Lesson n°07:

CONICAL PERSPECTIVE

ACADEMIC YEAR:
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Module: WORKSHOP 1
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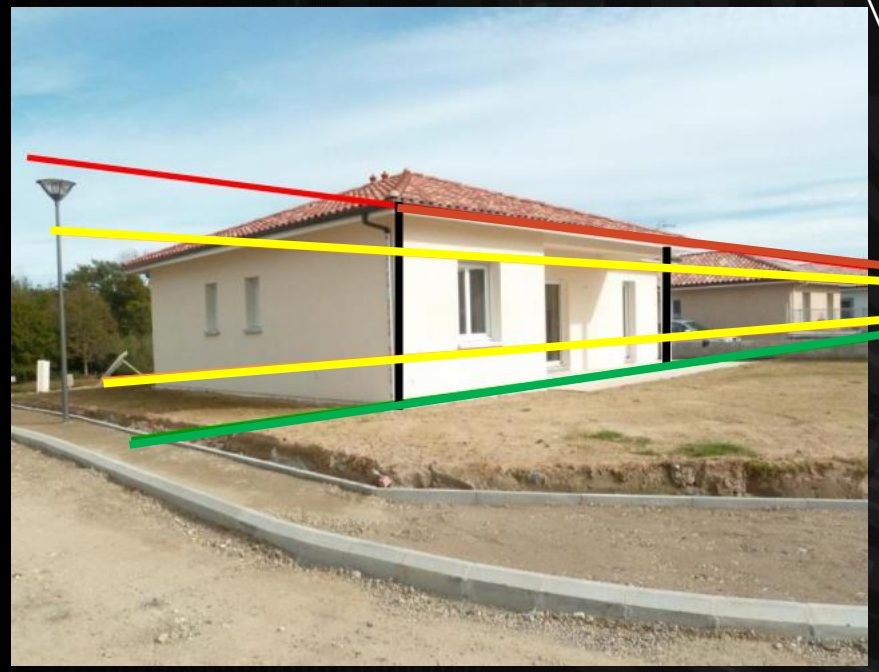
Analysis of photos / vanishing points.

It is noted that:

* By extending the two lines:
  ** The one from the ground
  ** The one from the roof.
* It is observed that they eventually meet at a single point.

