Zarqa University
Faculty of Engineering Technology
Architectural Engineering Department

Perspective Drawing

Course Information	**0901225 Architectural Drawing and Perspective**

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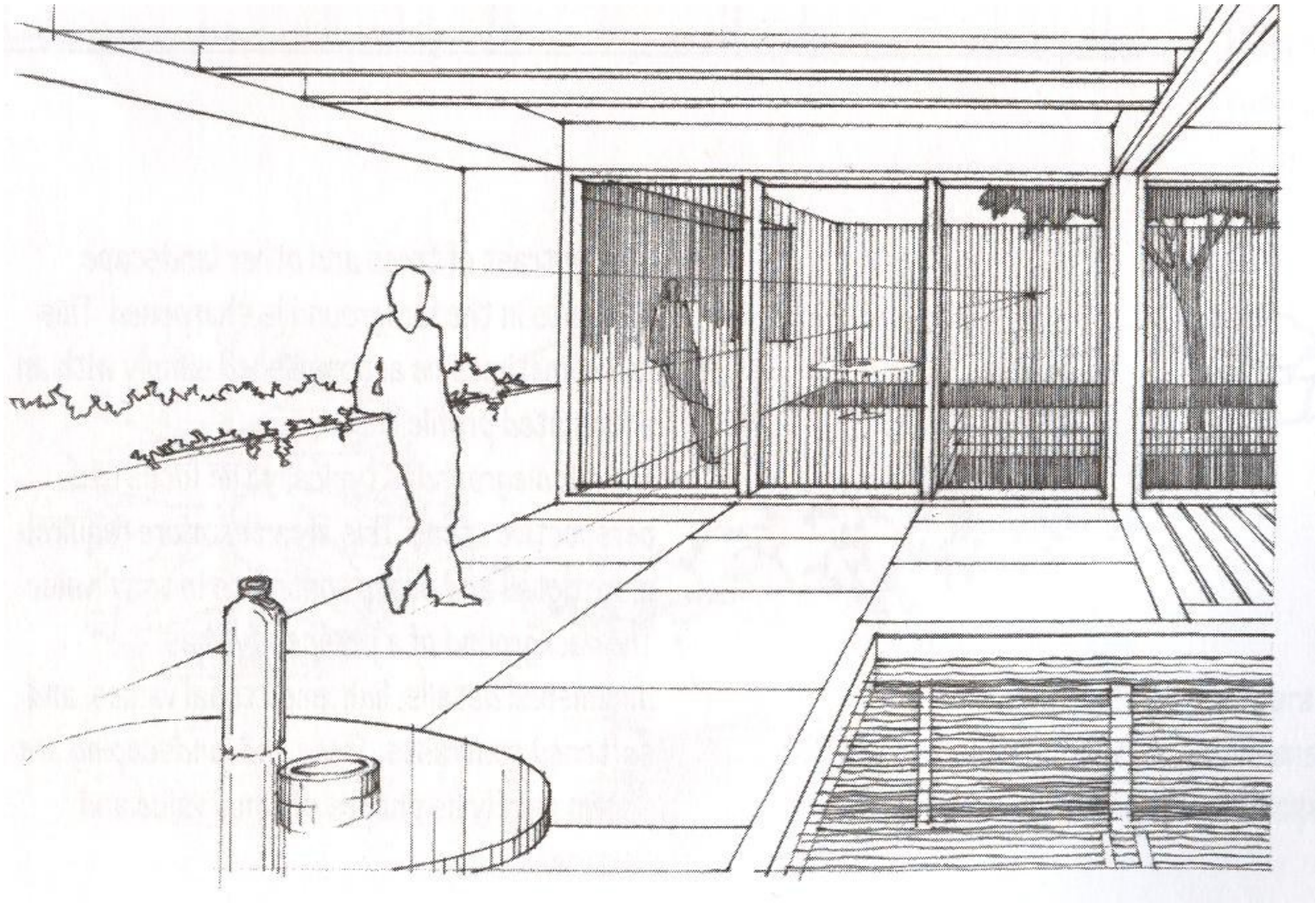
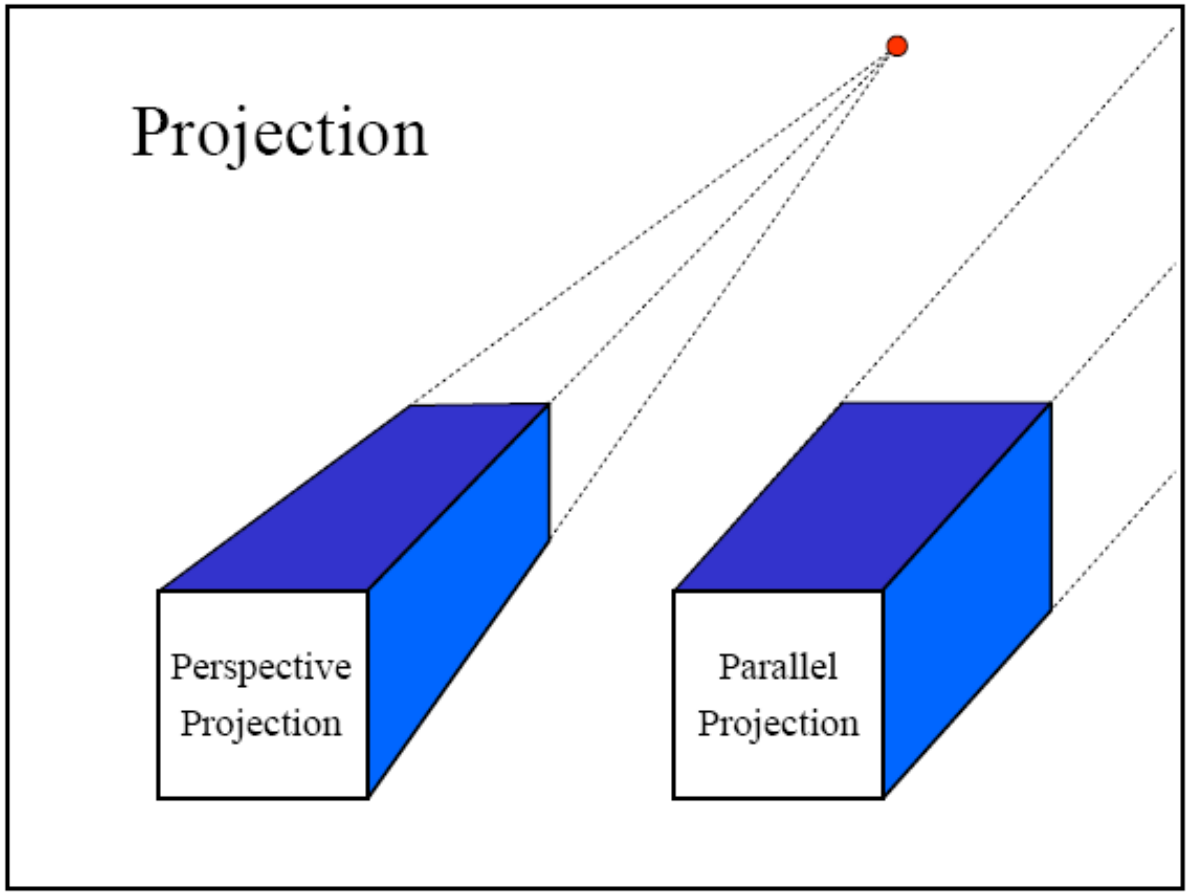
Perspective Drawing



Perspective

- Perspective is a geometric method of representing on paper the way that objects appear in real life i.e. they get smaller and closer together the further away they are from the eye of an observer.
- It is the most realistic of all pictorial drawings.
- It is is the way real three-dimensional objects are pictured in a photograph that has a two-dimensional plane.
- Perspective or central projection is used in creative art or technical sketching but seldom in technical drawing.

Projections



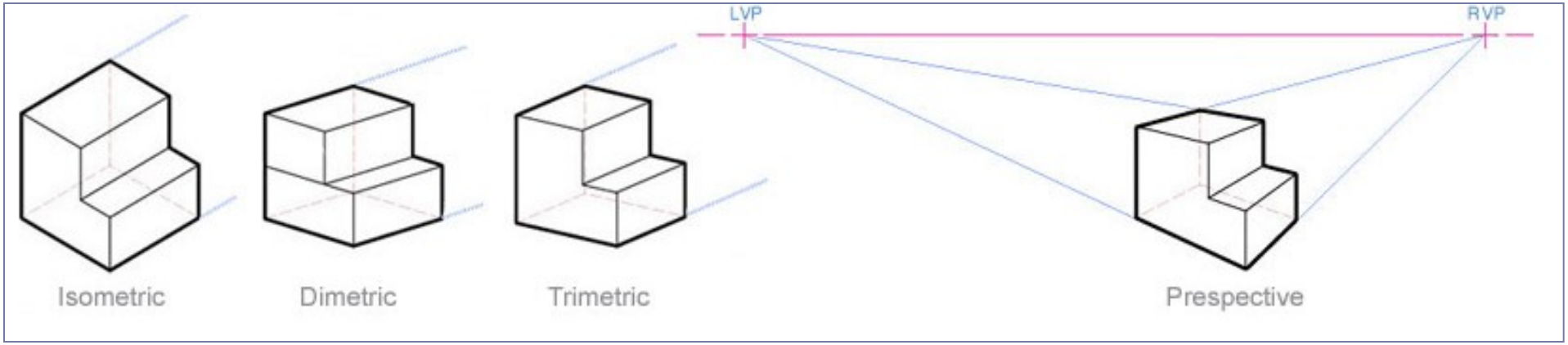
Projectors or line of sights are not parallel to each other.

Pictorial drawings

Perspective drawings differ from other types of pictorial drawings.

In Isometric, Dimetric, and Trimetric drawings, the lines remain parallel and never converge at a single point.

They are useful for conveying technical information but lack the quality of realism when compared to the perspective view.

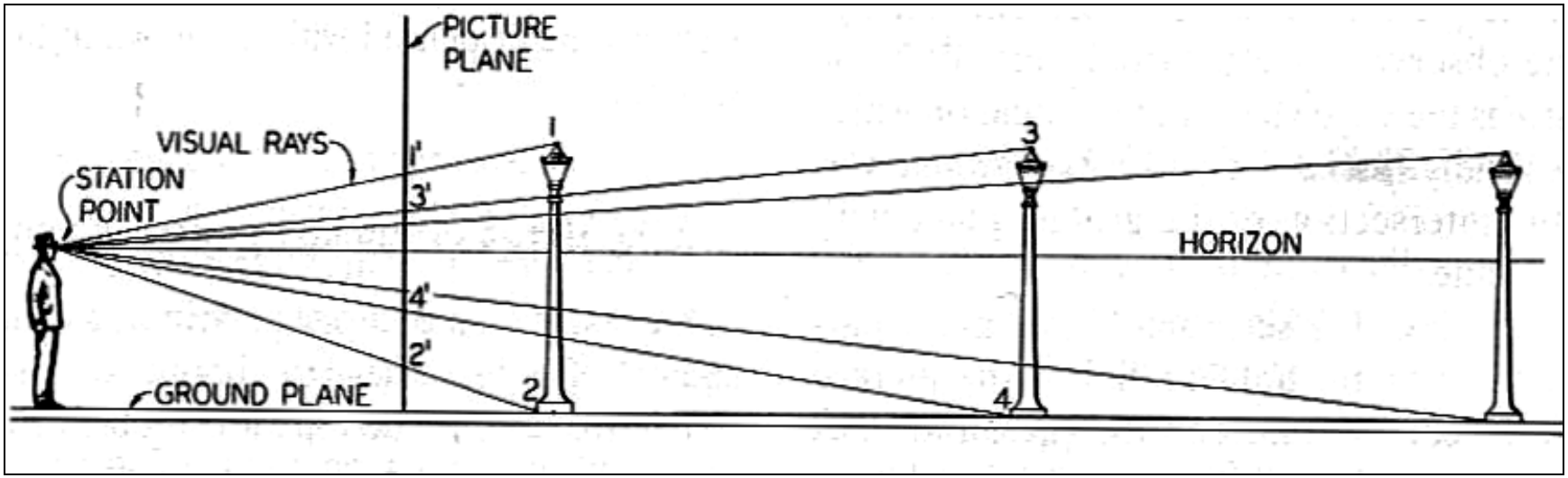


Perspective System

MAIN ELEMENTS

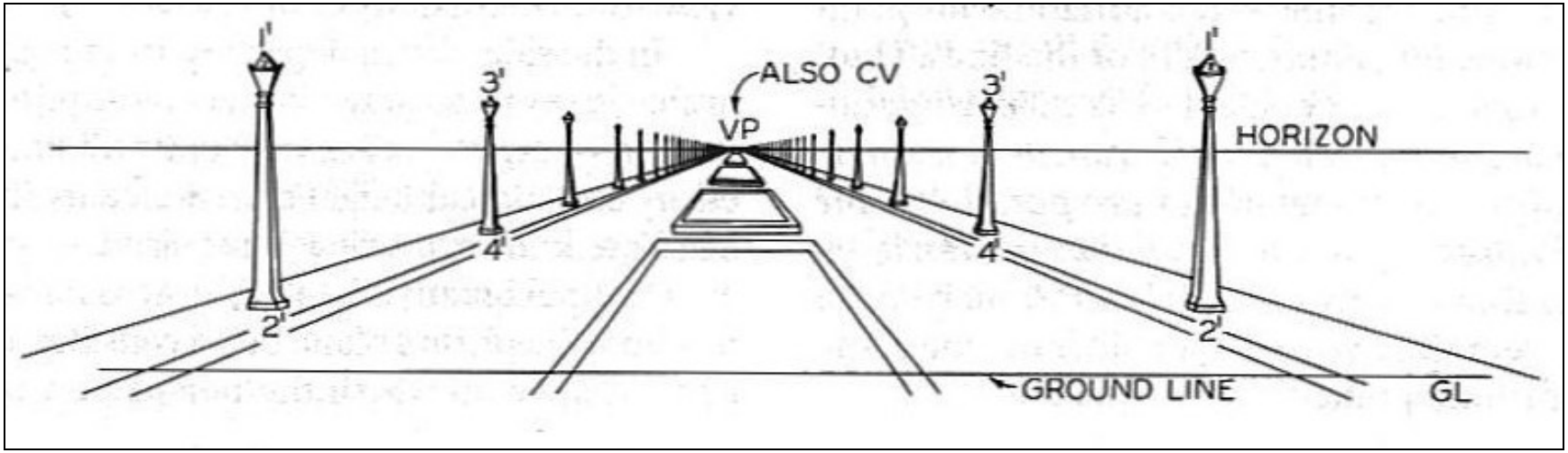
1. The observer's eye.
2. The object.
3. The plane of projection.
4. Line of sight.

Perspective System



- Observer's eye: is station point (SP).
- The visual rays: are the line of sights.
- Picture plane: is the plane of projection or the paper.
- Visual ray at eye level marks horizon on picture plane.

Vanishing Point

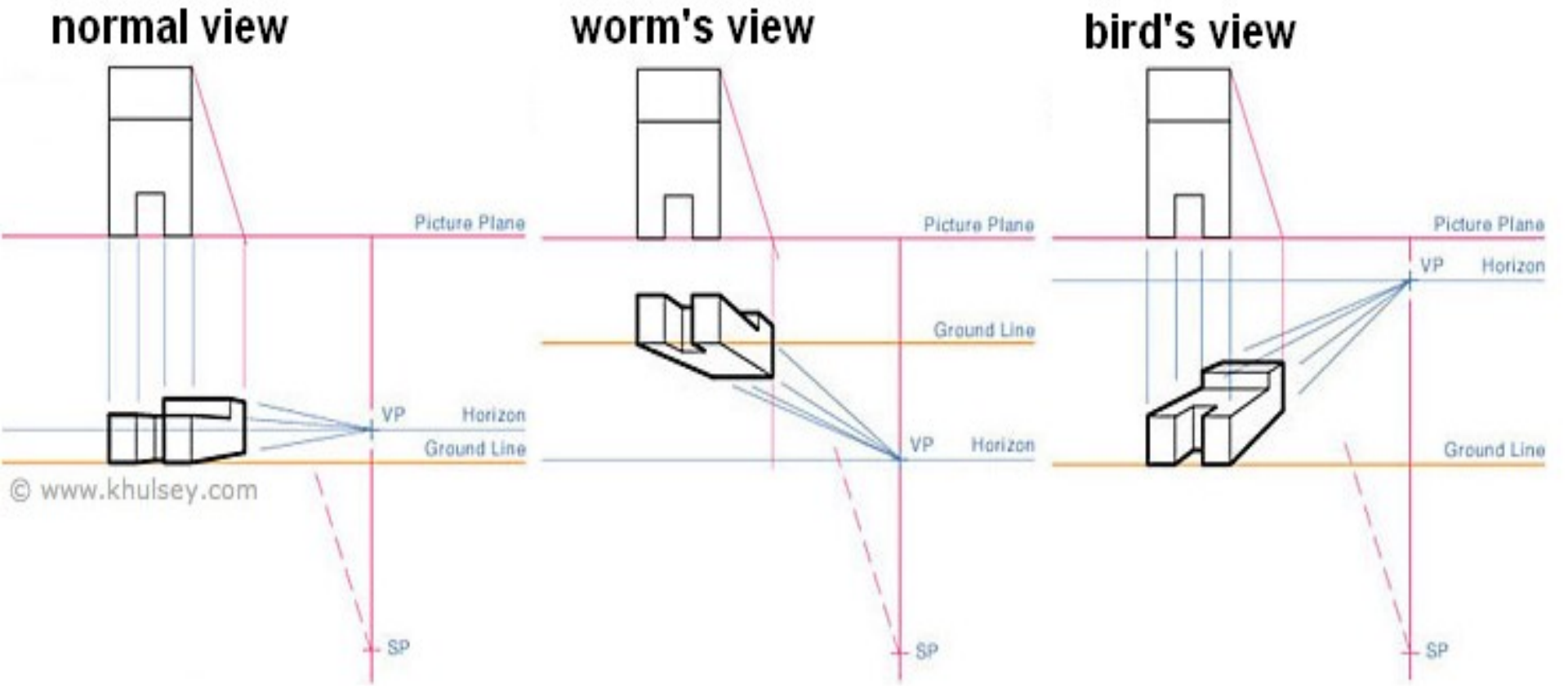


- The lines parallel to each other but not parallel to the picture plane converge towards a single point on the horizon - VANISHING POINT

Notes

- Observer's eye is station point SP
- Visual ray at eye level marks horizon on picture plane. The horizon line (HL) is the position of horizon.
- The central line of sight should direct towards the centre of interest.
- The location of the picture plane (PP) determines the size of the object on the PP. Moving the PP alters perspective or scale but not proportion.
- The lines parallel to each other but not parallel to the PP (horizontal lines) converge towards a single point on the horizon - Vanishing points (VP)
- The ground line (GL) represents the edge of ground plane on which object rests. GL defines the lower limit of drawing.

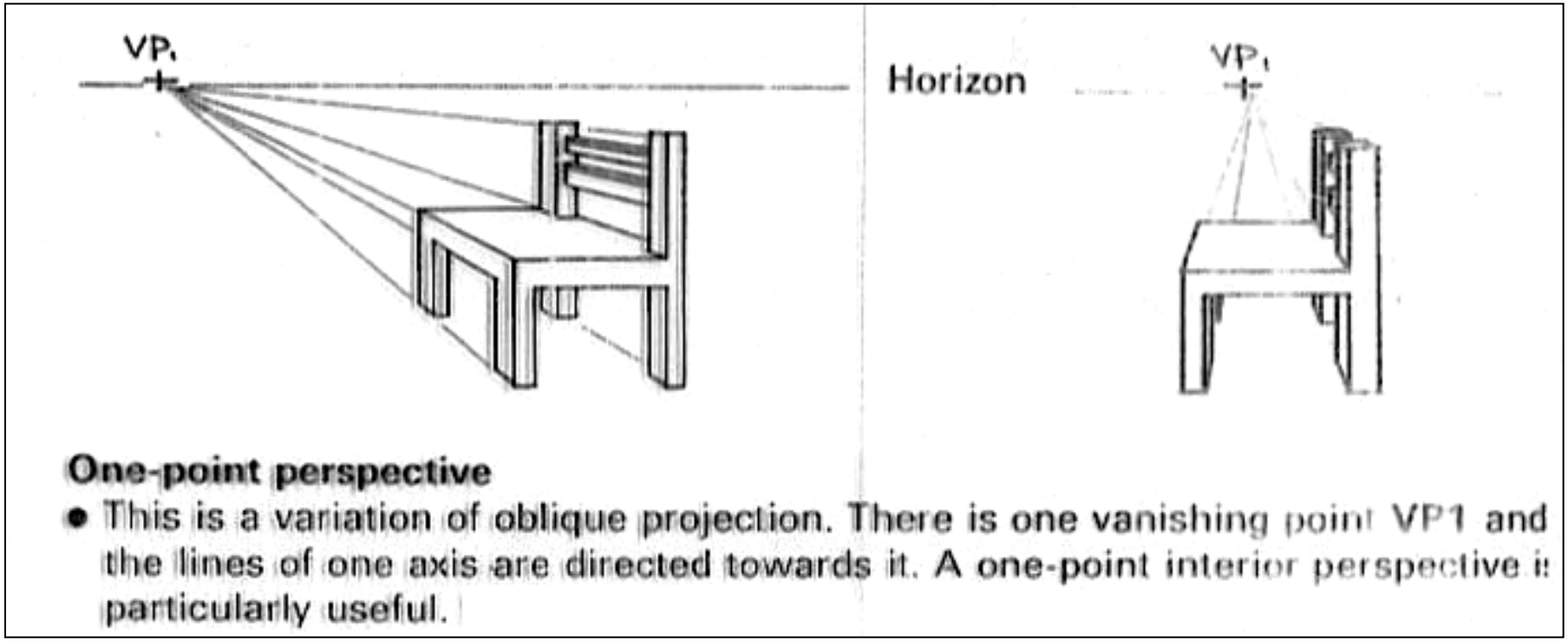
Perspectives



Types of Perspective

- 1-point perspective/Parallel perspective.
- 2-point perspective/Angular perspective.
- 3-point perspective.

One-point Perspective

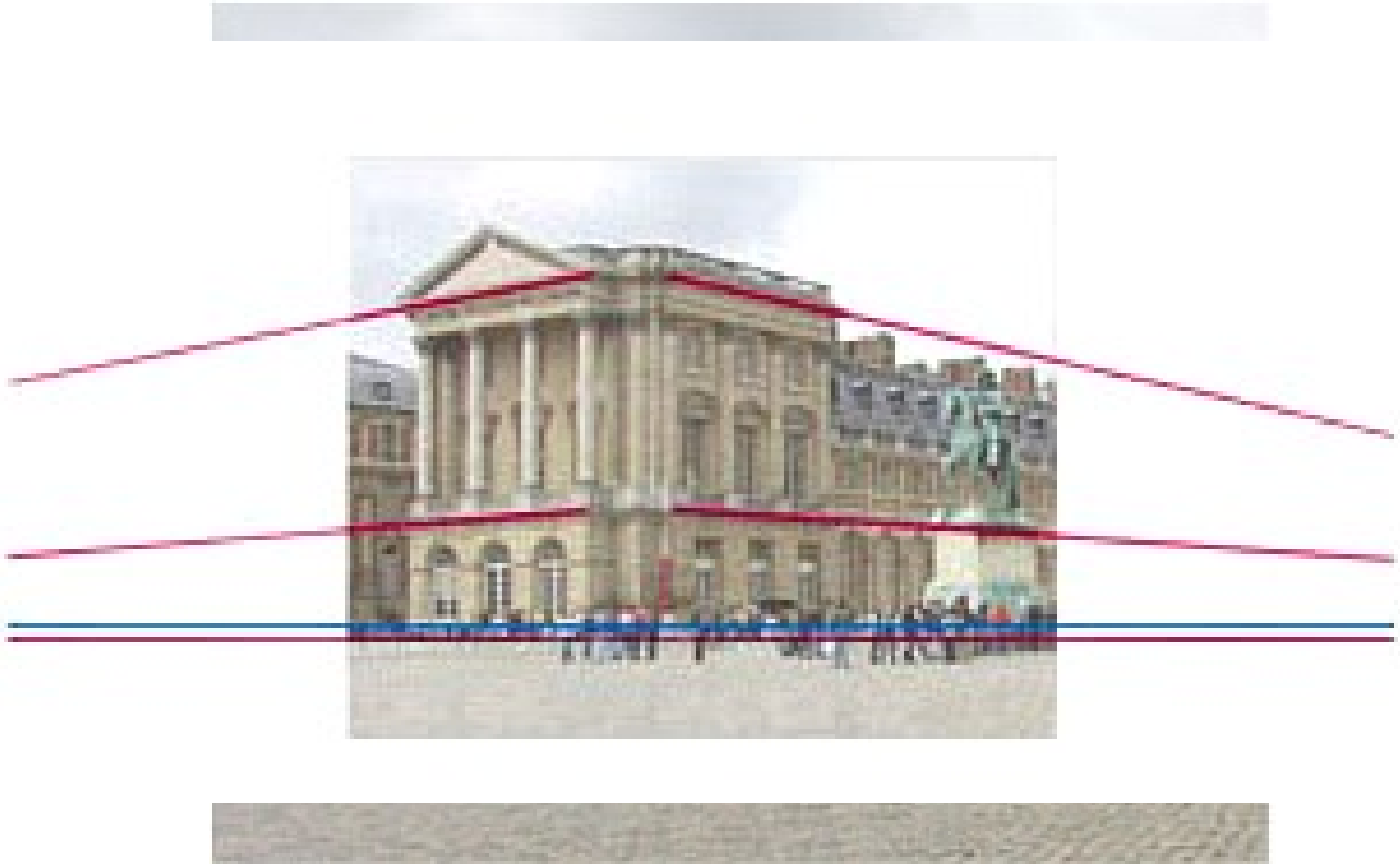


One-point perspective

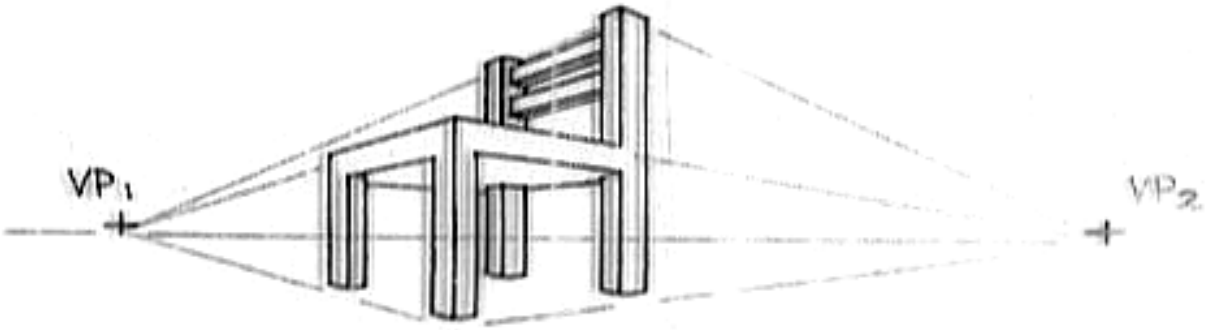
- This is a variation of oblique projection. There is one vanishing point VP1 and the lines of one axis are directed towards it. A one-point interior perspective is particularly useful.

- One face of object is parallel to picture plane, one VP

Two-point Perspective



Two-point Perspective

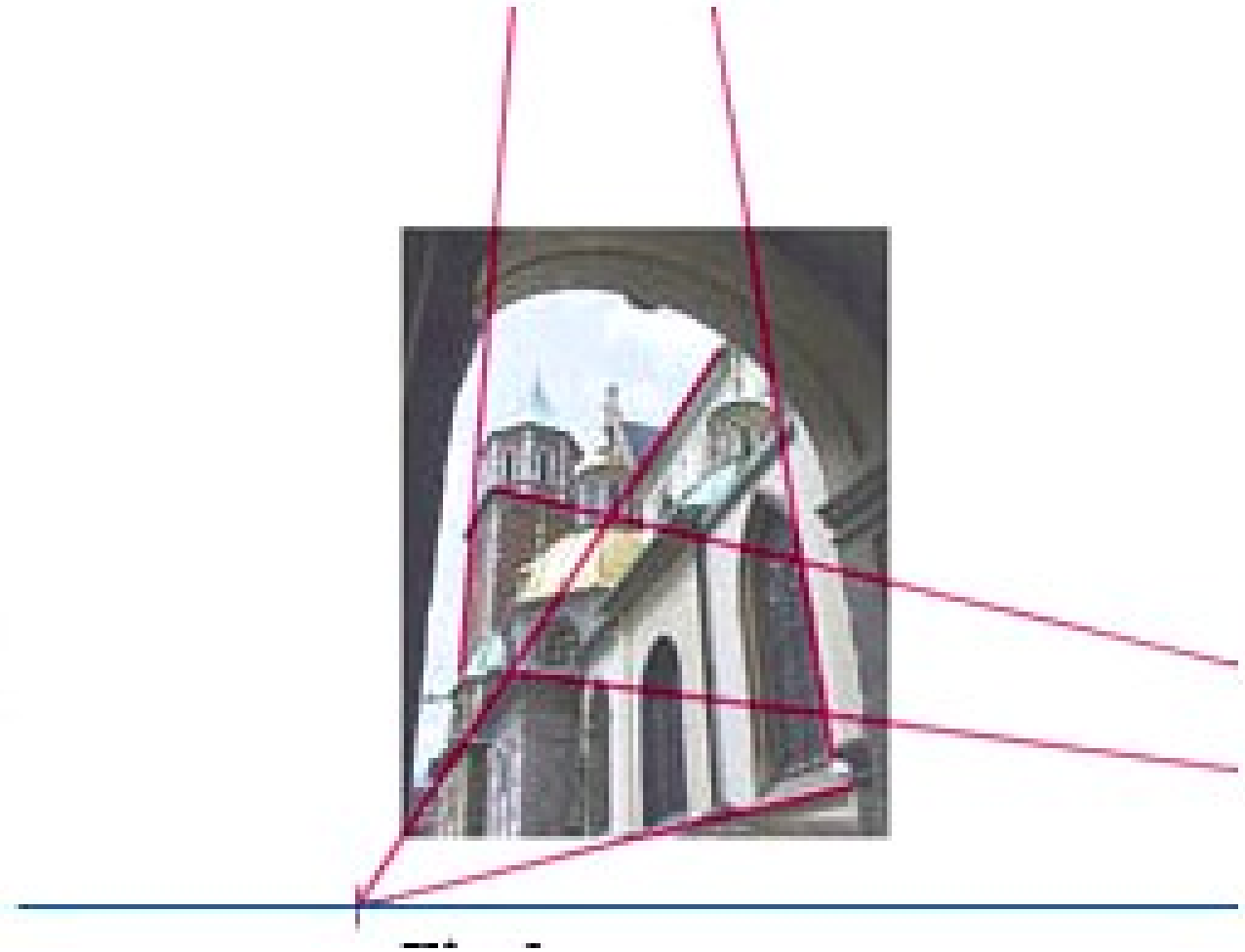


Two-point perspective

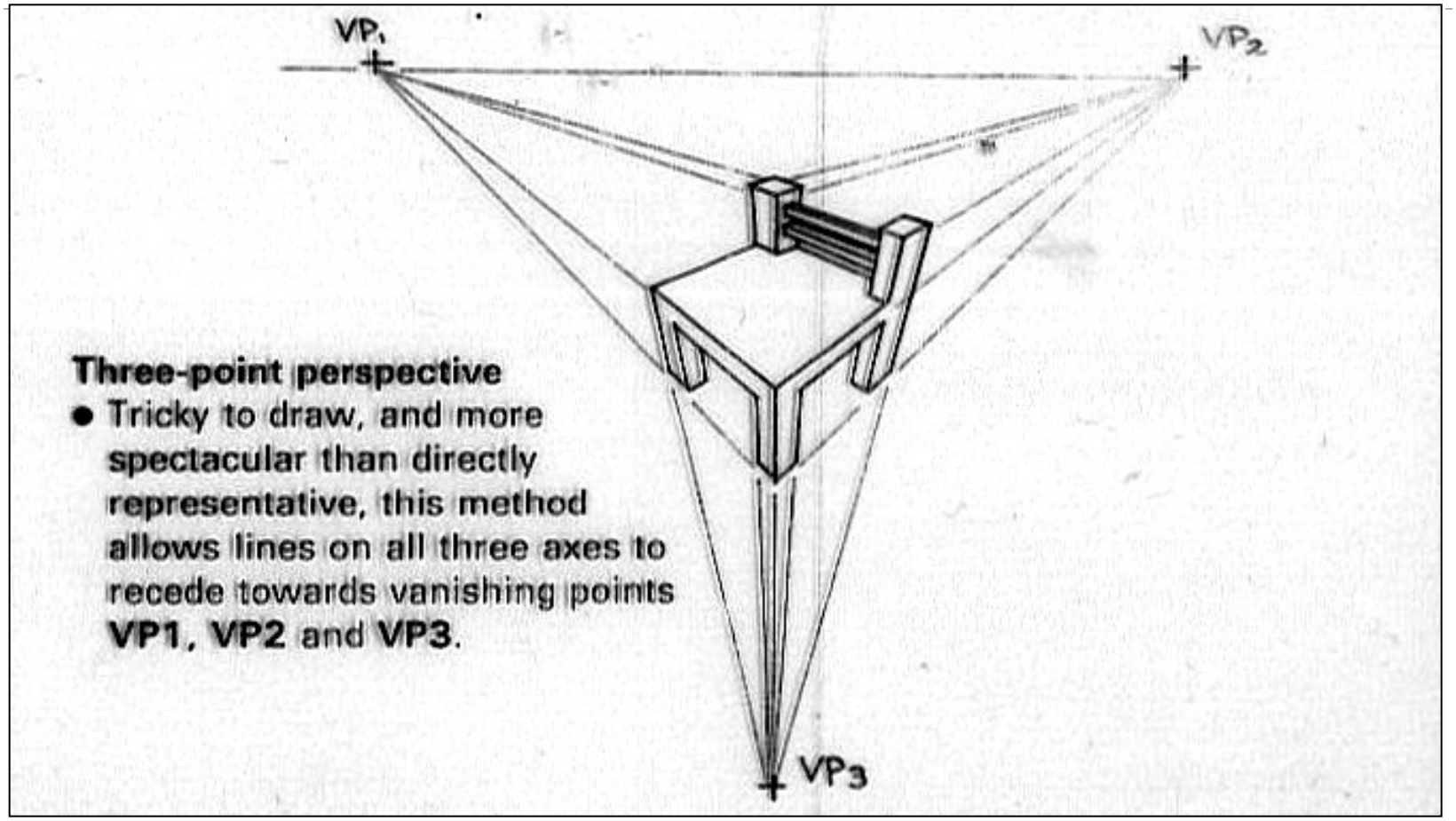
- This is the most useful and realistic form. The vertical lines stay vertical but lines recede to right and left towards two vanishing points VP1 and VP2.

- Object at angle with picture plane, but vertical edges are parallel to picture plane, two VP

Three-point Perspective

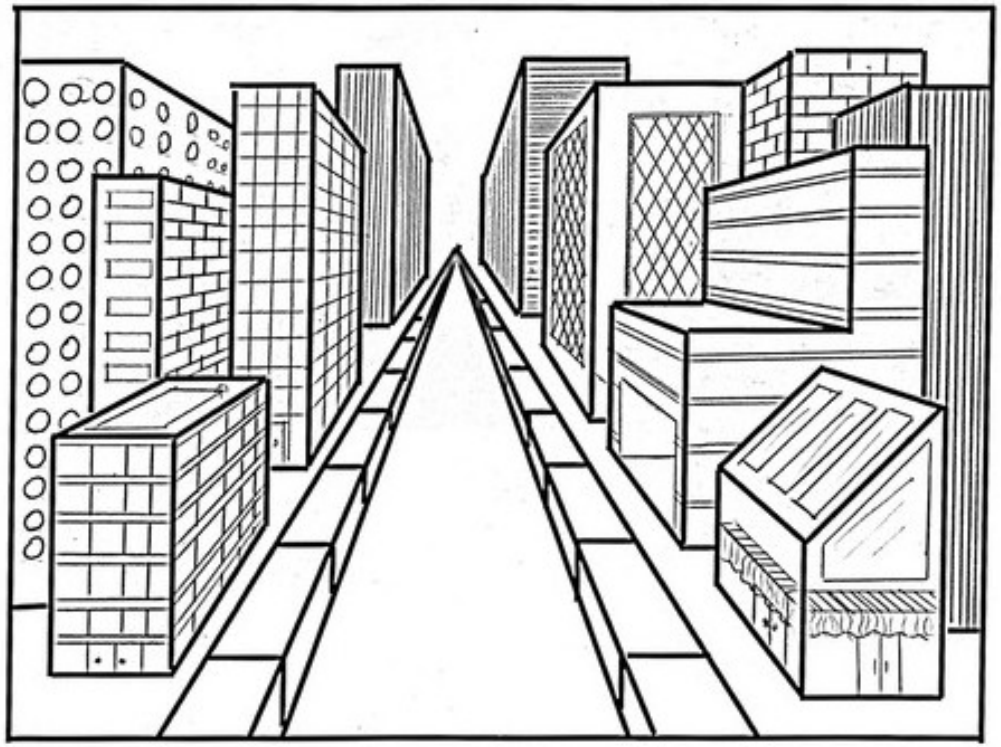


Three-point Perspective



- No system of parallel edges with picture plane, three VP

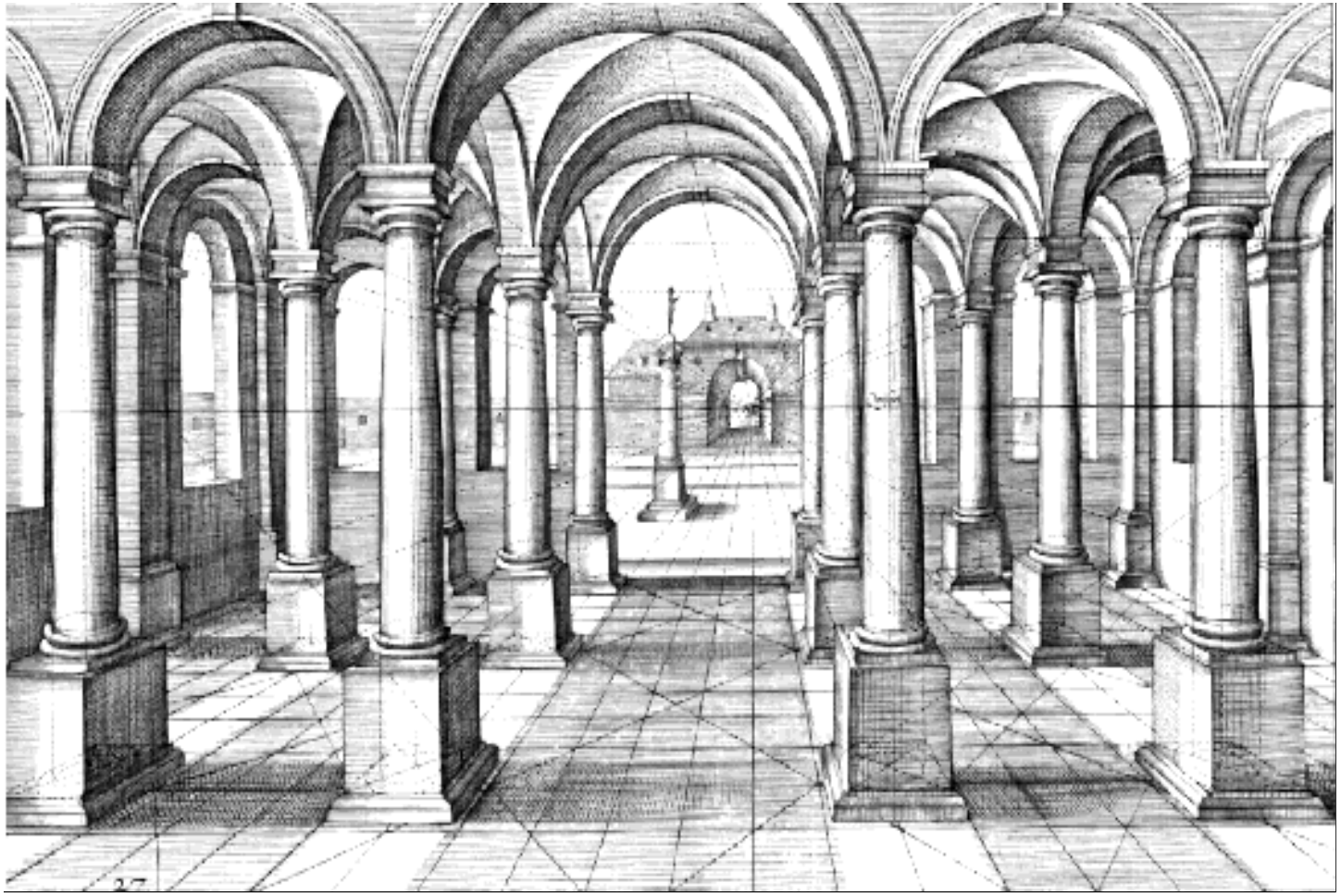
1. One point perspective



- One point perspective is a drawing technique whereby the objects are drawn according to a set of rules that make the pictures look like they have depth in them and the solid forms appear to be three dimensional.

One point perspective

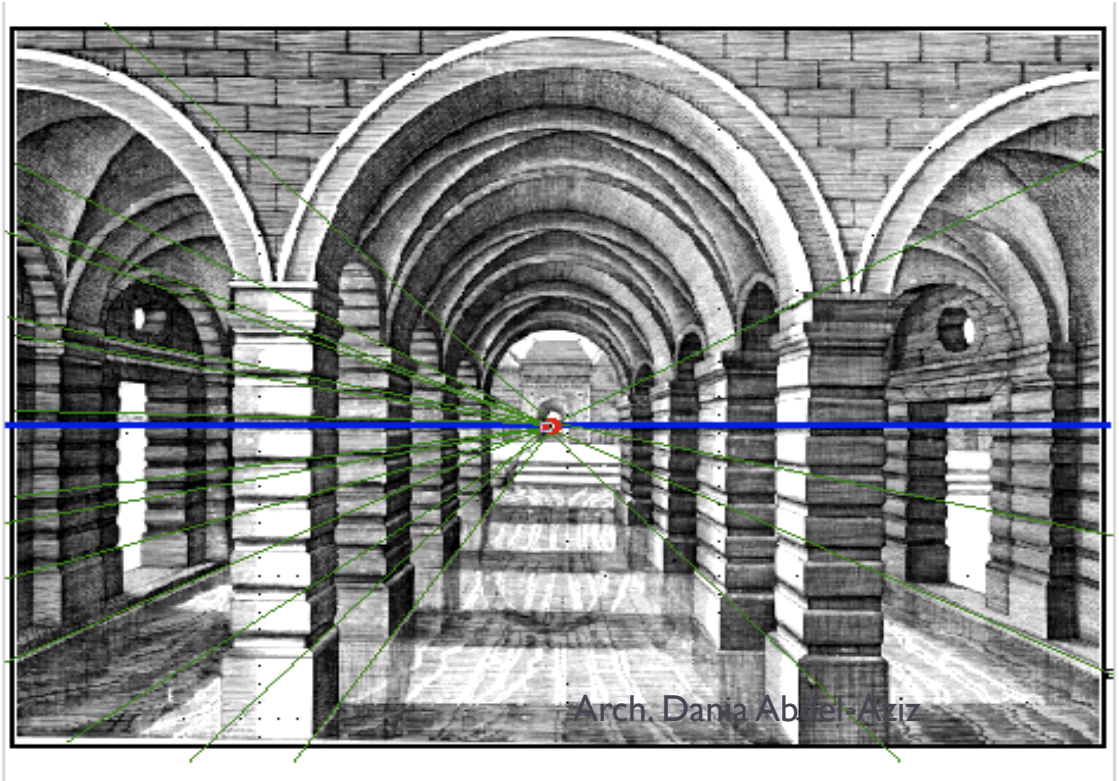
This Renaissance drawing by Jan Vredeman de Vries shows the use of 1-point perspective drawing techniques.



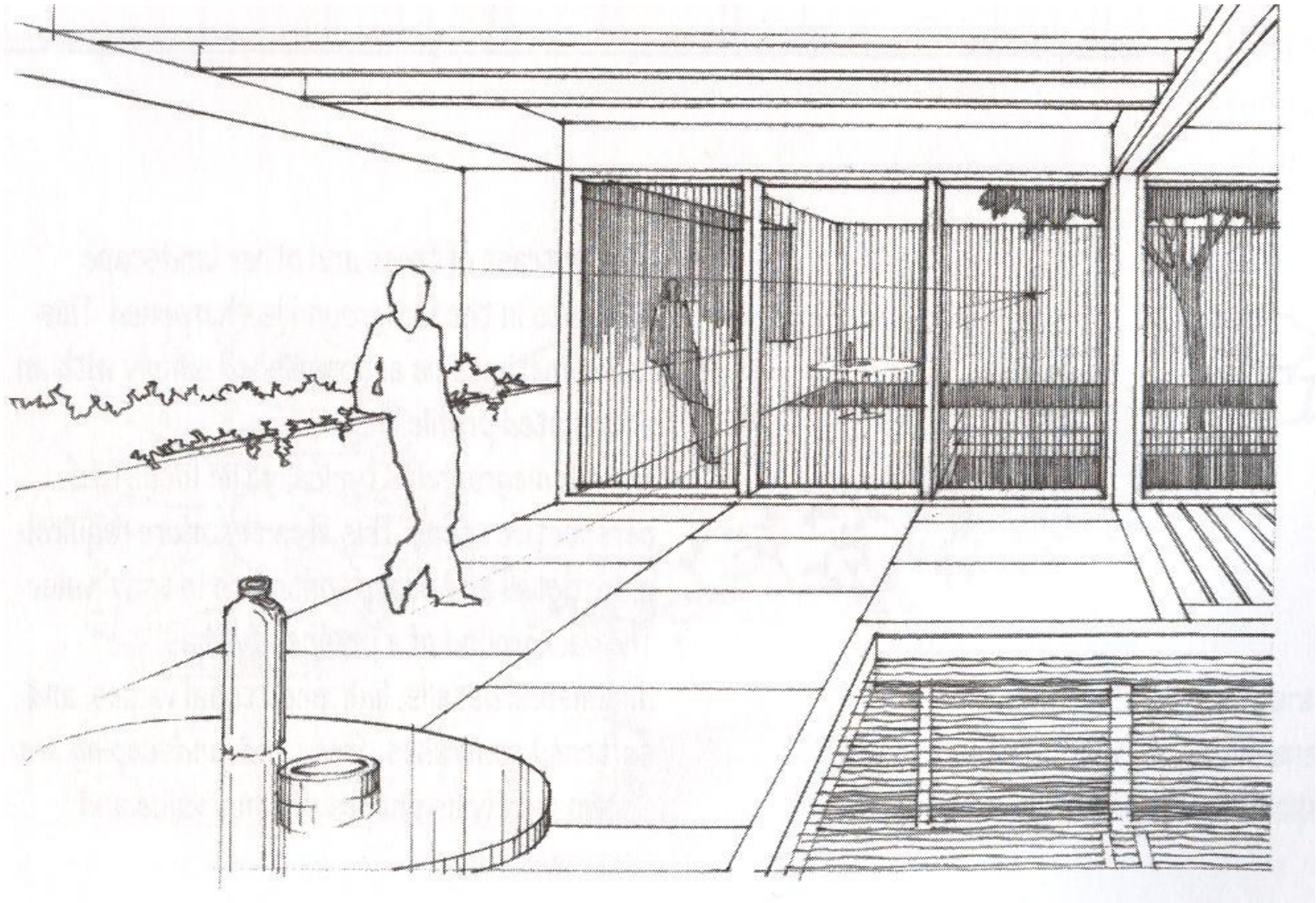
See how the lines that connect the tops of the columns and the lines in the floor point to a single spot in the distant arch? That spot is called a vanishing point.

