional surface on which we draw or project an image in perspective.
In the illustration above, it is a simple task to draw the two rectangles if they are parallel to the picture plane.
The Ground Plane is at 90 degrees to the picture plane.
In our illustration, the ground plane is the grey surface on which the shapes appear to be standing. It is emphasized by the shadows which are cast upon it. It starts at the bottom of the picture plane and stretches back to the horizon



Eye Level

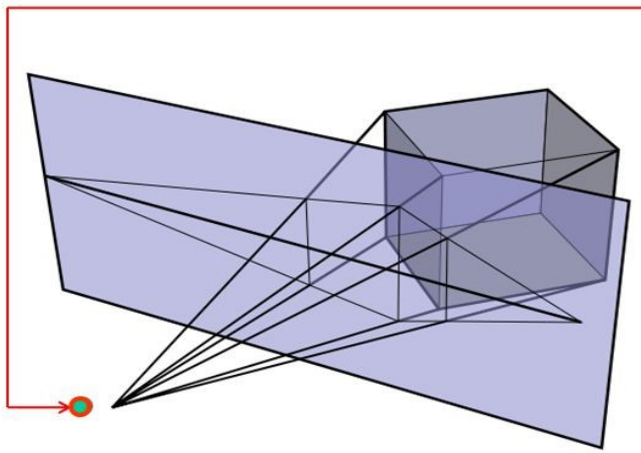
The Horizon / Eye Level is the axis around which a perspective drawing is constructed.
When we are outdoors we use the horizon as a point of reference to judge the scale and distance of objects in relation to us.
In perspective drawing, the horizon also happens to be the viewer's eye-level.
In art, we tend to use the term 'eye level', rather than 'horizon' as in many pictures, the horizon is frequently hidden by walls, buildings, trees, hills etc



Definition of *Horizontal Line*

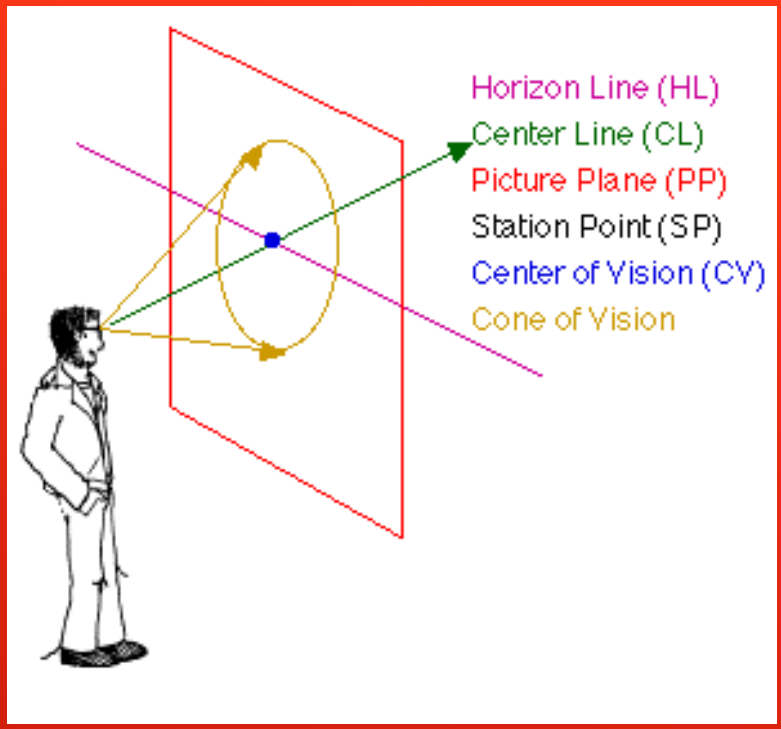
- **The place where the land and the sky meet.**

fundamental:



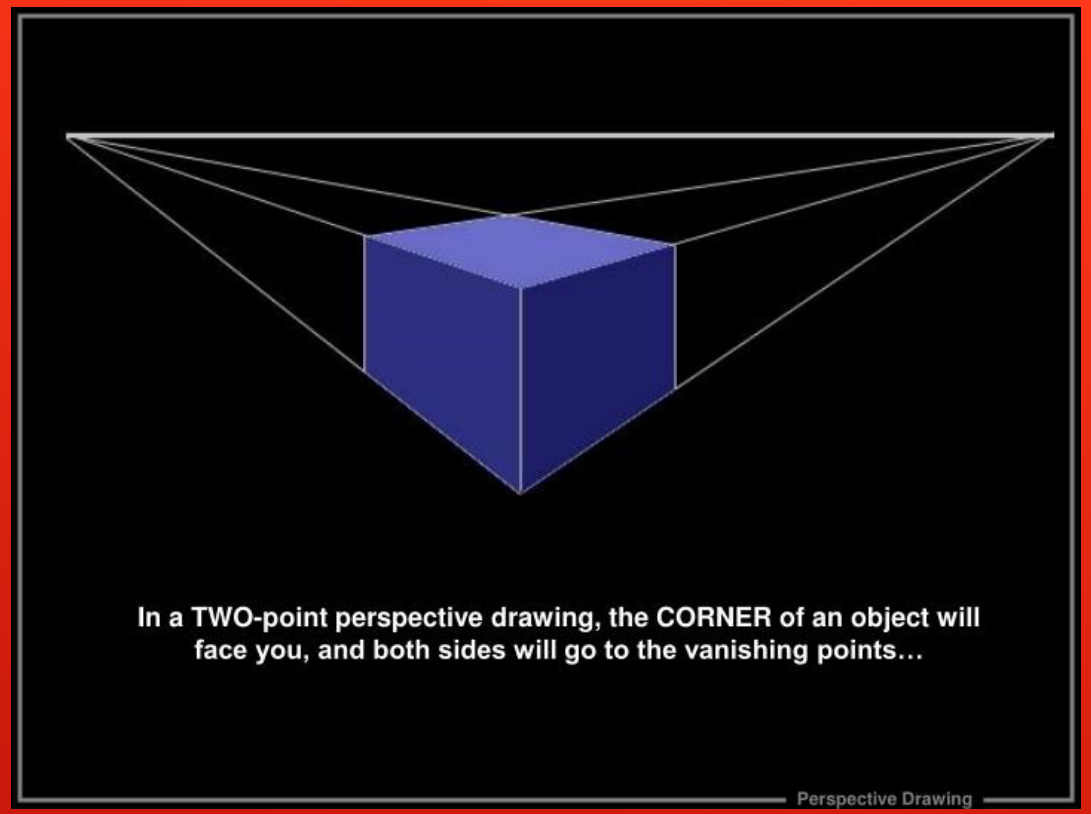
1) STATION POINT
2) HORIZON LINE
3) VANISHING POINT
4) CONVERGENCE LINES
5) GROUND LEVEL
6) PICTURE PLANE