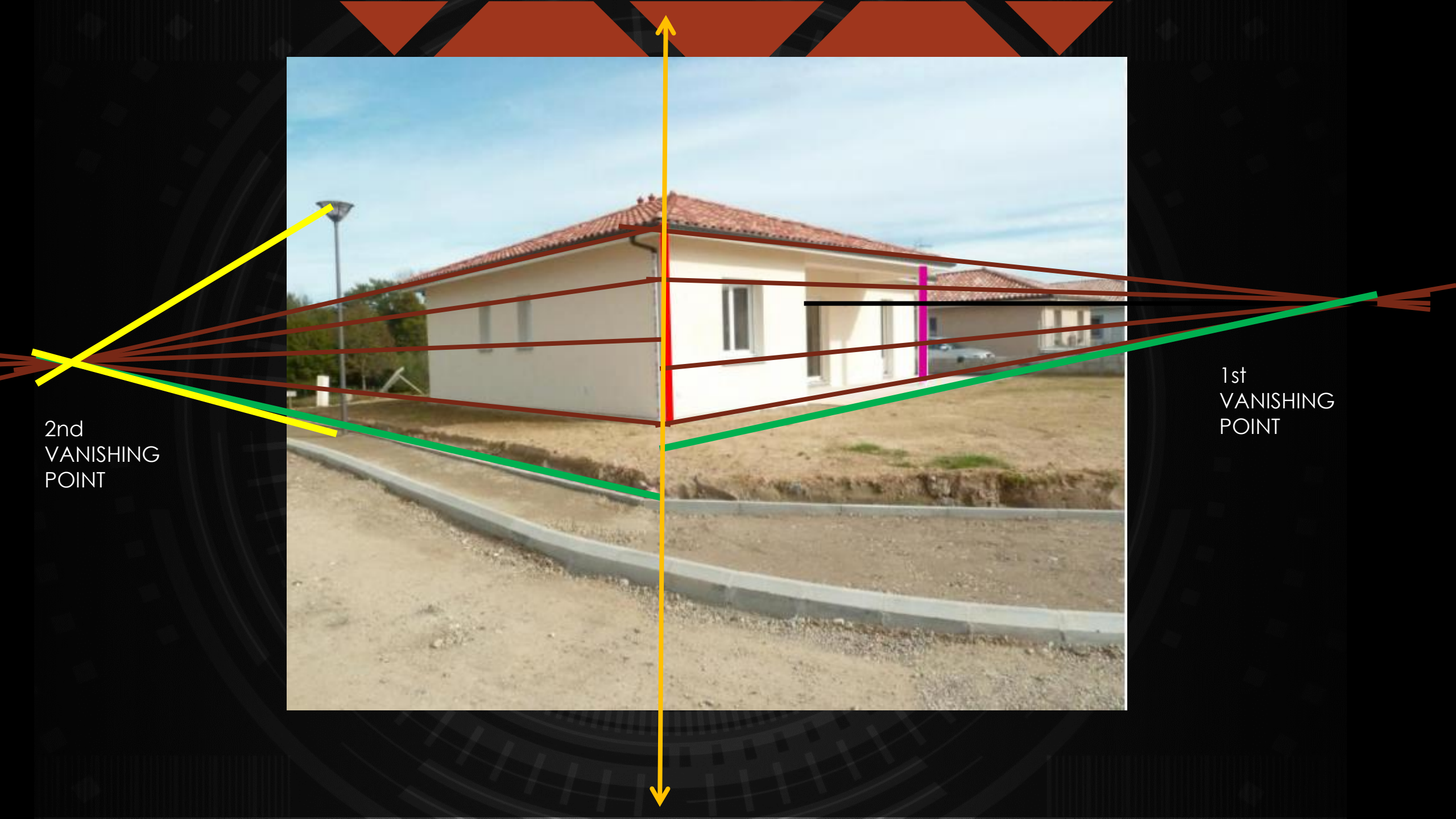
CONÇUS PAR DES EXPERTS POUR TIRER LE MEILLEUR PARTI DE CHAQUE CENTIMÈTRE CARRÉ D'ESPACE, ILS OFFRENT UNE VIE LUXUEUSE AUX FAMILLES NOMBREUSES OU EN PLEINE EXPANSION.



VANISHING LINES

1st VANISHING POINT

2 nd VANISHING POINT

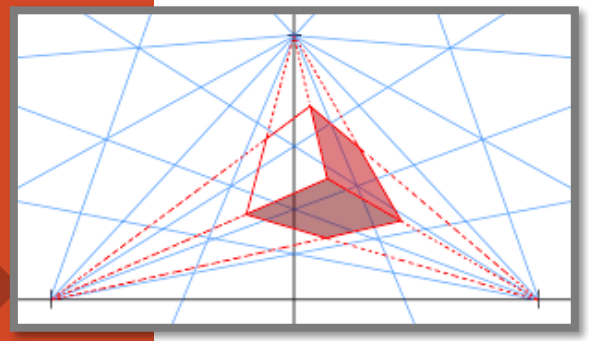

2nd
VANISHING
POINT
1st
VANISHING
POINT

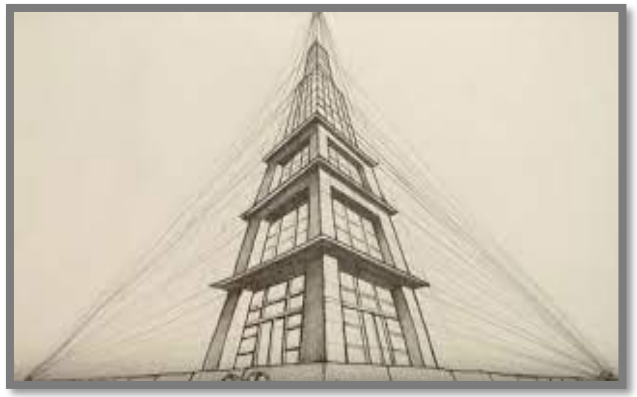
CONICAL PERSPECTIVE:

- Conical perspective is used **to draw on a plan, an object, a building, or a scene as seen by an observer from a specific point of view,** and **this point of view is**...
- **External** if one wants to represent a solid volume.
- **Internal** if one wants to represent an empty space.