It is at that spot that everything disappears. The bases of the columns on the left side of the picture show us the right side of the bases. The opposite is true of the columns on the right side.

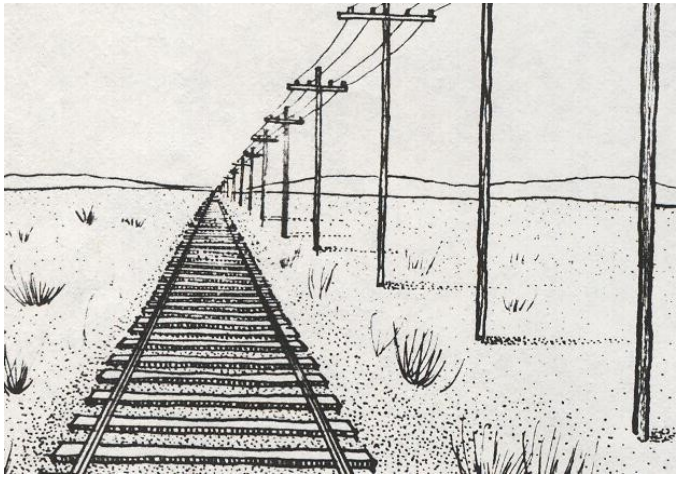
The columns in the front are much larger than those farther away. We assume that in the real architecture, they must surely be the same height.

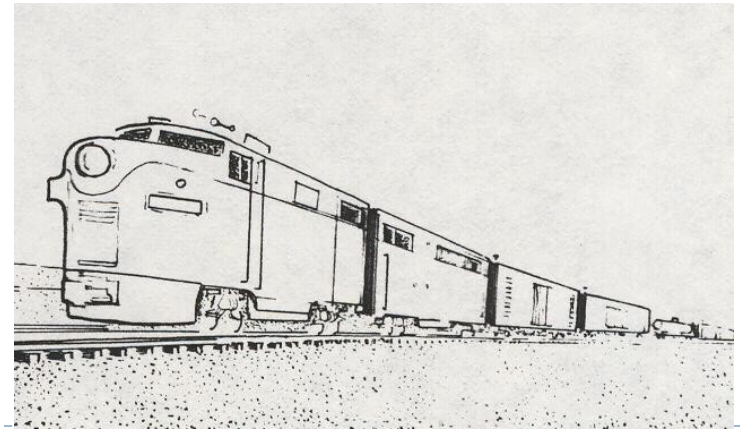


1-Point Perspective Drawings



Perspective Fundamentals



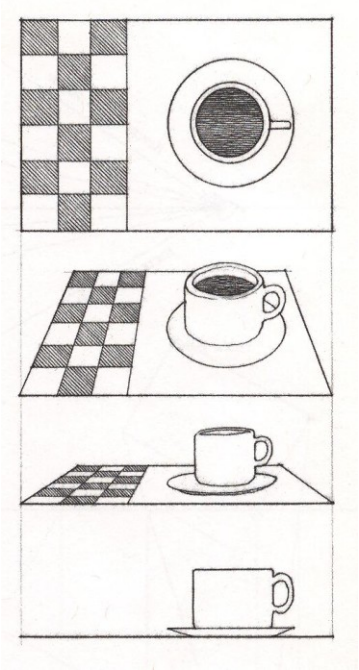


1. Diminution

Objects appear smaller as their distance from the observer increases.

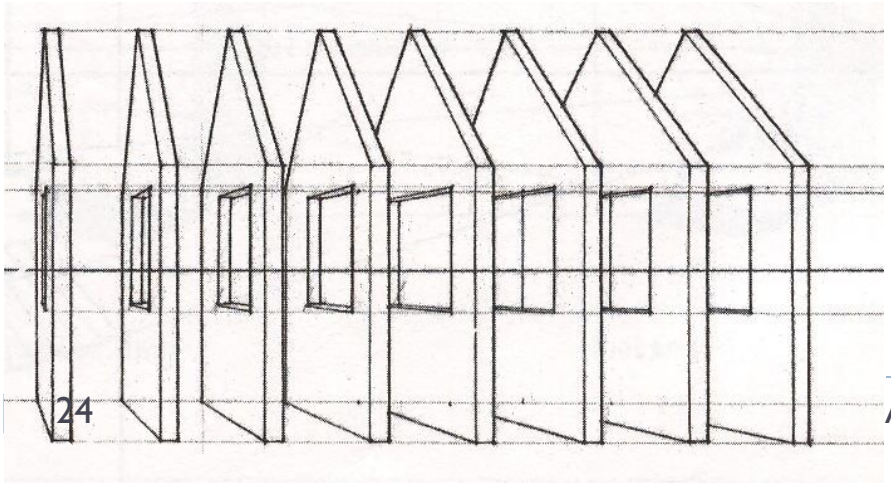
This “truth” of seeing is a fundamental means of producing a sense of space and depth.

Perspective Fundamentals



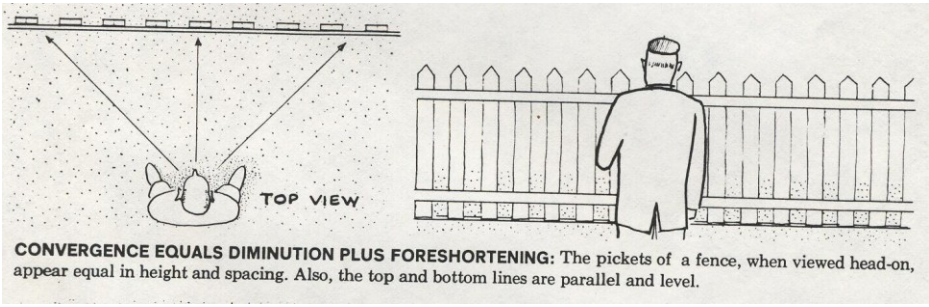
2. Foreshortening

- Lines or surfaces parallel to the observer's face show their maximum size. As they are revolved away from the observer they appear increasingly shorter.

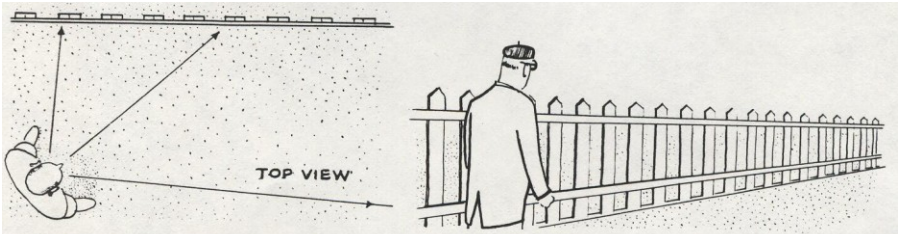


Perspective Fundamentals

3. Convergence



CONVERGENCE EQUALS DIMINUTION PLUS FORESHORTENING: The pickets of a fence, when viewed head-on, appear equal in height and spacing. Also, the top and bottom lines are parallel and level.

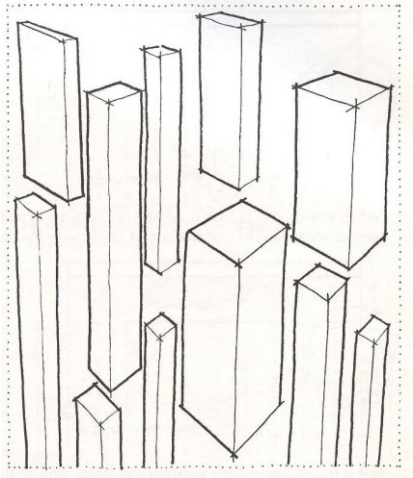


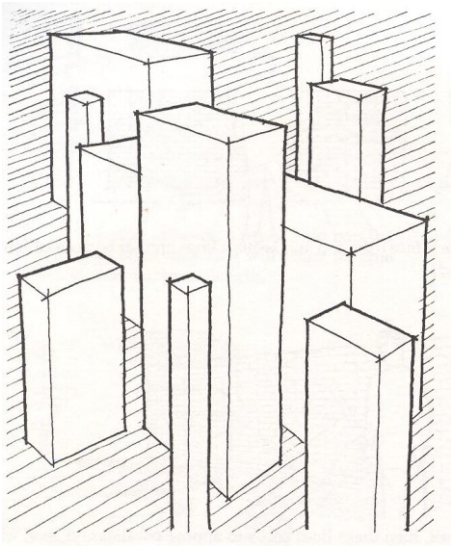
But if the observer turns his head and looks "down" the fence, then the top and bottom lines appear to converge. Notice that this convergence relates directly to the diminution of the pickets as they recede. Furthermore, the true length of the fence no longer appears, but instead is foreshortened. (Note how the spacing and width of the pickets appear narrower in the distance.)

- Lines or edges of objects which in reality are parallel appear to come together as they recede from the observer.

Convergence can be thought of as the diminution of closely-spaced elements of equal size.
And it implies foreshortening since the surface is not viewed head-on.

Perspective Fundamentals

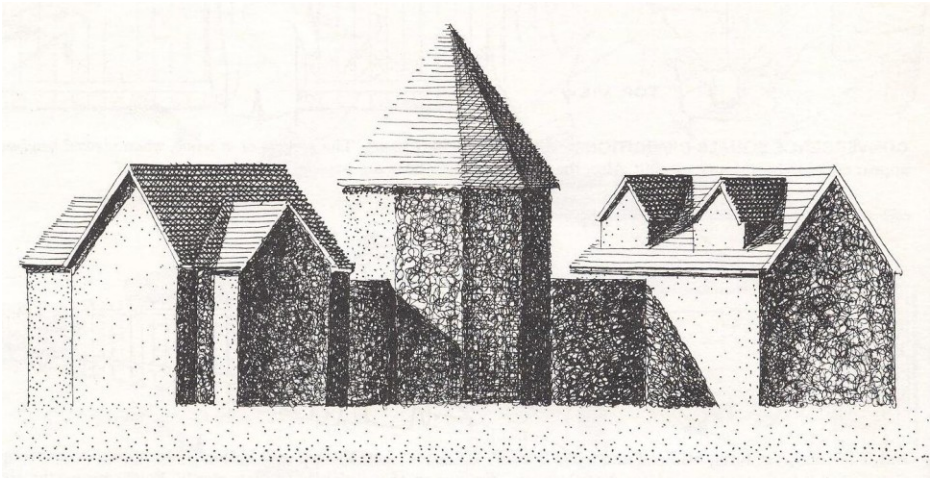




4. Overlapping

- This technique not only shows which objects are in front and which are in back - it also achieves a sense of depth and space in drawings. Notice the depth confusion when overlapping does not exist (top).

5. Shades and Shadows

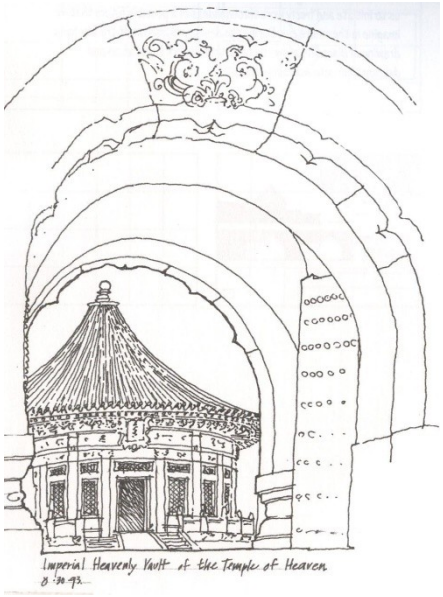


- Working with light, shade and shadow will dramatically help to give a drawing form and a sense of the third dimension.

6. Color & Value in Perspective

- Exterior
  - Values and colors are bright and clear when close up but become grayer, weaker, and objects become fuzzier as distance increases.
- Interior
  - Values and colors are bright and clear when seen close up but become darker and more neutral as the view recedes into space.

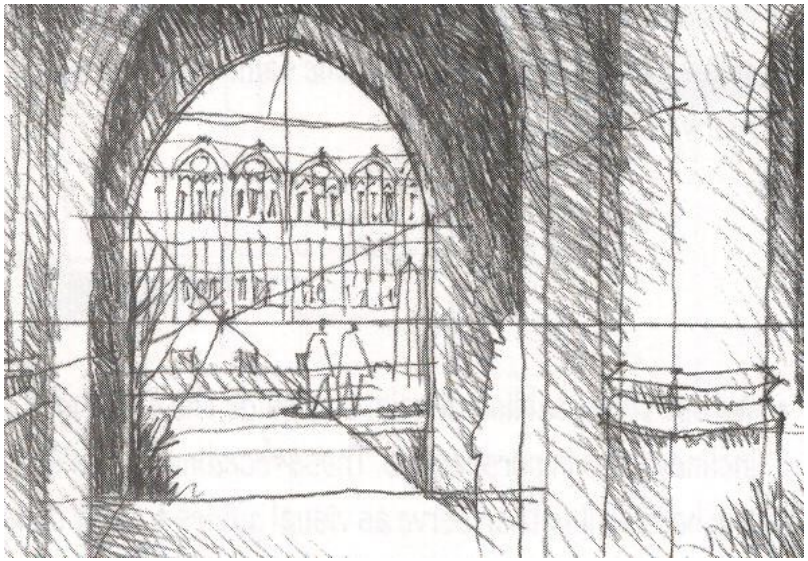
Perspective Fundamentals



7. Focus Effect

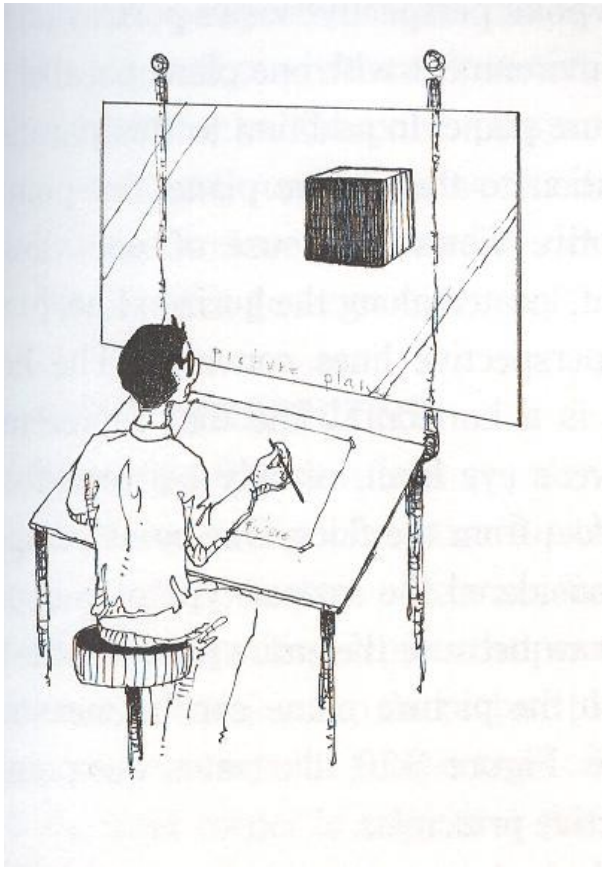
- Blurred foreground with a clear background might be used to emphasize the center of interest as well as a sense of depth.

7. Focus Effect



- Conversely, when the eye focuses on foreground objects the background will appear blurred and unclear.

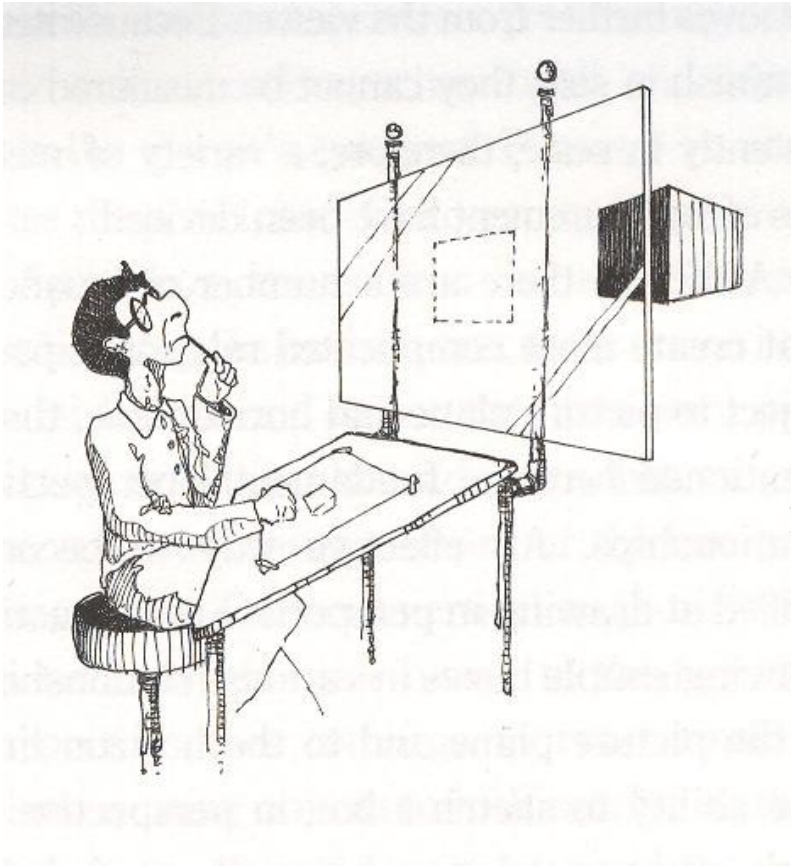
Understanding Perspective



- Picture Plane
  - An imaginary viewing plane that can be represented by the drawing surface.

1-Point Perspective Drawings

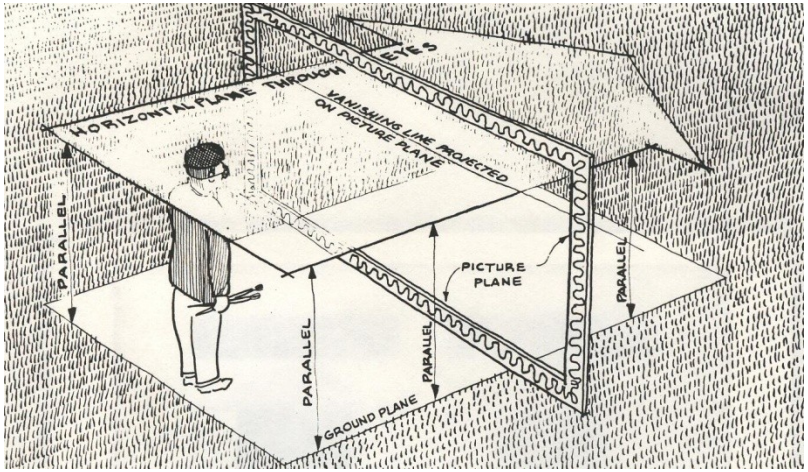
Picture Plane



- A box drawn in one-point perspective has its front plane parallel to the picture plane.

Understanding Perspective

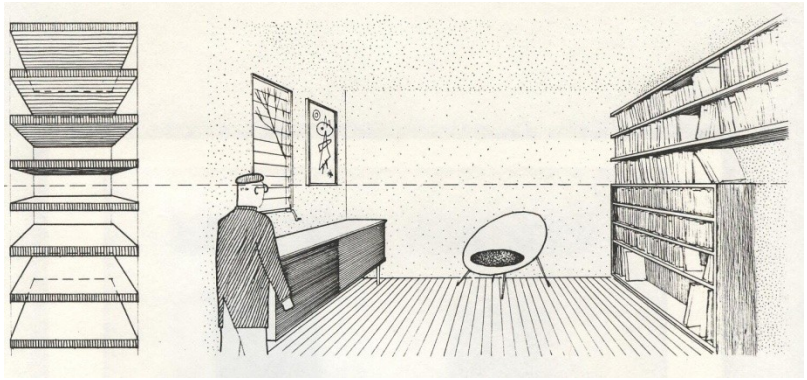
Eye Level / Horizon Line / Vanishing Line



- A straight and horizontal line that is always on the same level as the observer's eyes.
- Usually 5' up from the ground plane or floor.
- Vanishing points for all horizontal lines in a given drawing are located on this horizontal line.

Understanding Perspective

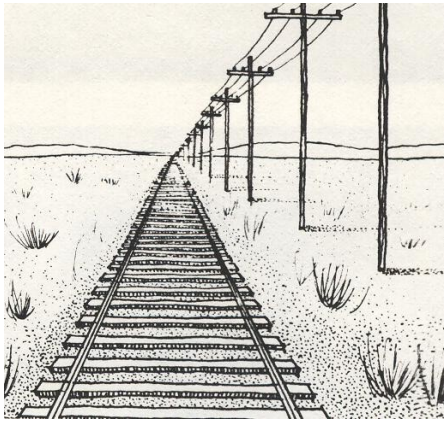
Choosing an Eye Level

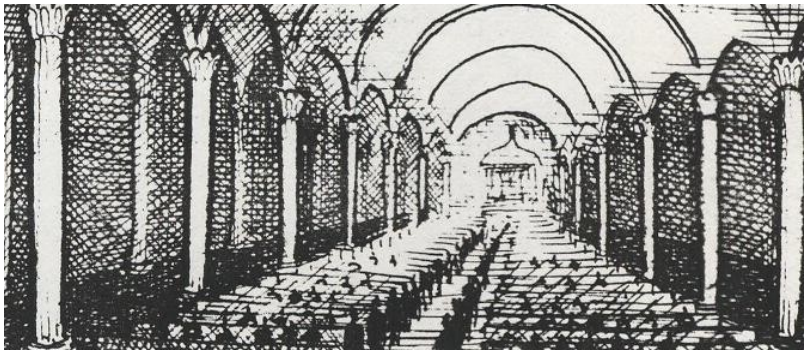


- Horizontal planes will show their undersides when above eye level, and their tops when below eye level. At eye level they foreshorten altogether and appear as simple lines.

Understanding Perspective

Vanishing Points

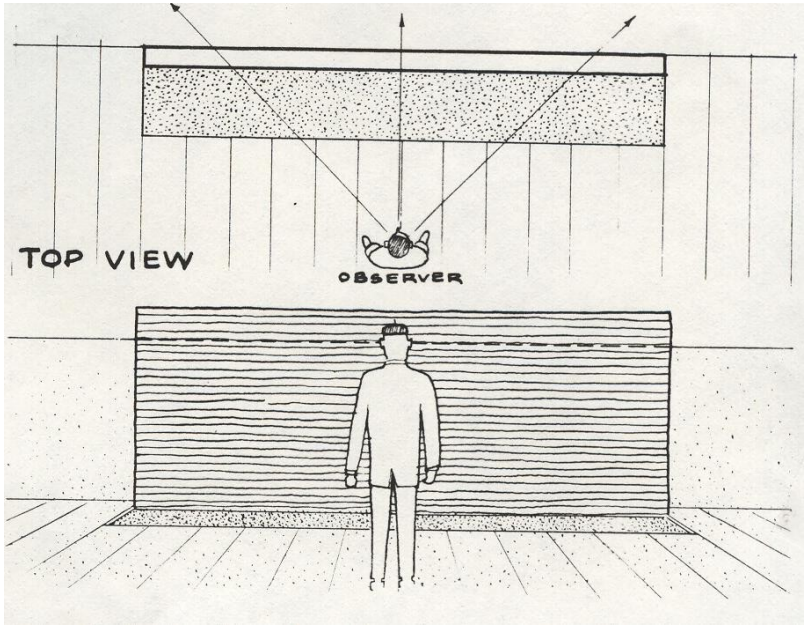




- Any 2 or more lines that are in reality parallel will, if extended indefinitely, appear to come together or meet at a point - the vanishing point of these lines.

Understanding Perspective

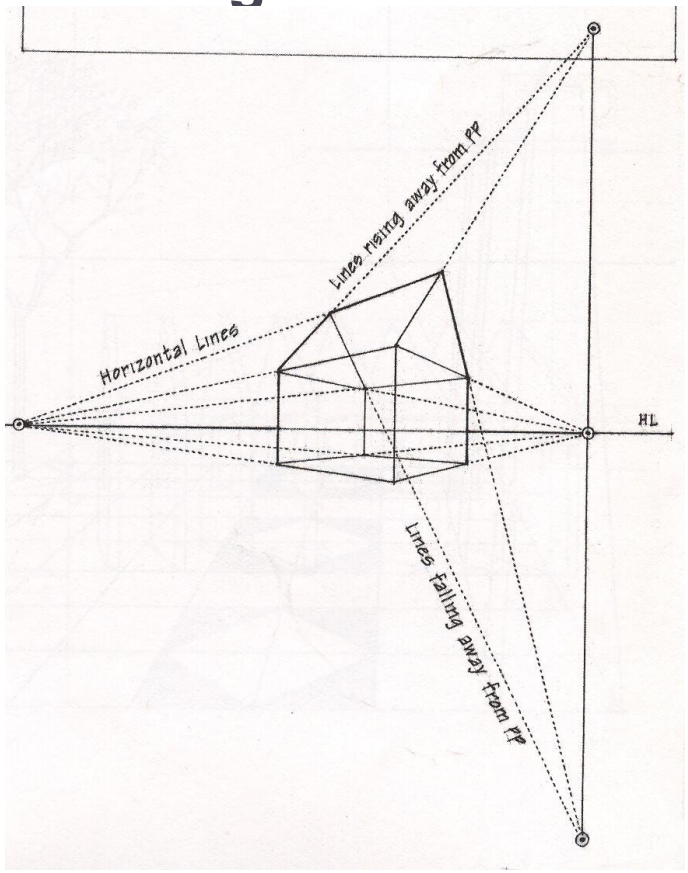
Vanishing Points



- The only exception to this occurs when the parallel lines are also parallel to the observer's face and to the picture plane. In this case, they neither recede nor converge and therefore do not have a vanishing point.

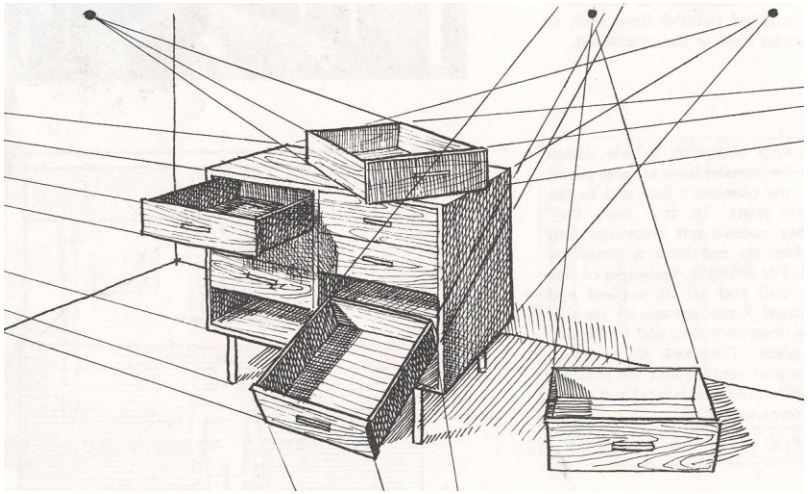
Understanding Perspective

Vanishing Points



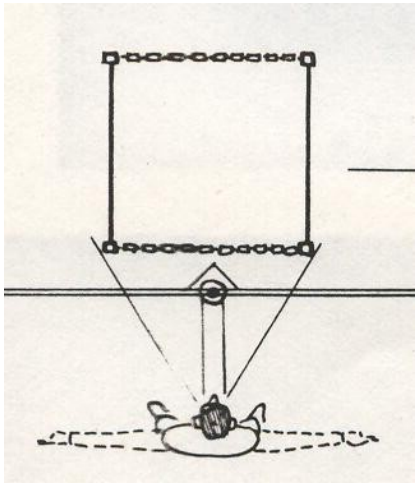
- Lines oblique to the picture plane
  - If oblique to the picture plane, a set of parallel lines will appear to converge toward a common vanishing point as it recedes.
  - Horizontal oblique lines will vanish somewhere on the HL.
  - Inclined oblique lines slanting upward will vanish above the HL.
  - Inclined oblique lines slanting downward will vanish below the HL.

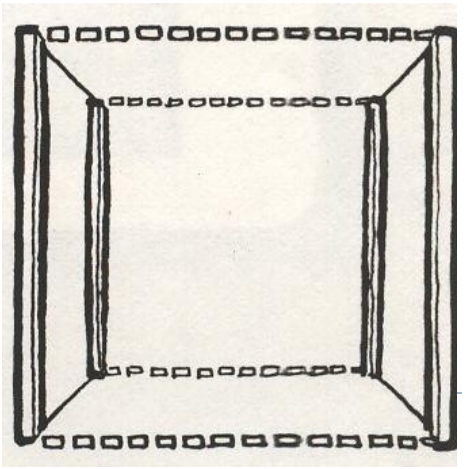
Understanding Perspective



- Regardless of direction, each set of parallel lines will converge toward its own vanishing point.

1-Point Perspective Drawings

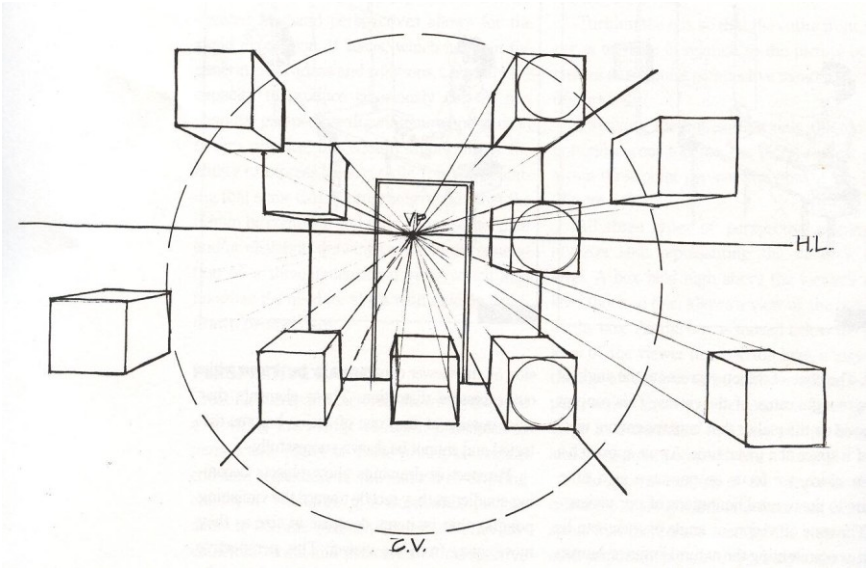




- In one-point perspective, all lines perpendicular to the picture plane (or back wall) point to the single vanishing point on the eye level (horizon line).

1-Point Perspective Drawings

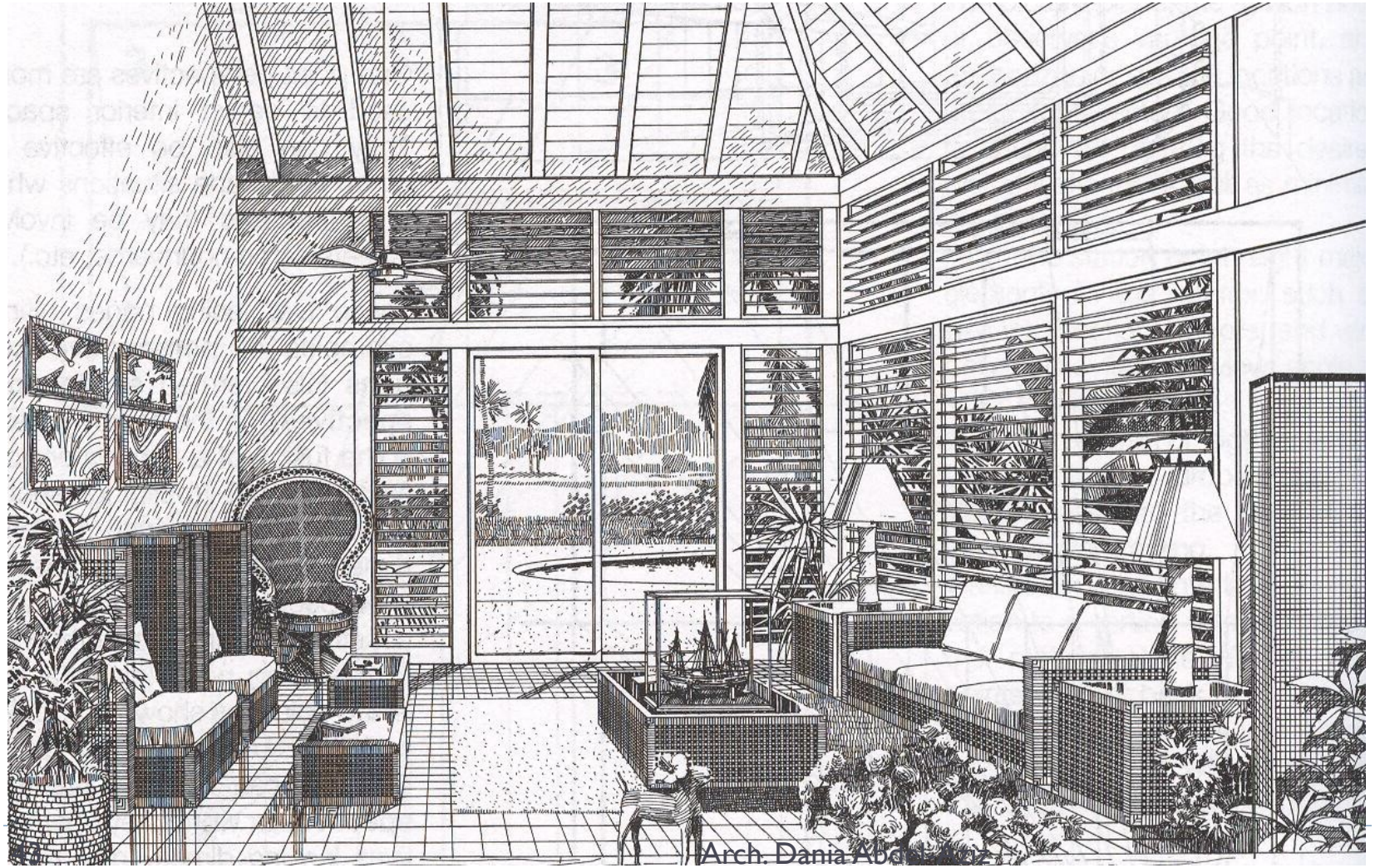
Principles of One-Point Perspective



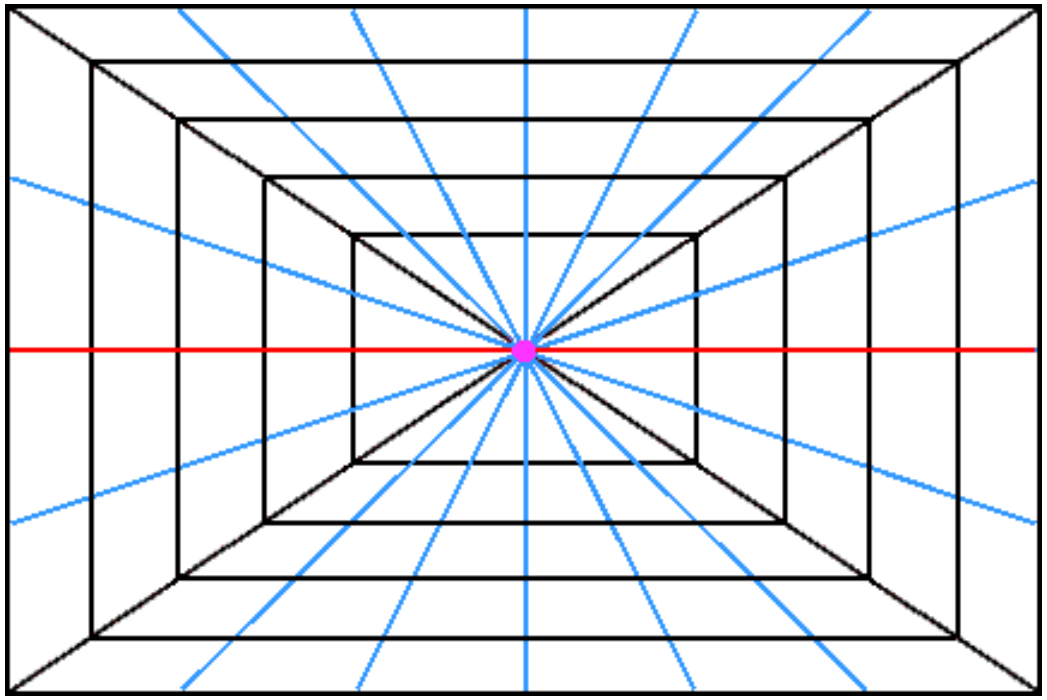
- 1 plane parallel to the picture plane.
- 1 vanishing point on the horizon line.
- Back wall can be measured in scale.
- Vertical lines remain vertical.
- Horizontal lines remain horizontal.
- Only lines perpendicular to the picture plane are drawn to the vanishing point.

1-Point Perspective Drawings

Estimated One-Point Perspective

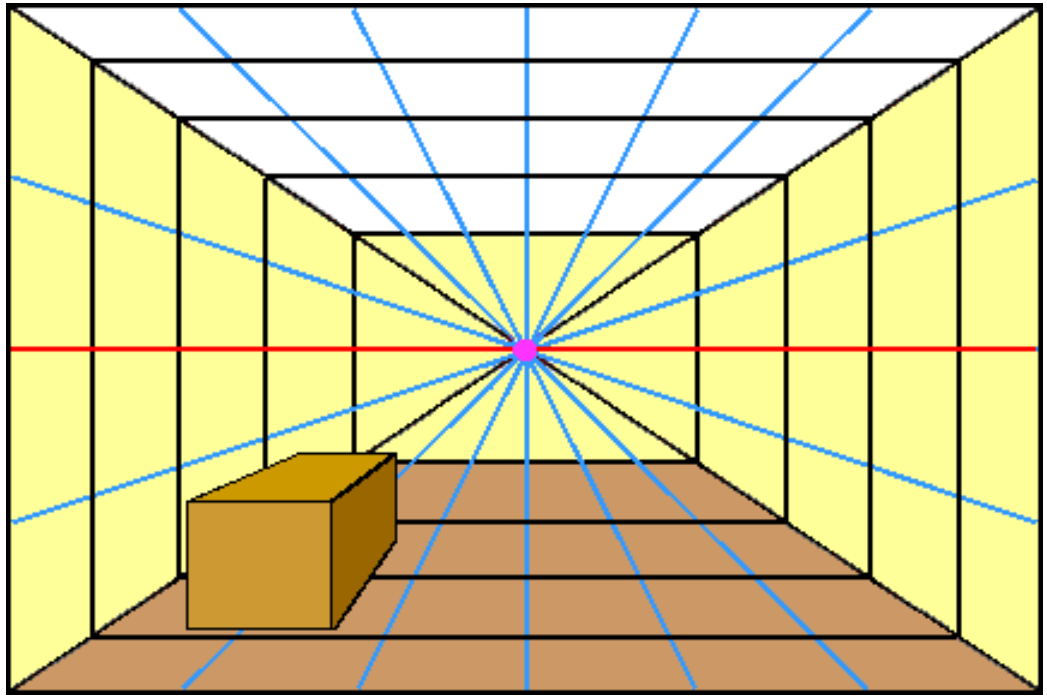


One-Point Perspective



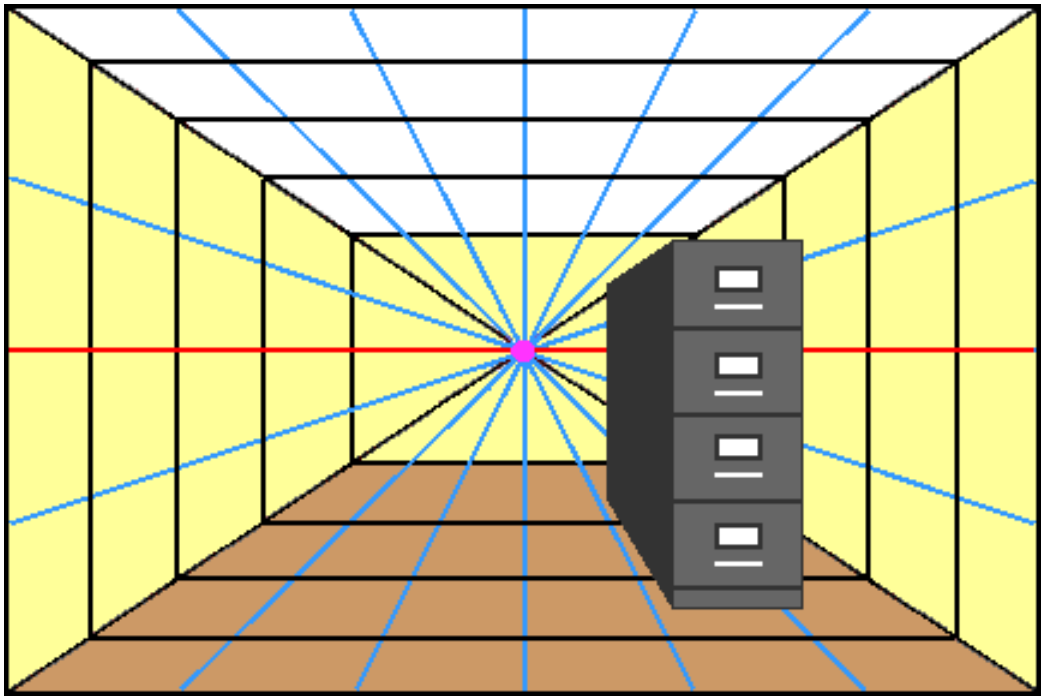
The Horizon Line

- The red line is the Horizon Line. It represents the viewer's eye level. You can see the top of an object if it is below eye level, below the Horizon Line. If an object is above eye level, above the Horizon Line, you can not see its top.



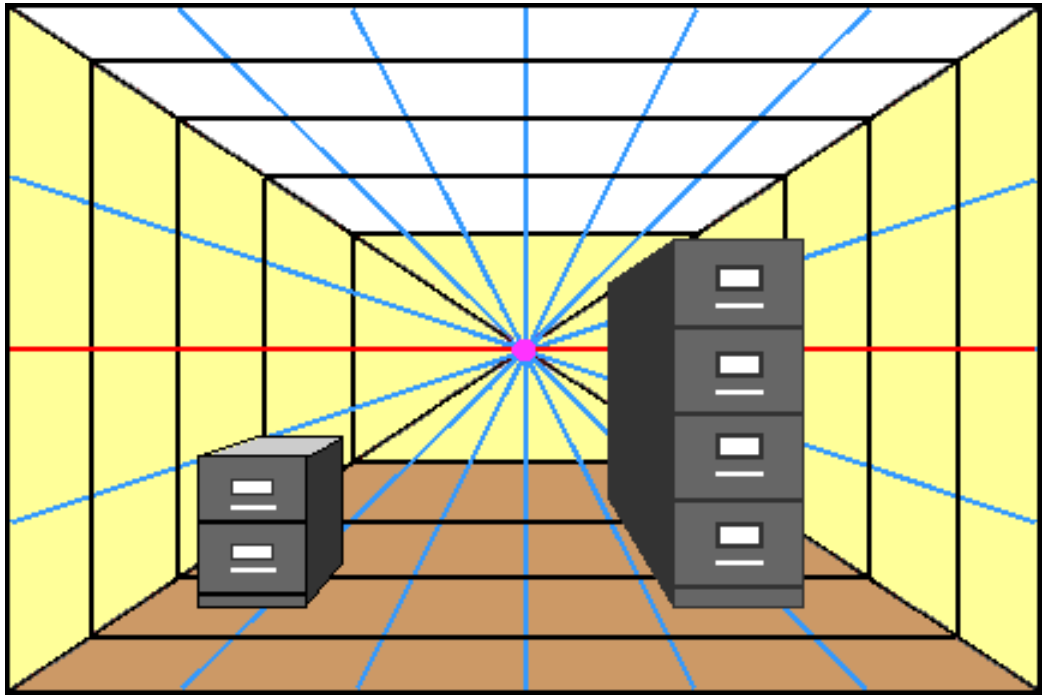
Above the Horizon Line

- The top side of this large file cabinet is not visible. It is above the Horizon Line. If the top side of an object is above the Horizon Line (above your eye level), you can not see it.