the position from which the observer views the object



Definition of *station point*

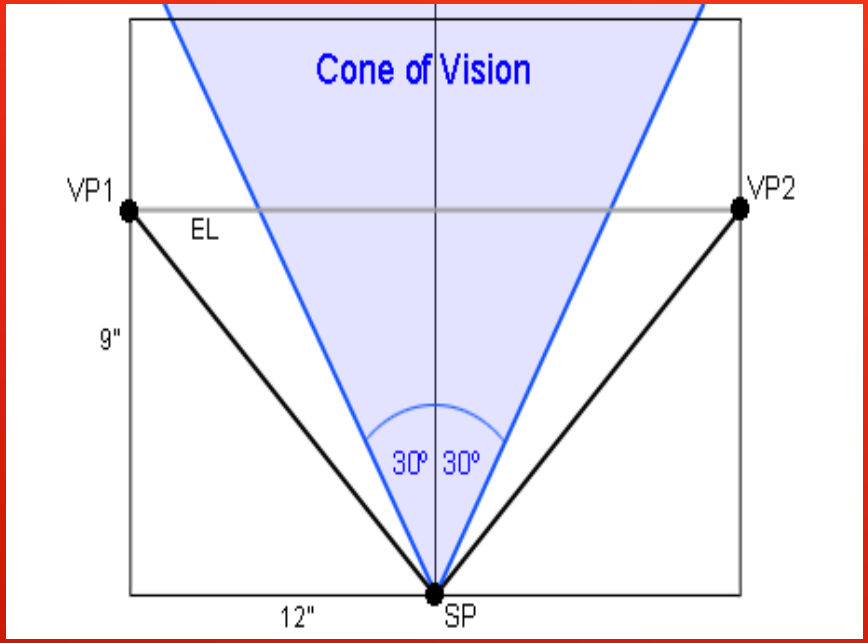
The position of an observer that determines the perspective rendering of the objects or scene being represented in a drawing

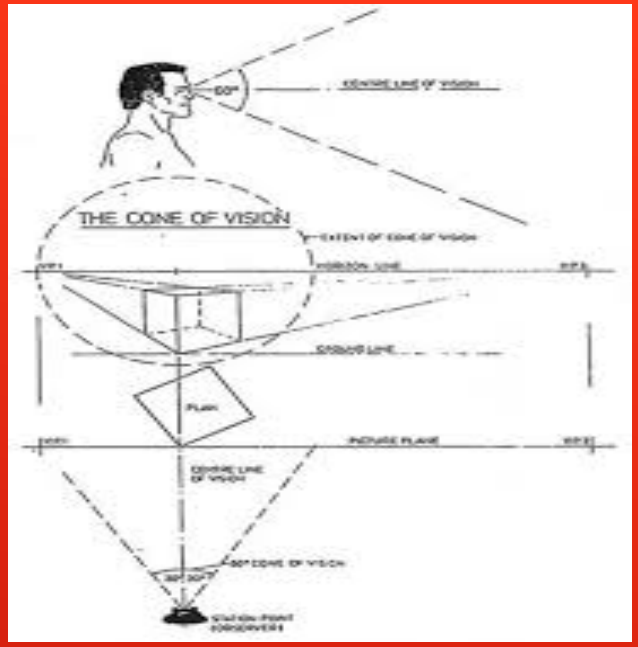


Definition of *vanishing point*

➢Vanishing Point

The single point on the horizon where all the lines on the ground level seem to come together





Cone of vision

The **cone of vision** is defined as the scope of what the observer can see clearly when looking into a scene.
The **cone of vision** is important because it determines what is going to be in our **perspective drawing.**

People have an approximate 60-degree angle of undistorted vision that extends as an imaginary cone from their eyes forward. Outside of the 60-degree angle, objects begin to blur. In linear perspective, the Cone of Vision is indicated with a 60 degree angle beginning at the station point it is 30 degrees to the left and right of the line of sight. In Linear Perspective, the proportion of objects drawn outside of the Cone of Vision become distorted. This represents the blur we see with our eyes

Video link:

https://www.youtube.com/watch?v=3fxpKyzTntU

https://www.youtube.com/watch?v=pRIz2iv5yLc

https://www.youtube.com/watch?v=zC4-eOzZ65w

https://www.youtube.com/watch?v=zC4-eOzZ65w