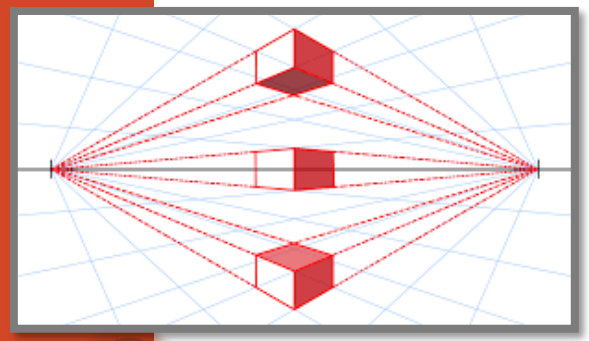
There are three types of conical perspectives, depending on the number of vanishing points:

- **Central conical perspective** is constructed with **a single vanishing point**.
- **Oblique conical perspective** is constructed with **two vanishing points.**
- **Aerial conical perspective** is constructed with **three vanishing points.**

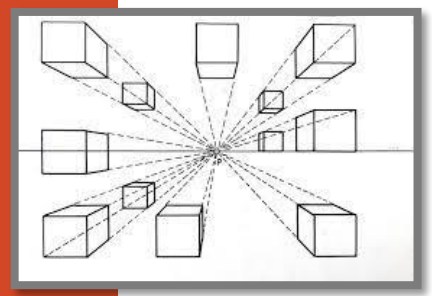




CONICAL PERSPECTIVE WITH THREE VANISHNIG POINTS : EXAMPLES

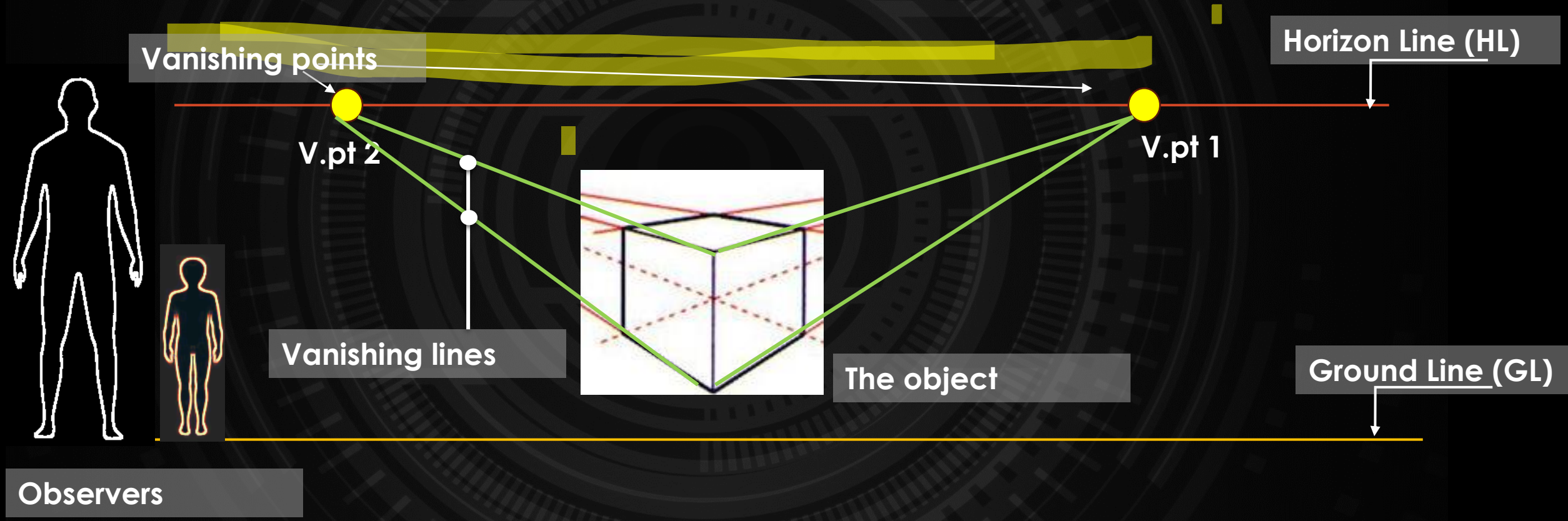