Below The Horizon Line

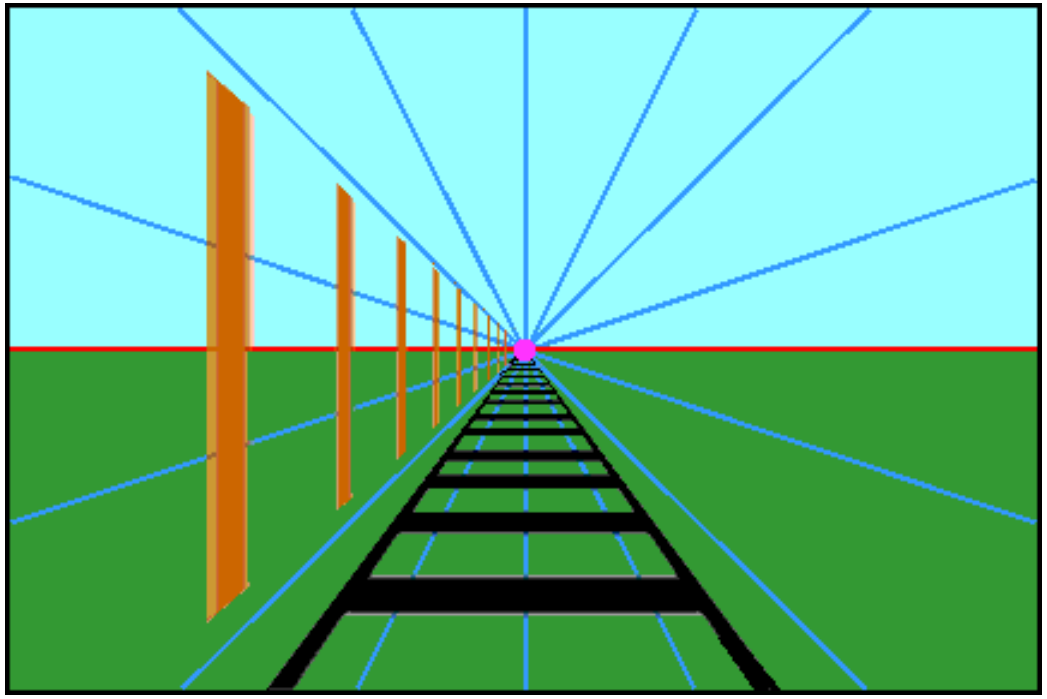
- The top side of the small file cabinet is below the Horizon Line; therefore, you can see it. If the top side of an object is below the Horizon Line (below eye level), you should be able to see it.



The Vanishing Point

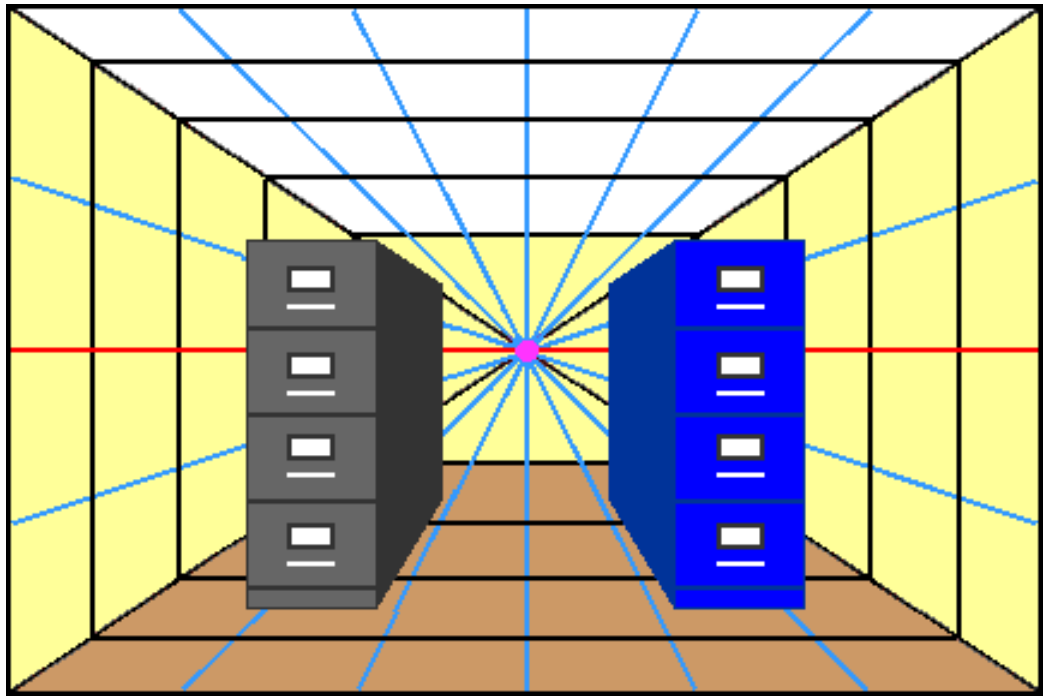
- The Horizon Line is the place where the ground and the sky seem to meet (red line).

- In one-point perspective the Vanishing Point, represented as a magenta dot in this picture, is always on the Horizon Line. As things get closer to the Vanishing Point they get smaller and smaller until they appear to vanish.



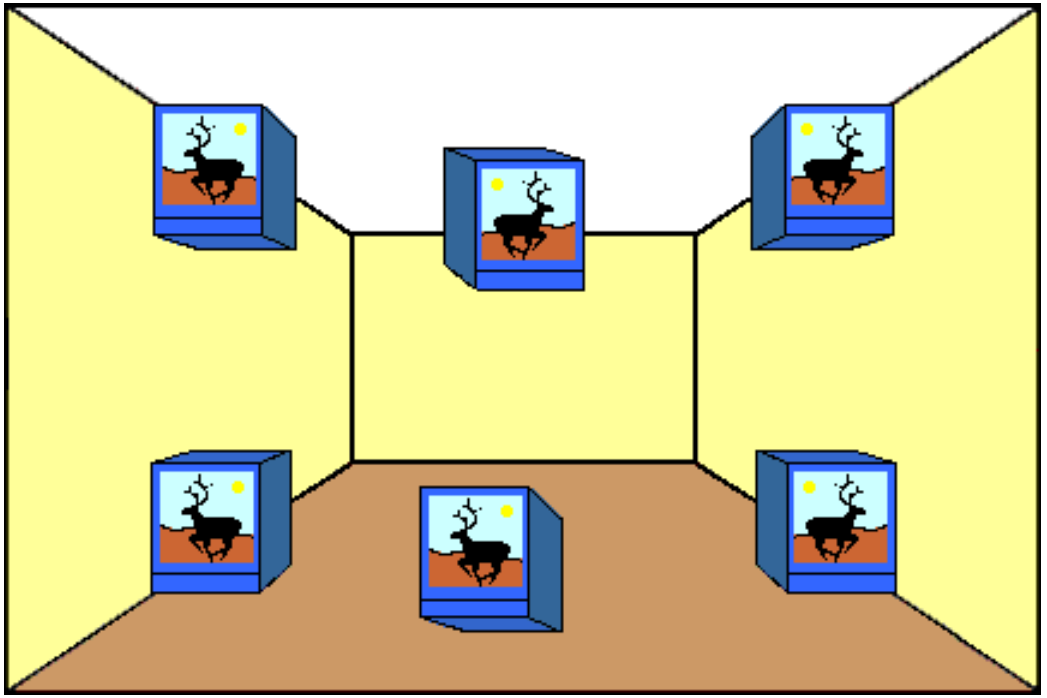
Left & Right Side of The Vanishing Point

- The blue file cabinet is on the right side of the vanishing point; therefore we see the left side of the blue file cabinet. The right side of the blue file cabinet is hidden from our view. Is the right side of the grey file cabinet hidden? Why or why not? Why are the tops of both file cabinets hidden?



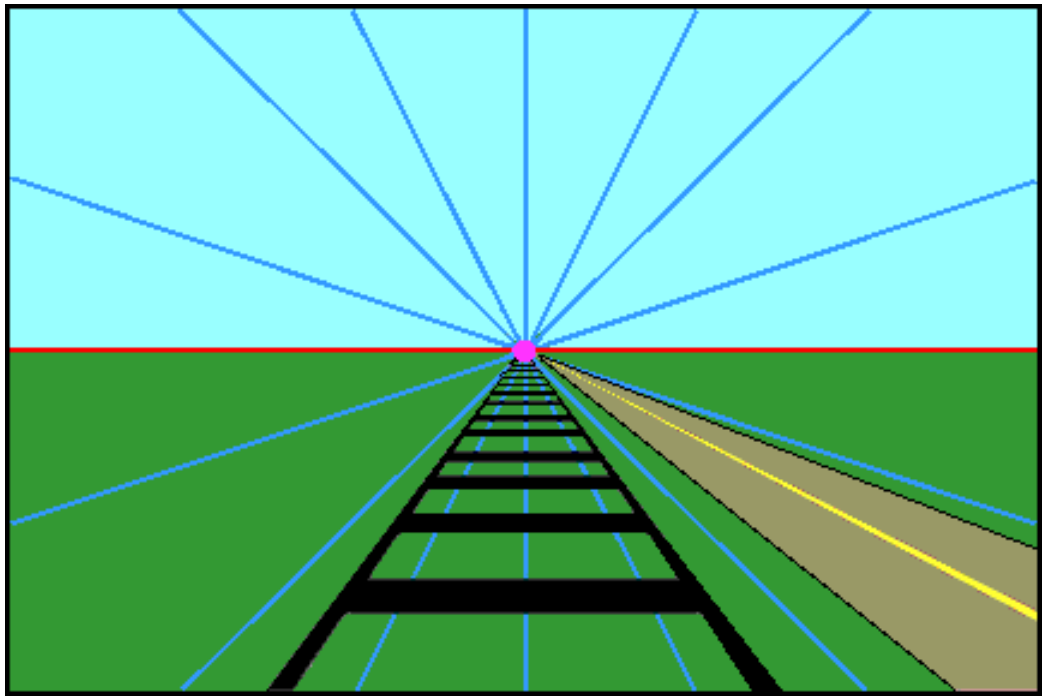
Context and Perspective

- Look at the TVs in relation to the room they are in. Two of the TVs are drawn incorrectly. The front of all of the TVs face forward and are drawn correctly. Look at the sides, tops and bottoms of the TVs to find the ones that are drawn incorrectly. Why do they look wrong?



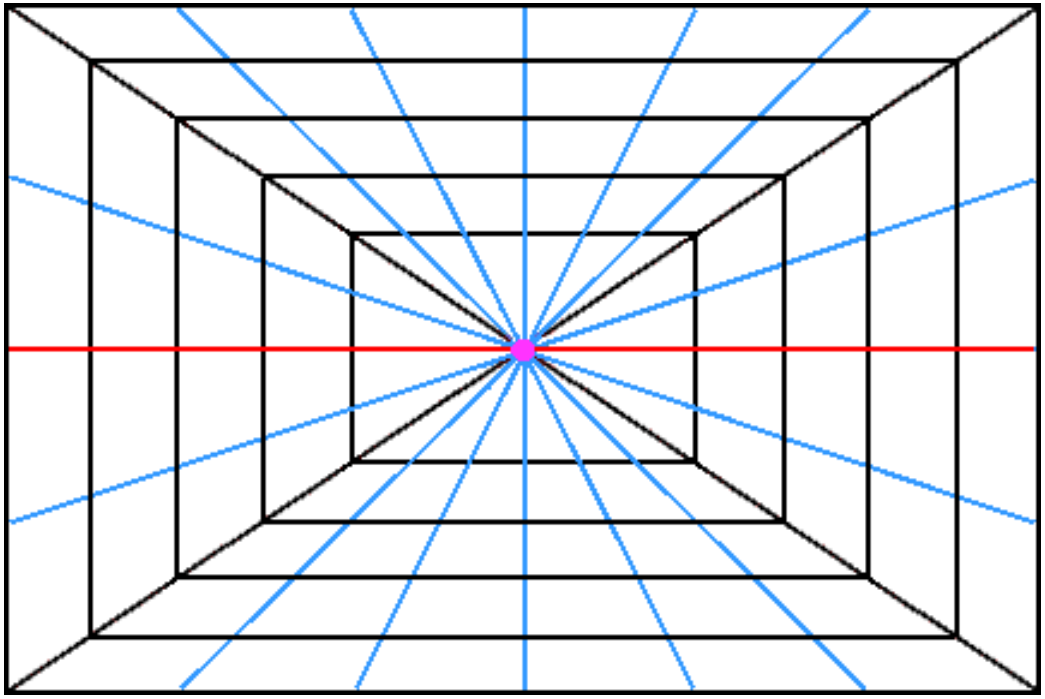
Orthogonals

- The light blue lines that meet at the vanishing point are called orthogonal. They represent receding parallel lines. The rails and the outside edges of the road are examples of orthogonal. The yellow line in the center of the road is also an orthogonal. What other kinds of lines are in this drawing?



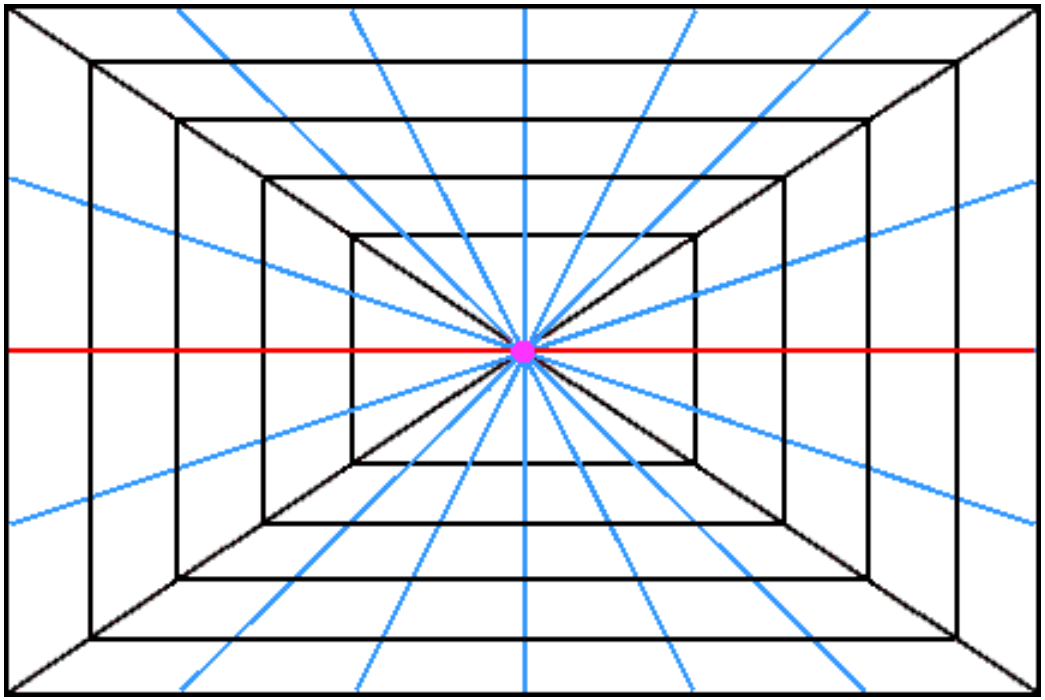
Horizontal Lines

- The Horizon Line is horizontal, it goes from left to right and is parallel to the bottom edge of the picture. Like orthogonal lines, it is another kind of line that makes up a one-point perspective drawing.

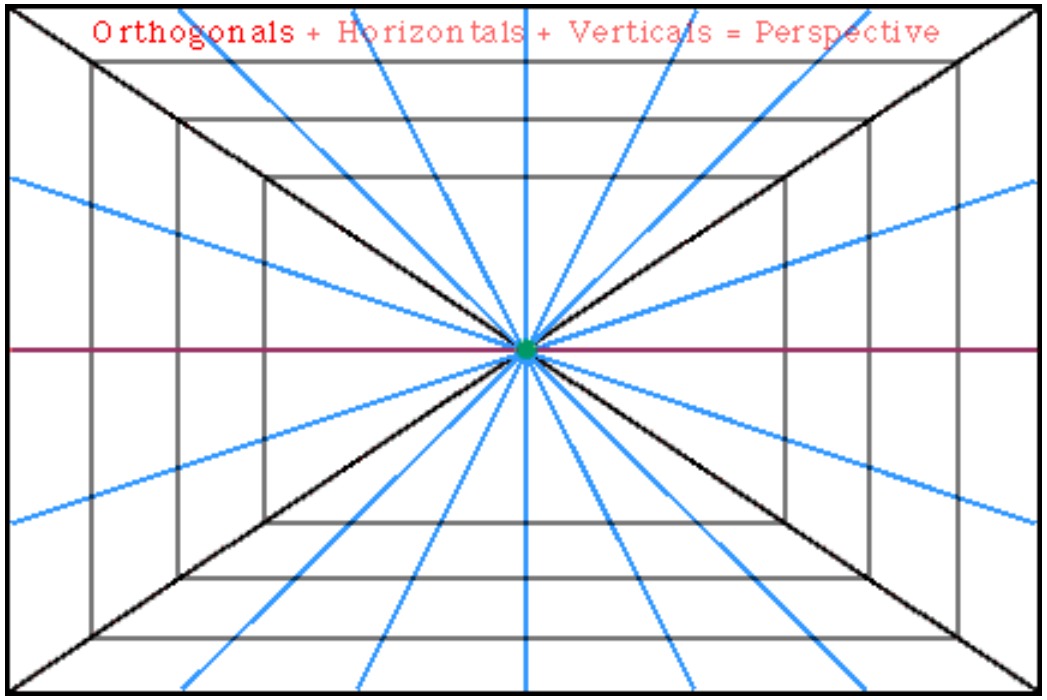


Vertical Lines

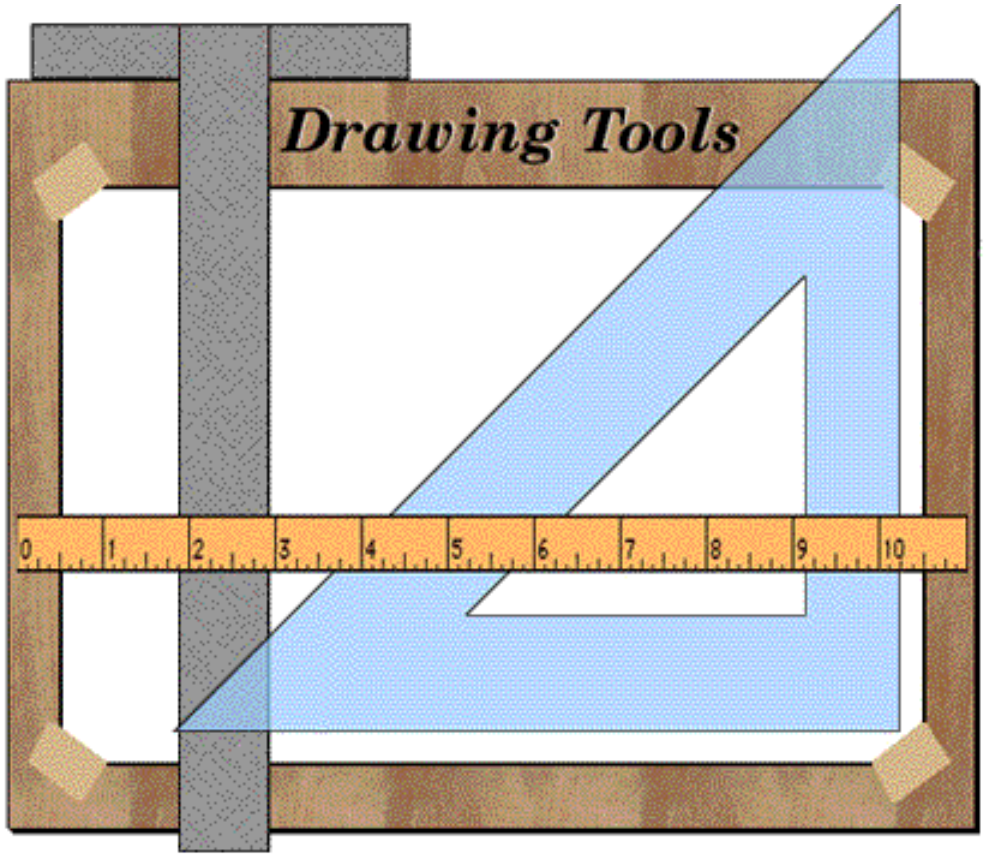
- Vertical lines go from the top of the page to bottom of the page and are perpendicular to the bottom edge of the picture. Along with orthogonal and horizontal lines they make up a one-point perspective drawing.



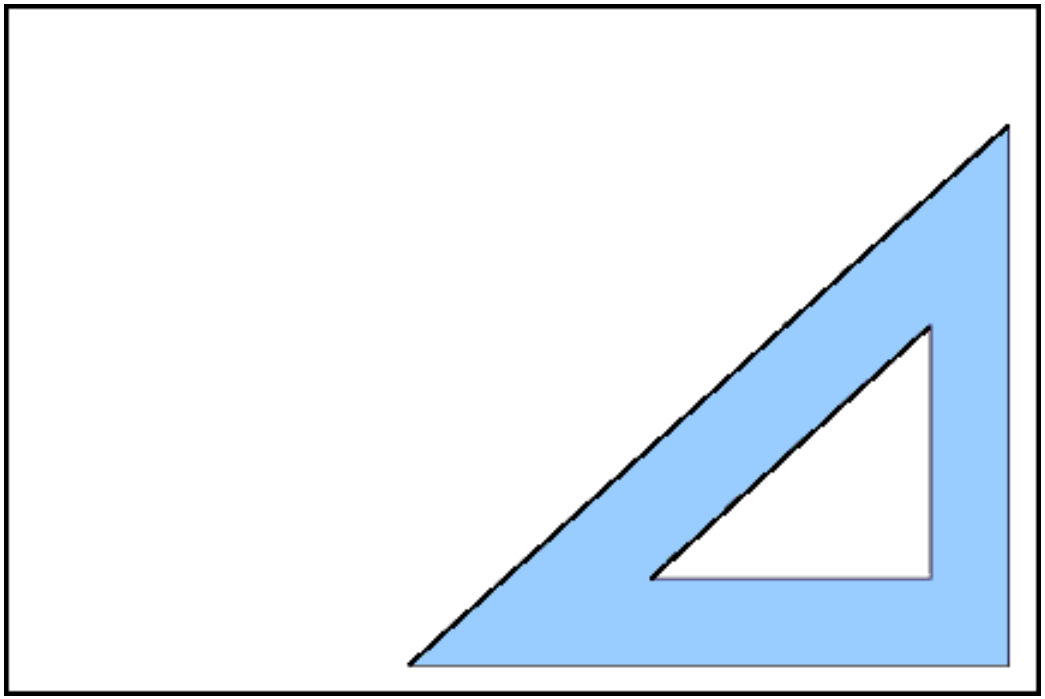
Drawing in One-Point Perspective



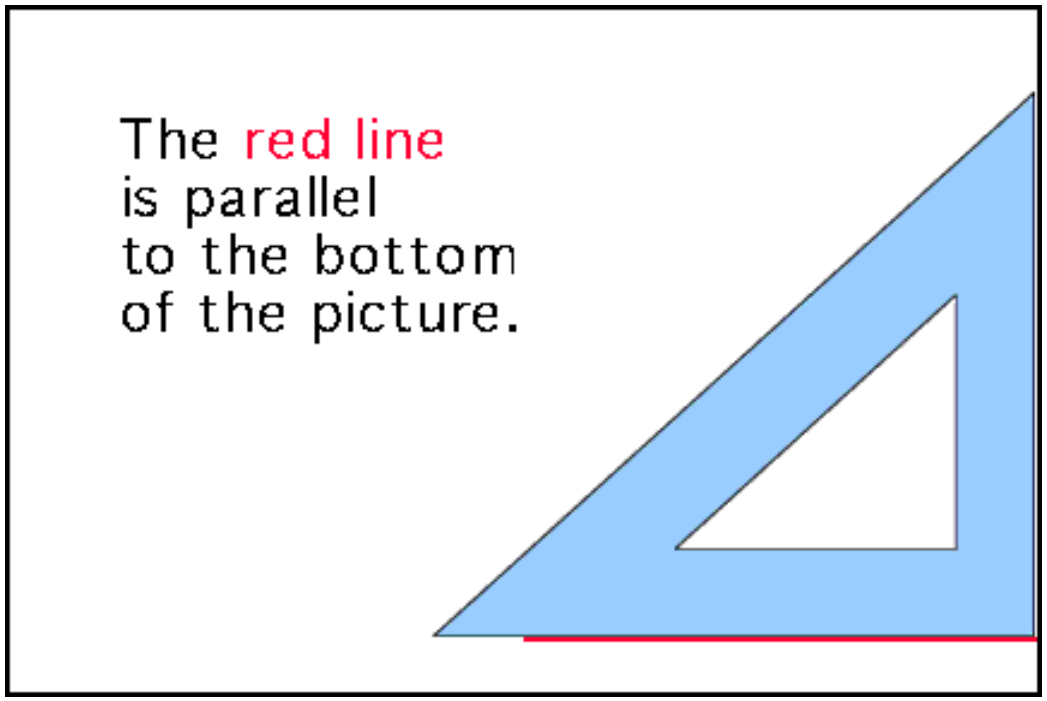
Drawing Tools



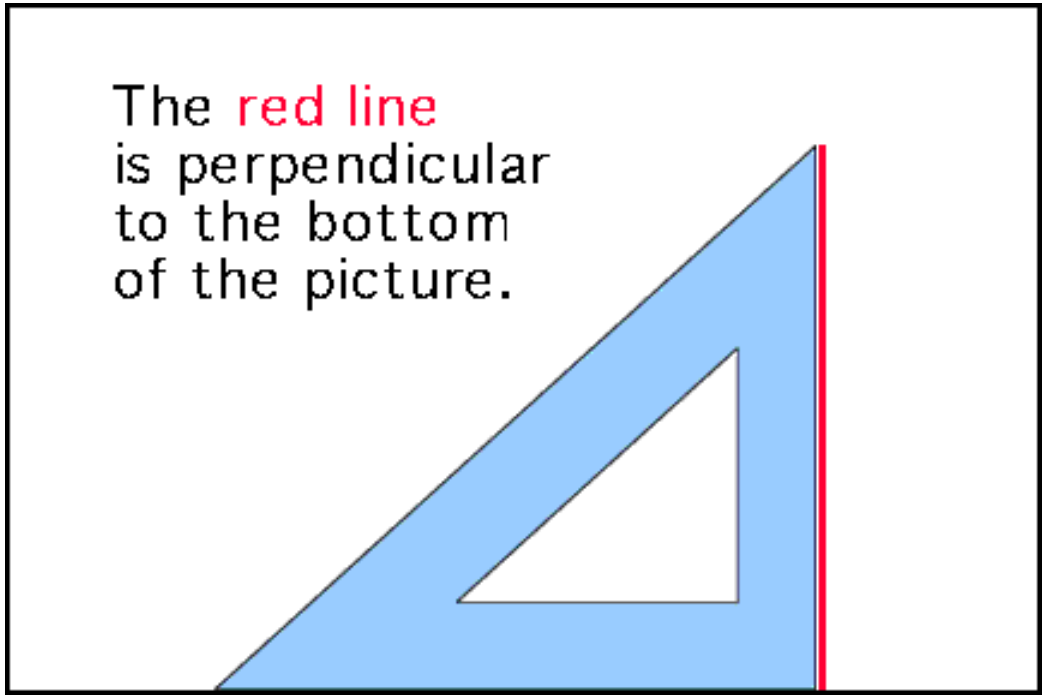
90 degree or right angle.



Drawing in One-Point Perspective

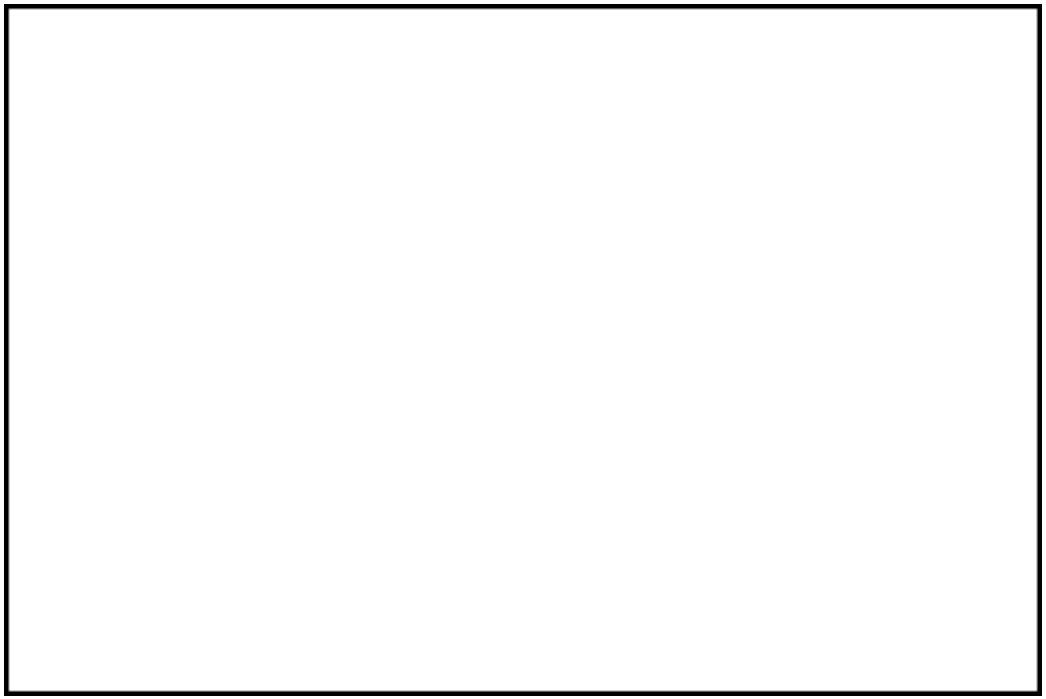


Drawing in One-Point Perspective



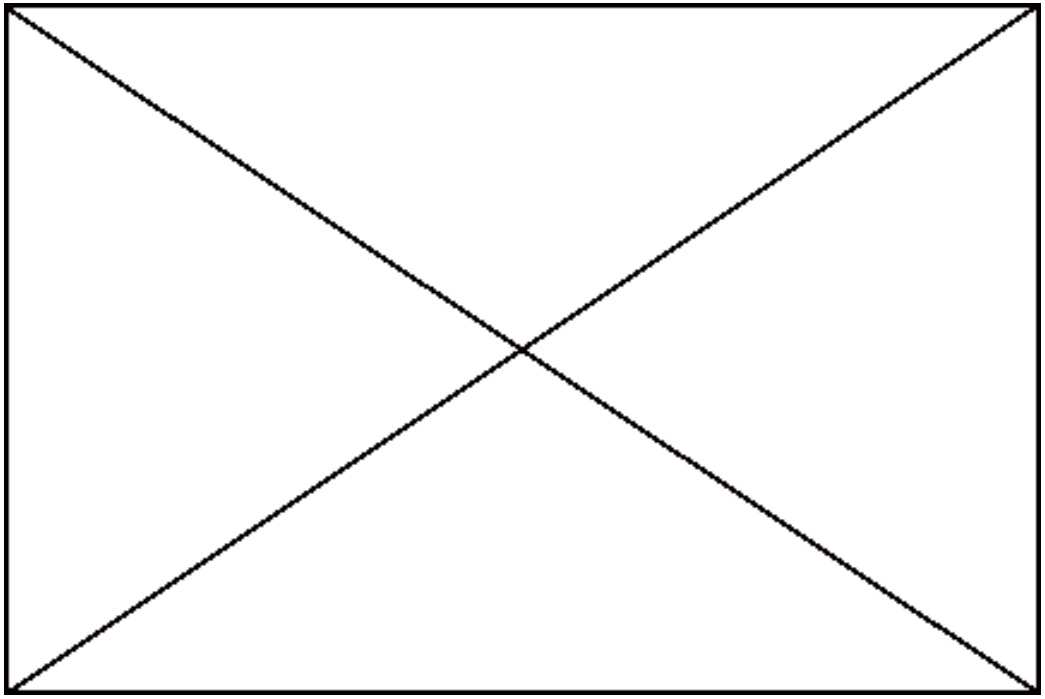
Drawing in One-Point Perspective

- animation that shows how to start a perspective drawing of a room. The lines that make the x are called orthogonals, they meet at the Vanishing Point. The rectangle in the center shows the back wall.



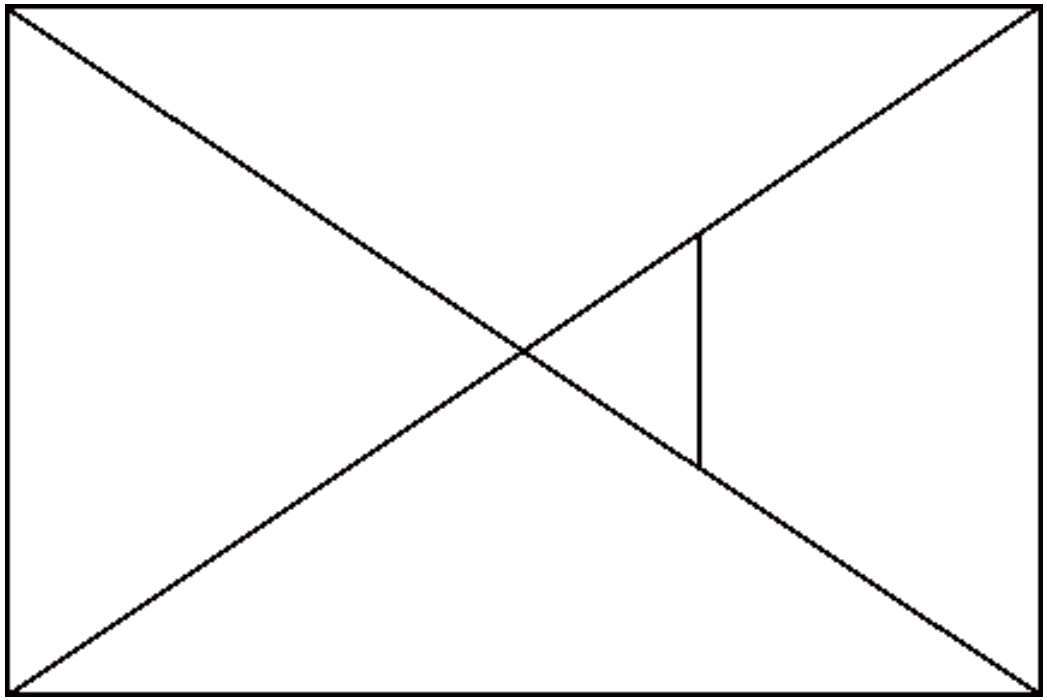
X Marks the Vanishing Point

- The lines that make the x are called orthogonals. To draw them place a long ruler from one corner of the page to the opposite corner. Draw your first line and then move your ruler to draw the second line. The lines meet in the center of the page. This is the Vanishing Point.



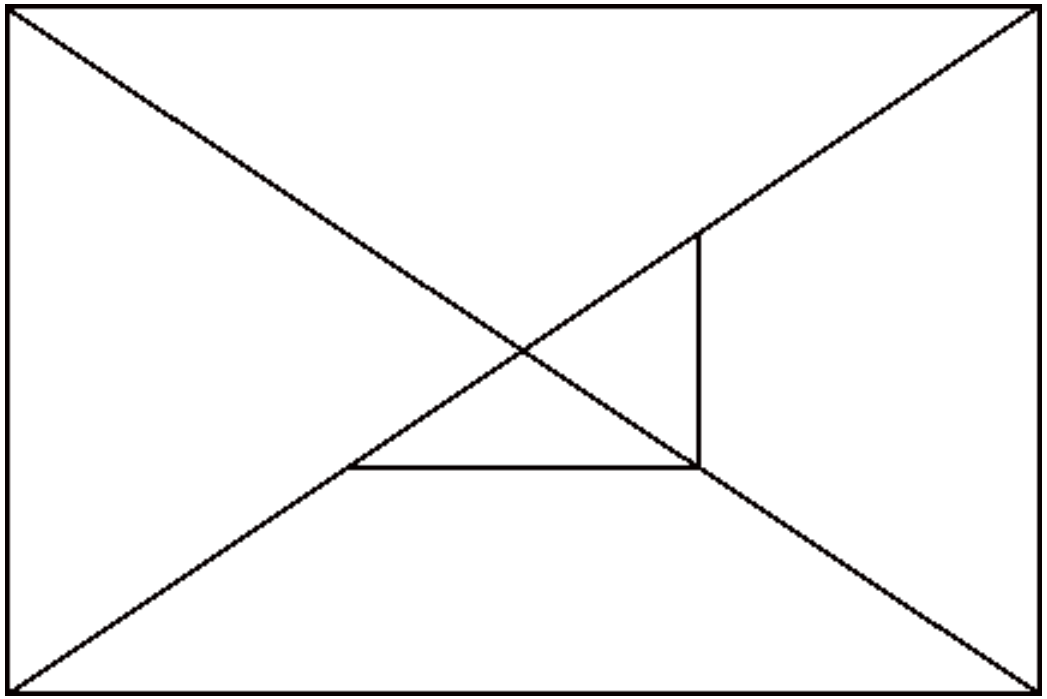
Starting the Room

- To draw a room start with a vertical line to show where the back wall begins and the right side wall ends. If the line is closer to the vanishing point the room will appear deeper than if the line is closer to the edge of the paper.



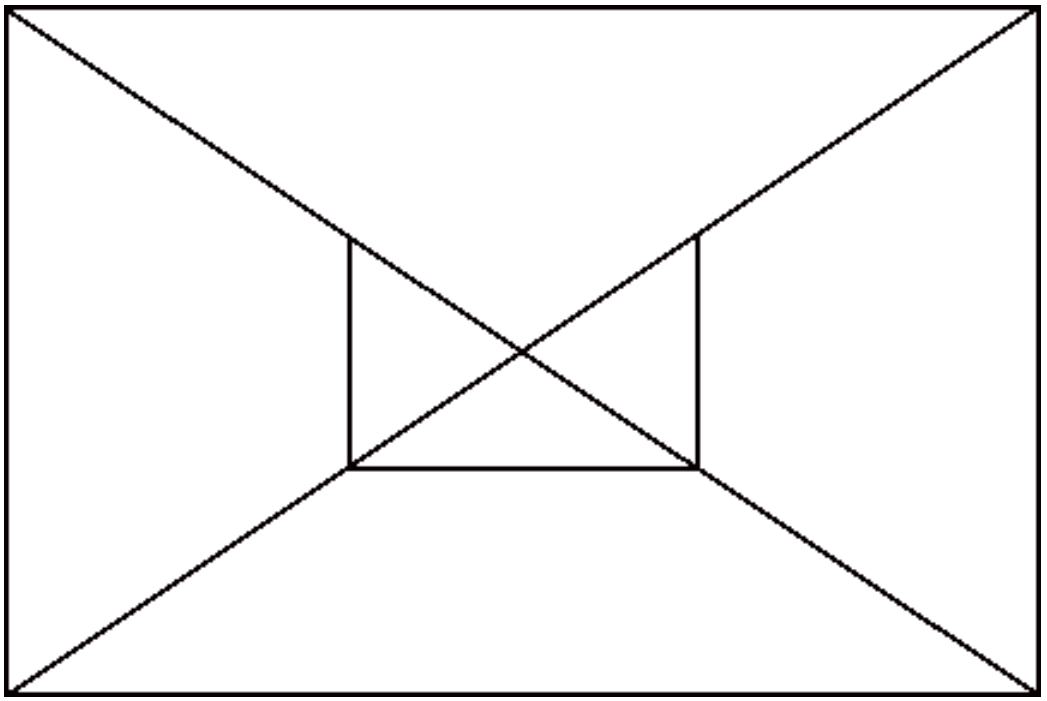
Starting the Room

- The next line starts at the bottom of the vertical line and is parallel to the bottom of the picture. This line marks the place where the floor ends and the back wall begins.



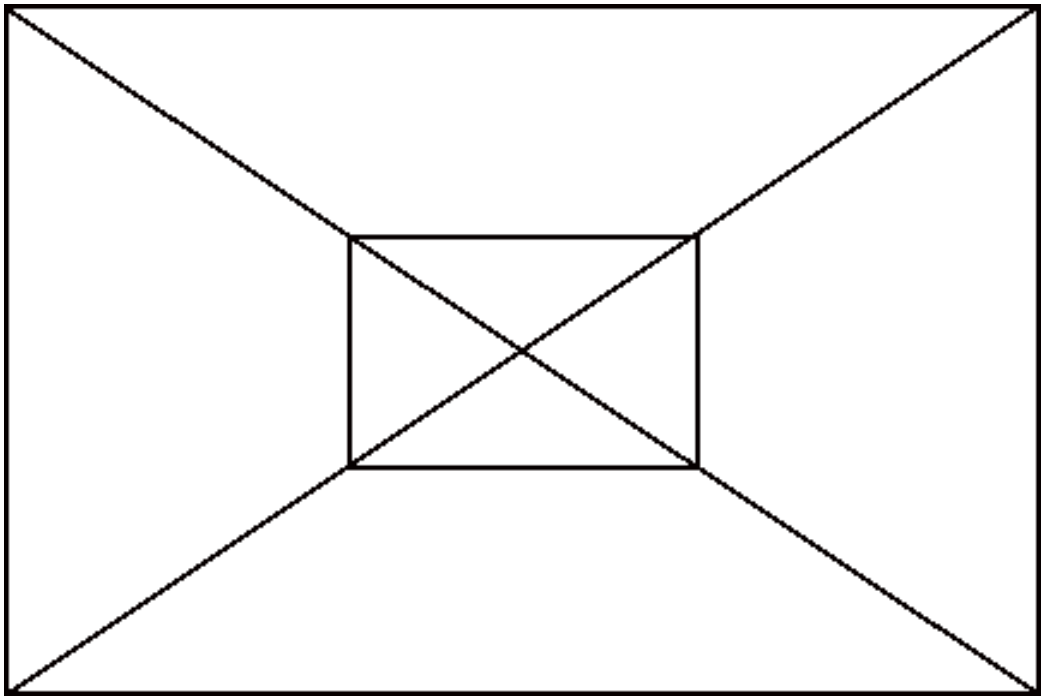
Starting the Room

- The next line starts on the left side of the horizontal line that shows where the wall and floor meet. This vertical lne shows where the left side wall and back wall meet. It is parallel to the first vertical line.



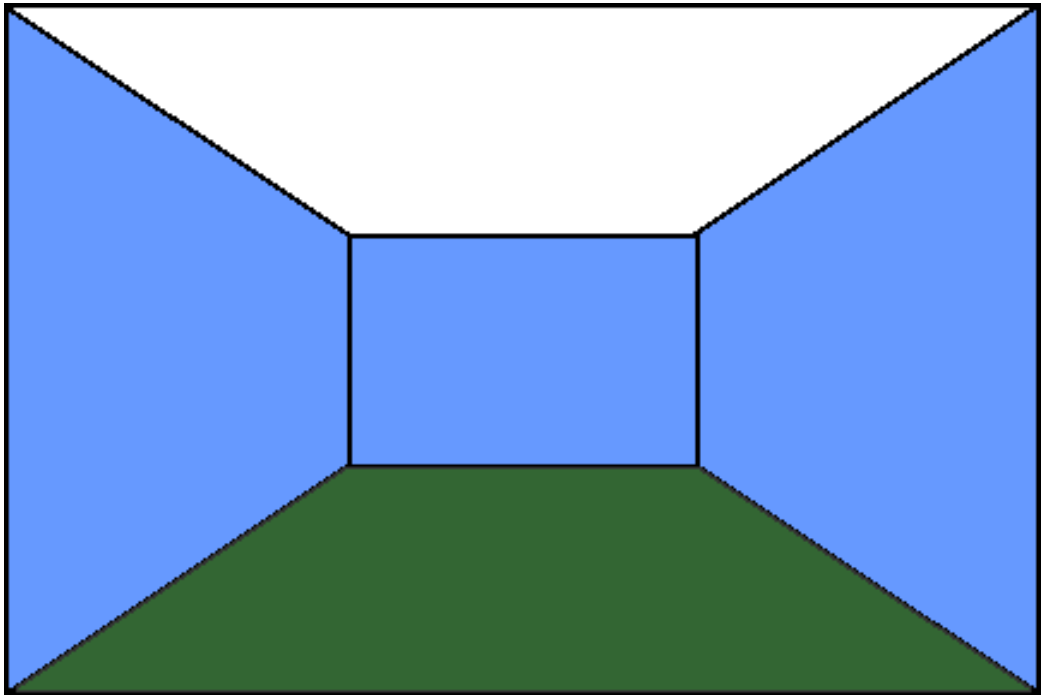
Starting the Room

- The last line is a horizontal line that connects the vertical line on the right side of the back wall with the vertical line on the left side of the back wall. This line shows where the back wall and ceiling meet.



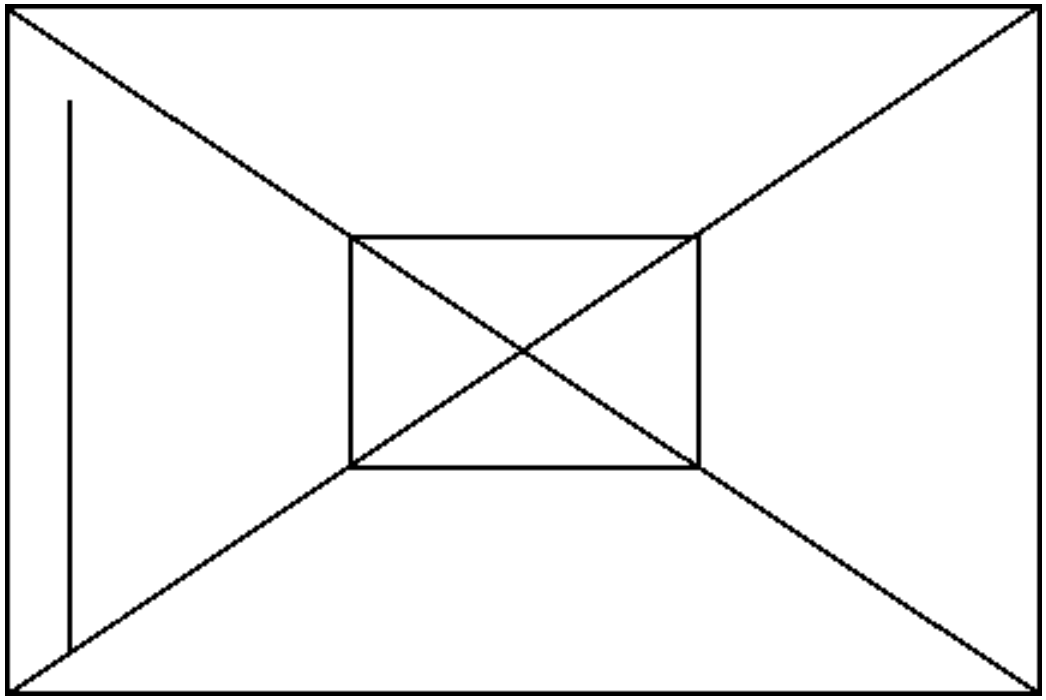
Starting the Room

- The room is now complete. The white area is the ceiling and the green area is the floor. The light blue areas are the side and back walls. Notice that the top and bottom of the side walls are orthogonals and the back wall is a rectangle.



