AL13

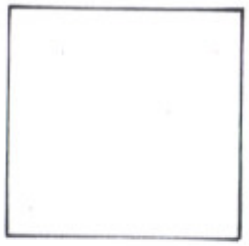
Walter Foster

# PERSPECTIVE

By William F. Powell

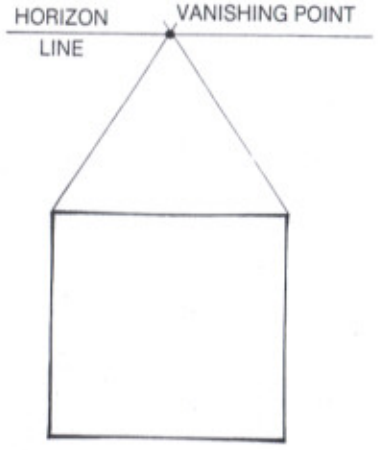
WALTER FOSTER Publishing

## Drawing a Cube in One-Point Perspective



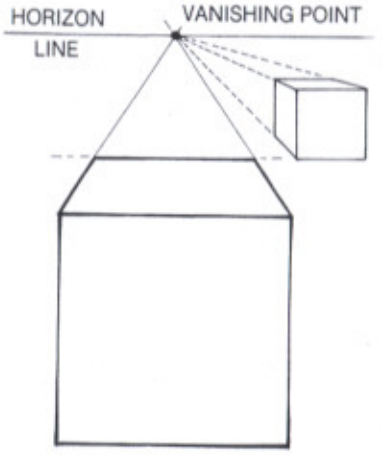
**Step 1.** Lightly sketch the general shape of the face of the cube.

**Step 2.** Lightly draw the two angle lines along the top until they cross.




**Step 3.** At the point where they cross, draw a horizontal line parallel to the top and bottom lines of the cube. This is the horizon line.

Now, place a vanishing point where the lines cross. (This is the way to find the horizon line and vanishing point using the angles from an object — a cube, a table, et cetera.)

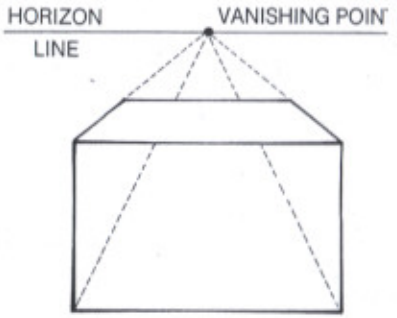



**Step 4.** Draw a parallel line between the horizon line and the top of the cube. This establishes the top surface of the cube. Darken the lines. Here is a cube drawn in perfect one-point perspective.

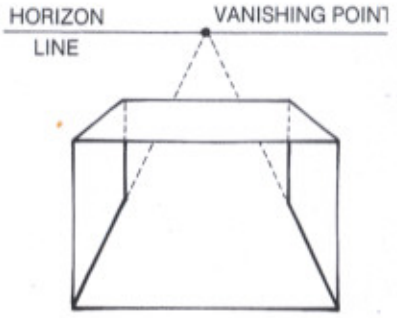


## Drawing the Inside

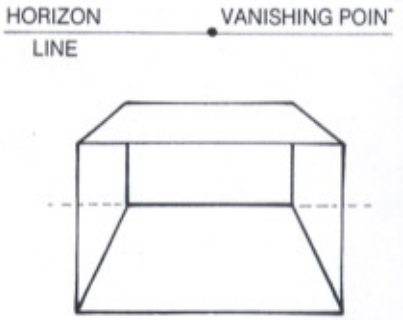
**Step 1.** Here is a box that will appear to be open with the front off. By extending lines from the left and right corners to the vanishing point, we establish lines for the floor and side walls.



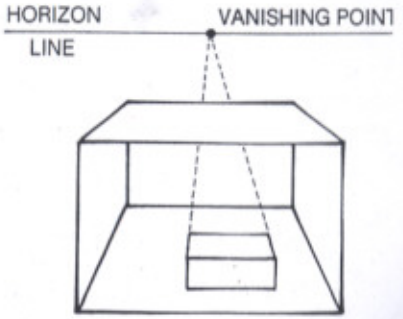

**Step 2.** Draw vertical lines down from the back left and right corners. The width of the back wall is now established. Darken the lines as shown. This makes the side walls.