CONICAL PERSPECTIVE WITH TWO VANISHNIG POINTS : EXAMPLES



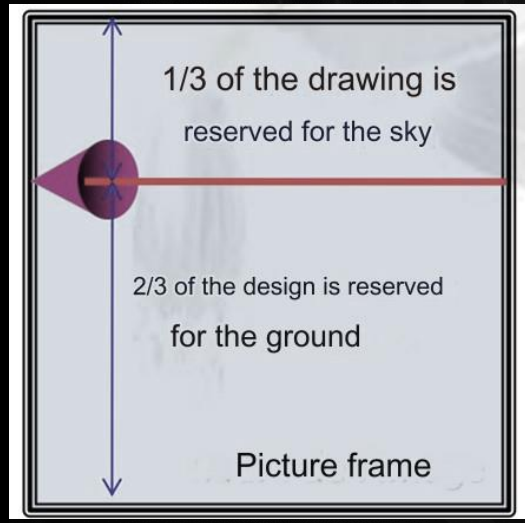
CONICAL PERSPECTIVE WITH A SINGLE VANISHNIG POINT : EXAMPLES

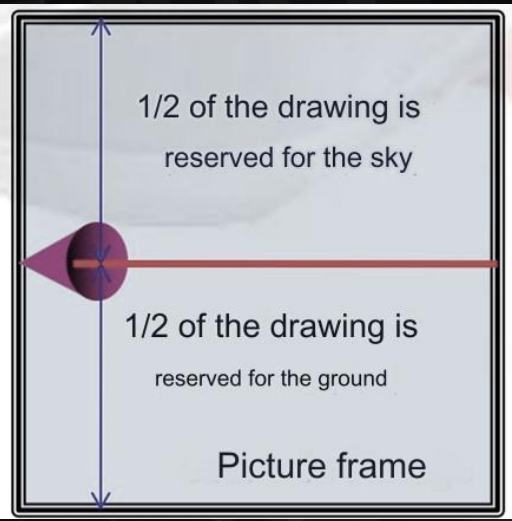
what do we need to know to draw a perspective?

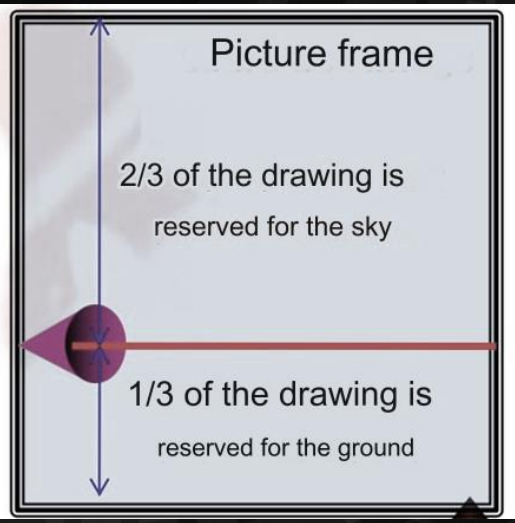


schematization of the perspective system.

what do we need to know before drawing a perspective?

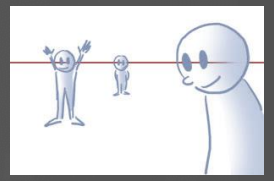






1/ the horizon line HL:

The horizon line represents the eye level of the observer and is usually a horizontal line at eye height.