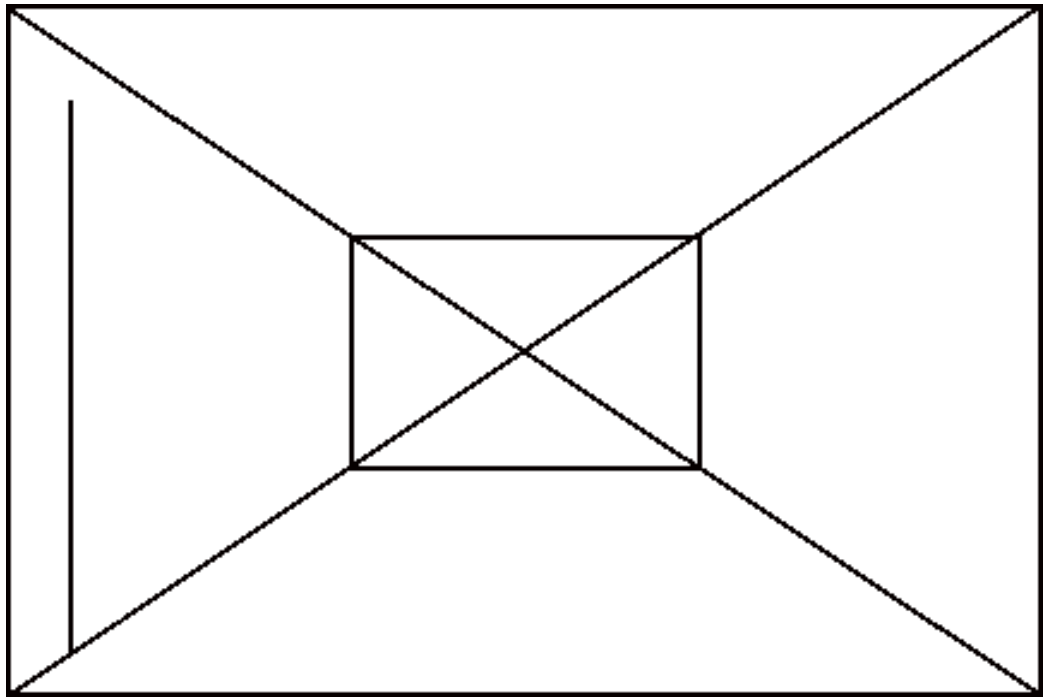
Doors

- The animation on the right shows how to draw a door in one-point perspective. To see a step-by-step explanation, click on the door. You may also click on the Next hyperlink below the drawing.



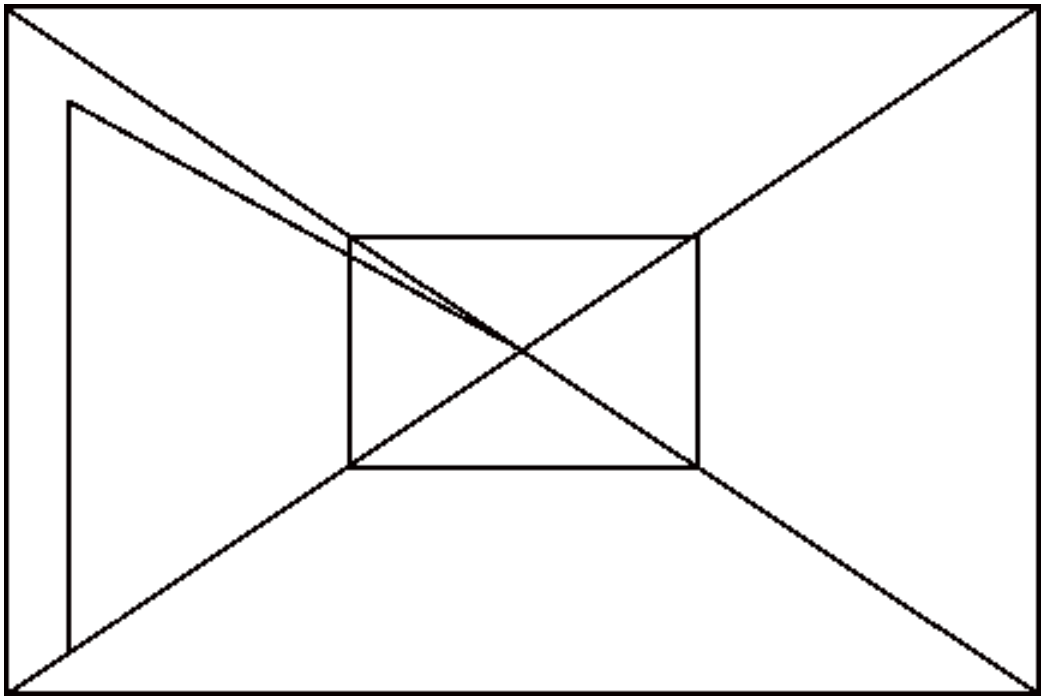
Doors

- The first line that you will need to draw is a vertical line that starts at the floor and, since it is a door, goes almost to the ceiling. It is best to start with the side of the door that is near to you and near to the edge of the paper.



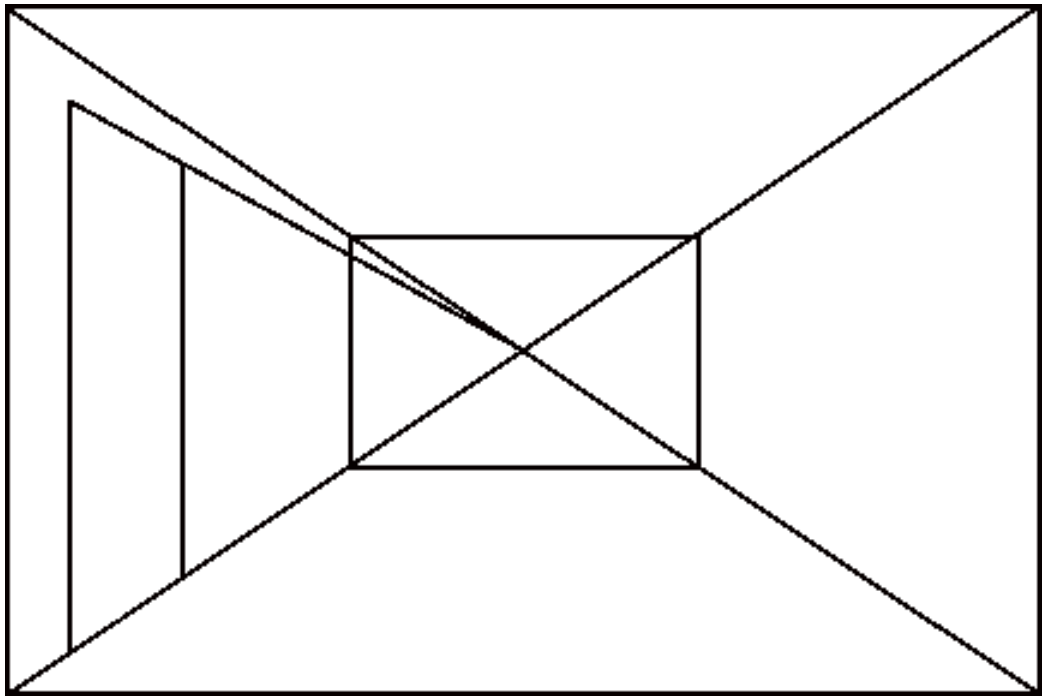
Doors

- Next is the orthogonal line that starts at the top of the vertical line from the last screen and goes to the vanishing point. This line shows where the top of the door will be. Notice how the space between this line and the line showing the bottom of the wall appears to get smaller as we move closer to the vanishing point. Why?



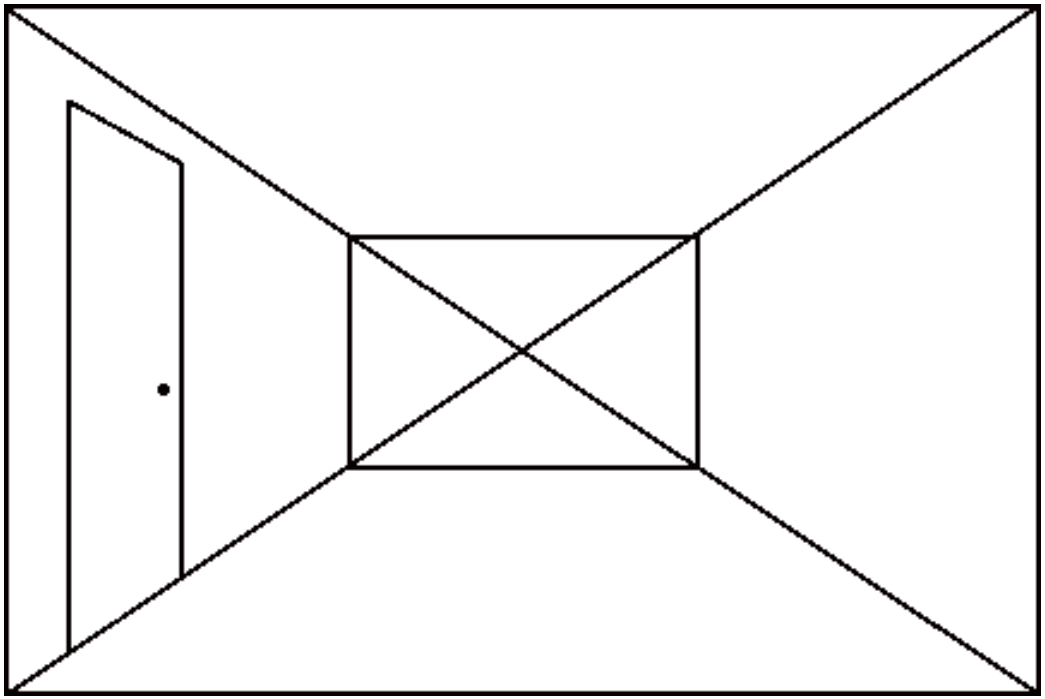
Doors

- The vertical line that shows the side of the door closest to the vanishing point is next. If you wanted the door to be wider you could draw a vertical line that is closer to the vanishing point. How could you make the door look less wide?



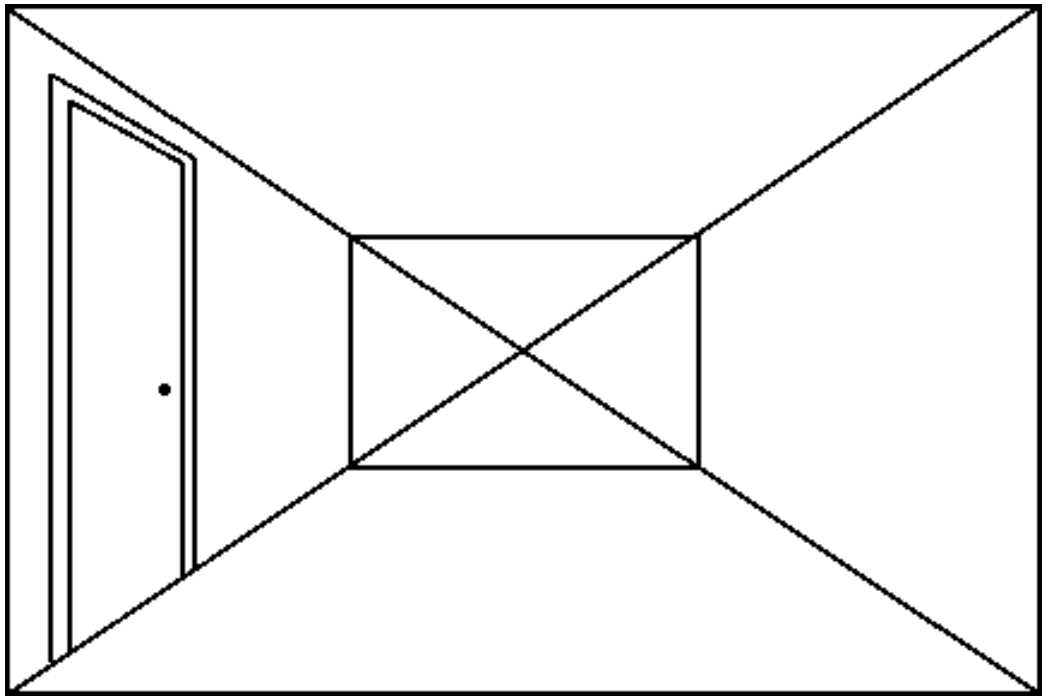
Doors

- Erasing the part of the orthogonal that is not the top of the door is the next step. You can also add a door knob. Look at the height of the door and use that to help you decide where the door knob should be located.



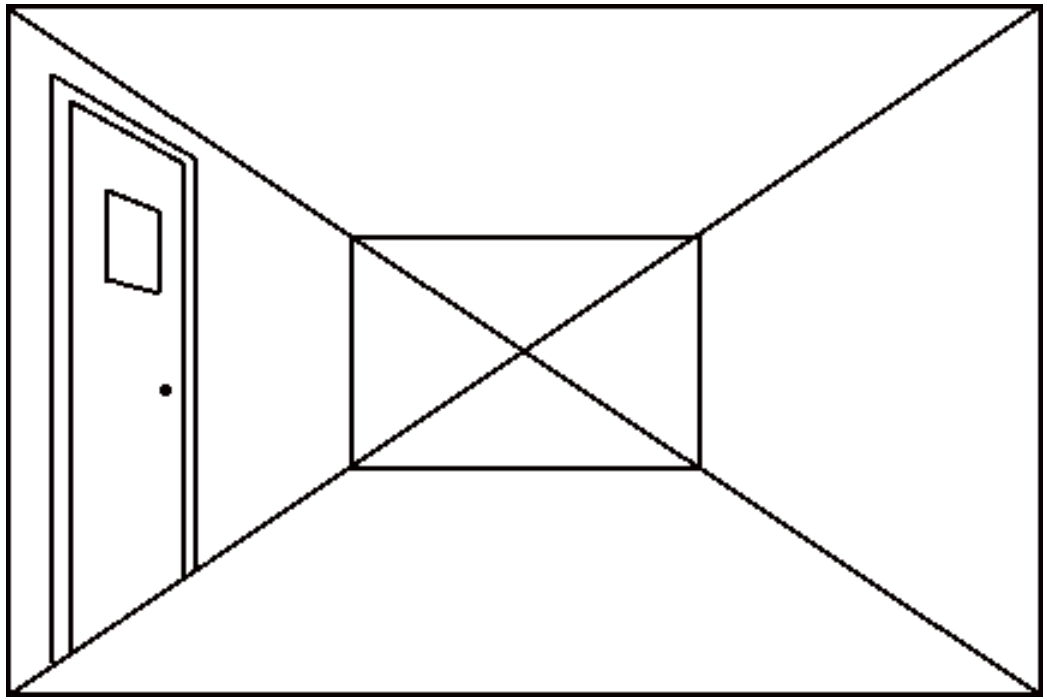
Doors

- If you would like to add a molding around the side of your door simply follow the steps used to make the door. The only difference is that the lines are drawn around the outside of the door. Be sure to make the side of the molding that is closer to the vanishing point less wide than the side of the molding closer to you. Why?



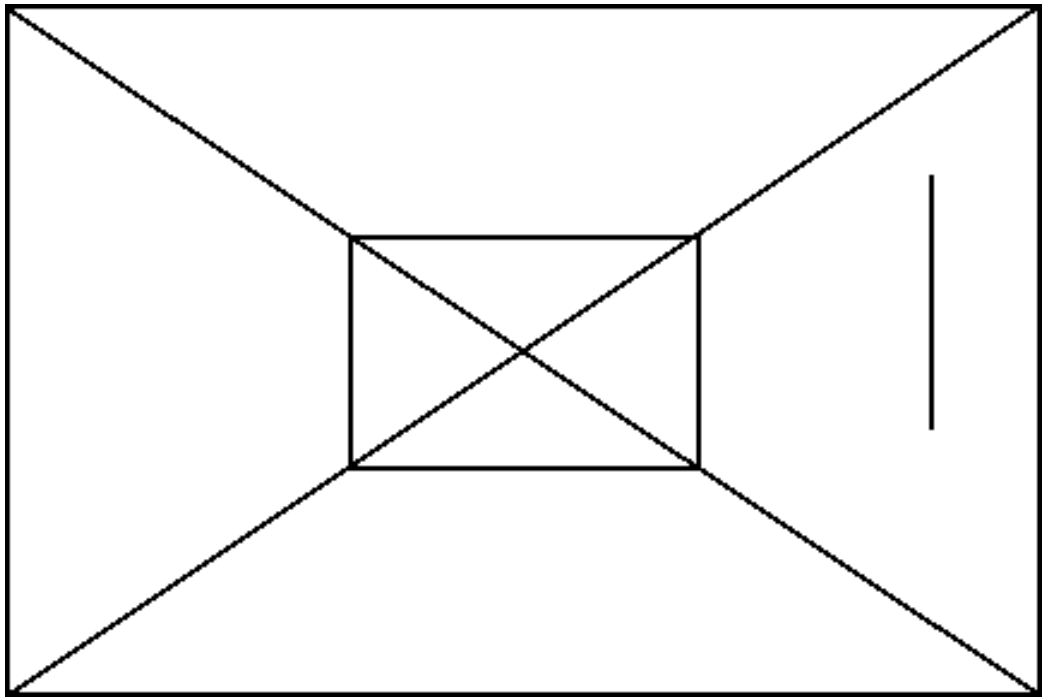
Doors

- Some doors have small windows. Drawing a window is like drawing a door except most windows are not as tall as doors and windows usually do not go to the floor. Drawing a window in one-point perspective is next.



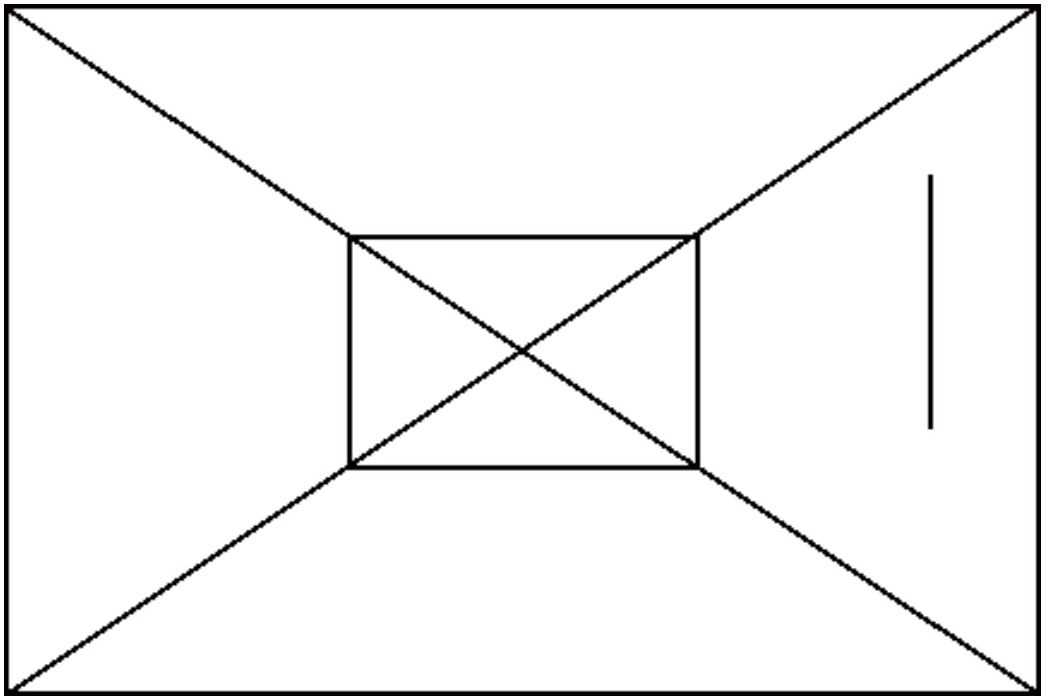
Windows

- The animation on the right shows how to draw a window in one-point perspective. To see a step-by-step explanation, click on the window. You may also click on the Next hyperlink below the drawing.



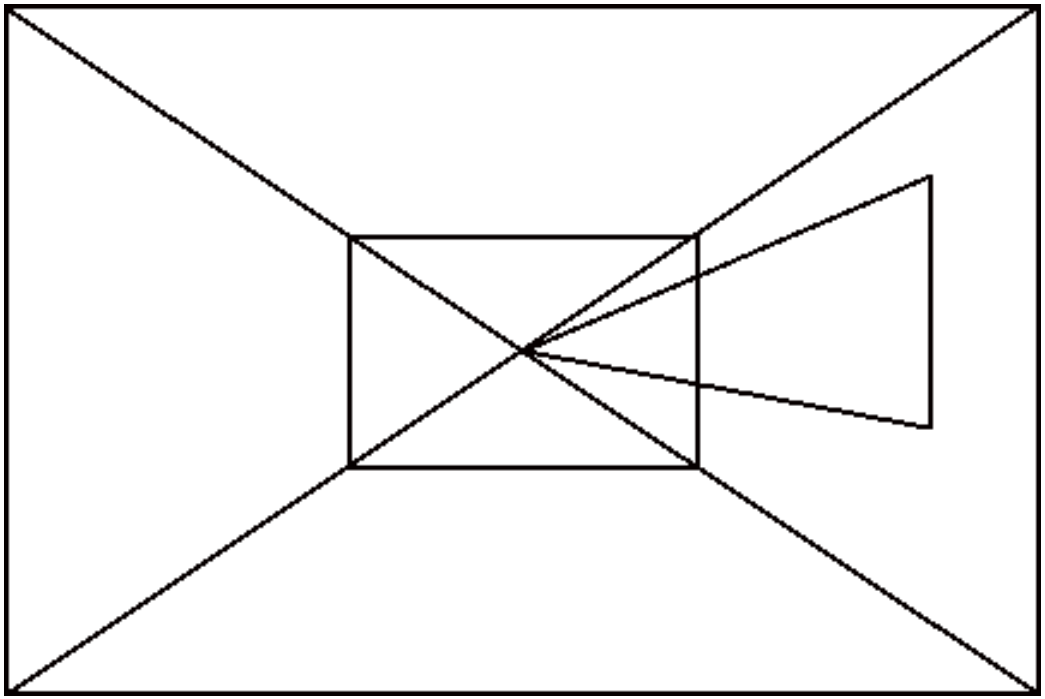
Windows

- It is best to start a window by first drawing the vertical line that shows the near side of the window. This vertical line will set the height of the window. The bottom of the line will be the bottom of the window and the top of the line will be the top of the window.



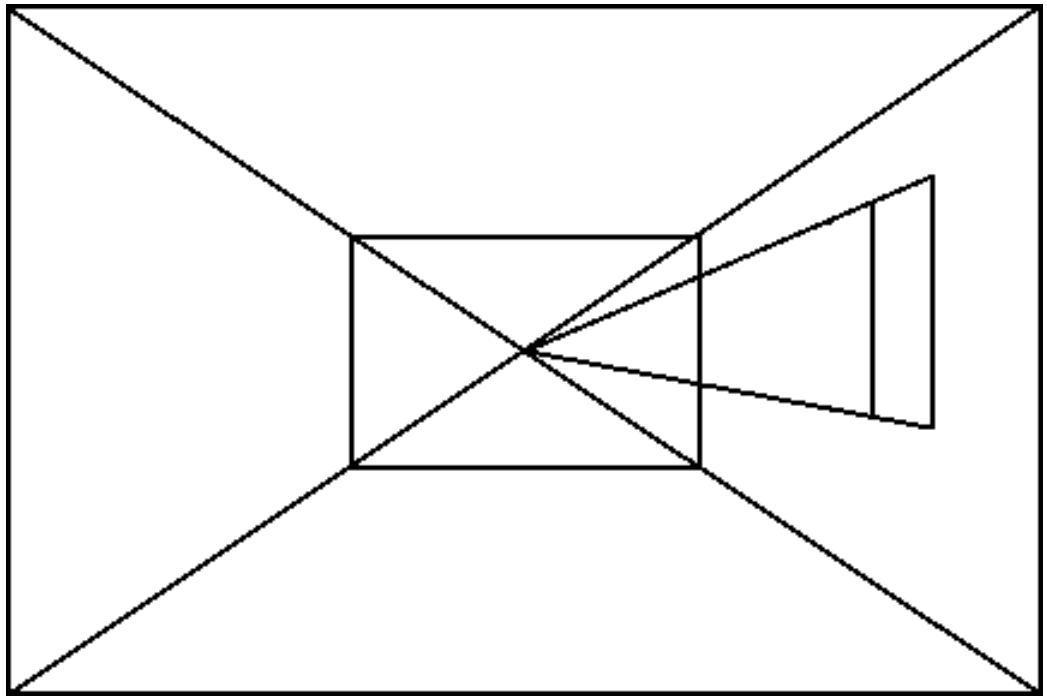
Windows

- The next step is to add the orthogonal. These two lines go from the ends of the vertical line to the vanishing point and show the top and bottom of the window. Notice how the height of the window appears to get smaller as it gets closer to the vanishing point.



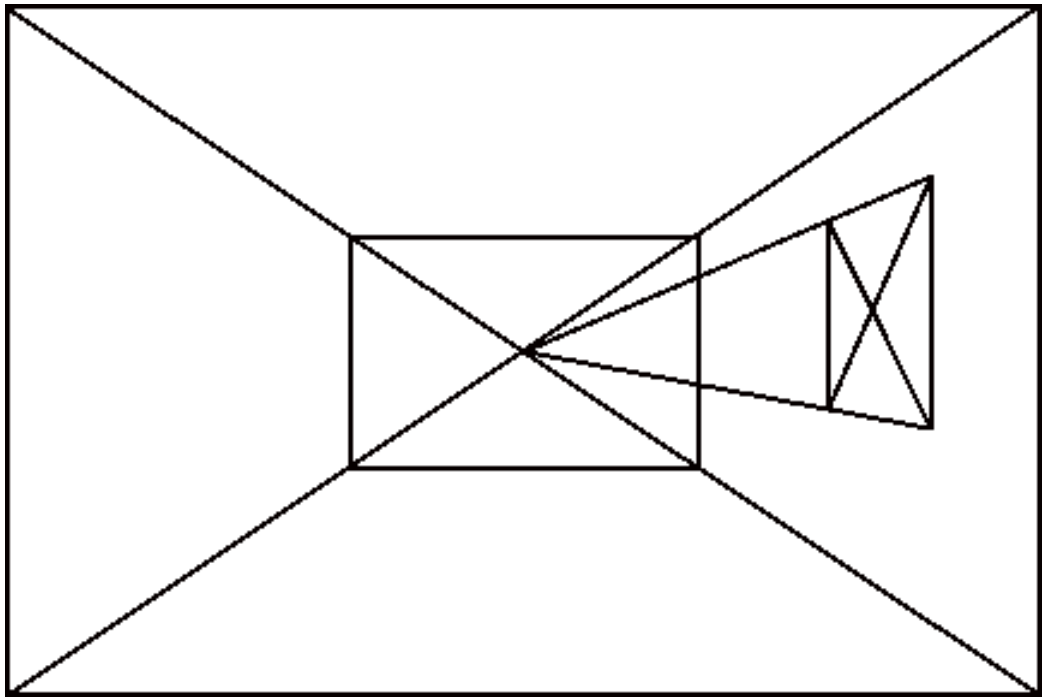
Windows

- The animation on the right shows that you can make your window as wide as you like. Notice how the window gets wider as the vertical line that shows the far side of the window gets closer to the vanishing point. When the second vertical line is close to the first, the window appears narrow.



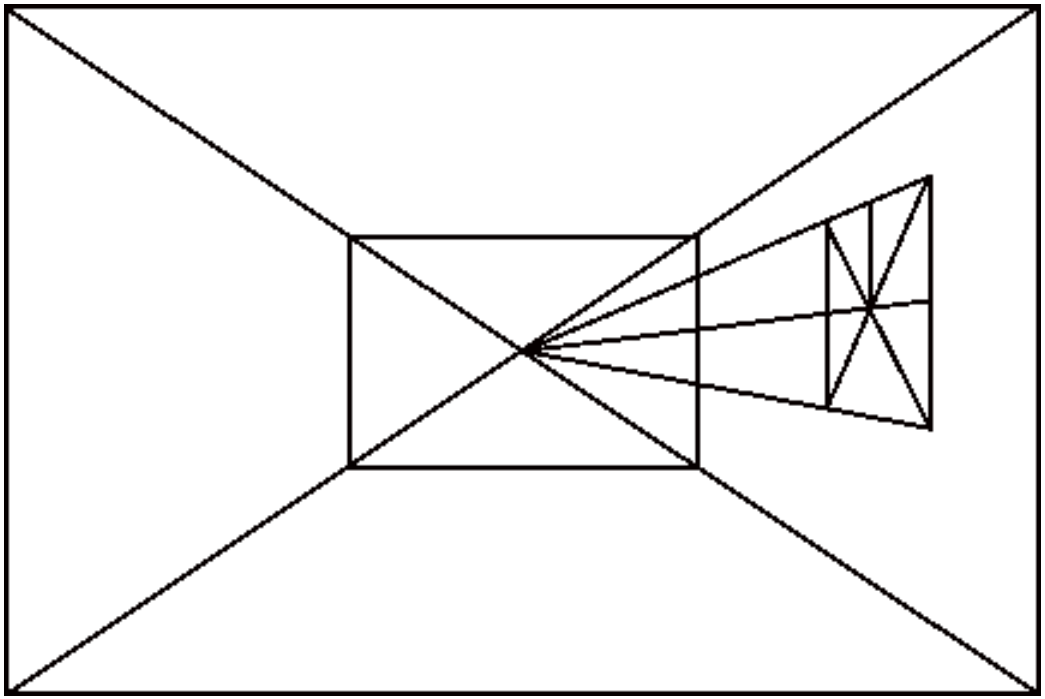
Windows

- To find the center of the window draw diagonal lines from one corner of the window to the opposite corner as shown on the right. This will help determine where the line is that separates the top and bottom windows.



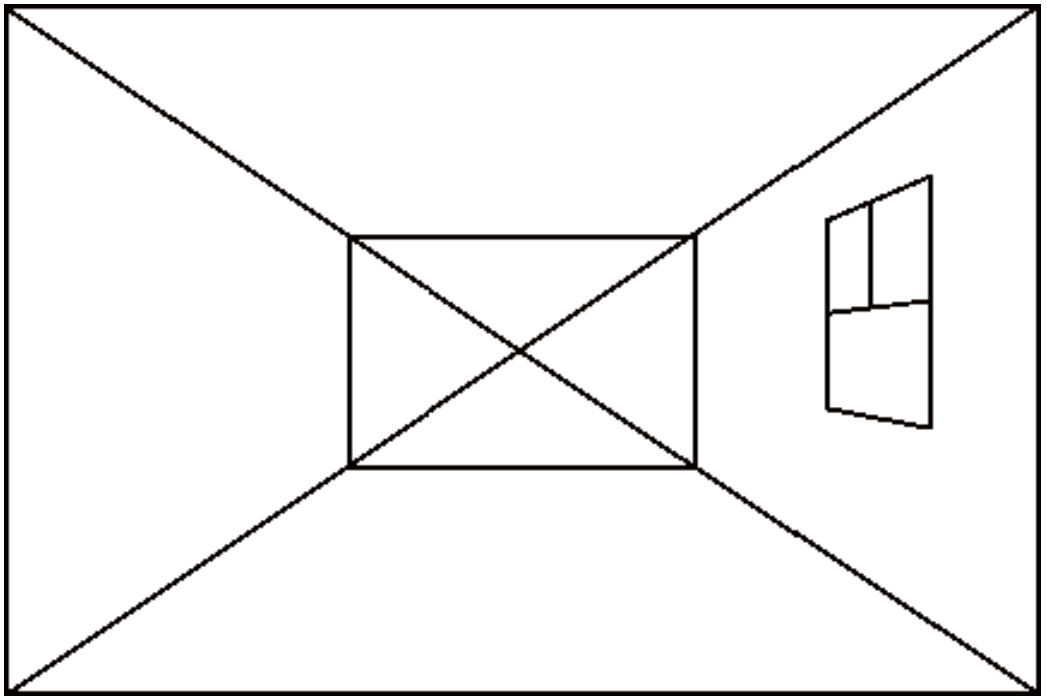
Windows

- The orthogonal line between the top and bottom of the window shows the middle of the window. To draw this line use the vanishing point and the center of the X that shows the middle of the window. Notice the vertical line that starts at the center of the X and goes to the top of the window.



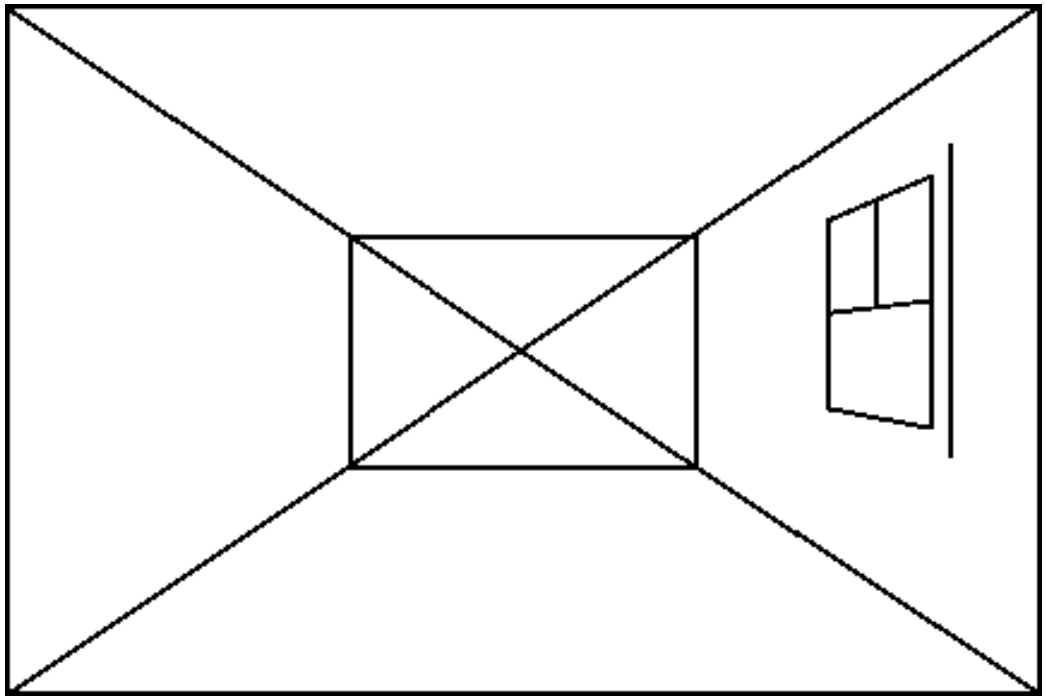
Windows

- When the orthogonal and the X lines are erased we have a basic window drawn in one-point perspective.



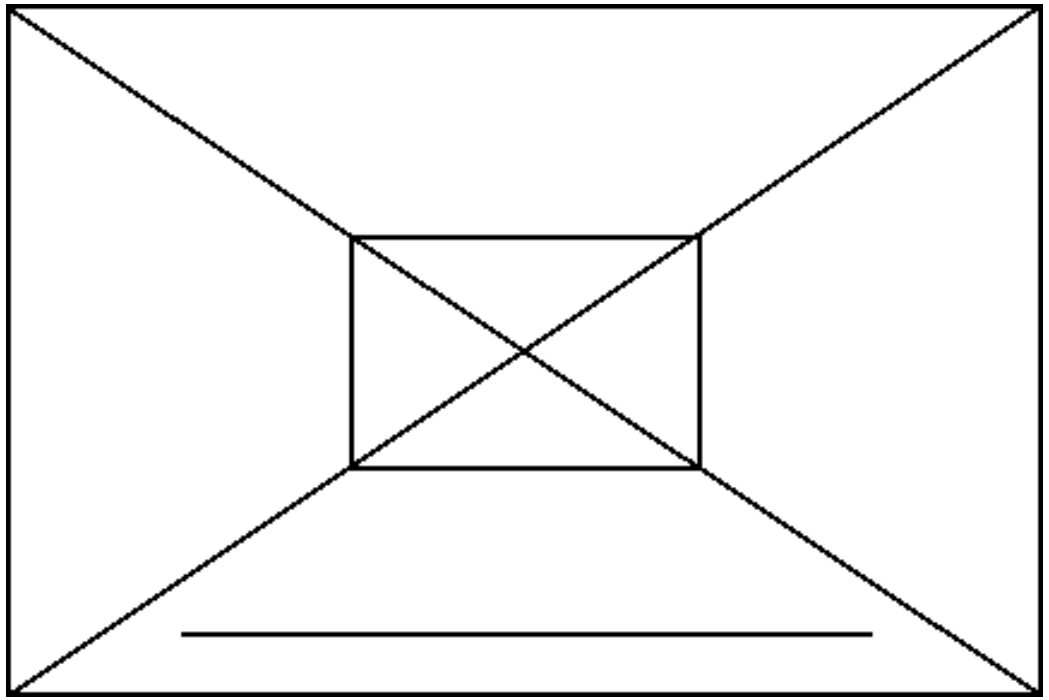
Windows

- Just as a molding was added to the door, you can add a molding to your window. Simply follow the steps used to make this window, but draw your lines just outside of the window. See the animation on the right.



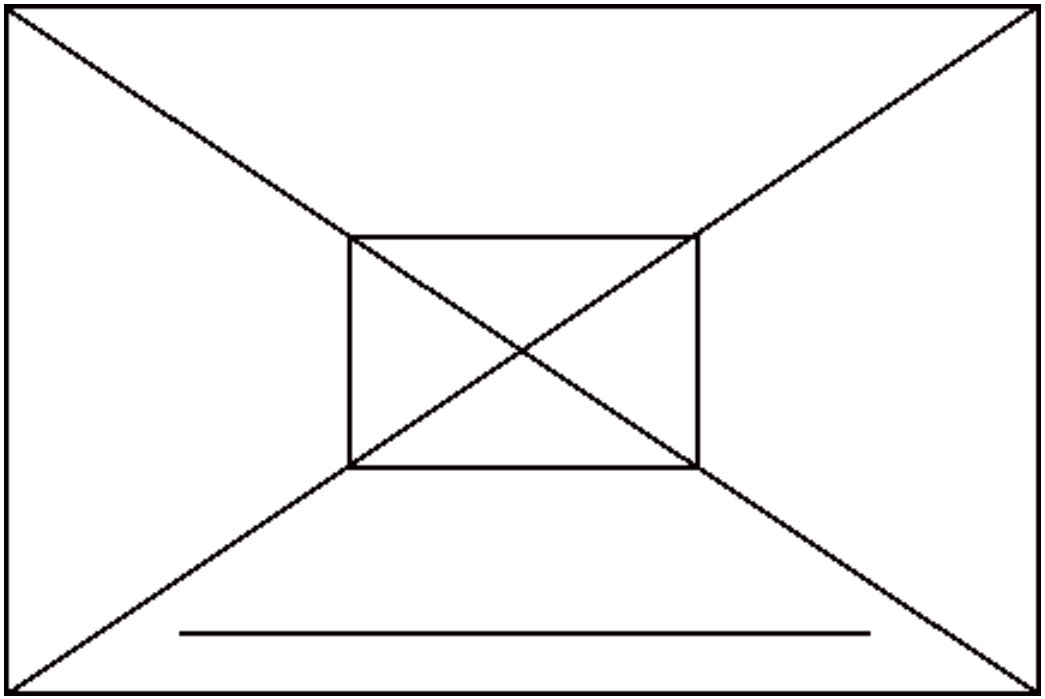
Rug

- The animation on the right shows how to draw a rug in one-point perspective. To see a step-by-step explanation, click on the rug. You may also click on the Next hyperlink below the drawing.



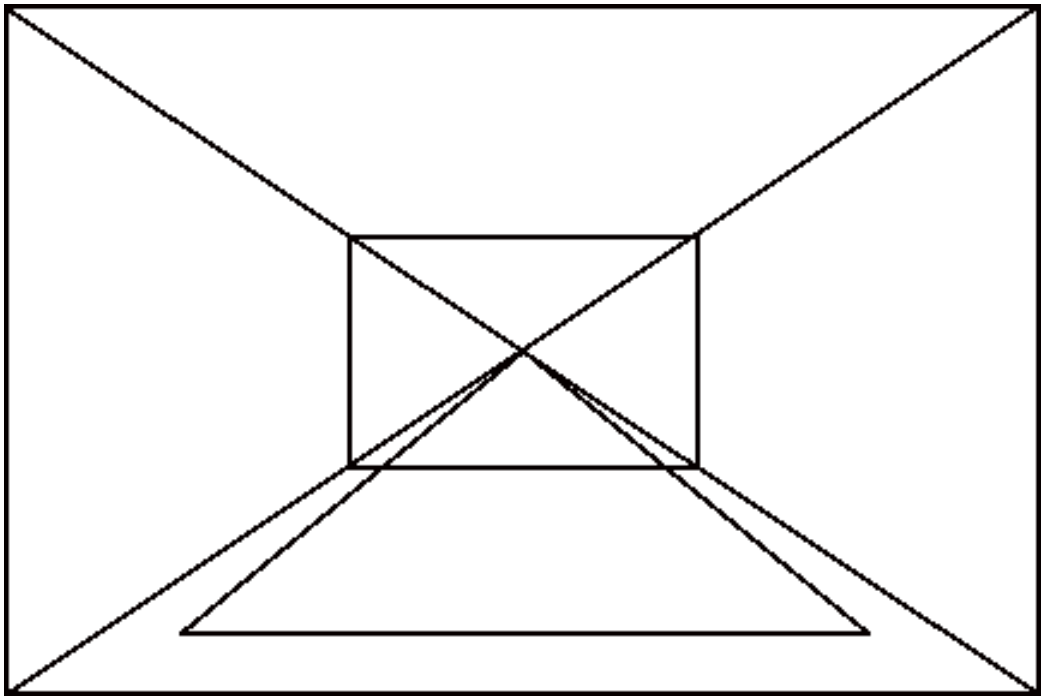
Rug

- A rug is unlike the door or window drawn in the previous sections because it is drawn on the floor, not the wall. Therefore, to start the rug it is best to draw a horizontal line on the floor that shows the side of the rug closest to you. Remember that the door and window were started with vertical lines on the wall.



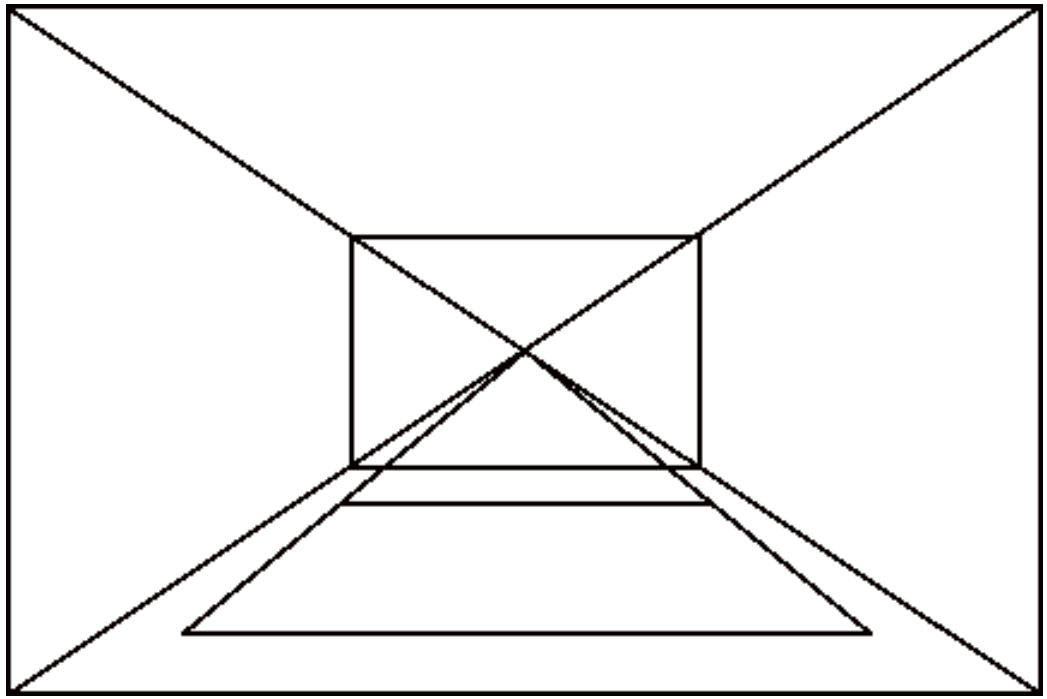
Rug

- The orthogonal show where the sides of the rug are. They start at the ends of the horizontal line that is the front of the rug. If we wanted a narrower rug, we should have started with a shorter horizontal line.



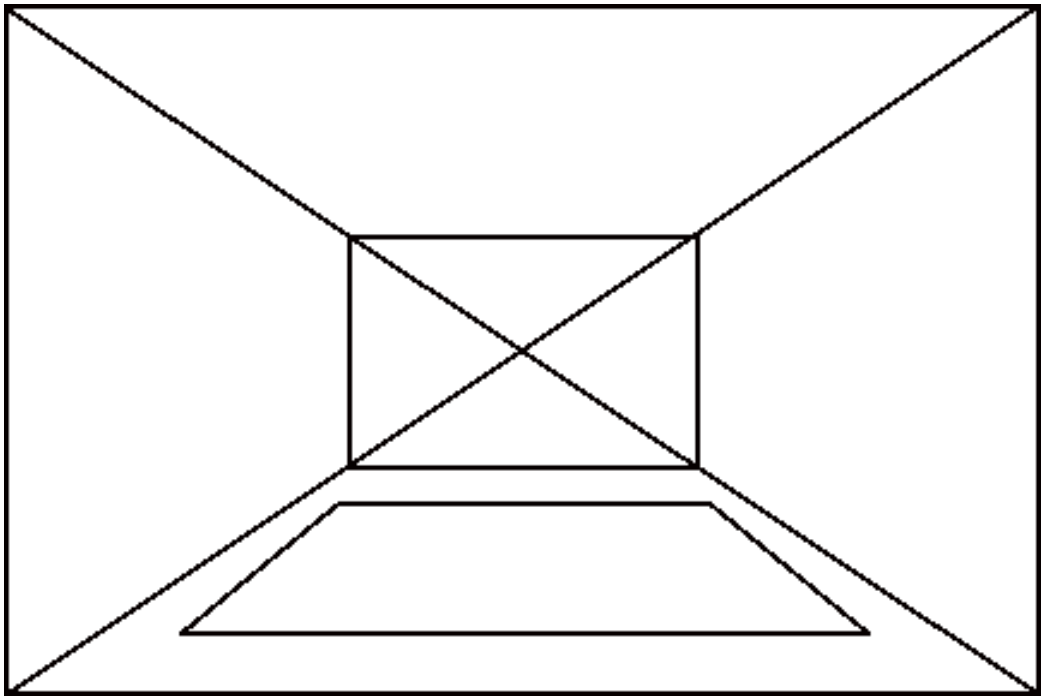
Rug

- The horizontal line close to the back wall is the end of the rug. You can make a smaller rug by drawing a horizontal line closer to the front of the rug. The lines showing the front and back of the rug are parallel.



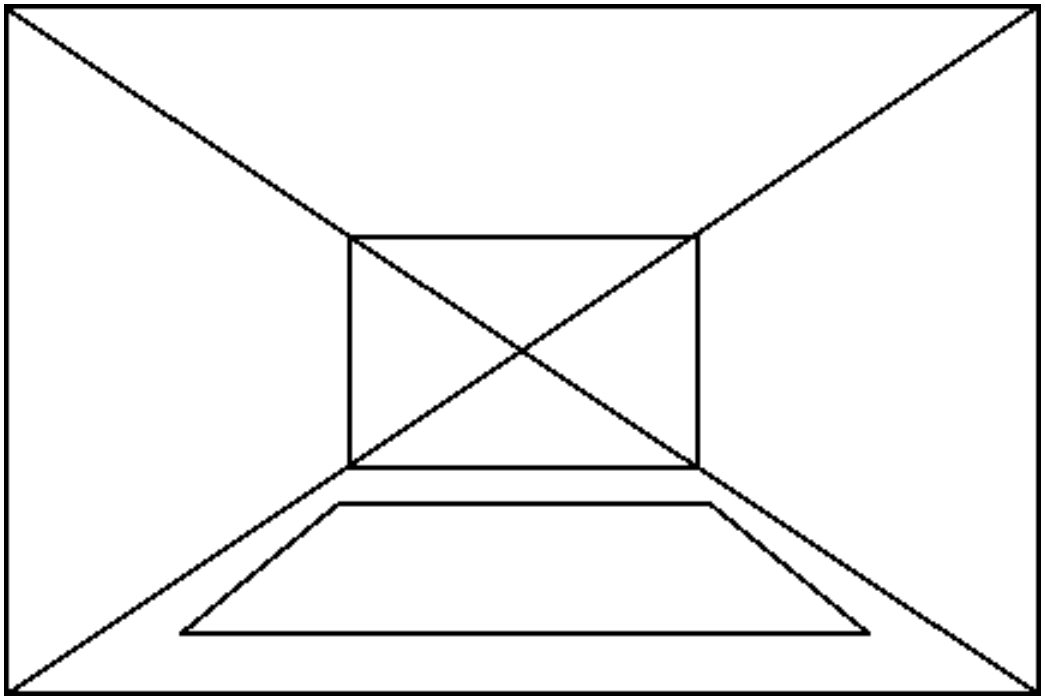
Rug

- When the orthogonal are erased the rug is complete. How would you find the center of the rug? Remember how we found the center of the window?



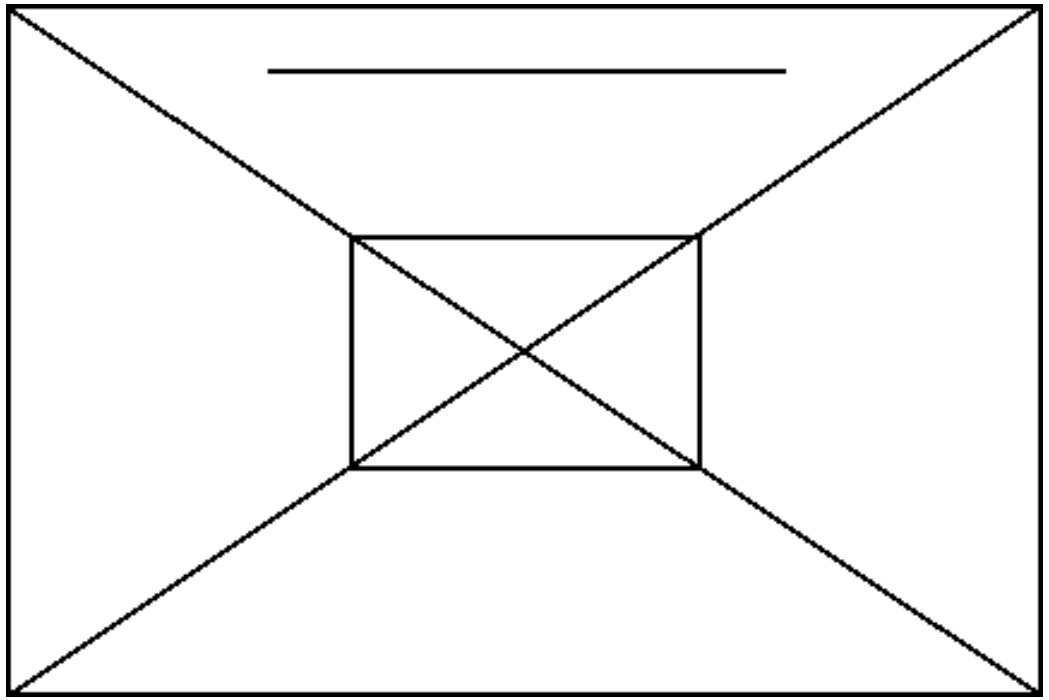
Rug

- The animation on the right shows how you could make a smaller rug by moving the orthogonal closer to the center of the front of the rug.



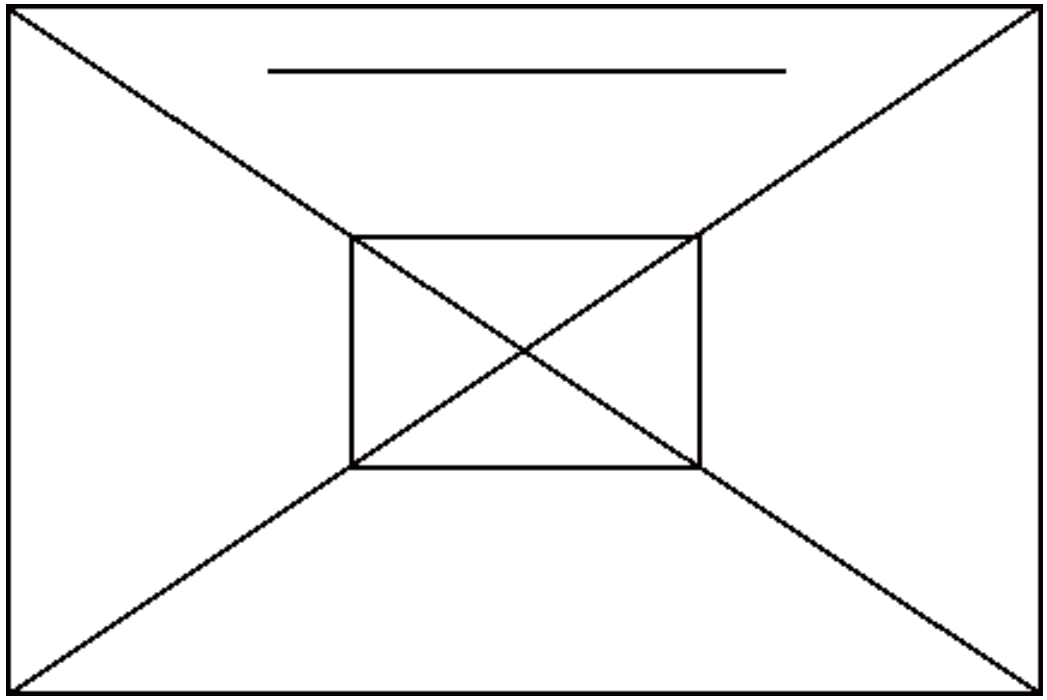
Skylight

- The animation on the right shows how to draw a skylight in one-point perspective. To see a step-by-step explanation, click on the skylight. You may also click on the Next hyperlink below the drawing.



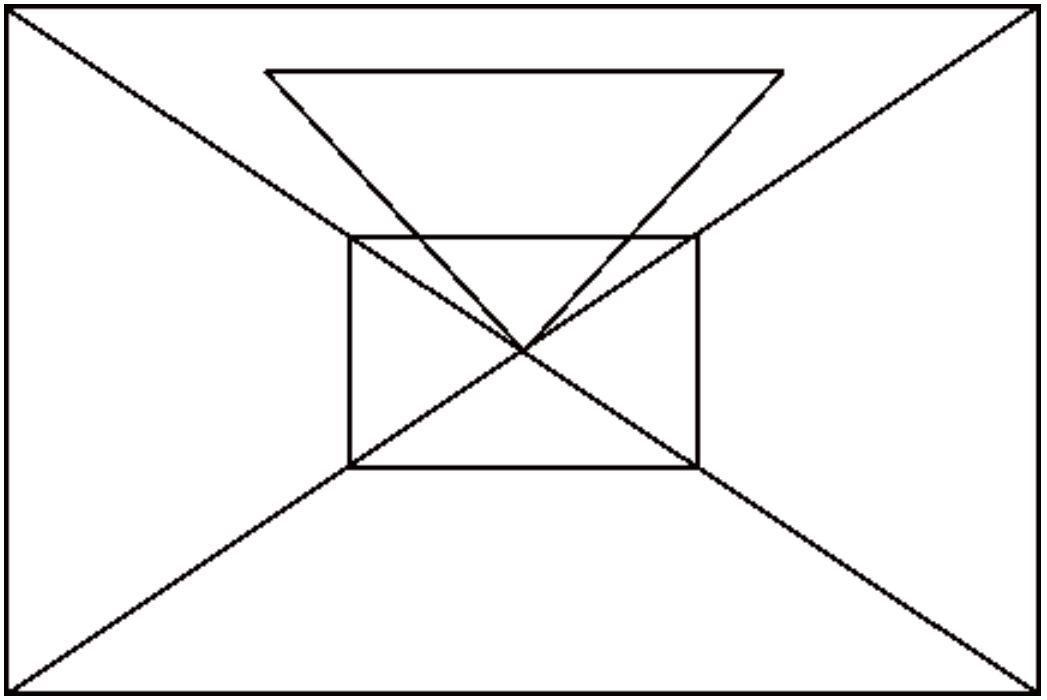
Skylight

- A skylight is started the same way as a rug is, with a horizontal line showing the side closest to you. Since the skylight is on the ceiling, the horizontal line is drawn on the ceiling.



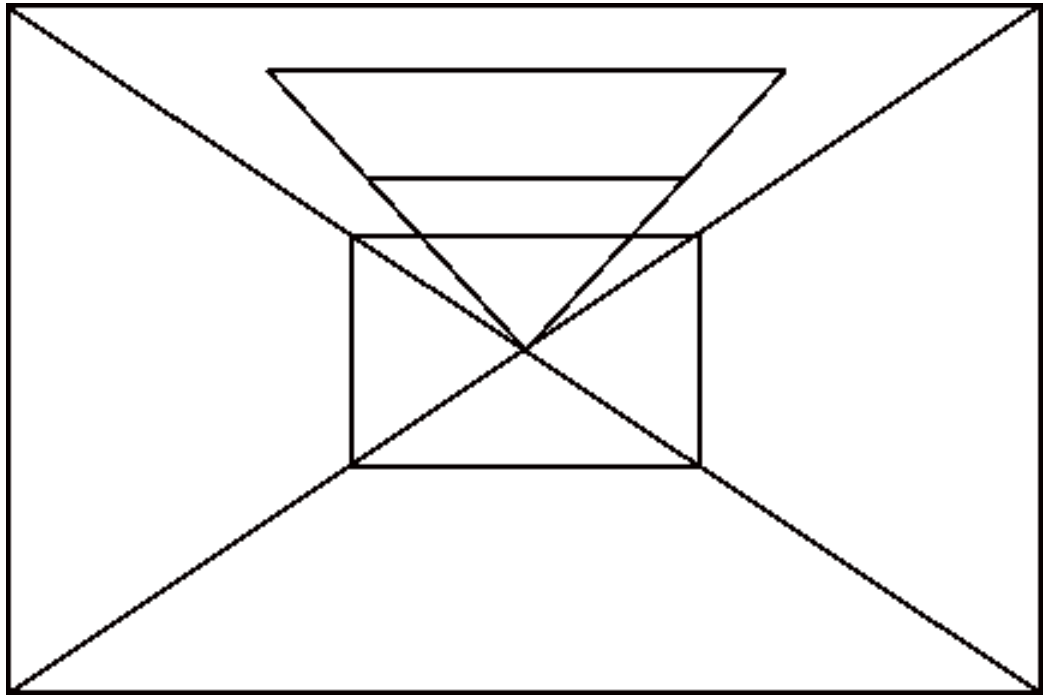
Skylight

- The next step is to draw the two orthogonal that show the left and right sides of the skylight.



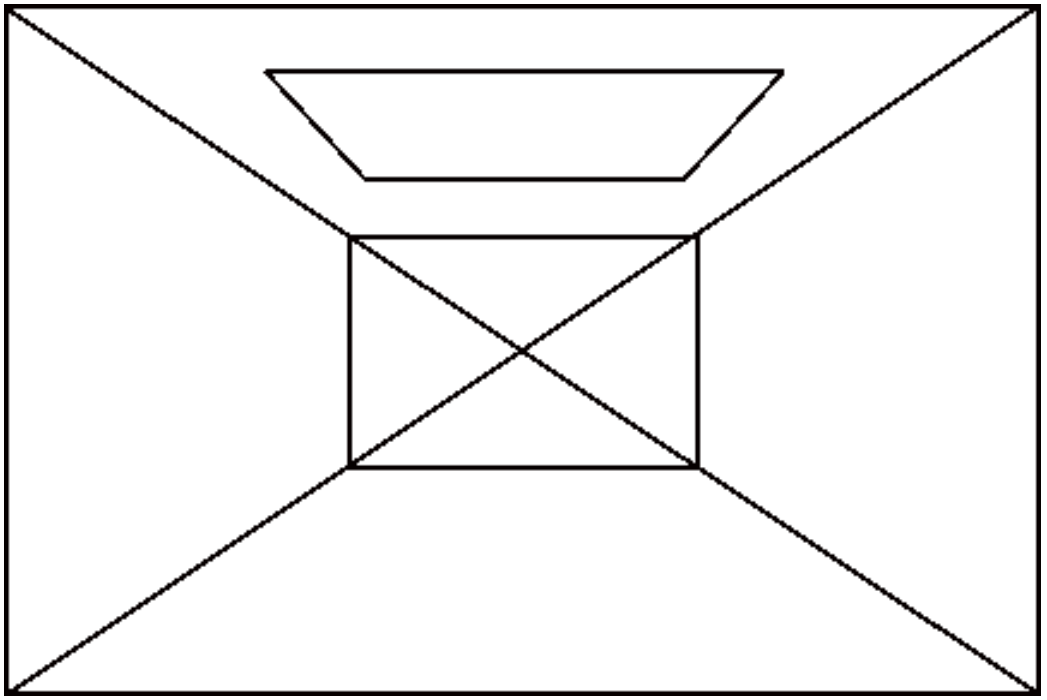
Skylight

- We now have the front and two sides of the skylight. We need the line that shows the back of the skylight. That line is a horizontal line that is parallel to the line that shows the front of the skylight.



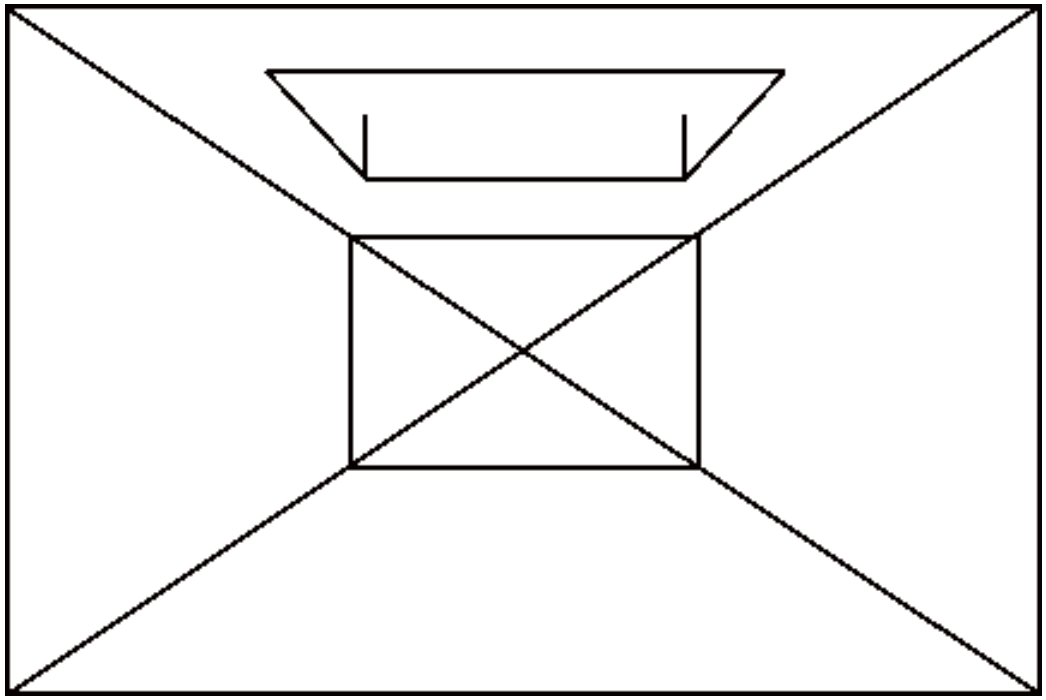
Skylight

- When the parts of the orthogonal that are not the skylight are erased the drawing looks a little like a rectangular light fixture or even a rug on the ceiling.



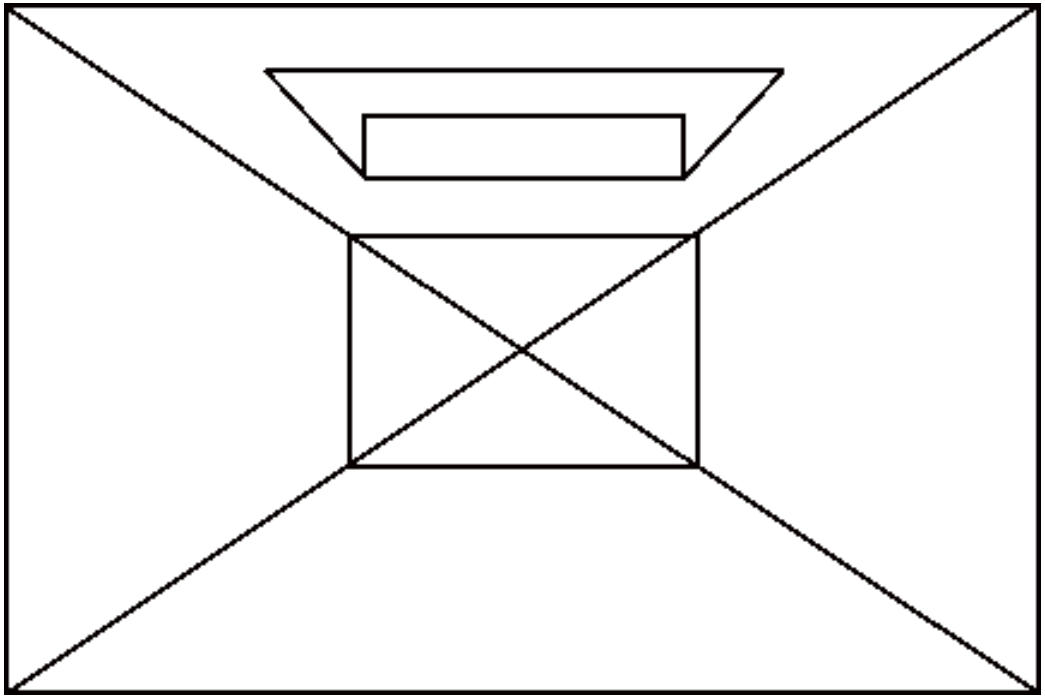
Skylight

- We can make the skylight look more realistic by showing the depth of the ceiling.We do this by drawing two vertical lines of equal height in each of the far corners of the skylight. It almost looks like the start of a step.



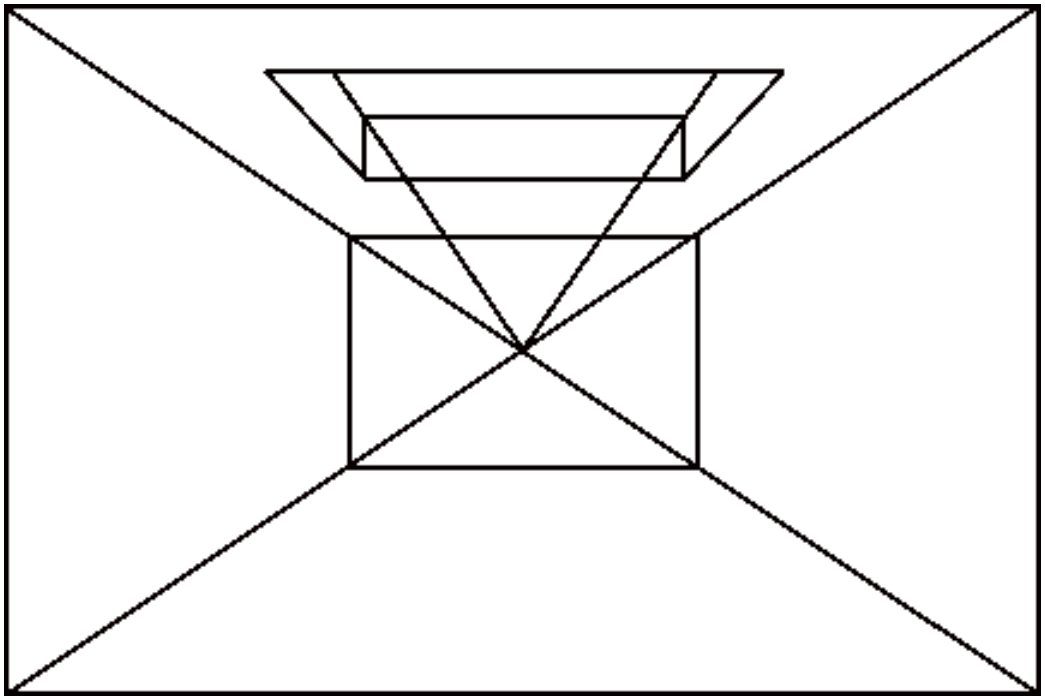
Skylight

- The next horizontal line completes the inside back wall of the skylight. This line shows the part of the skylight that meets the roof. It is directly above the line that shows the back of the skylight; it is also parallel to it.



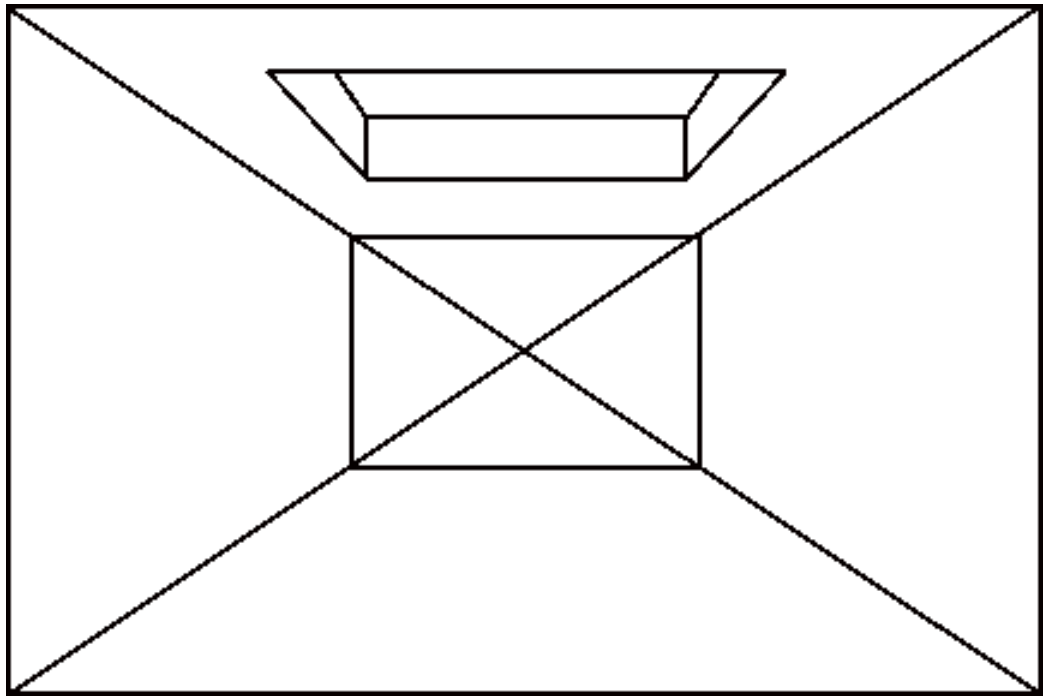
Skylight

- Once the back of the inside of the skylight is drawn, the inside sides of the skylight can be drawn too. Orthogonal from the two back corners are drawn to show the inside sides of the skylight. This gives the skylight added depth.



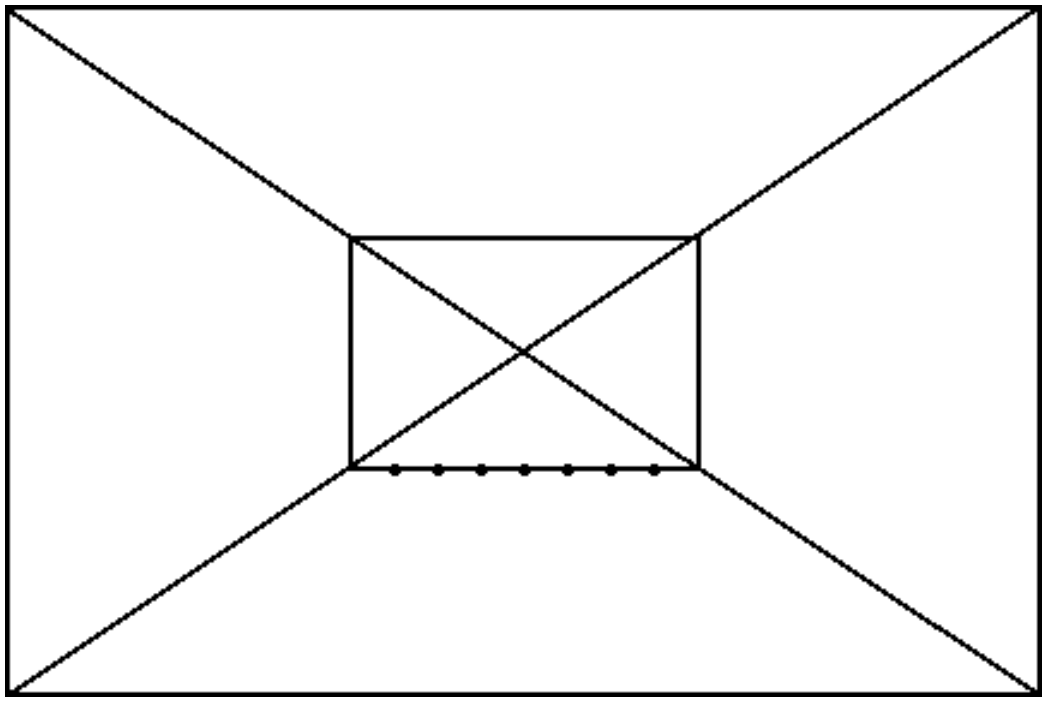
Skylight

- Notice how the skylight is different from the door, window and rug. It has more depth. You can see the width of the ceiling. Drawing the vertical lines from the back corners of the skylight made a big difference. If you draw the skylight on paper turn the paper upside down. What does it look like? Try turning the paper so that the skylight is on the side.



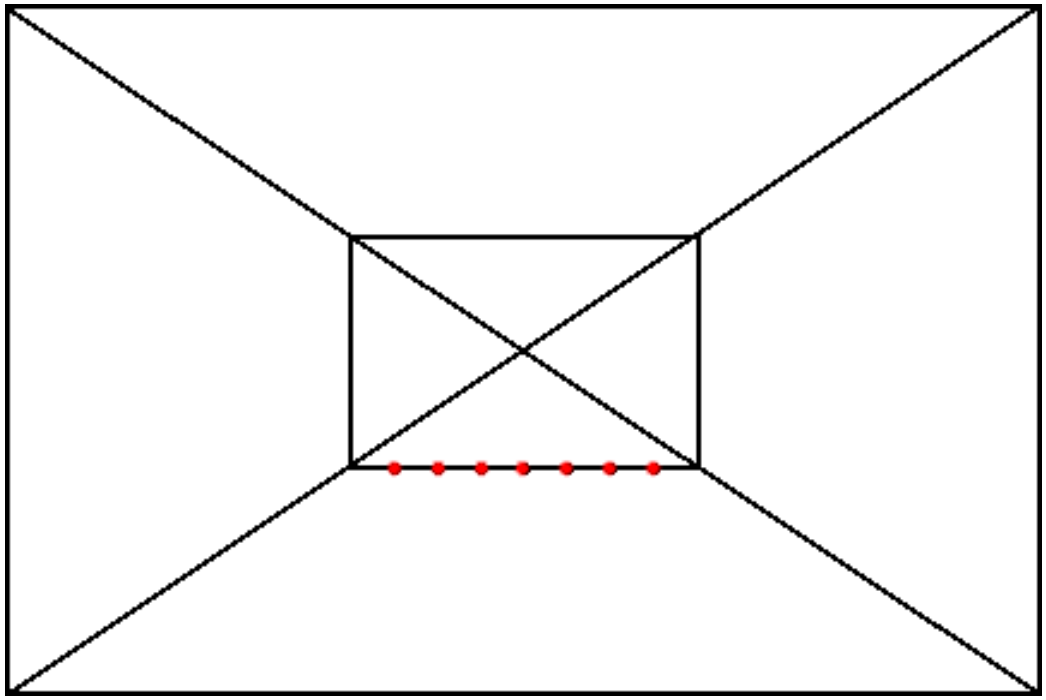
Wood Floor

- The animation on the right shows how to draw a wood floor in one-point perspective. To see a step-by-step explanation, click on the wood floor. You may also click on the Next hyperlink below the drawing.



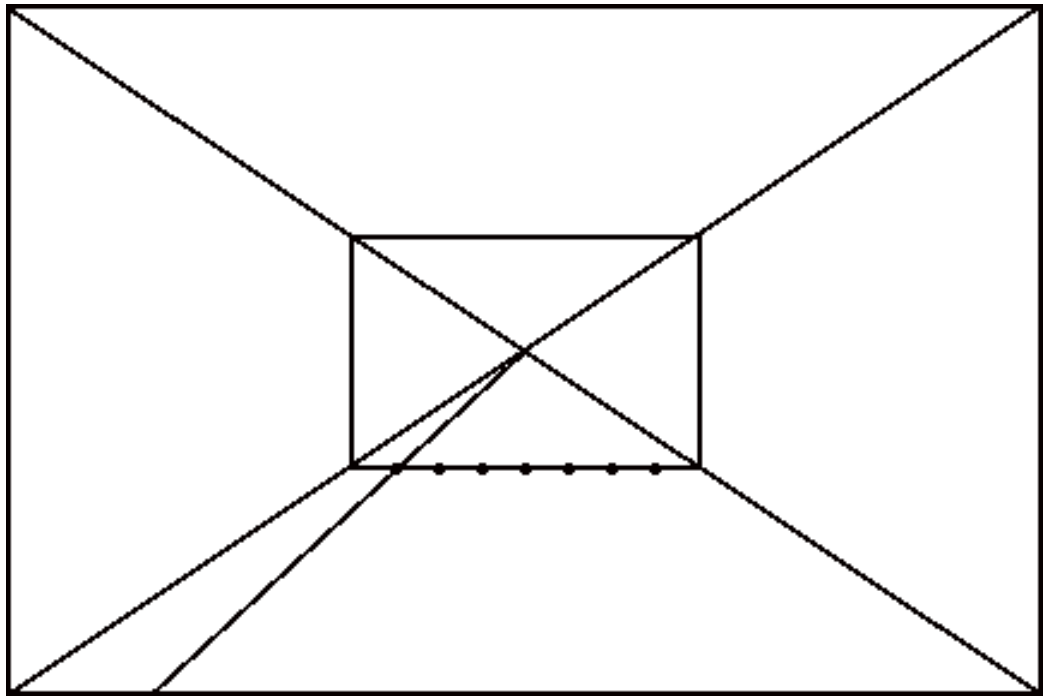
Wood Floor

- The seven red points on the line that shows where the floor and back wall meet are equally spaced (use a ruler to do this). This insures that the floor boards will be of equal width.



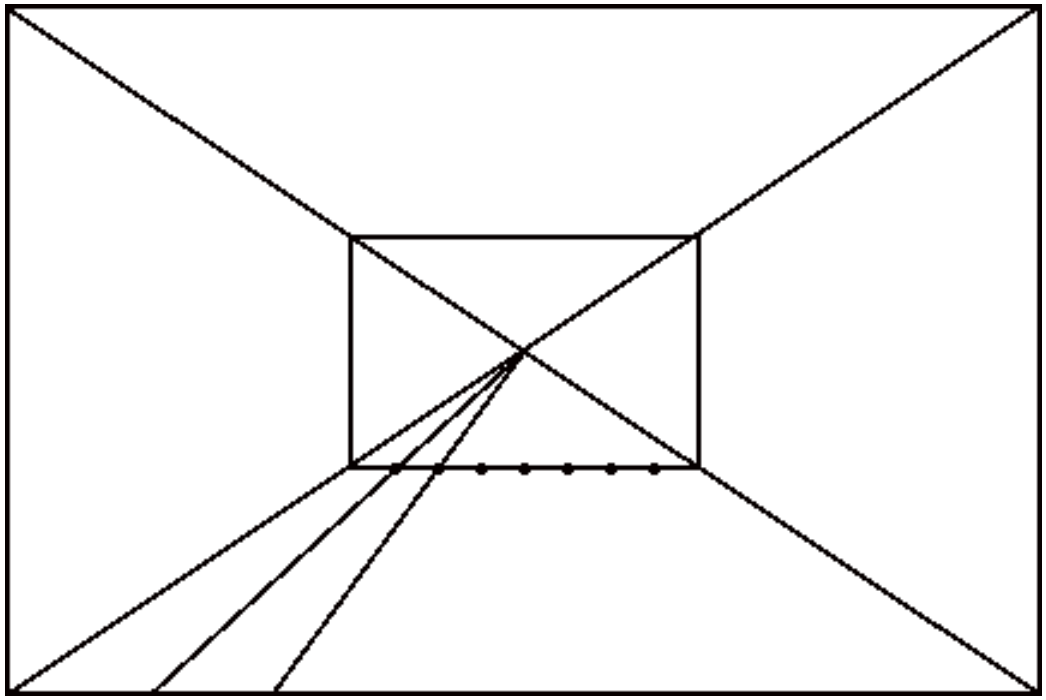
Wood Floor

- The orthogonal drawn through the first point shows where the first board is. Think of the vanishing point as the sun and the orthogonal are like the sun's rays.



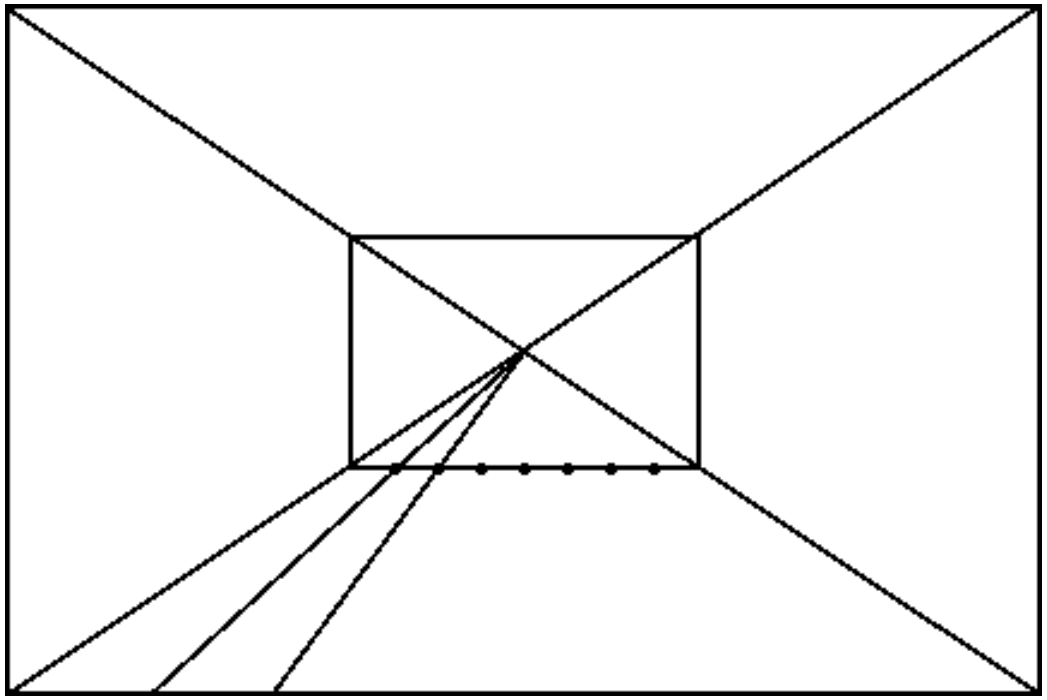
Wood Floor

- The second orthogonal goes through the second point. The wood floor now has two boards. Notice how the boards are wider at the closer end and get narrower as they get nearer to the vanishing point.



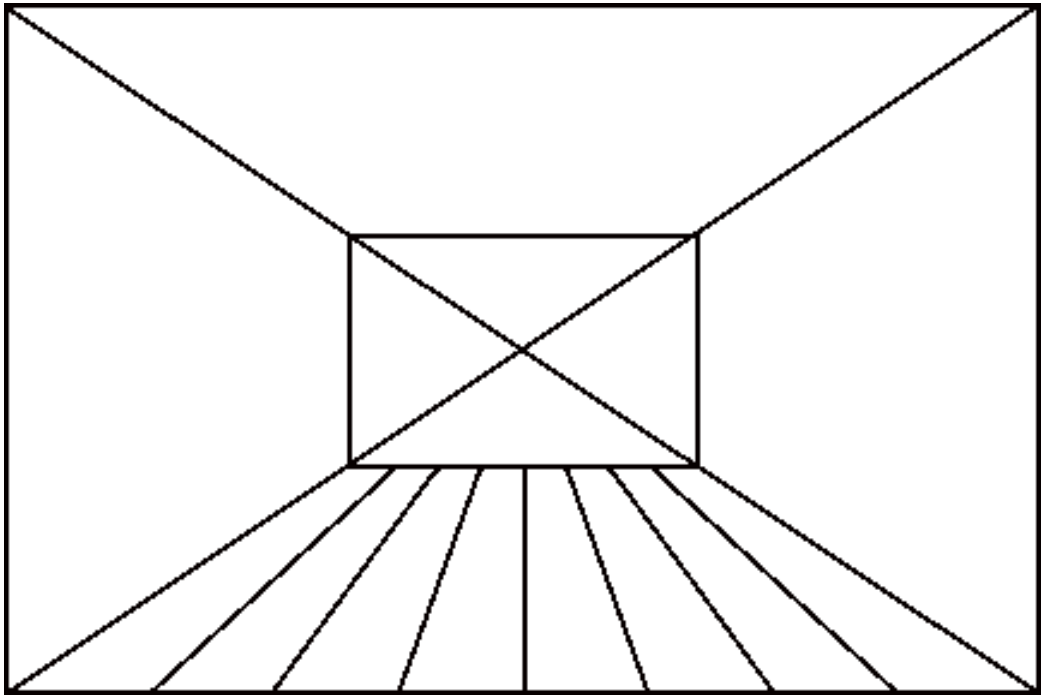
Wood Floor

- The animation shows how the rest of the boards are drawn. The orthogonal lines that are on the back wall will be erased because they are on the wall and not part of the floor.



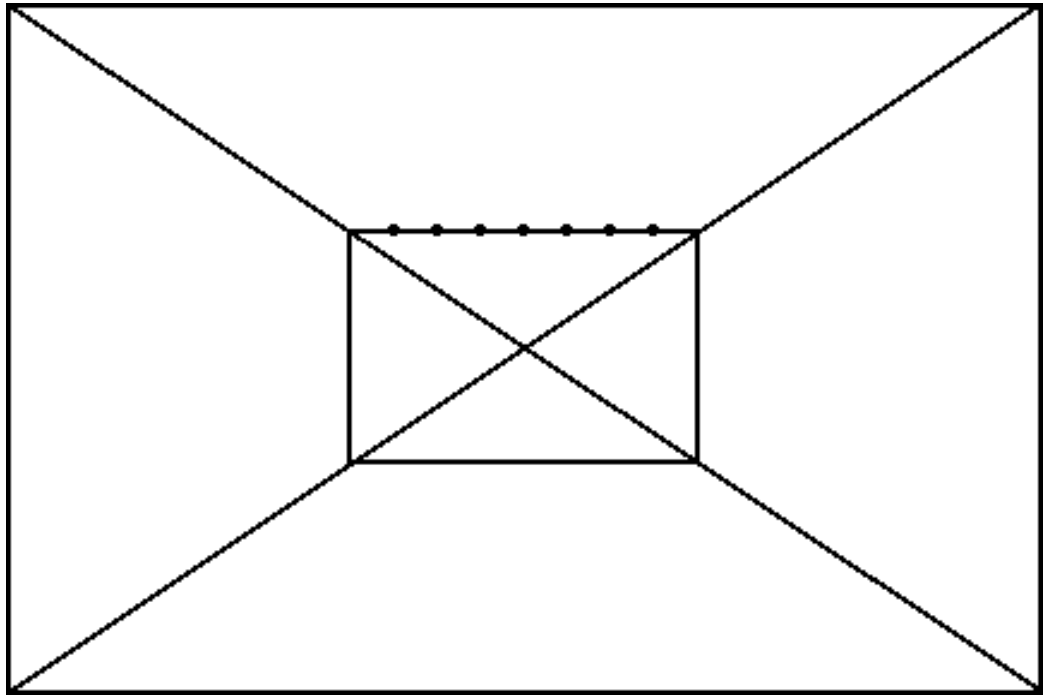
Wood Floor

- The wood floor is now complete. The boards get wider as they get closer to the viewer and narrower as they get closer to the vanishing point. How would you make a wood floor with boards of unequal width?



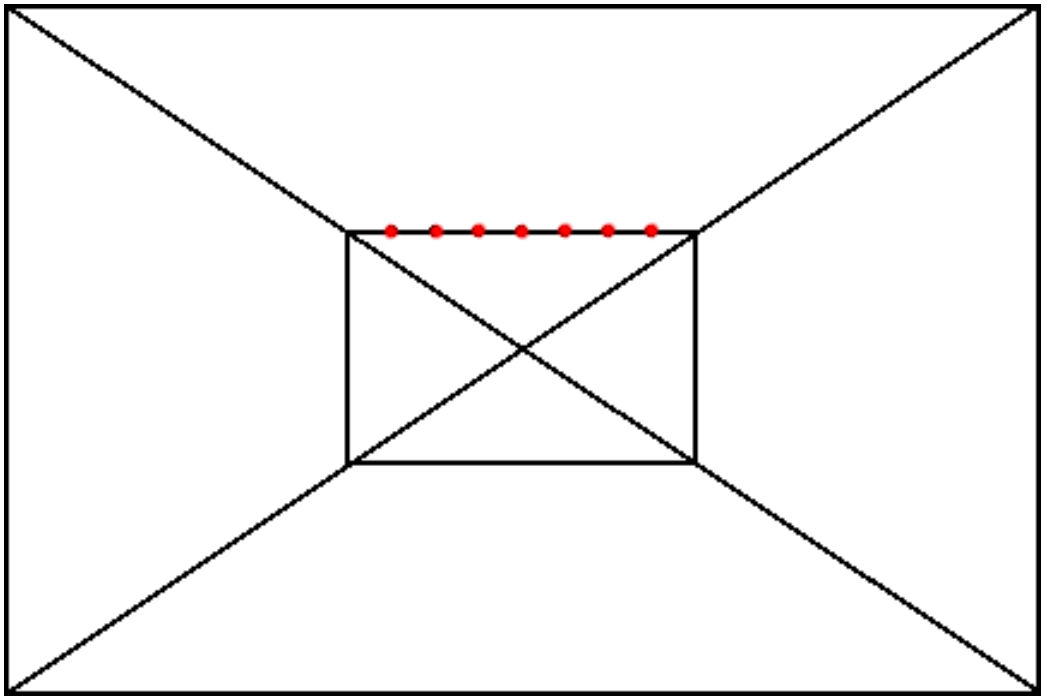
Tile Ceiling

- The animation on the right shows how to draw a tile ceiling in one-point perspective. To see a step-by-step explanation, click on the tile ceiling. You may also click on the Next hyperlink below the drawing.



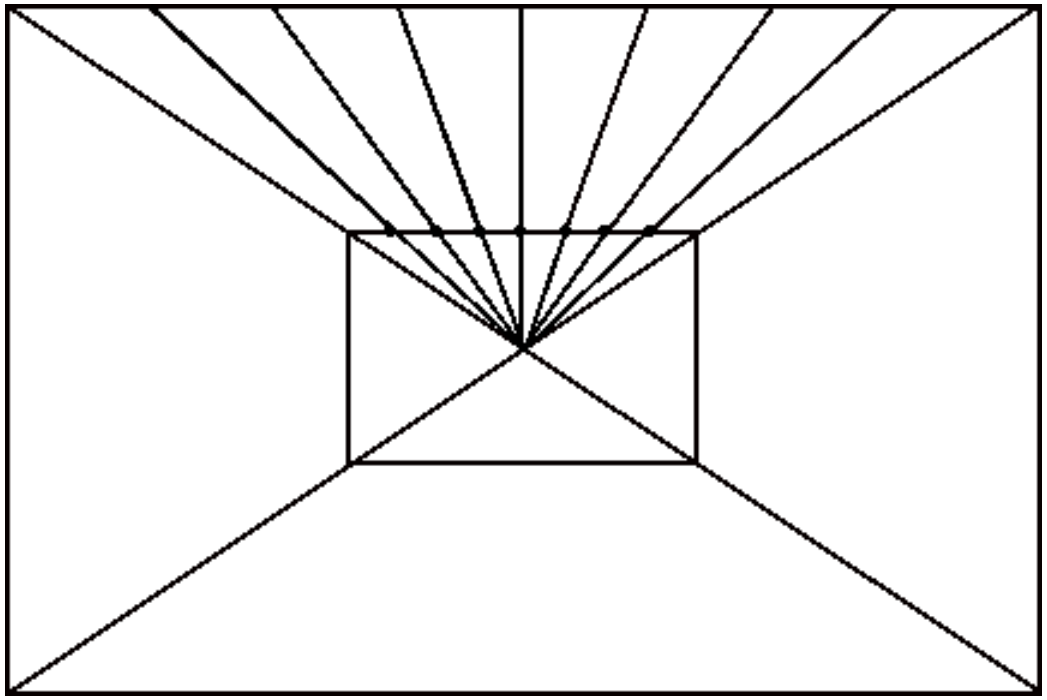
Tile Ceiling

- The tile ceiling starts just like the wood floor, with equally spaced points marked off with the help of a ruler. The difference is that the red points are on the line that shows the place where the back wall and ceiling meet.