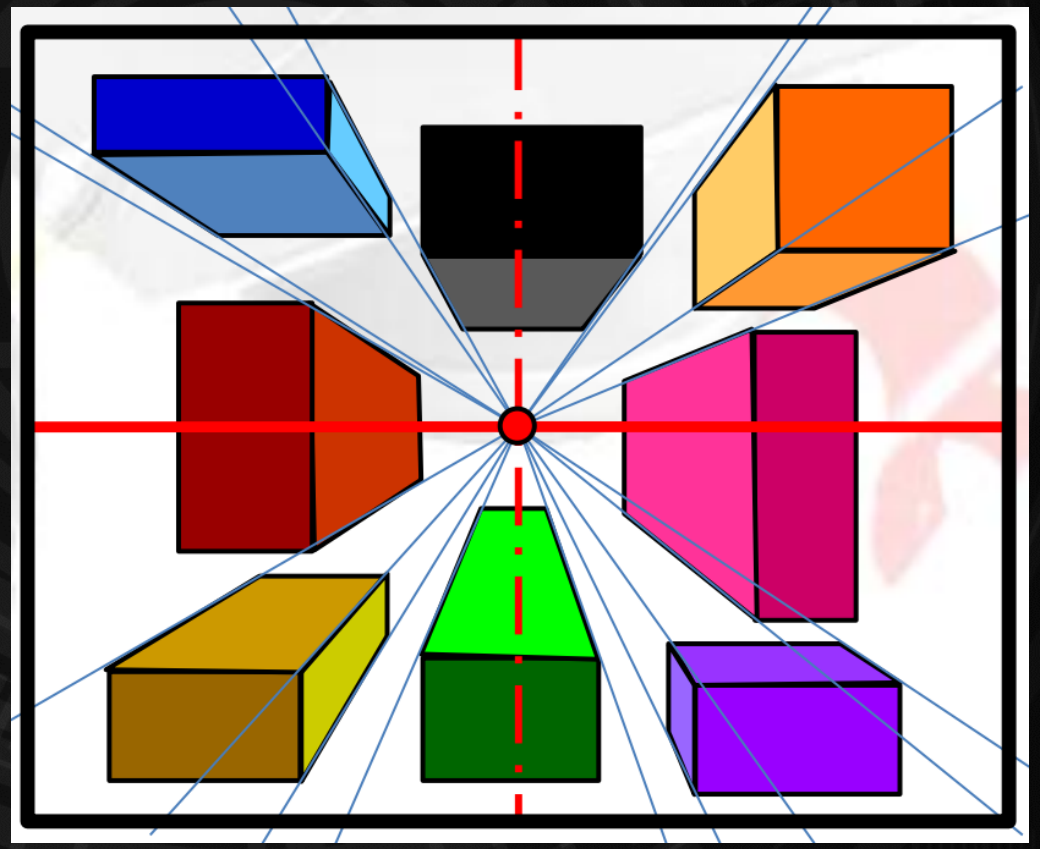
Any observer is able to decide on the placement of the horizon line, whether in reality, on a drawing, or even in a photograph.

what do we need to know before drawing a perspective?

2/ Vanishing point (s):
This is the point where all the vanishing lines, those moving away from the observer, converge. There may be one or more vanishing points depending on the type of perspective used..

3/Vanishing Lines:
These are imaginary lines that move away from the observer and converge at the vanishing point. These lines help create a sense of depth in the drawing.

4/Object to Draw: is the object you want to represent in perspective. Make sure you understand its shape and proportions.



Direction of the vanishing lines and appearance of the drawn object

Drawing a perspective:

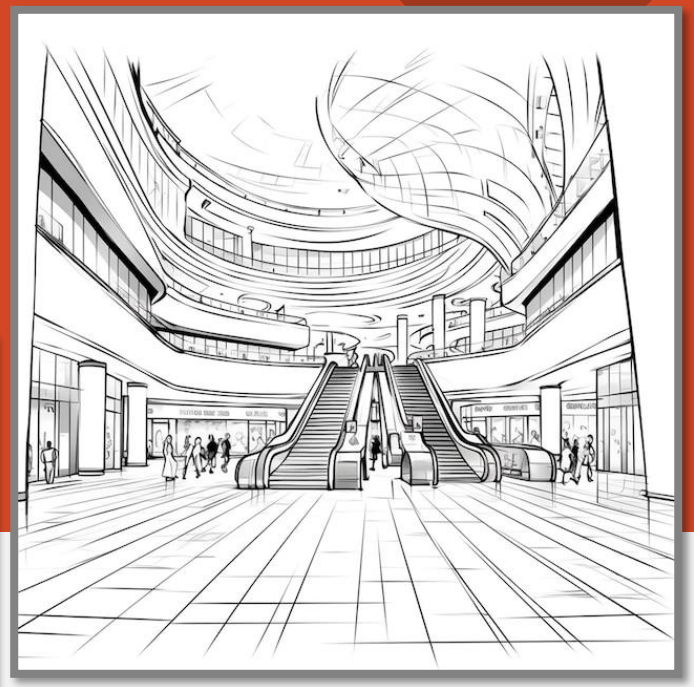
Before starting the drawing of a perspective and after defining the frame we have:

1. to position the ground& horizon lines on the frame.
2. Once the horizon line is drawn, we need to place the vanishing point or points on it.

The vanishing points are always placed on the horizon line. If the perspective is given, to find the horizon line, simply locate the vanishing points and connect them.

3. Define the object to draw and the point of view.
4. Then: trace the main face or edge.
5. Draw the vanishing lines of this face.
6. Do the same with all the other points of the object.
7. Clean the drawing of unseen parts

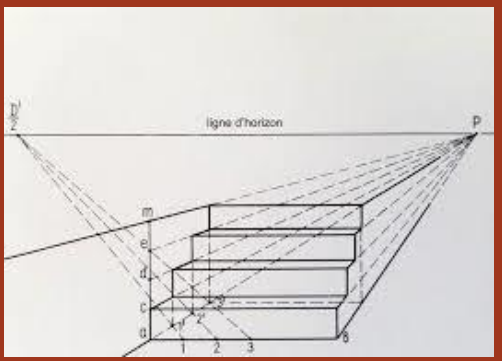
1-- Central conical perspective ‘a single vanishing point’

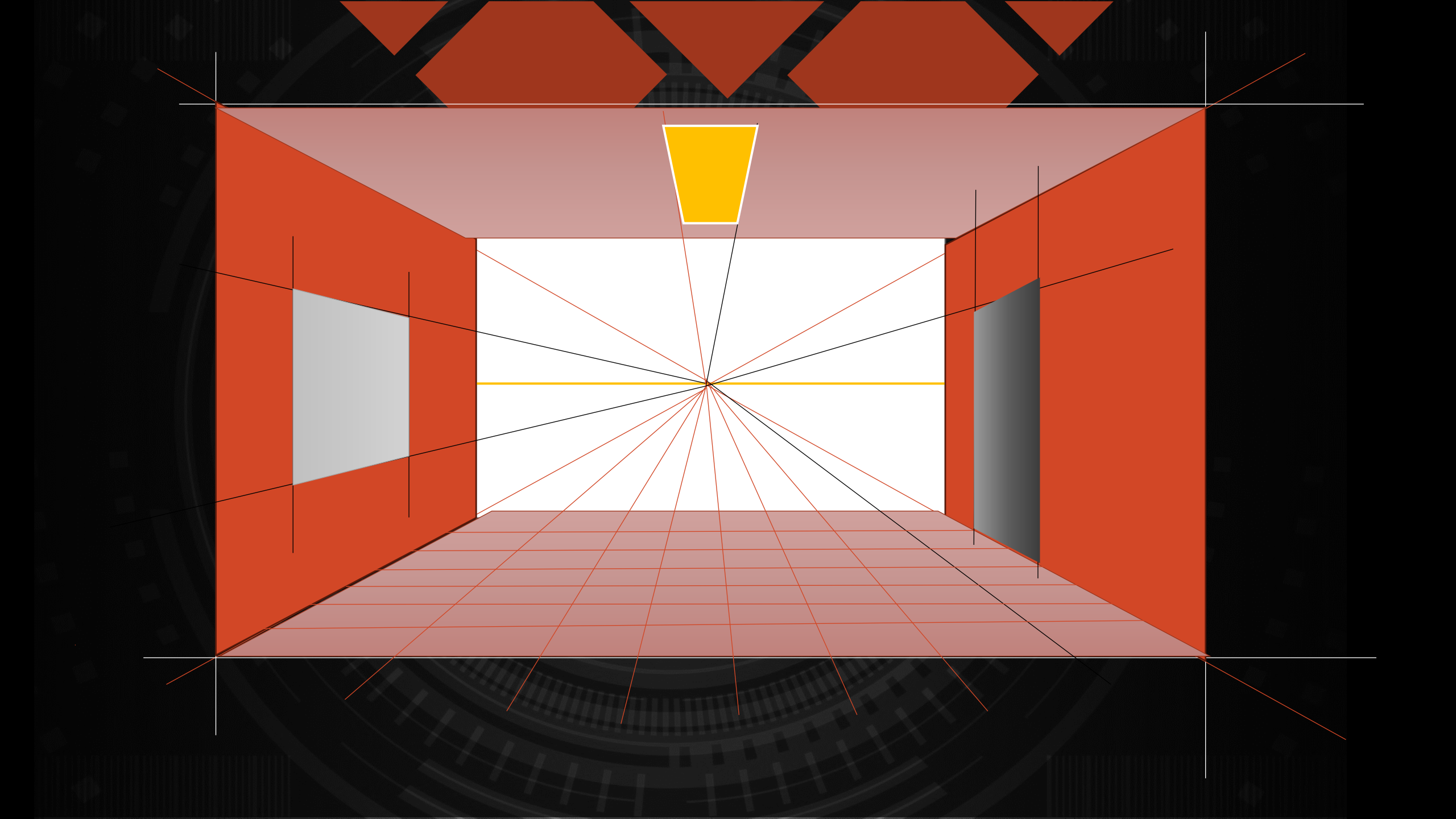


Presentation:
In central "frontal" conical perspective, the main face of the object to be represented is parallel to the picture plane; hence the term "frontal."

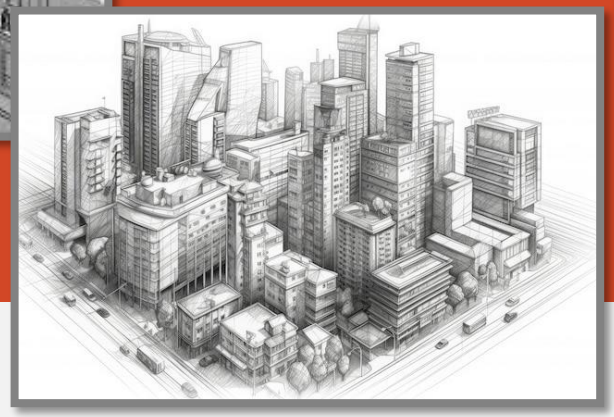
The horizontal lines perpendicular to the gaze are parallel.

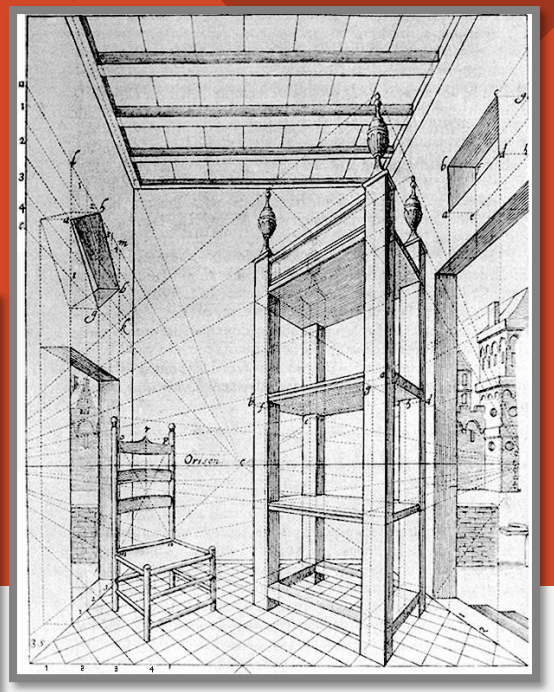
- The vertical lines are also parallel.
- The vanishing lines, those moving away from the observer, all converge to the same vanishing point PF located on the horizon line LH, which, let's recall, represents the eye level of the observer.
- The vanishing lines located above the LH descend towards it, while those below the LH ascend towards it.





2– Oblique conical perspective ‘Two vanishing points’





By observing the volumes to be represented in oblique conical perspective, we notice that...

* Vanishing lines move away from the subject both to its right and its left.
* Lines on the right side of the subject converge towards the first vanishing point PF1 located on its right.
* Lines on the left side of the subject converge towards a second vanishing point PF2 located on its left.
* Vertical lines remain vertical and parallel to each other, of course.

Presentation:

Oblique conical perspective is constructed using two vanishing points. In oblique conical perspective, the observer is looking at an edge of the object to be drawn. Vertical lines remain vertical, but horizontal lines converge toward the vanishing points. It is used to represent two or three faces of a volume, none of which are parallel to the projection plane.

Steps to follow for a two-point perspective