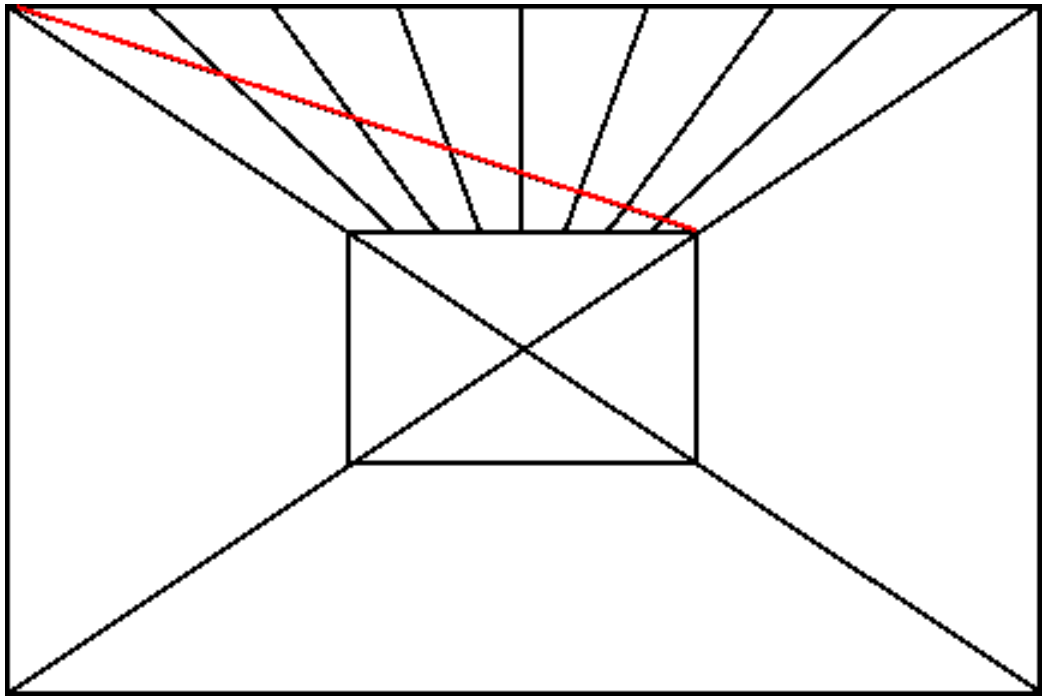
Tile Ceiling

- Once again, just like the wood floor, orthogonal are drawn from the vanishing point that look like rays from the sun.These orthogonal show where the ceiling tiles will be.



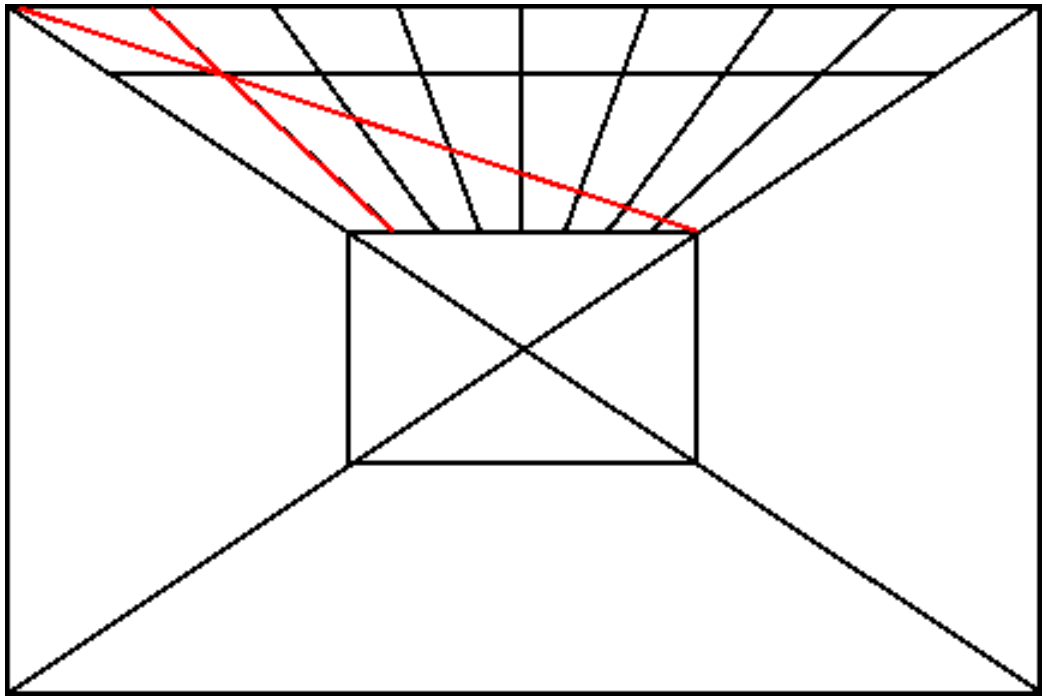
Tile Ceiling

- The diagonal red line goes across the orthogonal. It starts at one corner of the ceiling and goes to the opposite corner. This line, which will be erased later, will help us draw the tiles. Notice that the parts of the orthogonal that were on the back wall have been erased.



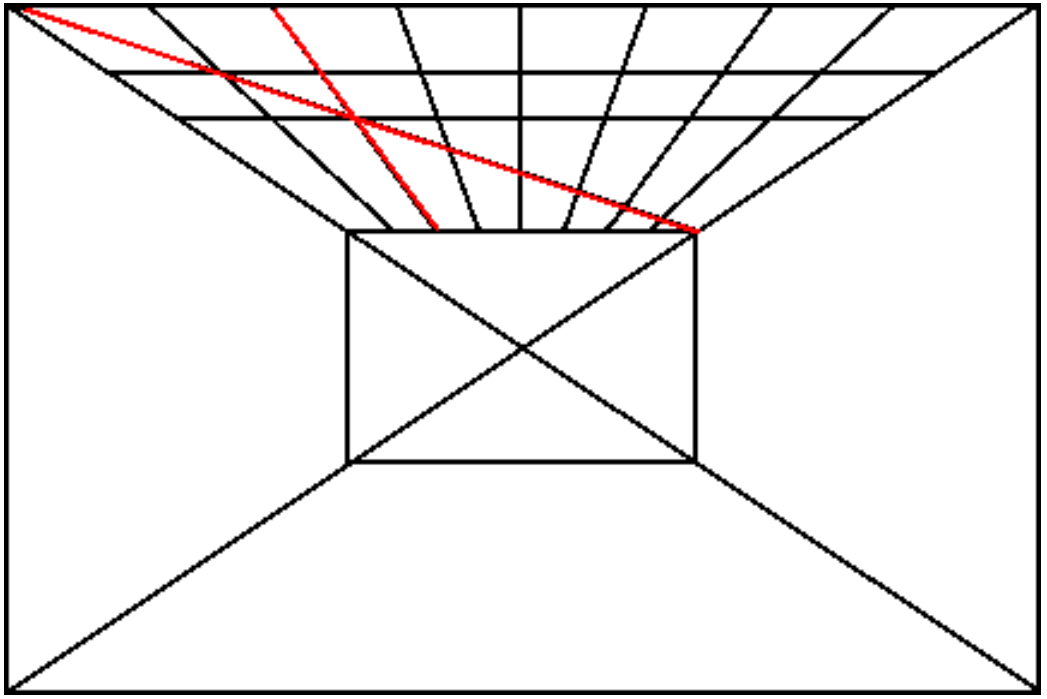
Tile Ceiling

- To get the first row of tiles we draw a horizontal line across the top of the ceiling where the red line intersects the red orthogonal. Notice that the diagonal red line intersects all of the orthogonal on the ceiling.



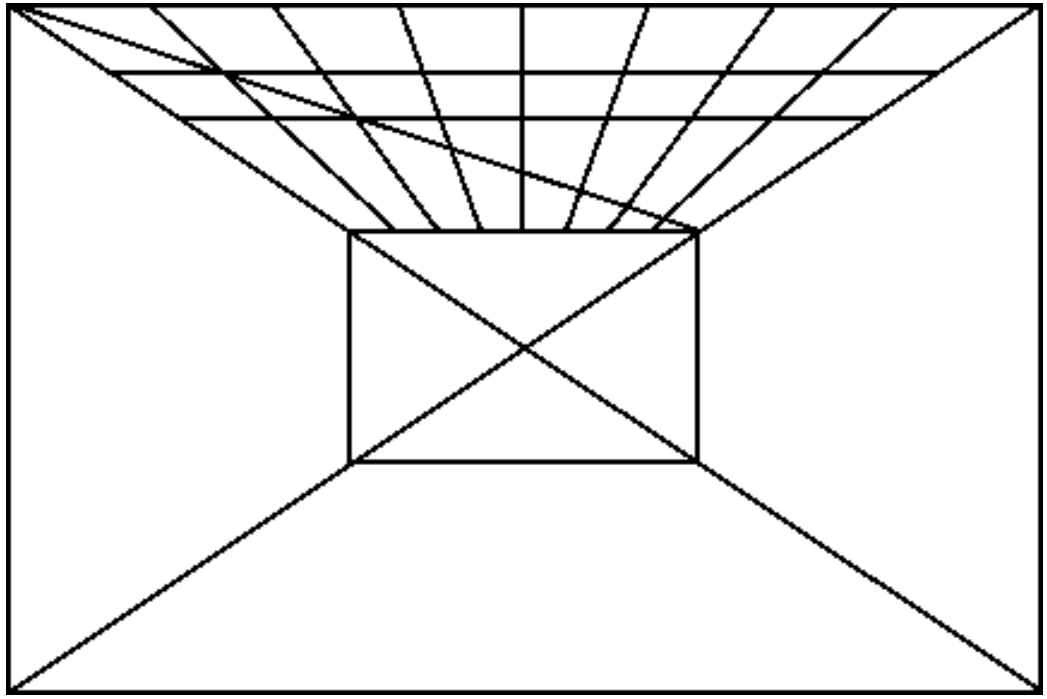
Tile Ceiling

- The red orthogonal and red diagonal lines intersect (meet) where the next horizontal line is drawn. This line shows another row of tiles. Which row of tiles looks bigger, the first or the second? Why?



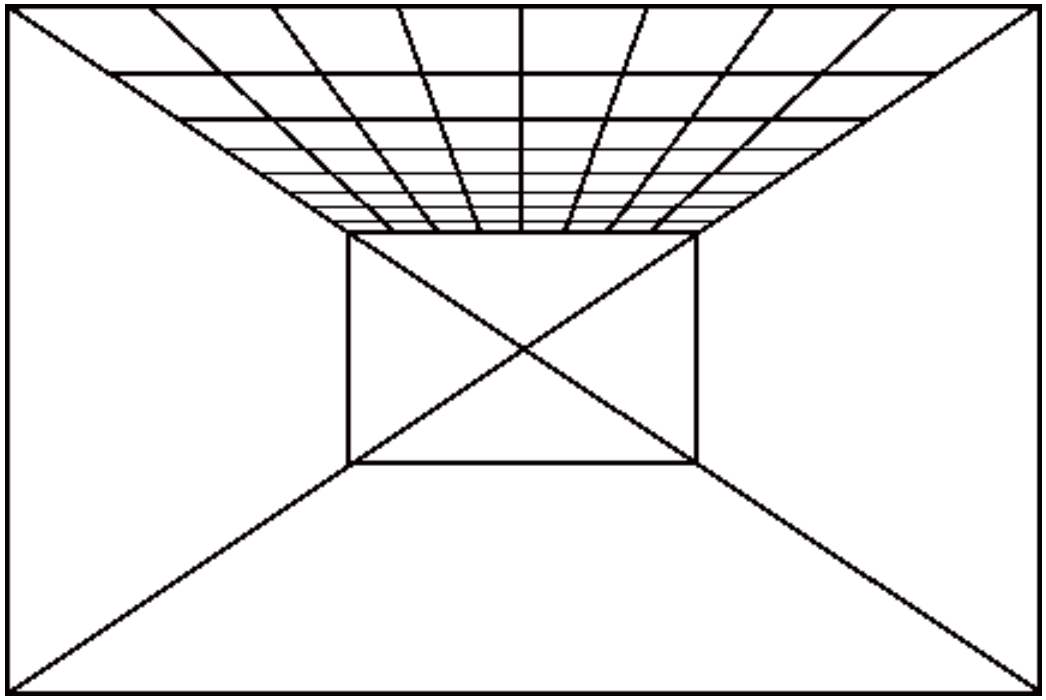
Tile Ceiling

- The animation shows how the rest of the rows of tiles are drawn. A horizontal line is drawn at every place that the diagonal line intersects with an orthogonal. What happens to the rows of tiles as we get closer to the vanishing point?



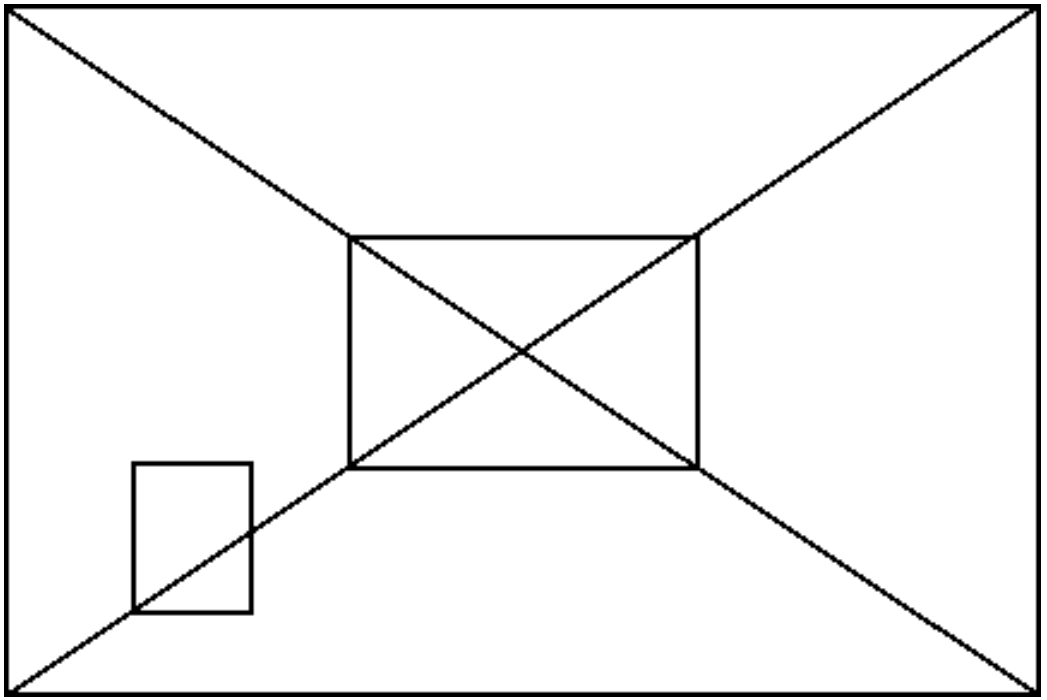
Tile Ceiling

- The ceiling is completed when the diagonal line is erased. How would you make a tile floor? Could you also draw tiles on the side walls using this method? If you draw the tile ceiling on a paper rotate the paper and see what happens.



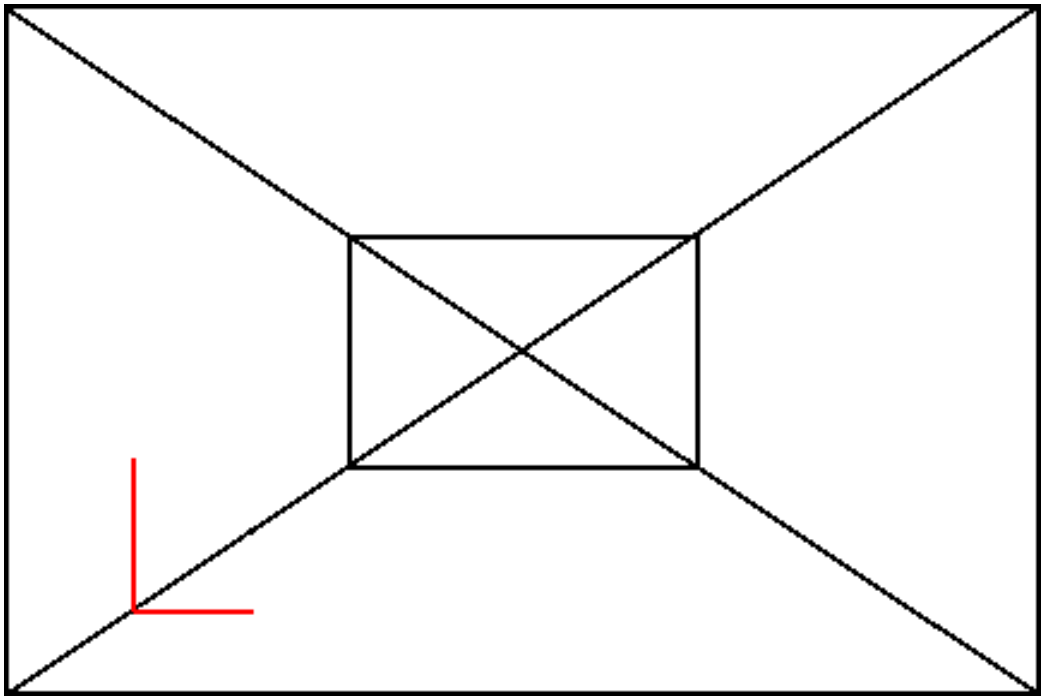
TV

- The animation on the right shows how to draw a TV in one-point perspective. To see a step-by-step explanation, click on the TV. You may also click on the Next hyperlink below the drawing.



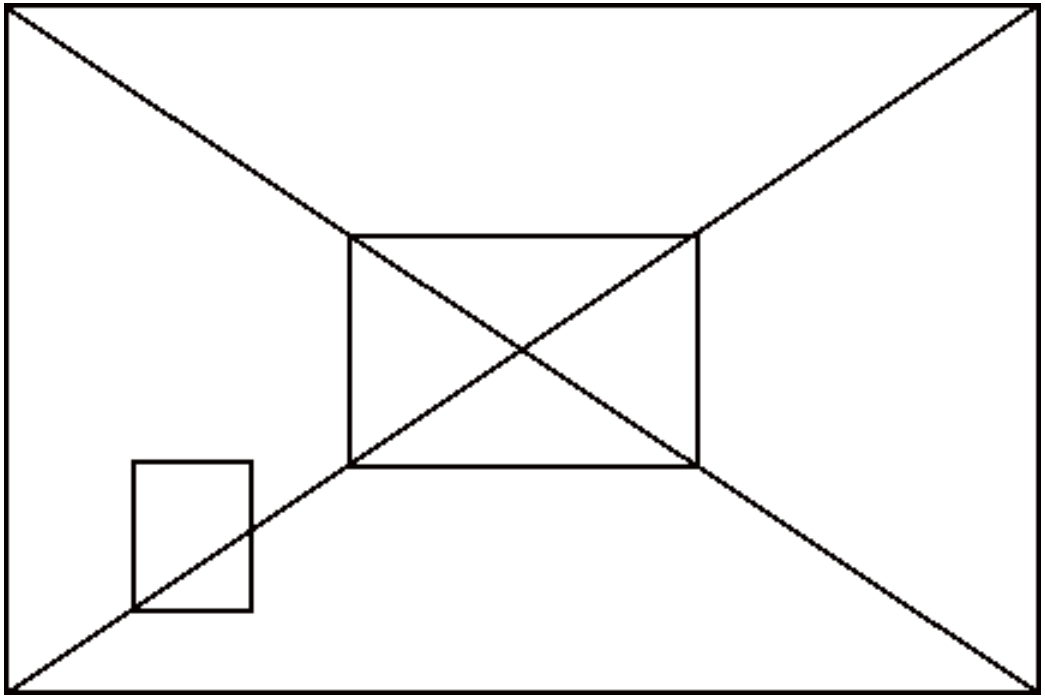
TV

- The TV will be up against the wall and on the floor. Therefore to start the drawing a vertical line should be drawn where the floor and wall meet. A horizontal line starts at the bottom of the vertical line and goes into the room. These lines show how high and deep the TV will be.



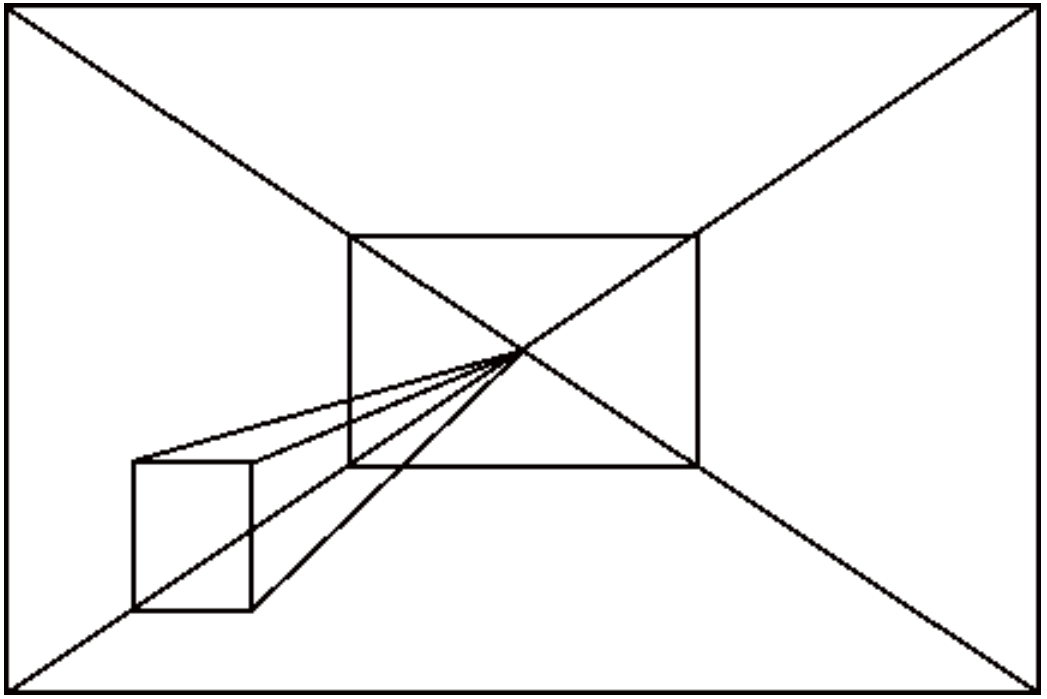
TV

- The small rectangle on the left side of the drawing shows the near side of the TV. A horizontal line was added to show the top of the TV and a vertical line was added to show the front of the TV. The vertical lines show the height of the TV and the horizontal lines show the TV's depth.



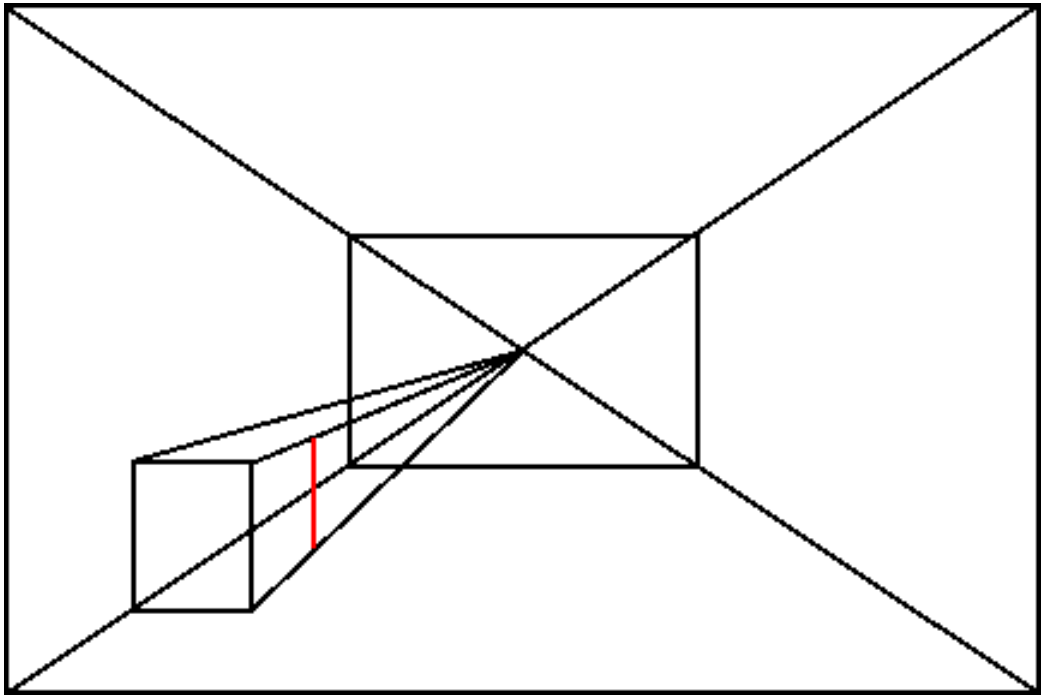
TV

- Once the side of the TV nearest the viewer is drawn orthogonal from the side to the vanishing point are drawn. These three orthogonal show where the front and top of the TV will be.



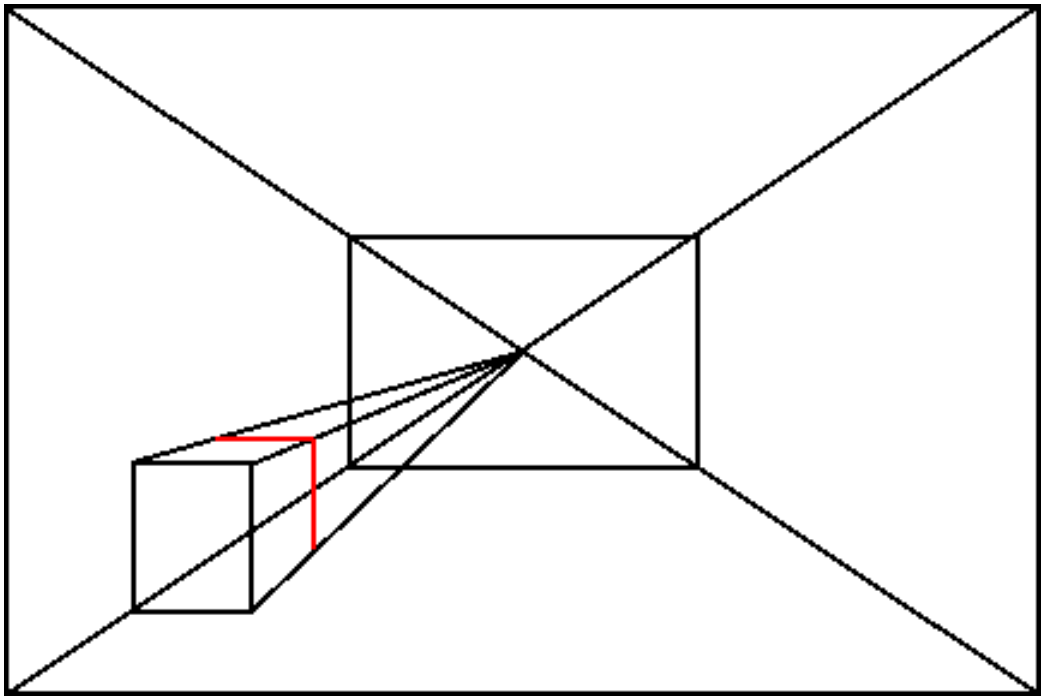
TV

- The red vertical line between the two orthogonal shows where the front of the TV ends. Notice that the red line is vertical. Also, it is parallel to the vertical lines that were first drawn to show the height of the TV.



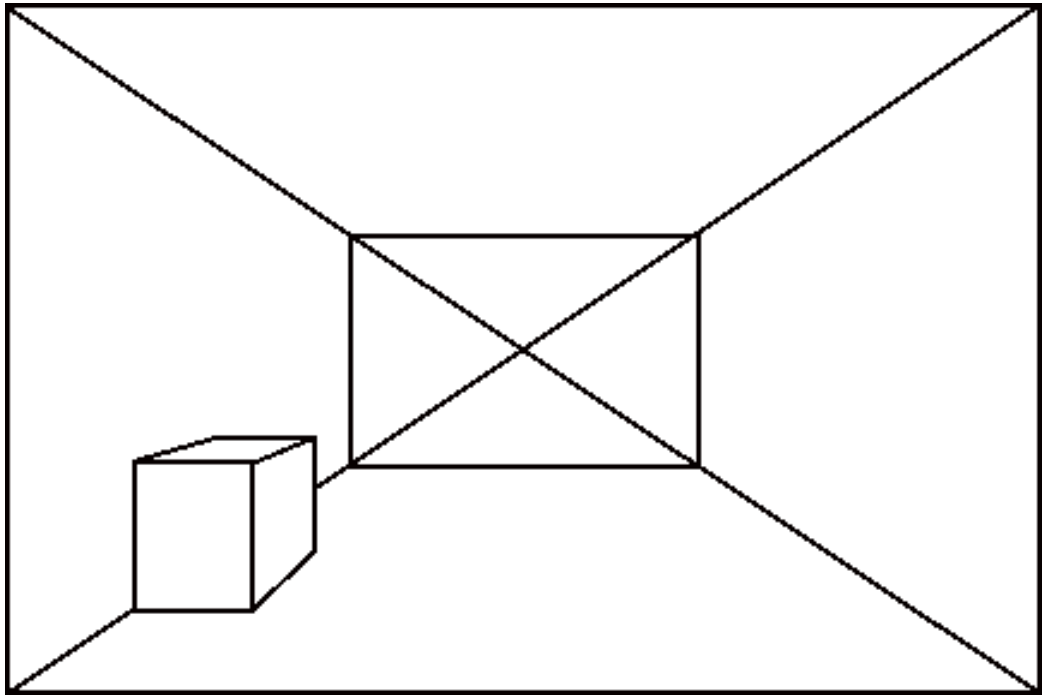
TV

- The red horizontal line shows where the top of the TV ends. It is parallel to the black horizontal line that shows the other side of the top of the TV. Notice that the two red lines are drawn between the orthogonal.



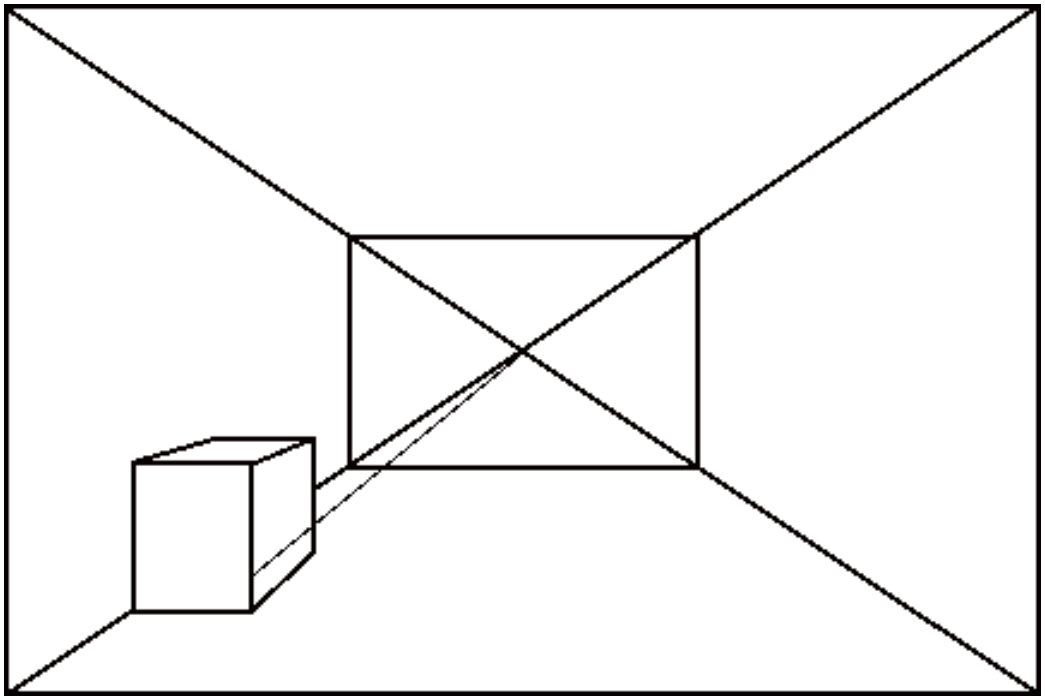
TV

- When the orthogonal that are not part of the TV are erased we get a TV that looks like a box. In fact, it could be a speaker, desk, package or cabinet with some additions. Think about what you might add to make it look like something else. What does it need to look like a TV?



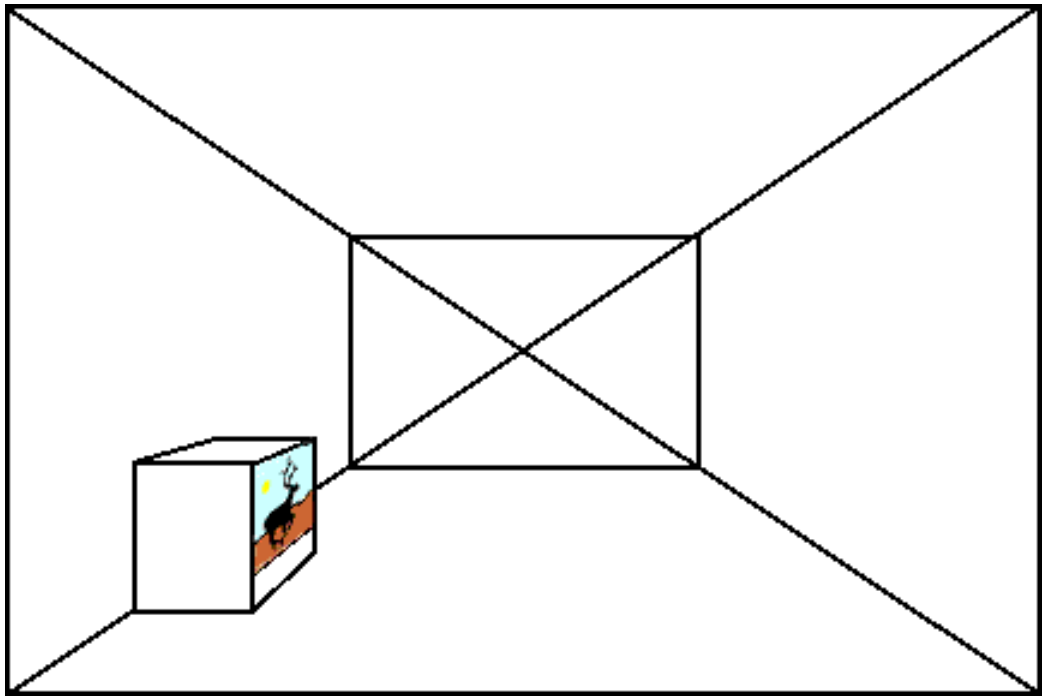
TV

- To make the box look more like a TV add an orthogonal line that shows where the bottom of the TV screen will be.



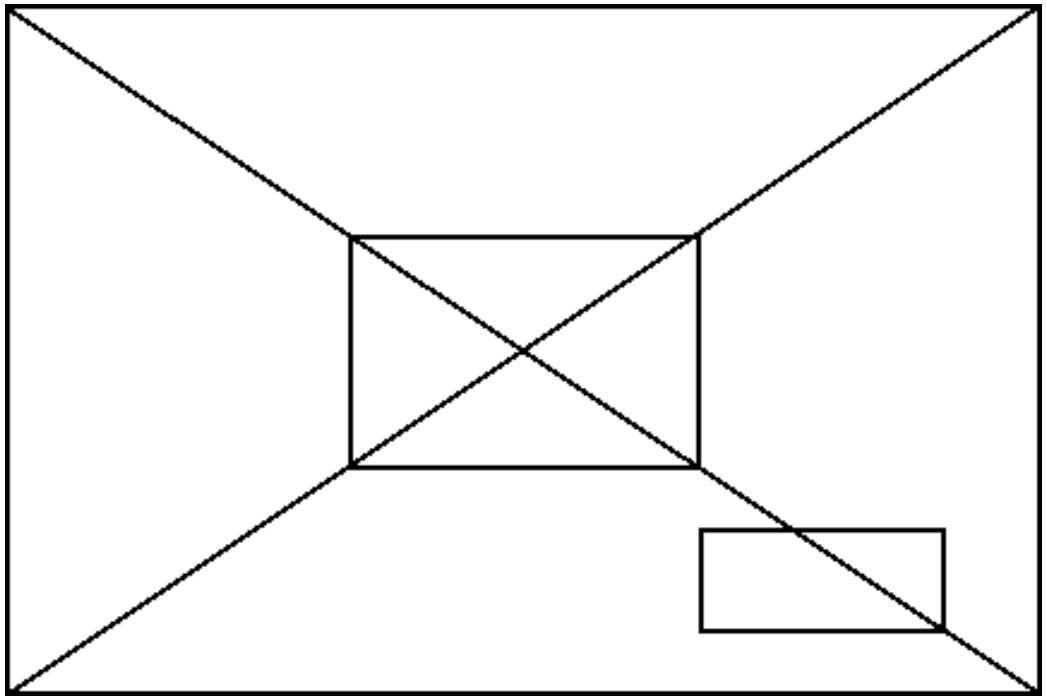
TV

- MTV, Moose TV, all moose all the time. When the part of the orthogonal that is not part of the TV is erased we have a line that shows the bottom of the TV screen. If you wanted to draw a VCR you could make a smaller box on top of the TV.



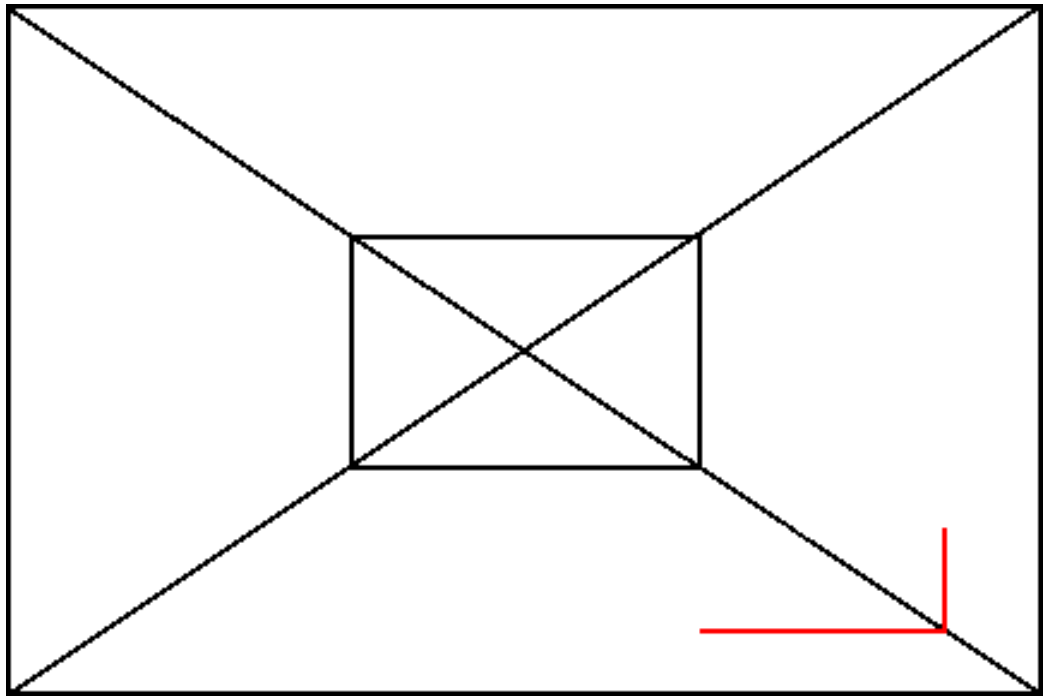
Bed

- The animation on the right shows how to draw a bed in one-point perspective. To see a step-by-step explanation, click on the bed. You may also click on the Next hyperlink below the drawing.



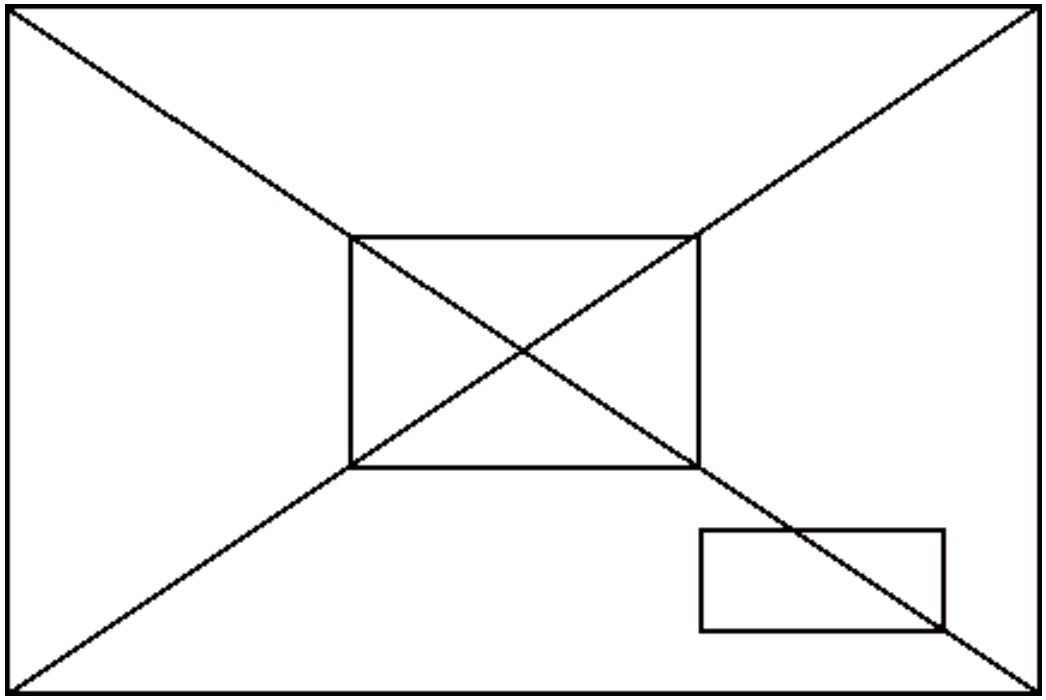
Bed

- The red lines show the height and width of the bed. The vertical red line shows the side of the bed against the wall. The horizontal red line shows the bottom of the bed on the floor. The bed would be higher if the vertical line were higher. The bed would be wider if the horizontal line were extended into the room.



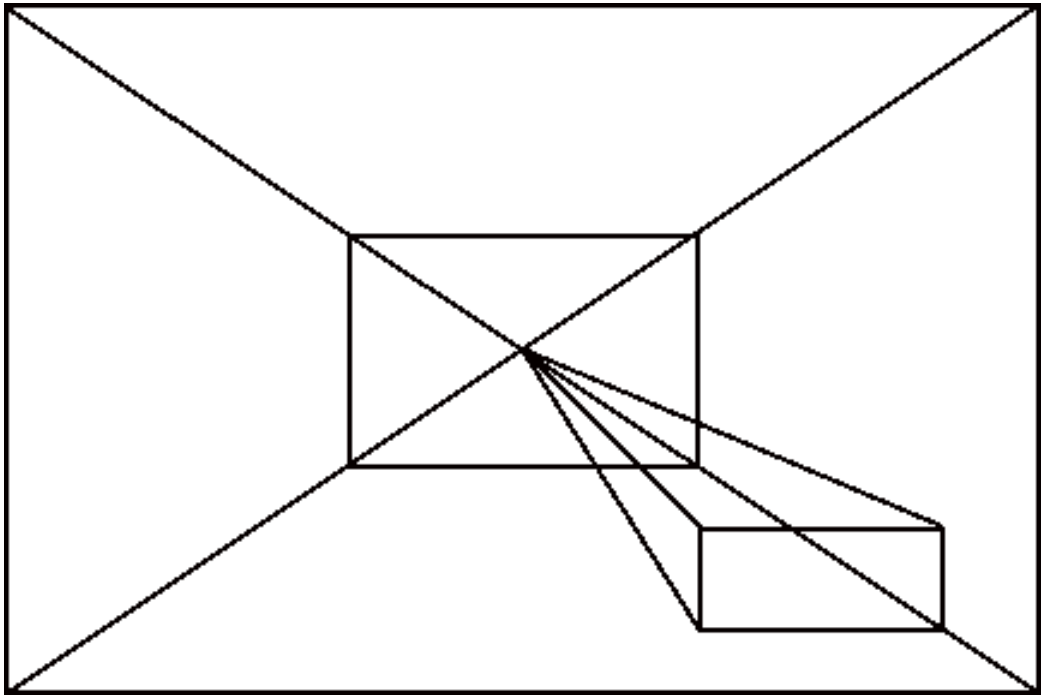
Bed

- A vertical line is added to show the side of the bed that is not against the wall and a horizontal line is added to show the top of the bed. We now have a rectangle that is the side of the bed closest to the viewer.



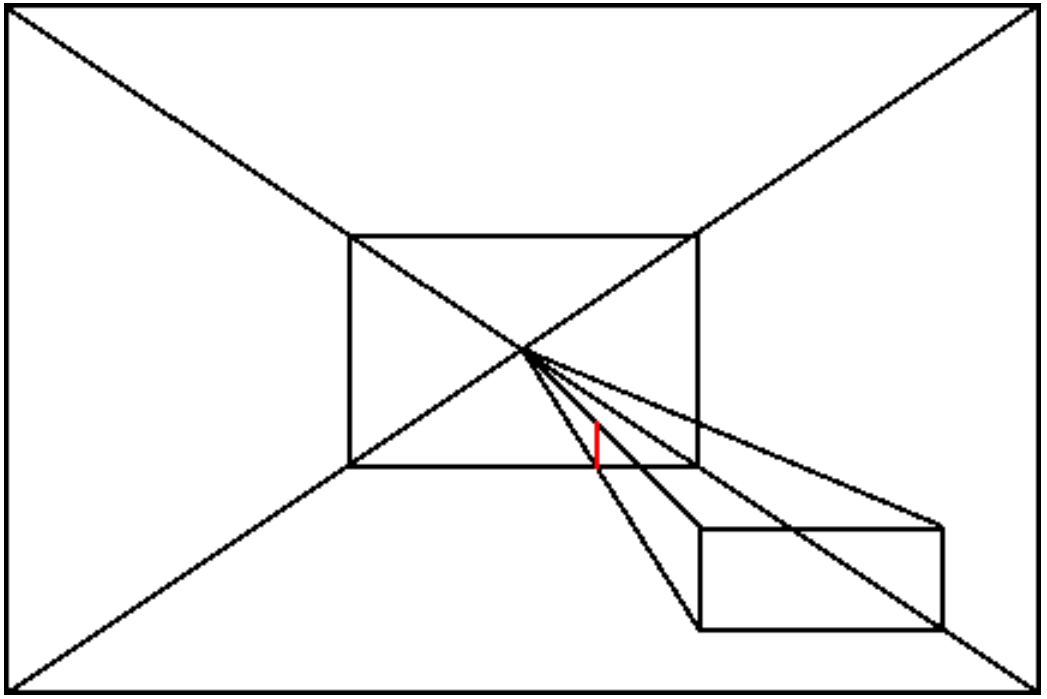
Bed

- The orthogonal lines that go from the side of the bed, the rectangle, to the vanishing point show where the top and side of the bed will be.



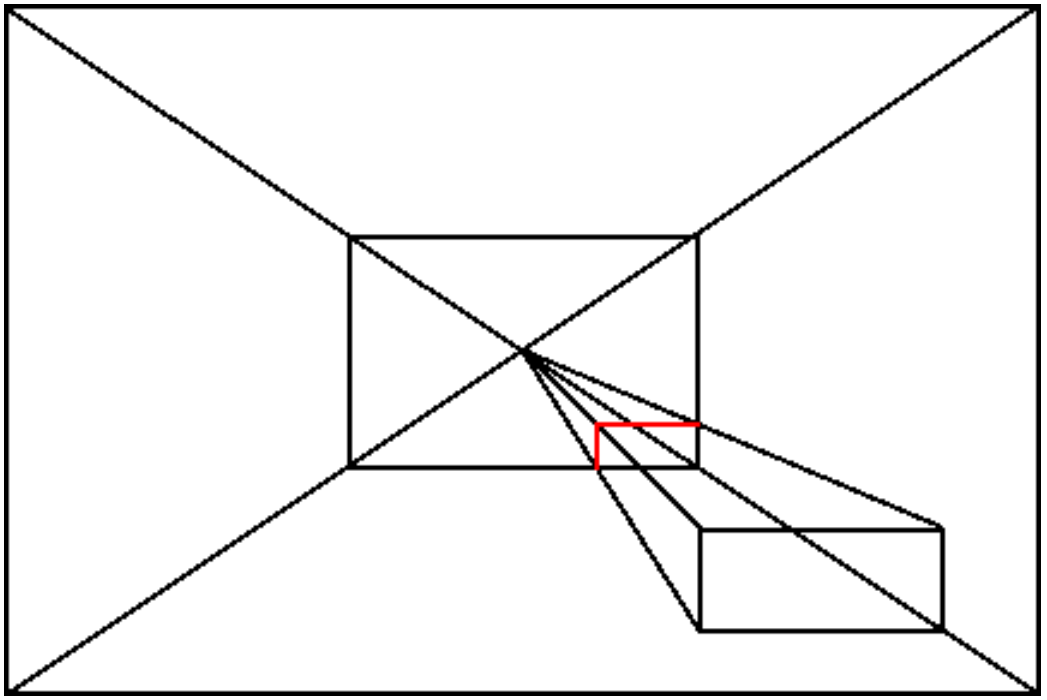
Bed

- The vertical red line between the orthogonal shows where the side of the bed ends. If you wanted to make the bed shorter, you would place the vertical line closer to the viewer, the front side of the bed. The bed could not be any longer because it is already up against the back wall.



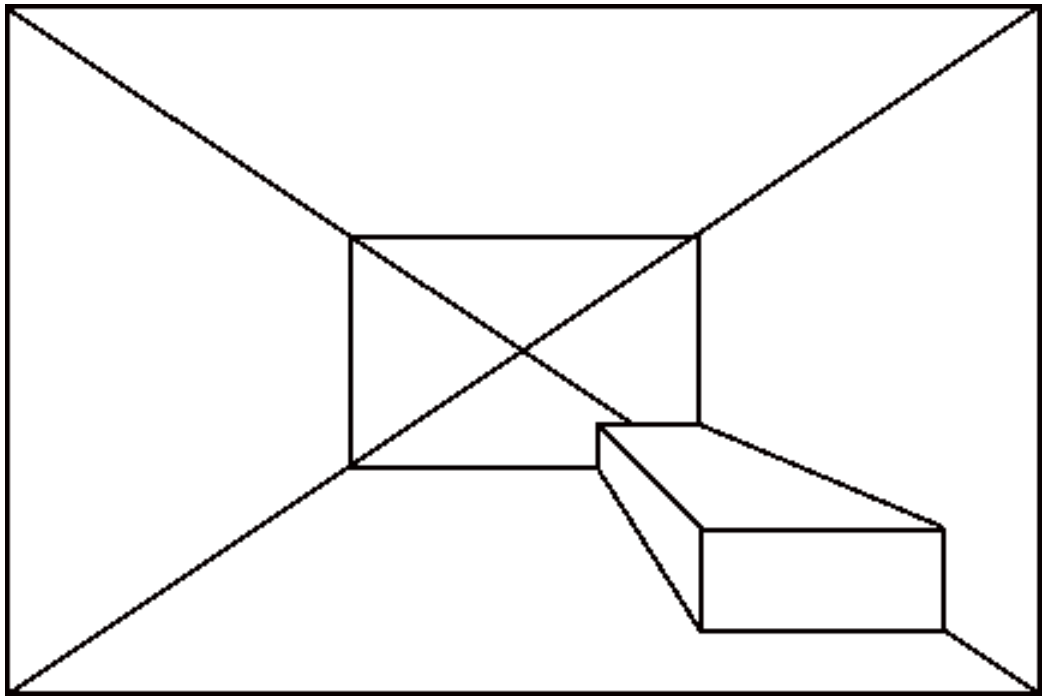
Bed

- The horizontal red line shows where the top of the bed ends. It meets the vertical red line at a right angle. Both red lines show that the bed ends right up against the back wall. If the red lines where any closer to the vanishing point, the bed would look as though it went into the back wall.



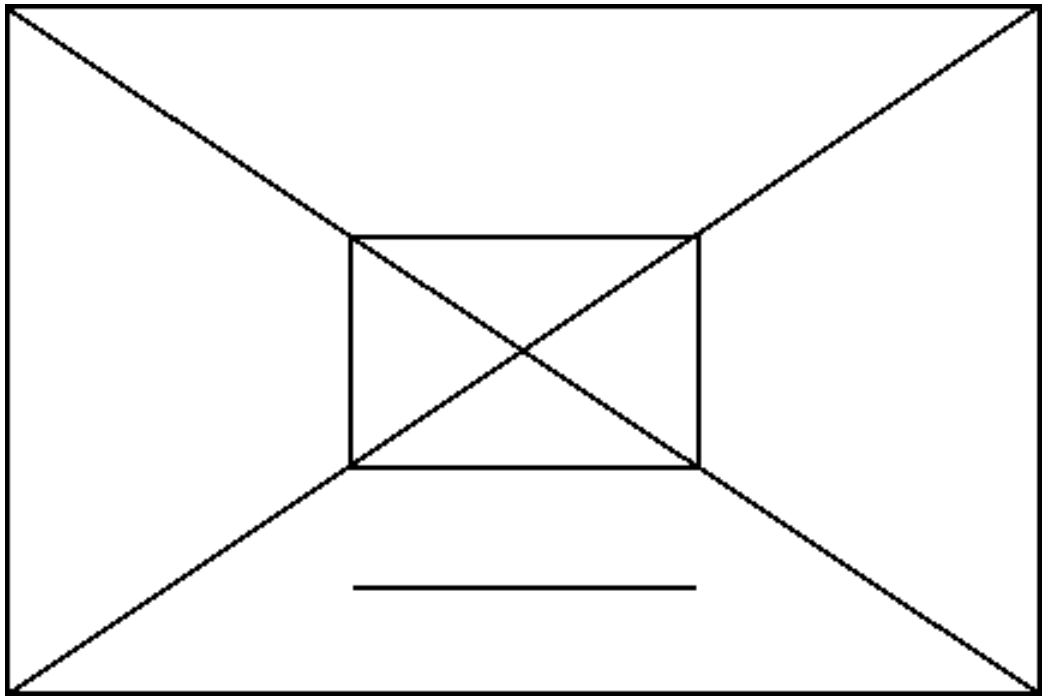
Bed

- When the orthogonal that are not part of the bed are erased the bed is complete. Now you can add blankets and pillows. You may want to try to make a bunk bed by adding a second bed over the first.



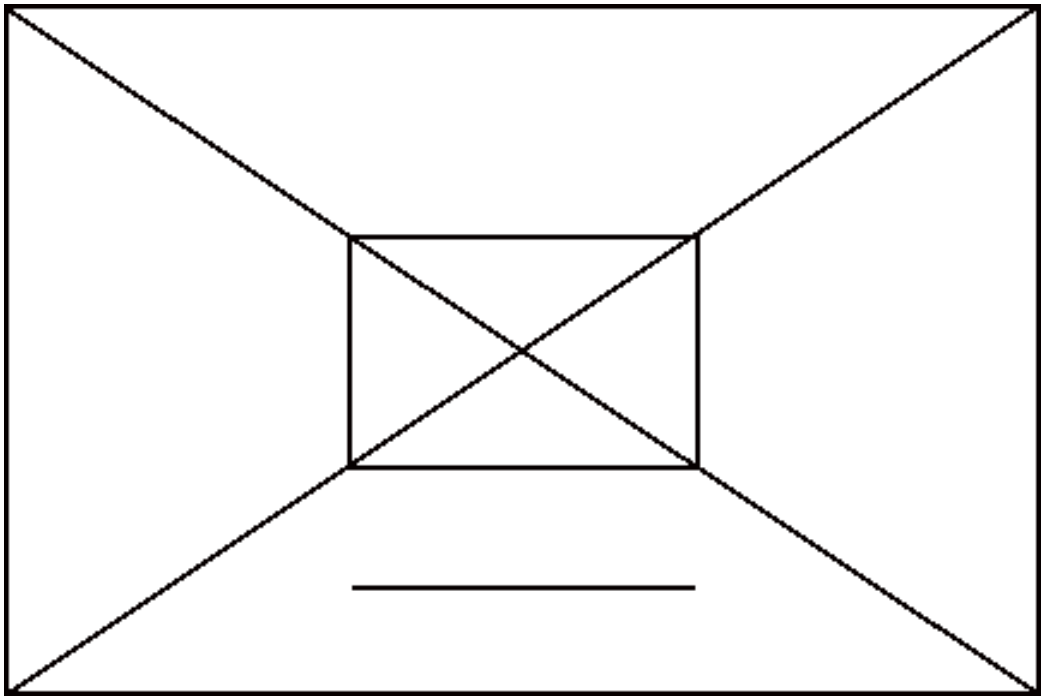
Table

- The animation on the right shows how to draw a table in one-point perspective. To see a step-by-step explanation, click on the table. You may also click on the Next hyperlink below the drawing.



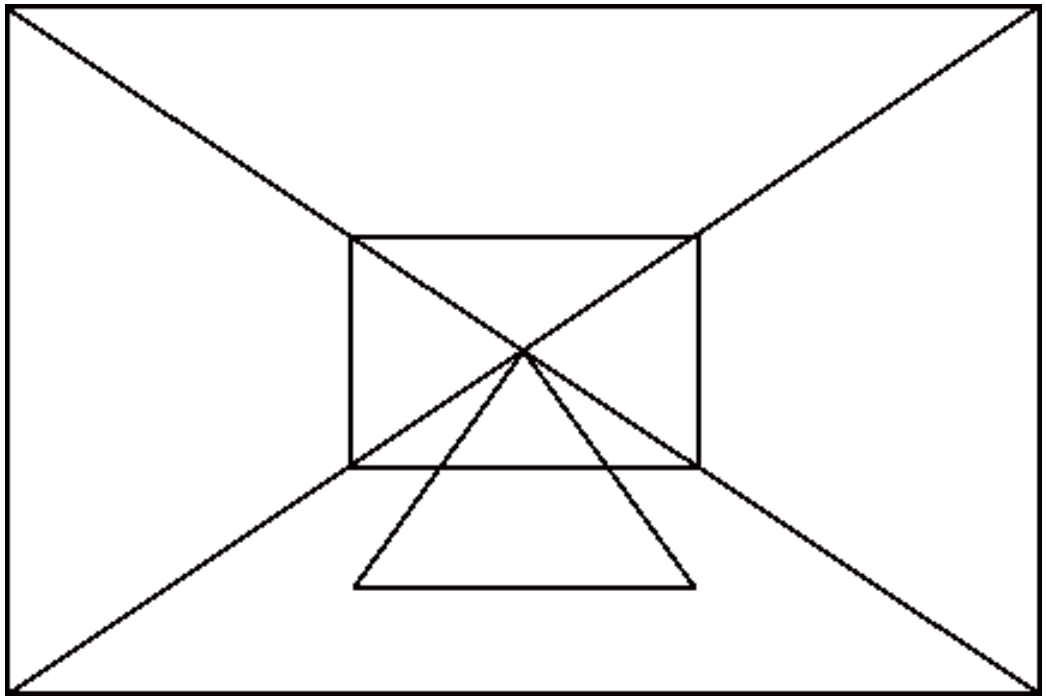
Table

- This table, just like the rug, starts with a horizontal line in the middle of the floor. The horizontal line shows the edge of the top of the table closest to the viewer.



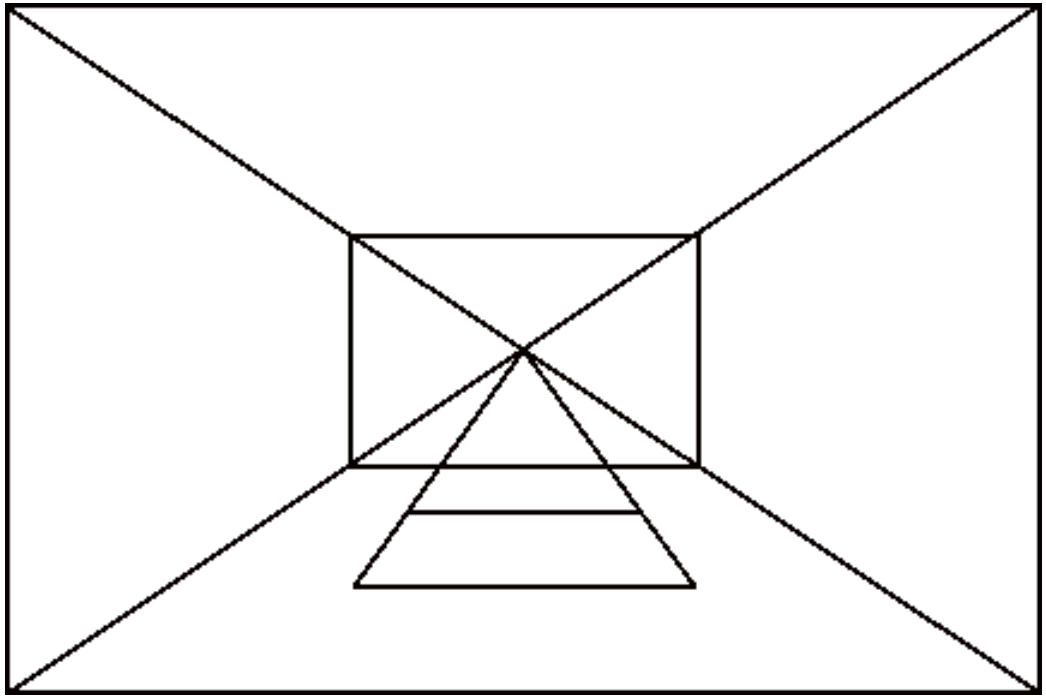
Table

- The sides of the top of the table are orthogonal lines that go from the ends of the horizontal line to the vanishing point.



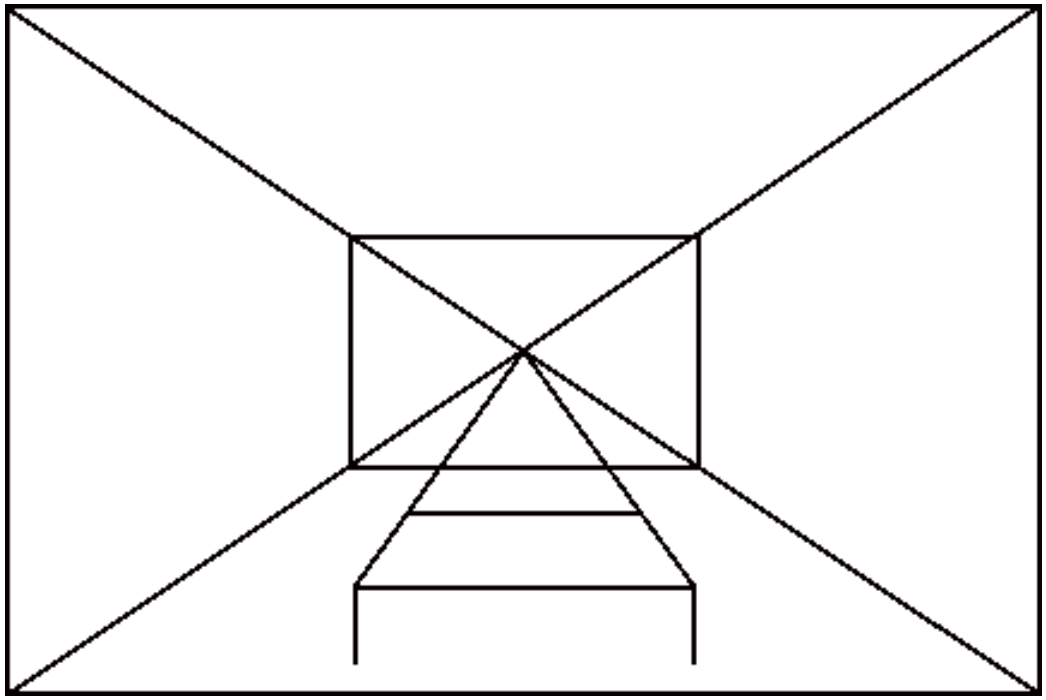
Table

- The back of the table, like the back of a rug, is a horizontal line drawn between the two orthogonal that show the side of the table. It looks just like a small rug.



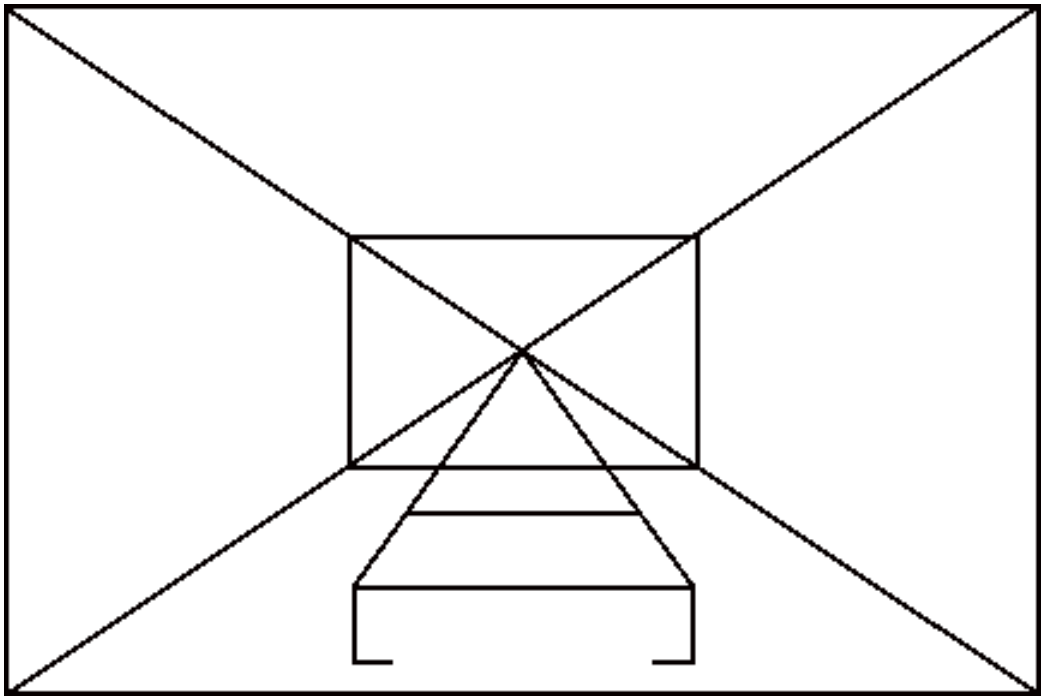
Table

- The vertical lines on the ends of the top of the table near the viewer are the start of the legs of the table. The longer the vertical lines the higher the table. Is this going to be a dinner table? Why?



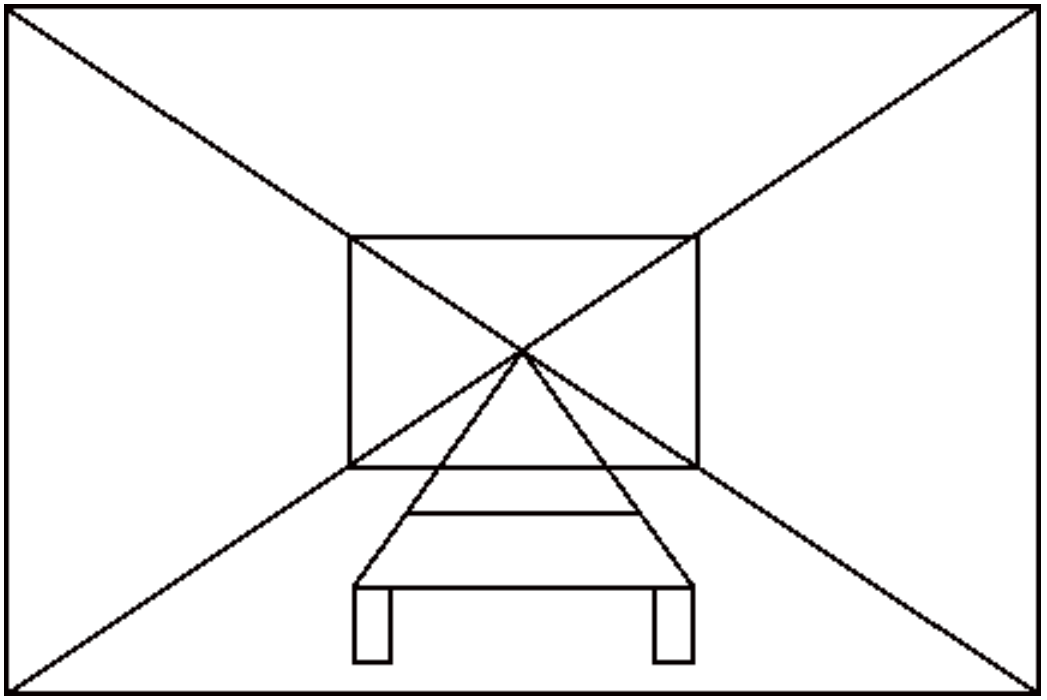
Table

- The two short horizontal lines near the bottom of the page show where one end of the table touches the ground. The longer the lines the wider the table's legs. We do not see the table's back legs because they are hidden by the top of the table. How would they be different from the front legs?



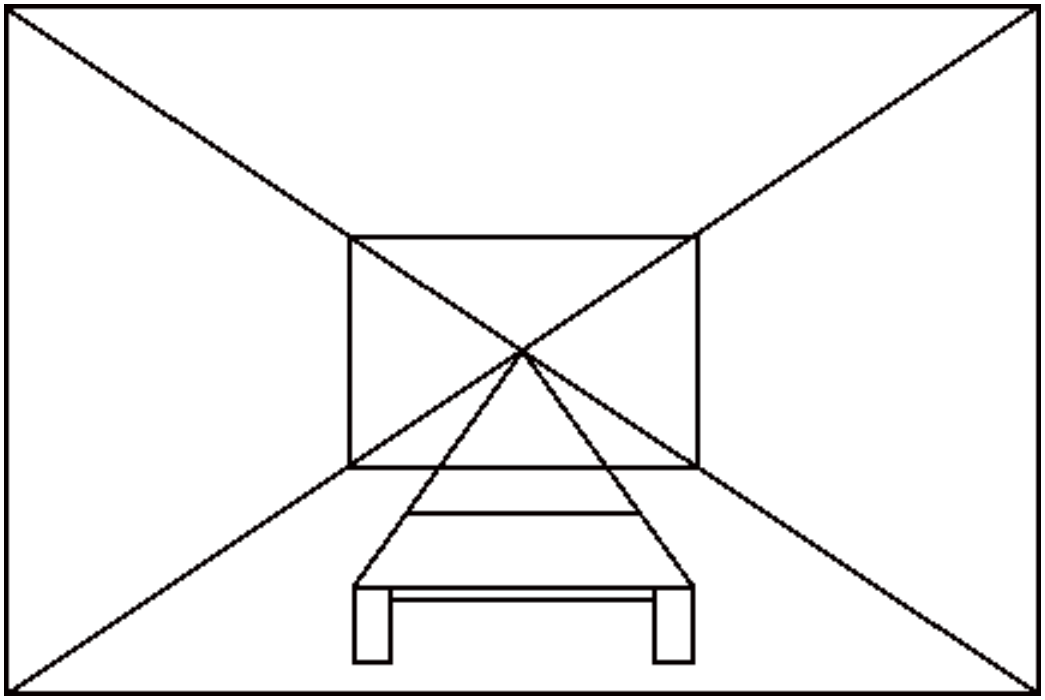
Table

- The vertical lines from the bottom of the table leg, where it touches the ground, to the top of the table completes the front of each table leg. The legs look like rectangles now. We would add depth to them soon.



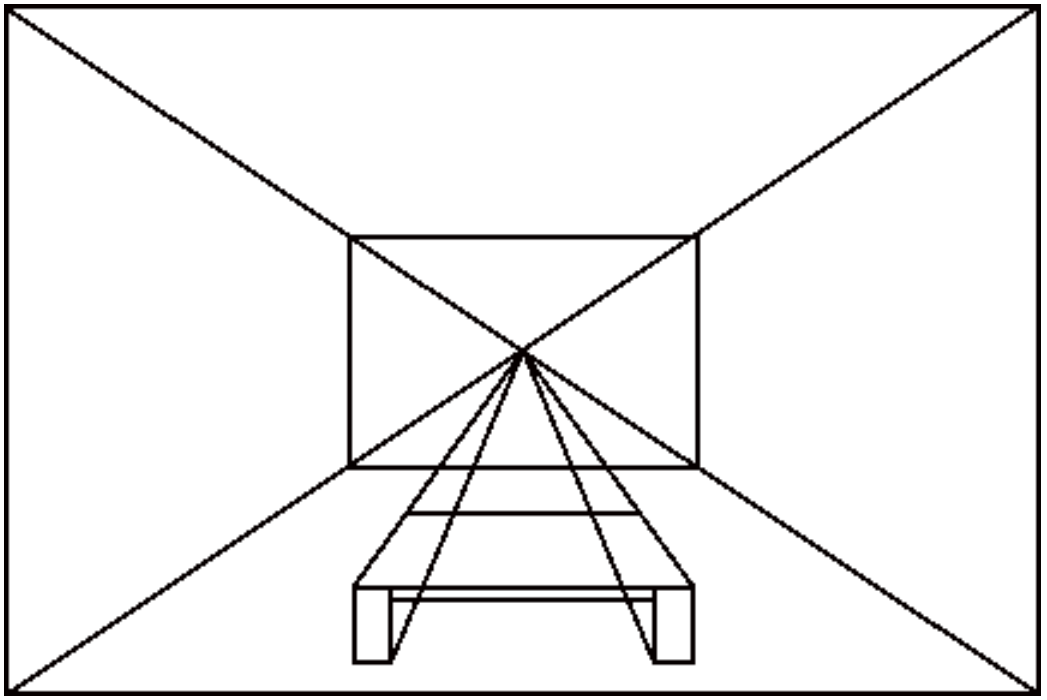
Table

- We will add depth to the table's legs after we draw a horizontal line that shows the edge of the table. That line is between the table's legs and is parallel to the top of the table. Once drawn, you see that the table has an edge.



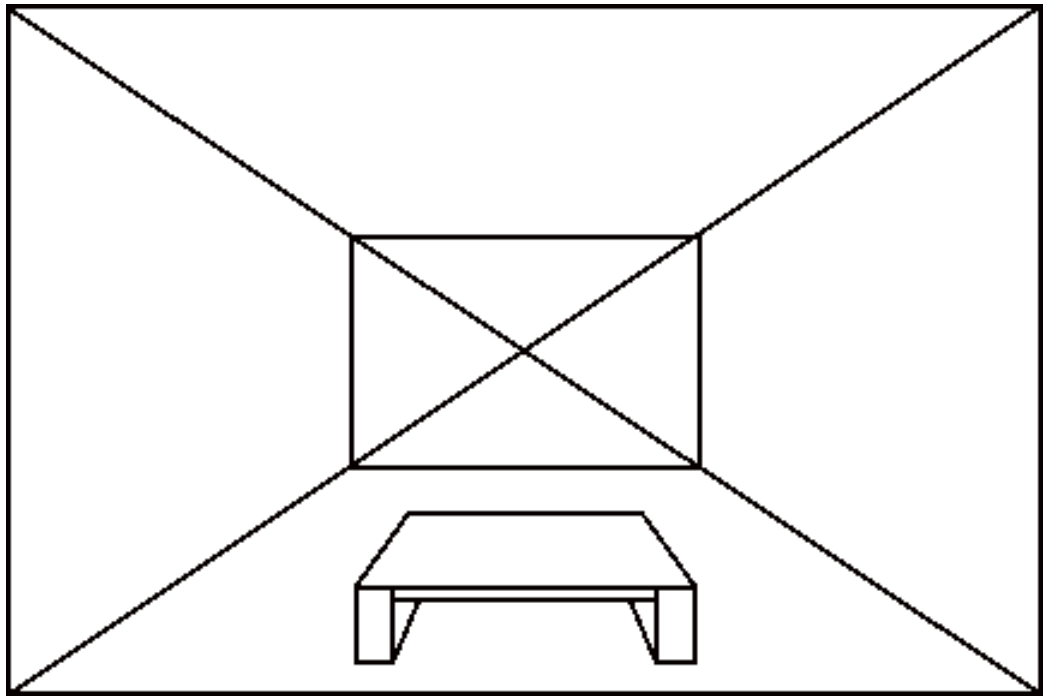
Table

- The table's legs are completed by an orthogonal that starts on the inside corner of a leg and goes to the vanishing point. This orthogonal would also show where the back legs, if they were drawn, would end. If this table were higher we would see the ack legs.



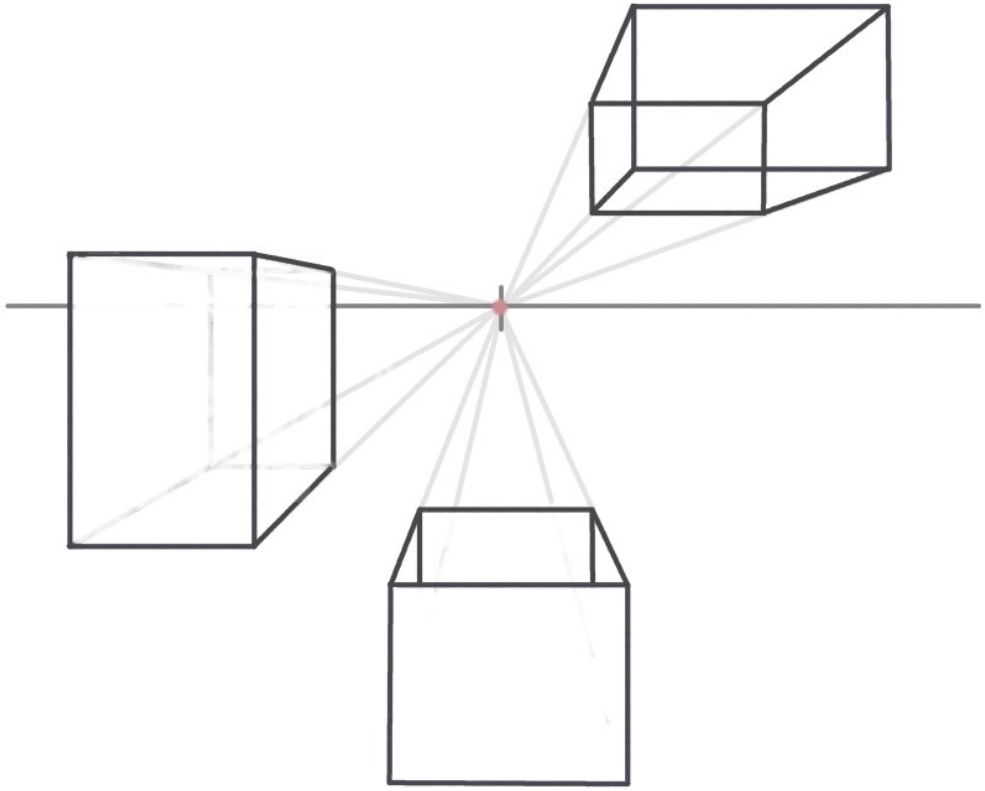
Table

- When the orthogonal that are not part of the table are erased the table is completed. If you drew the table rotate the paper ad see what it looks like if the table is on the wall or ceiling. Try putting a TV on the table. Try starting a table that is higher or is on one side of the room. You can also try drawing a table by starting with the legs.



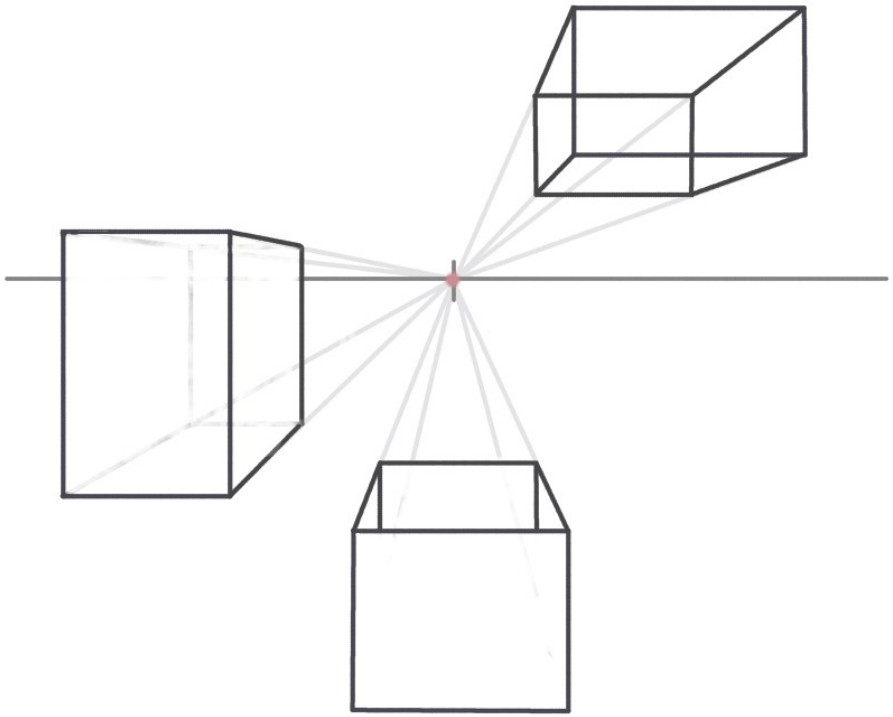
Perspective

Perspective is an Art word for making something look 3-dimensional… also called 3-D



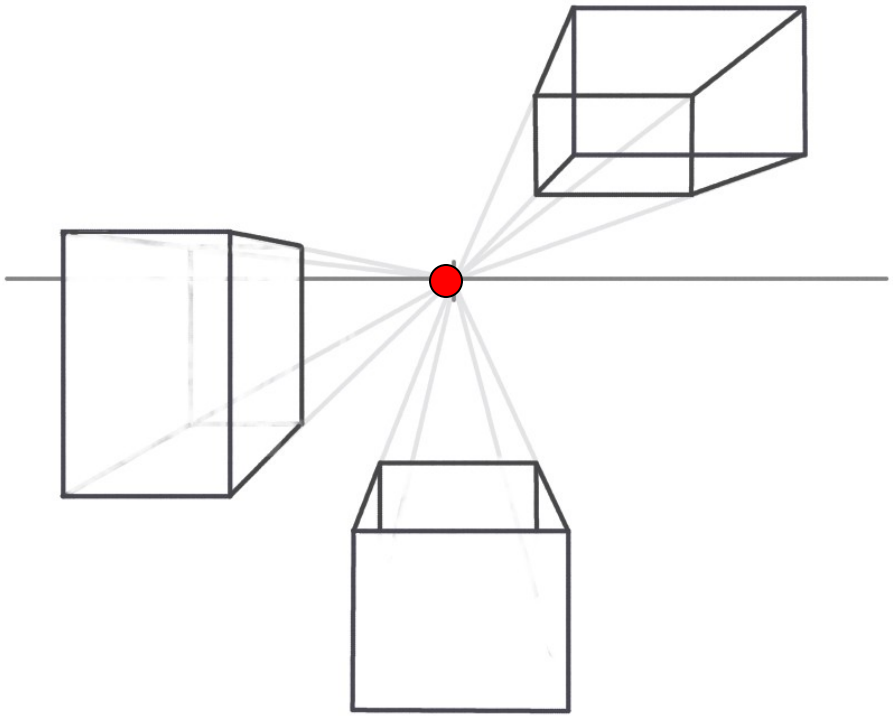
Perspective

The spot where the objects disappear to
is called the “Vanishing Point”



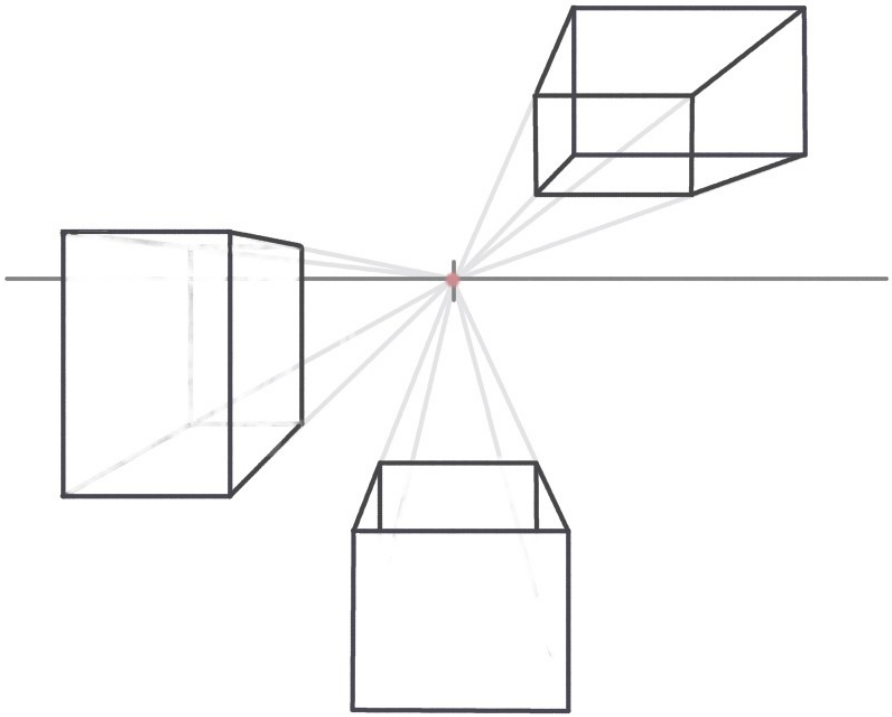
Perspective

The spot where the objects disappear to
is called the “Vanishing Point”



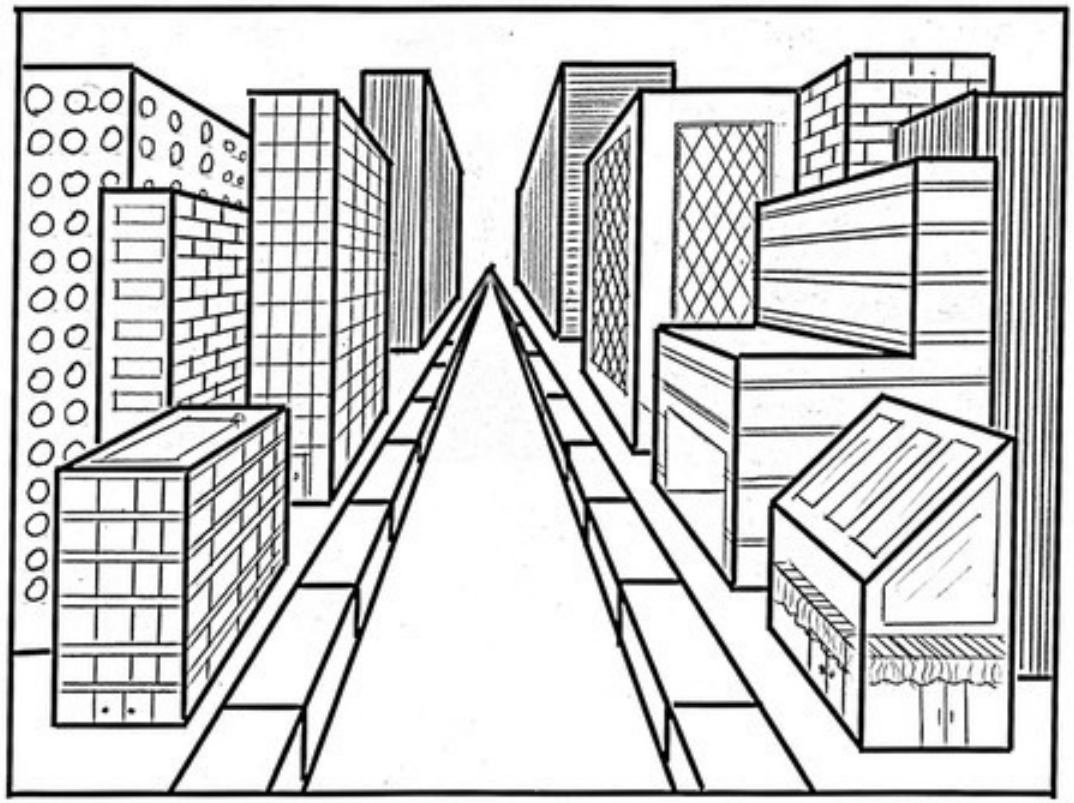
Perspective

To make objects show perspective, you first draw the objects normal… then you add lines from each corner that disappear when they hit the vanishing point.



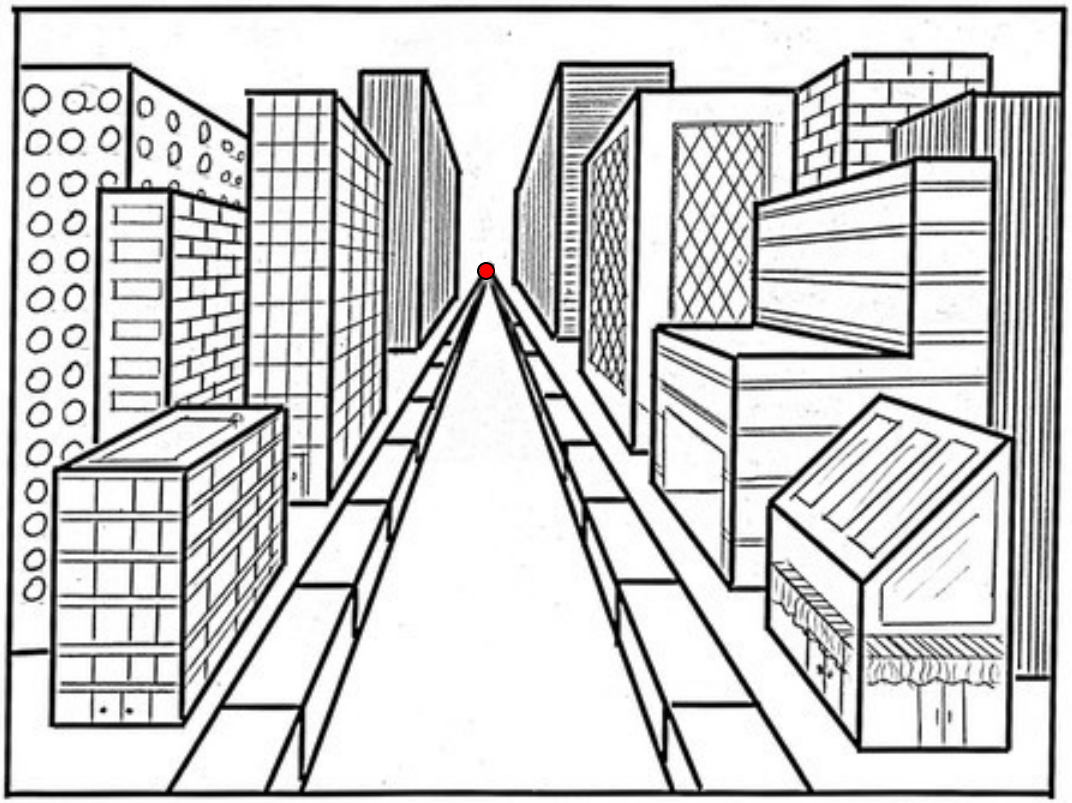
Perspective

Can you find the vanishing point in this picture?



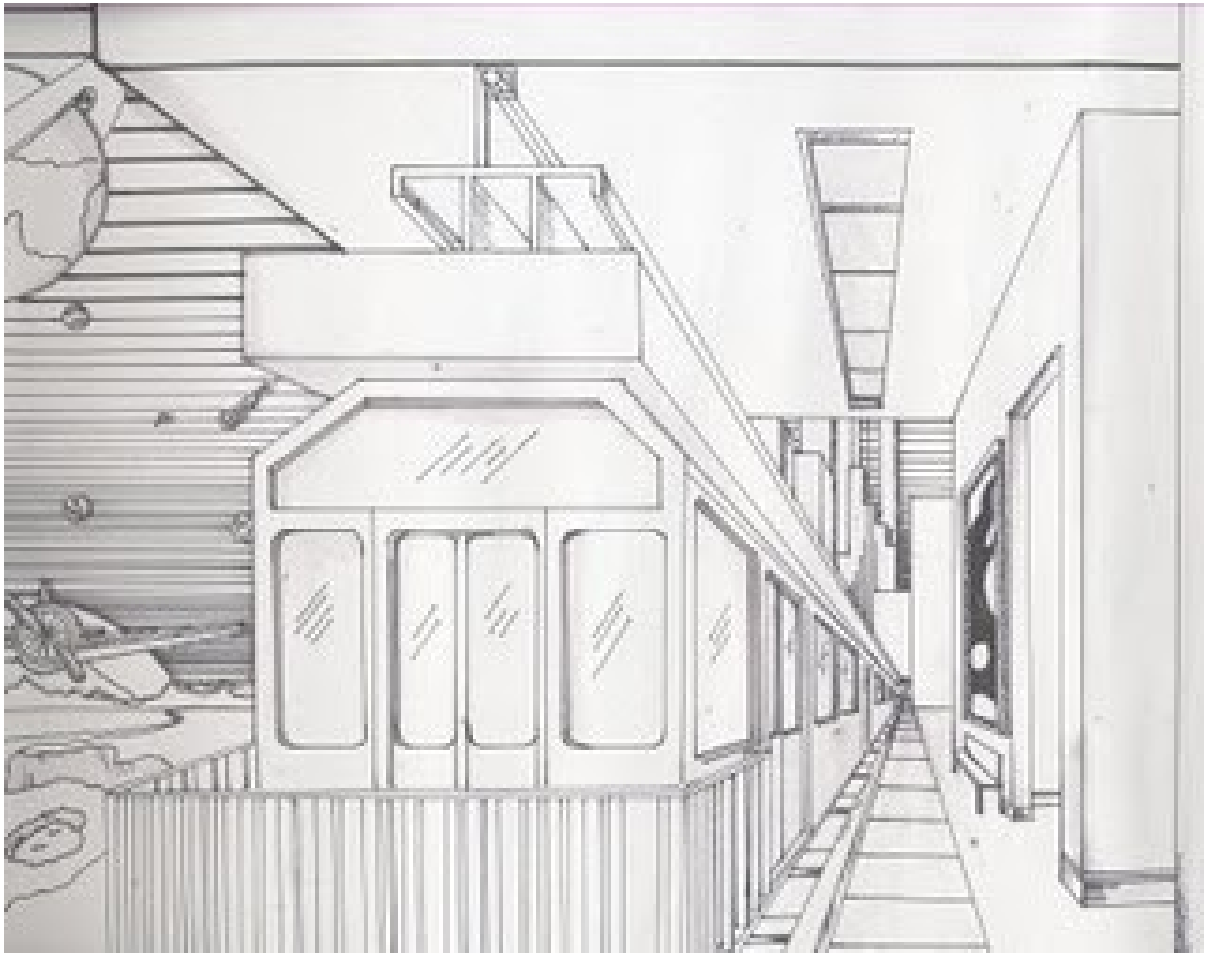
Perspective

Can you find the vanishing point in this picture?



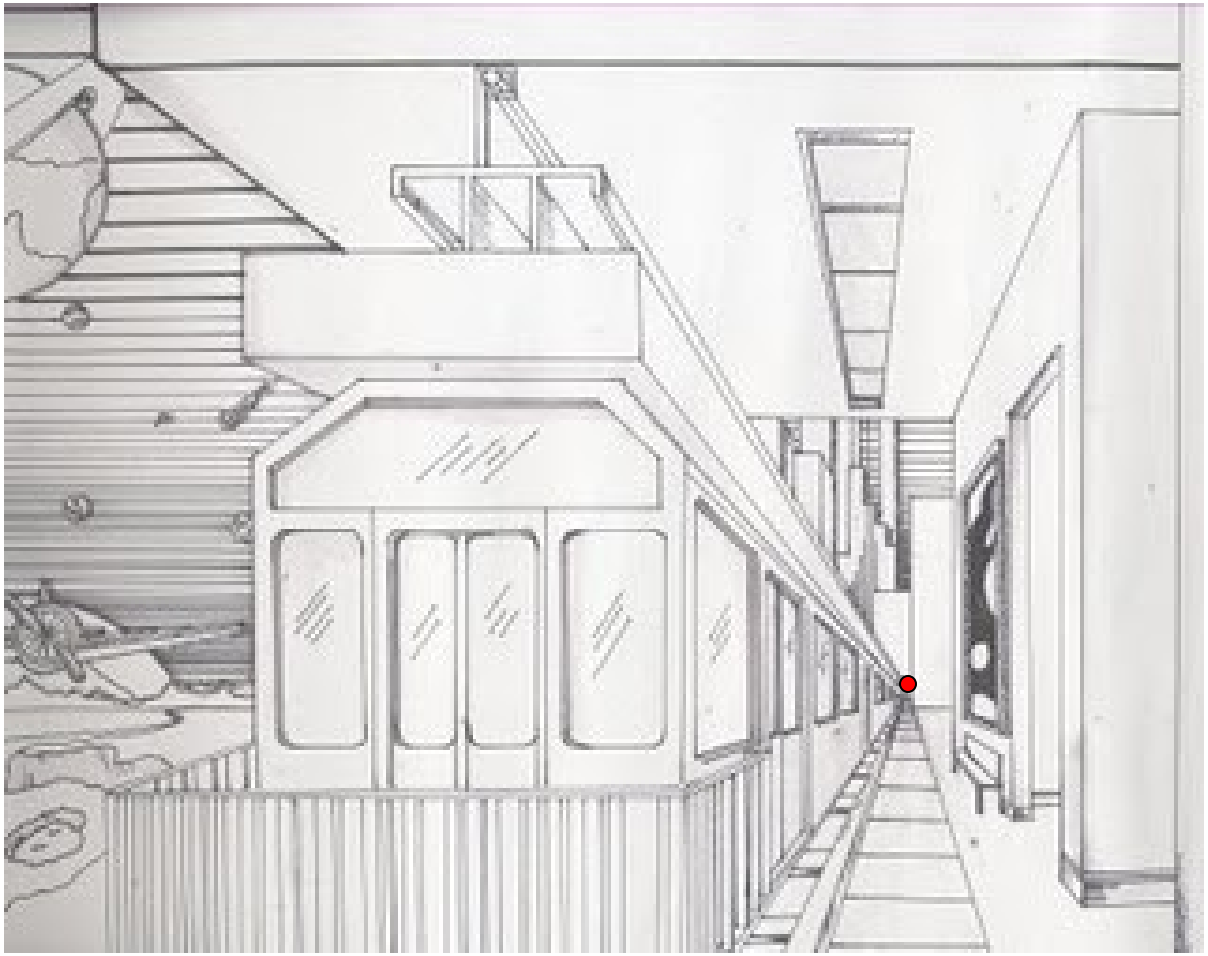
Perspective

Can you find the vanishing point in this picture?



Perspective

Can you find the vanishing point in this picture?



Perspective

Can you find the vanishing point in this picture?

Perspective

Can you find the vanishing point in this picture?

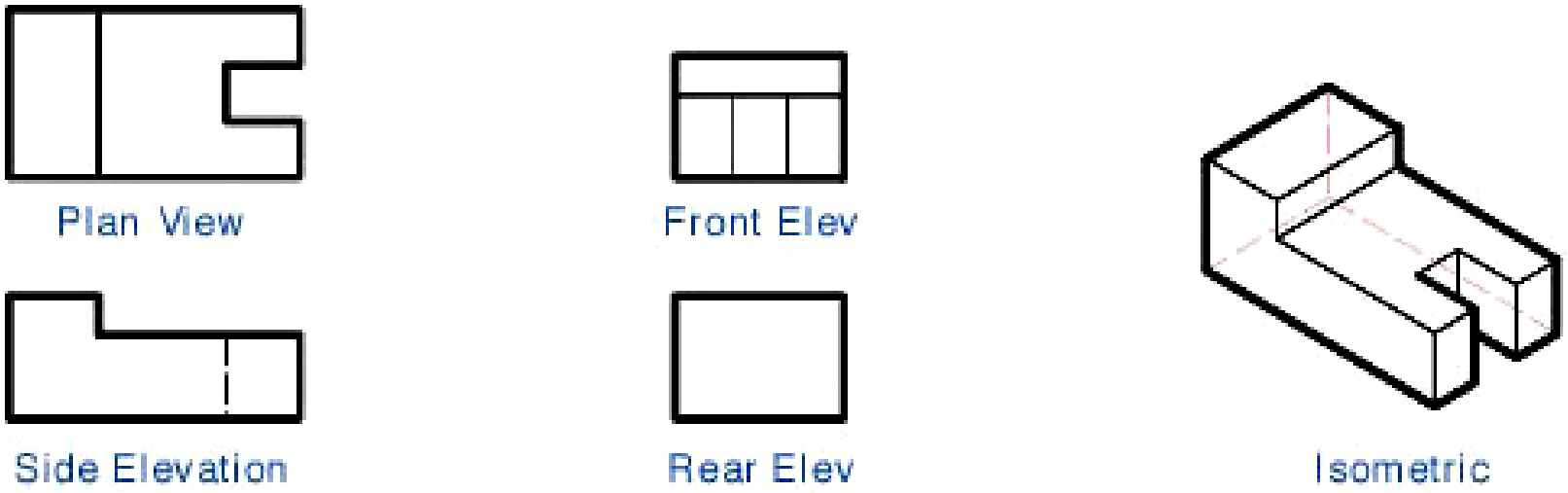
2-Point perspective drawing

2-Point perspective drawing

we are going to create a 2 Point Perspective view drawing of our subject working from plan and elevation view

STEP I

Fig 1

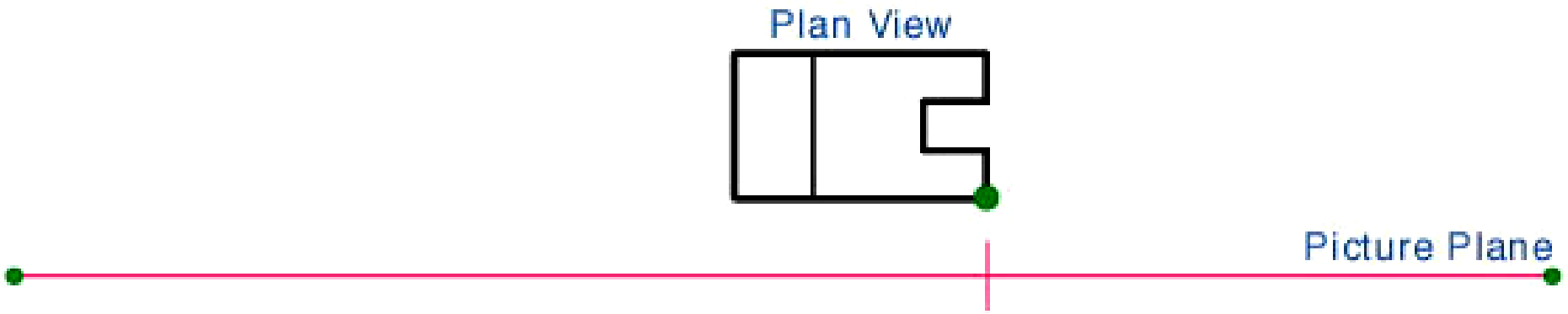


2-Point perspective drawing

STEP 2

The first line to draw will be the Picture Plane

Fig 2

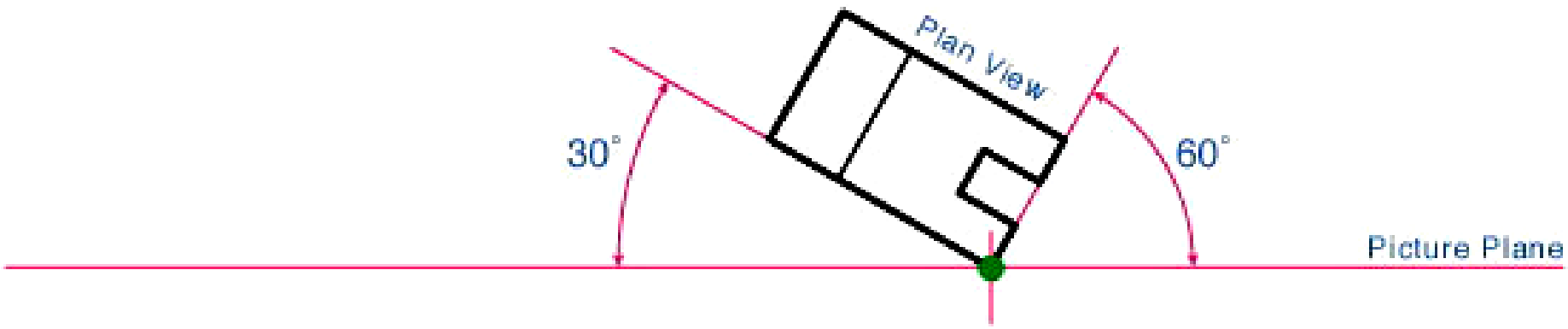


2-Point perspective drawing

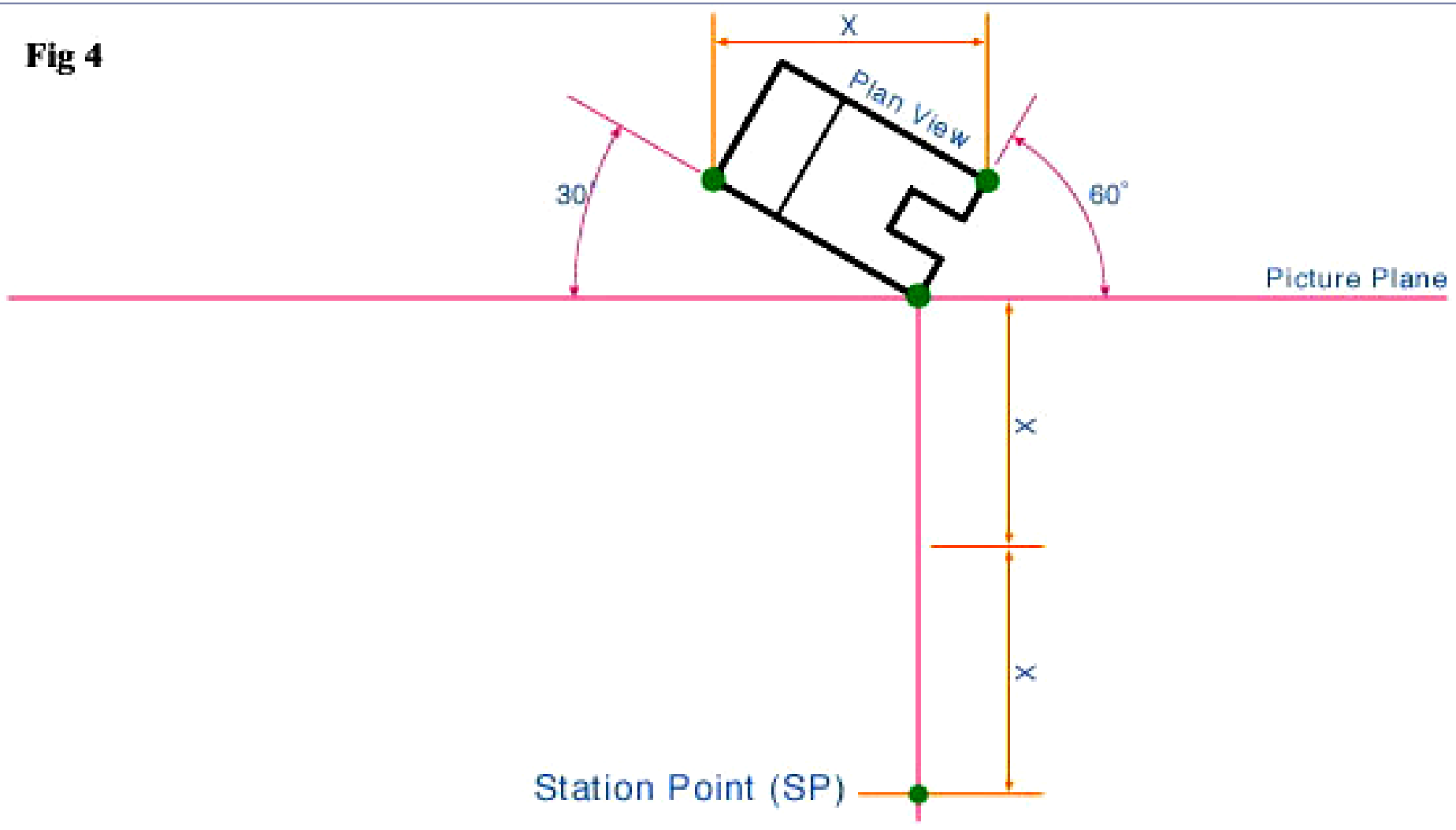
STEP 3

Place the lower right corner of Plan View on the PP and rotate it clockwise. The choice of 30° is arbitrary, but should provide a good view

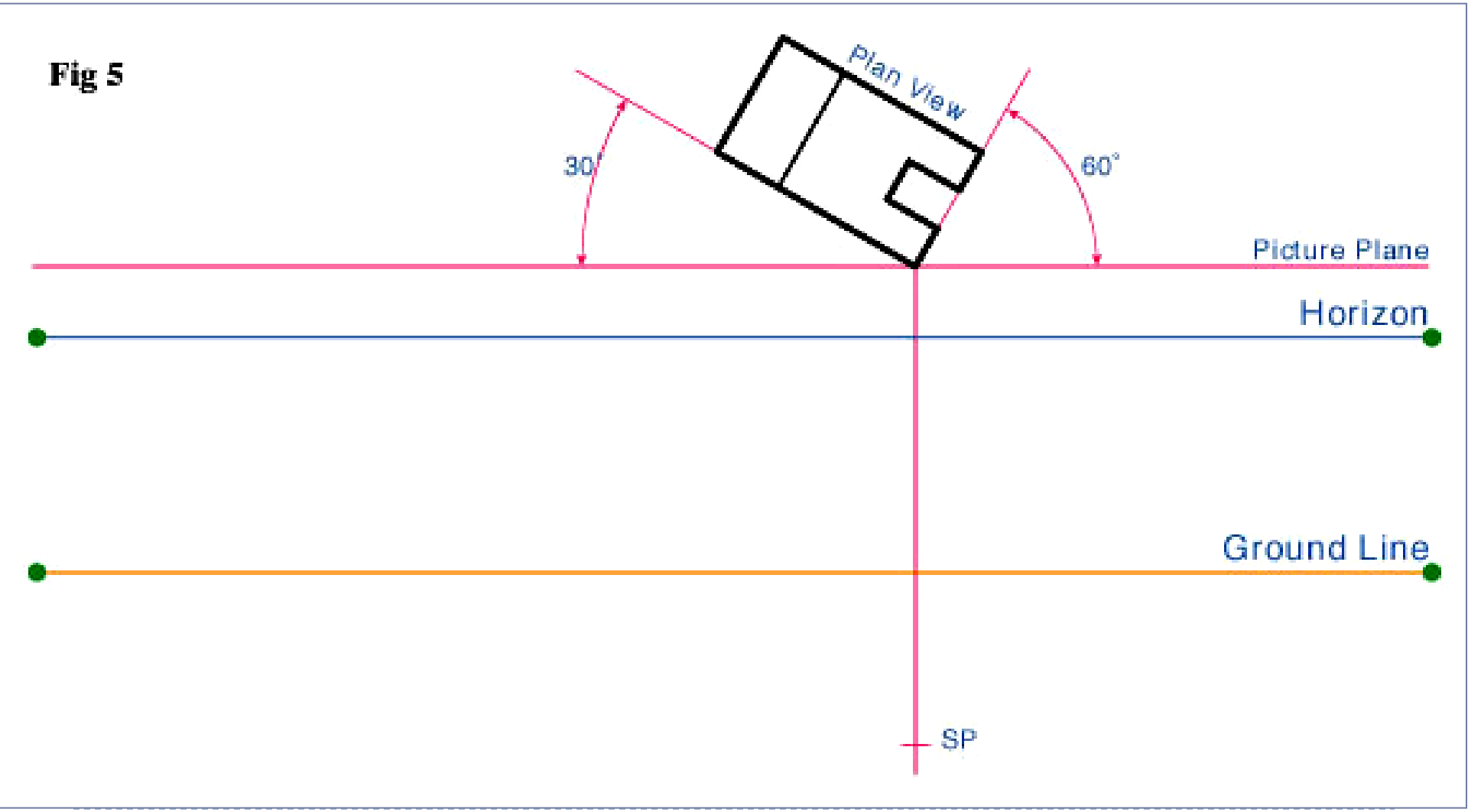
Fig 3



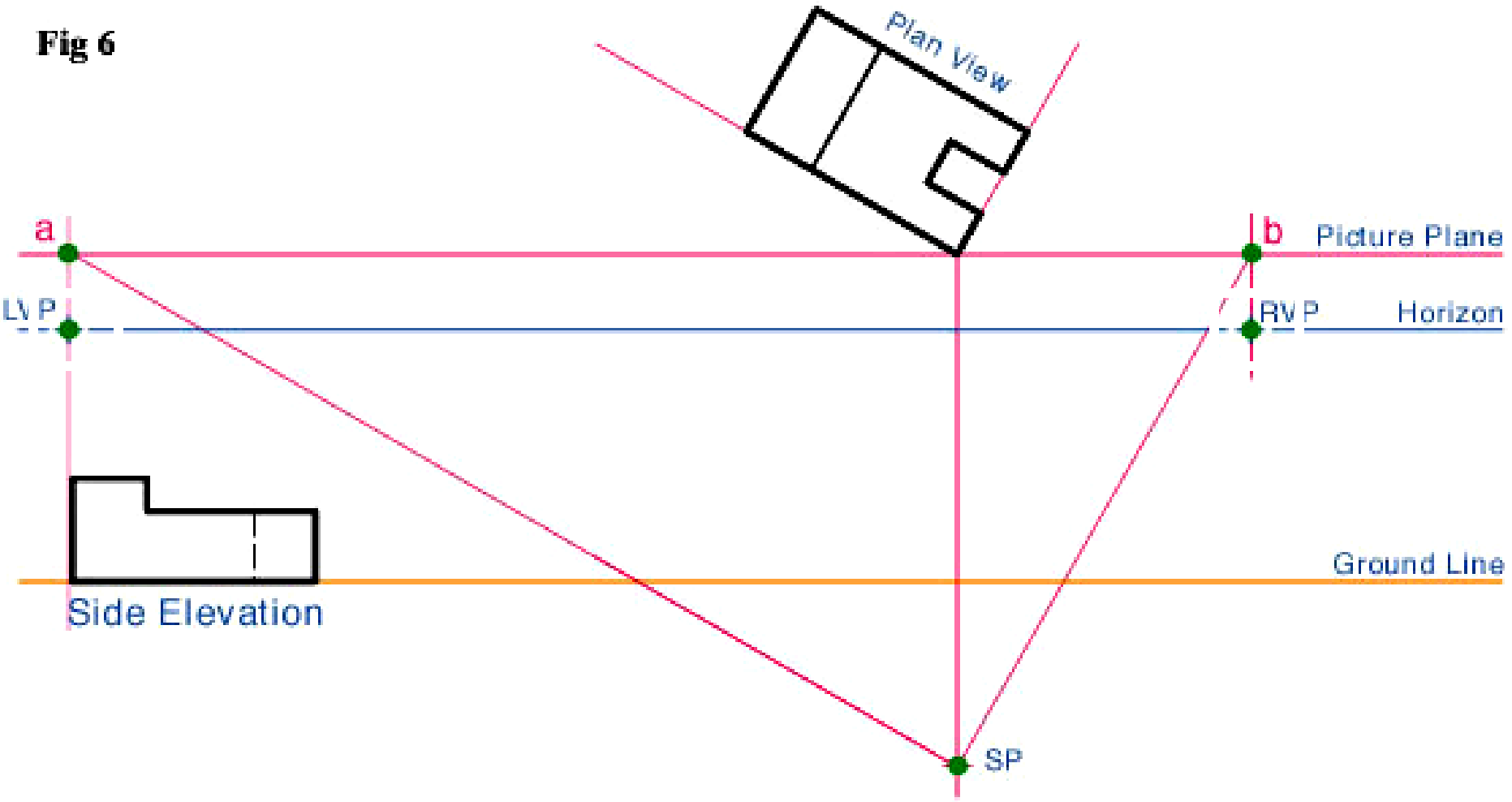
2-Point perspective drawing



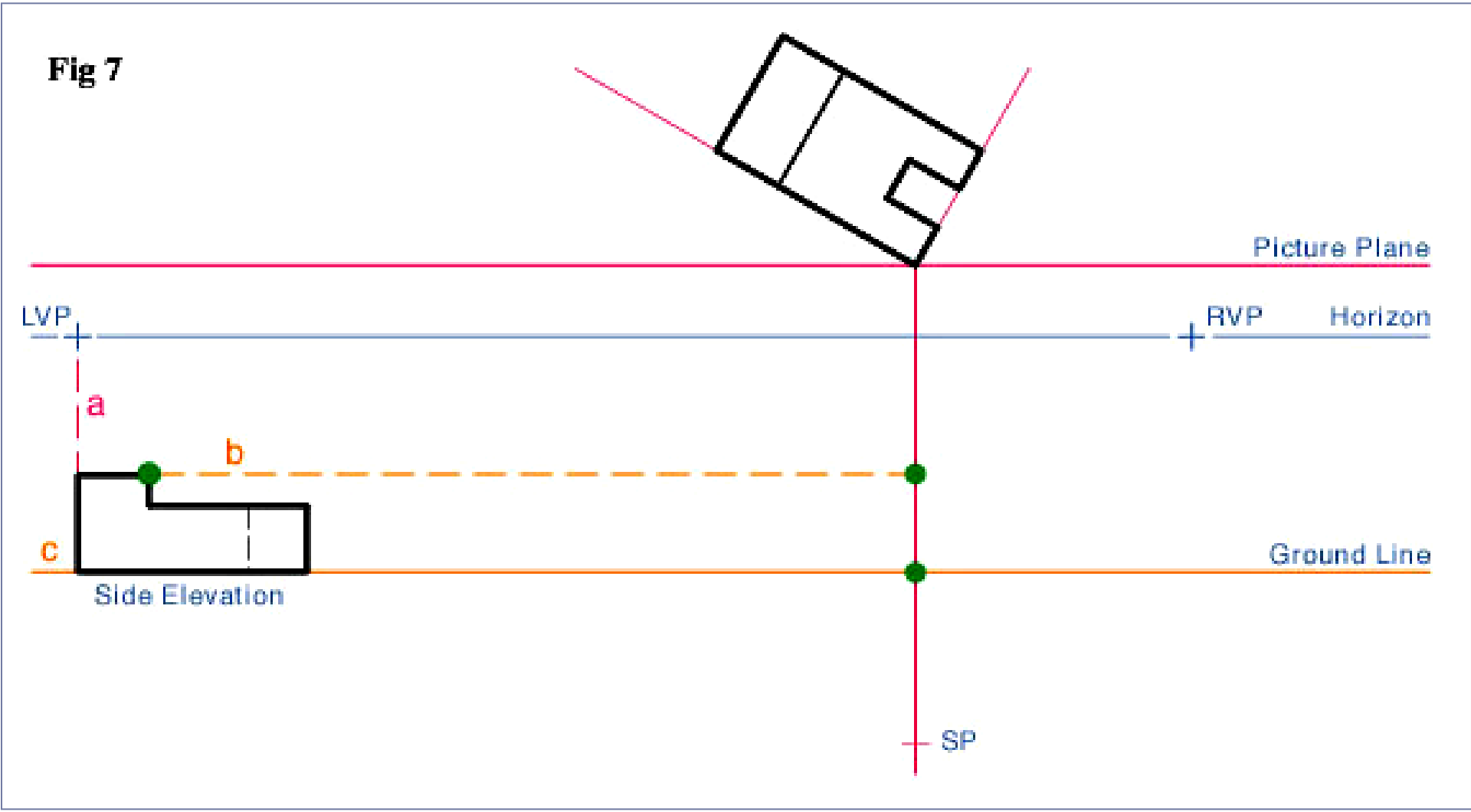
2-Point perspective drawing



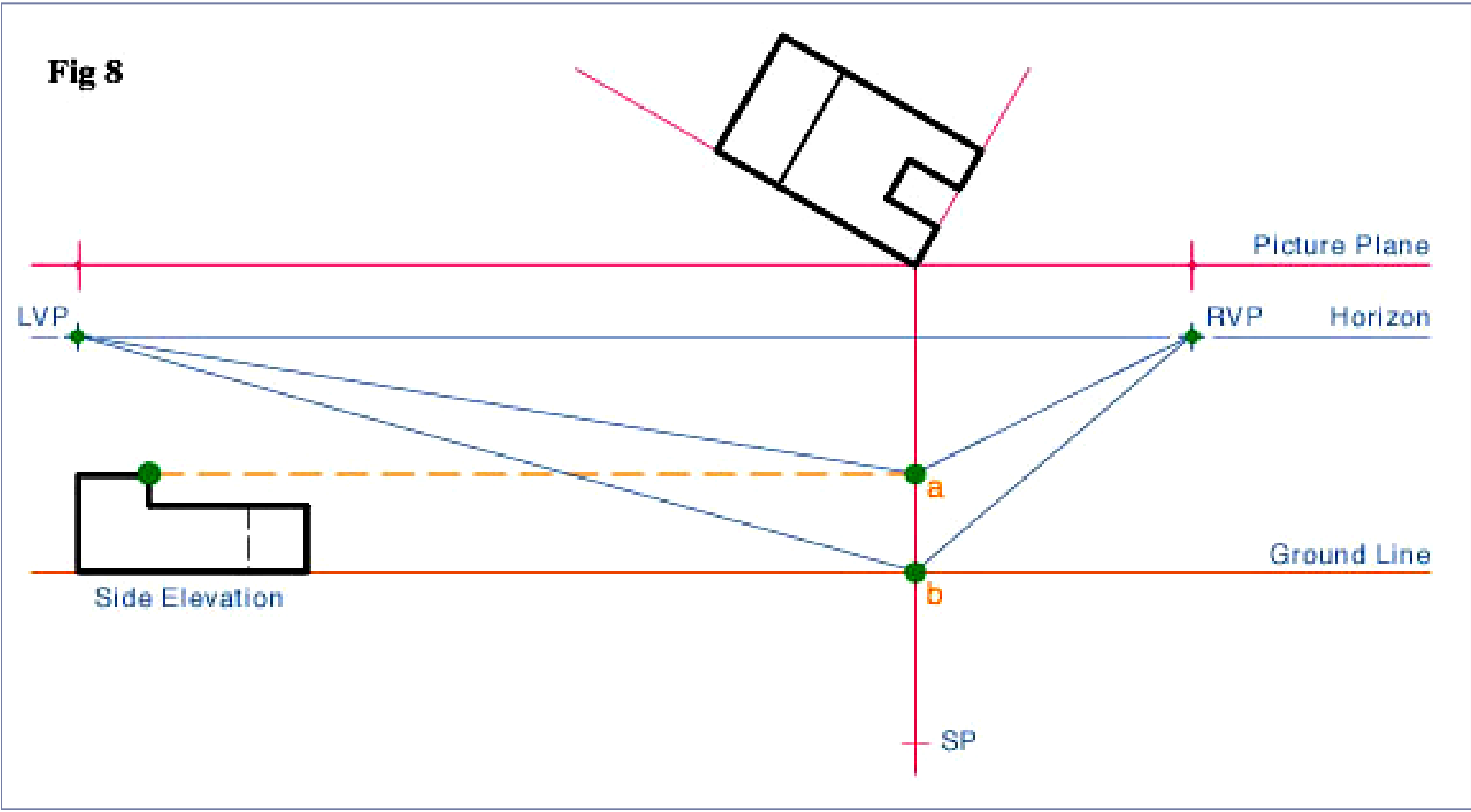
2-Point perspective drawing



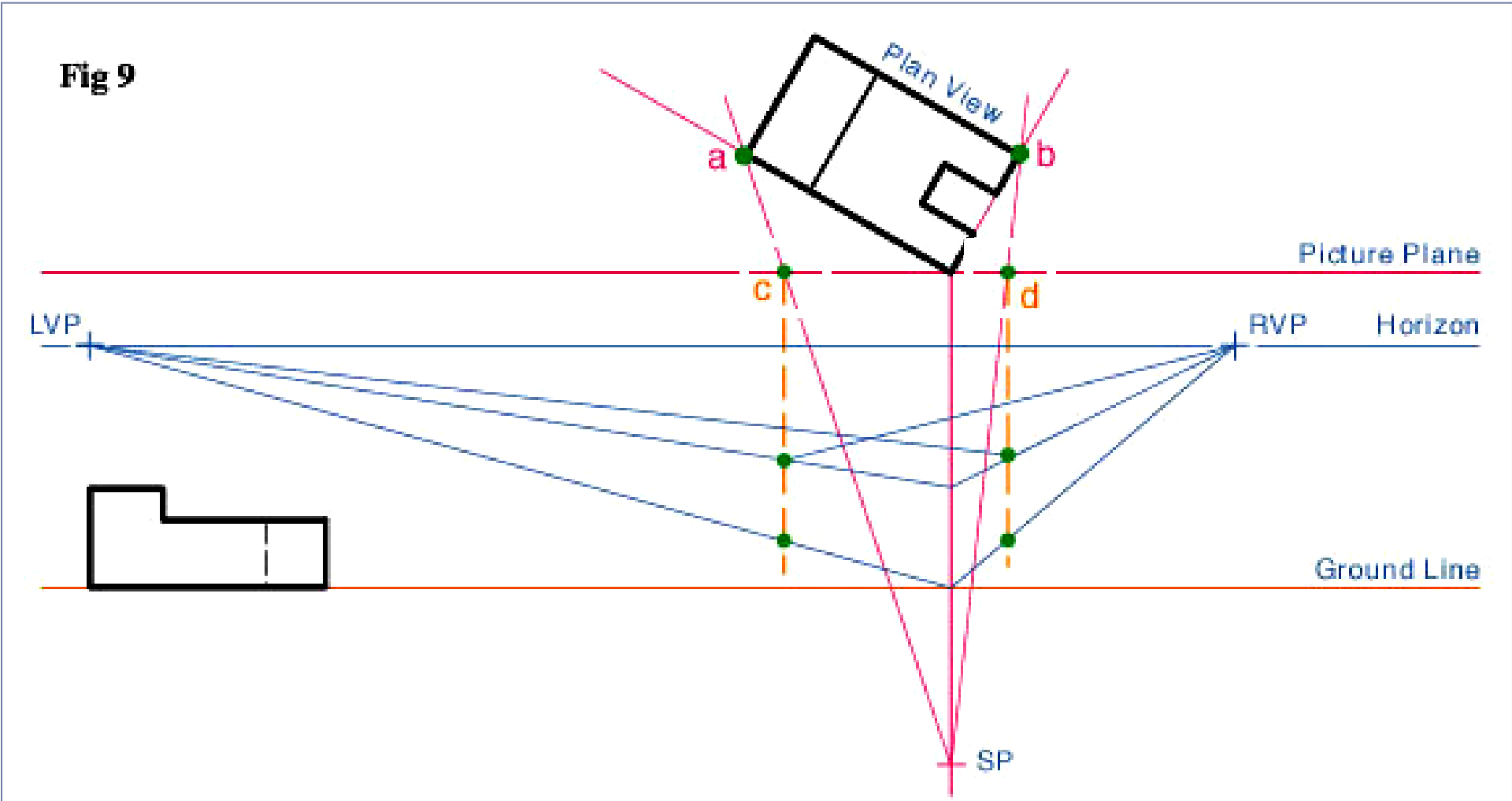
2-Point perspective drawing



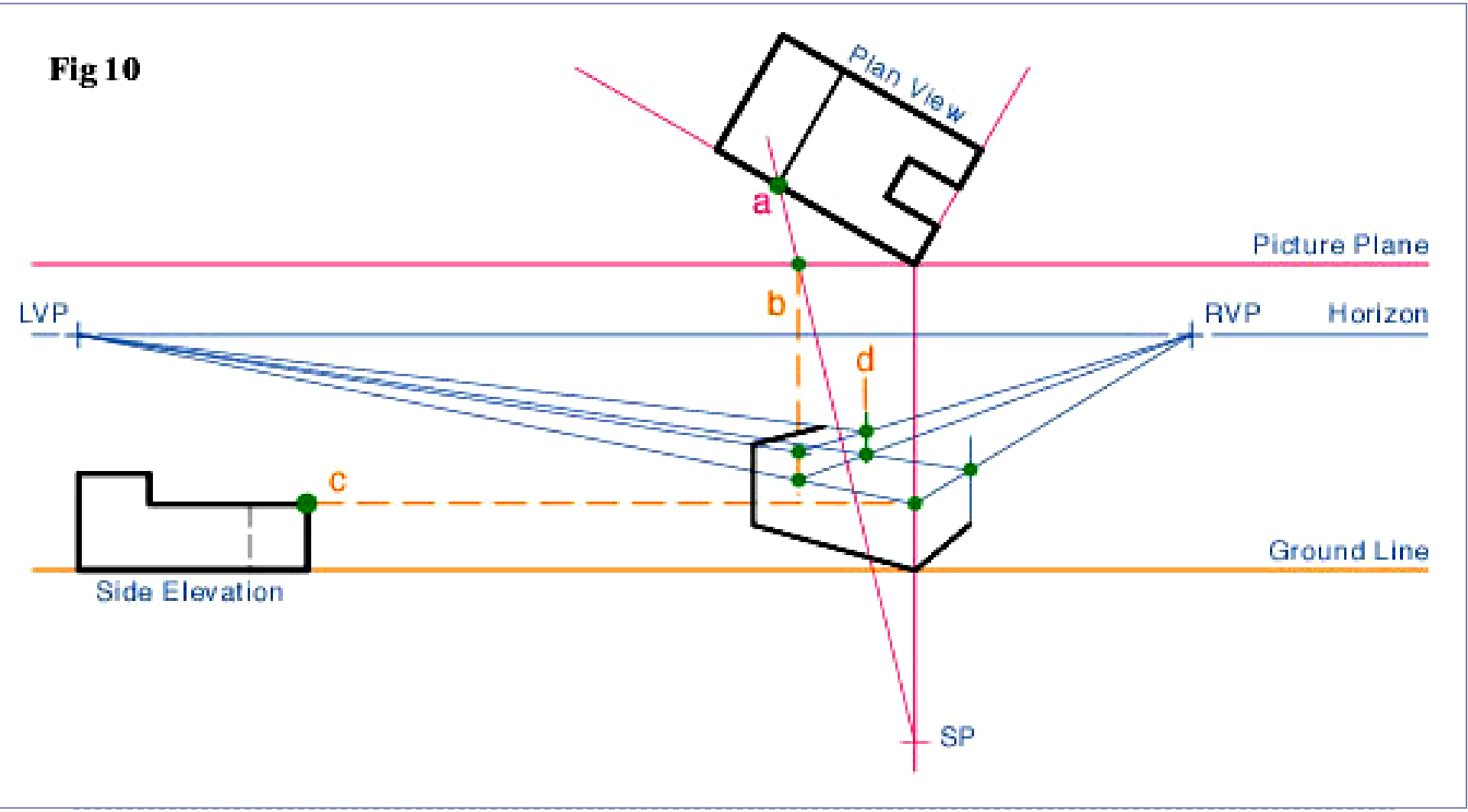
2-Point perspective drawing



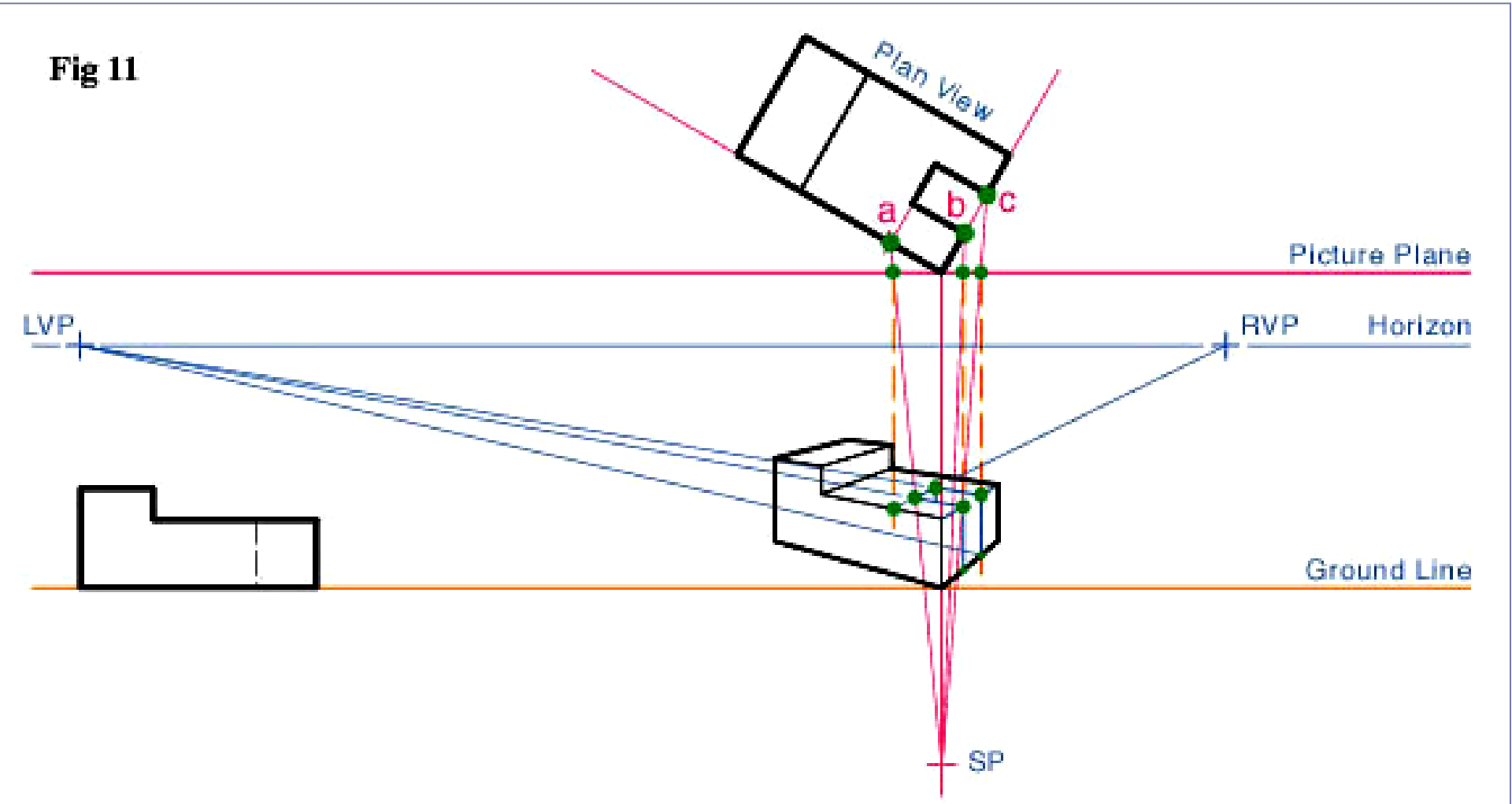
2-Point perspective drawing



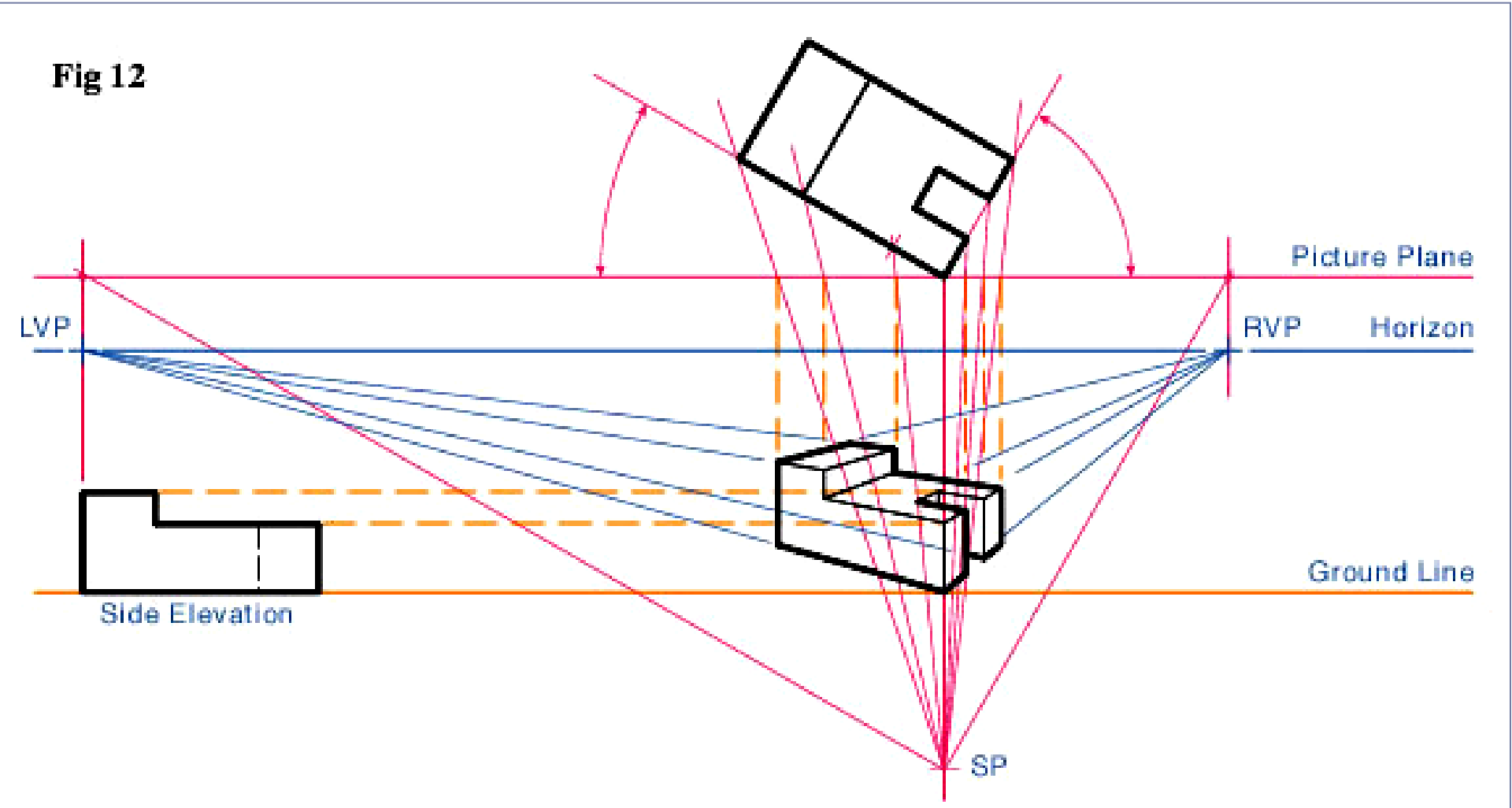
2-Point perspective drawing



2-Point perspective drawing



2-Point perspective drawing



Thank you ☺