**Step 3.** Draw a horizontal line from the back left corner to the right one. This gives us the width of the back wall in true one-point perspective.



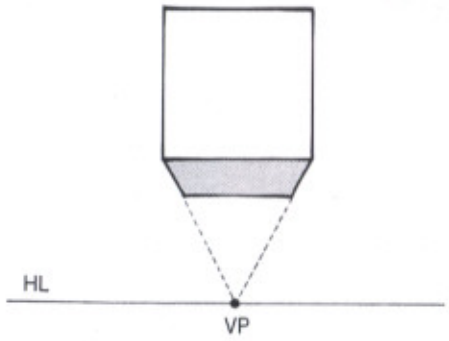

**Step 4.** Using the same vanishing point, place a small box on the floor, inside the open box. See how easy it is when using the vanishing point and the horizon line as guides?

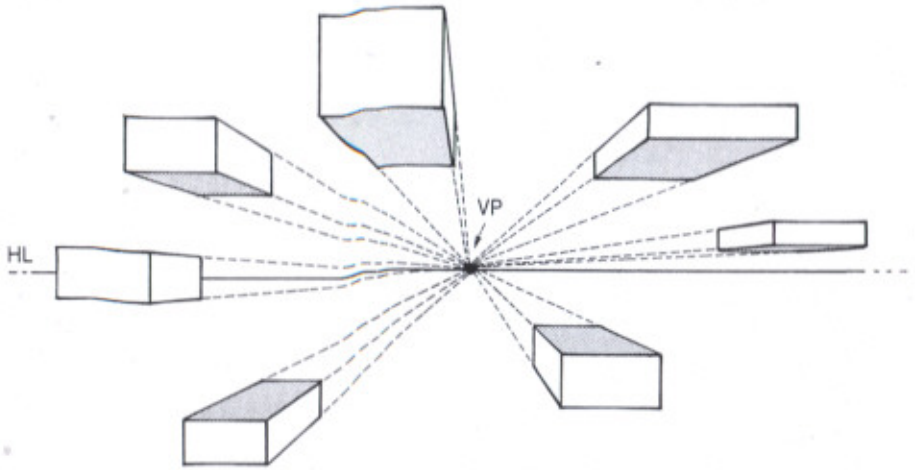


# Exercises to Practice

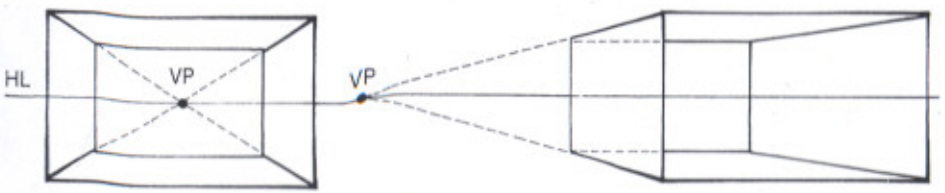
If we view the cube in an elevated position, the vanishing point and horizon line would be in this position, below the cube. By being placed this way, it gives the cube the illusion of flying.

HL = HORIZON LINE
VP = VANISHING POINT




In the exercise above, a number of boxes of various sizes and positions are drawn using the same perspective point. Notice that in all cases, the height and the width of the boxes are always parallel to the picture plane.

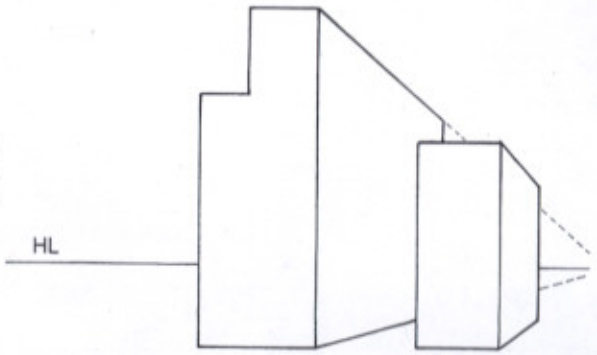



Here is an inside view of a box when we see it straight on and the horizon line crosses through it. The horizon line is there, we just can't see it. There is no need for a vanishing point until we look *into* the box. Notice that by establishing the horizon line and vanishing point, we can now draw the inside of the box, giving us perspective depth. This could be the inside of a room and we would see the ceiling, floor, side walls and end wall. The box on the right has simply been drawn as if placed farther to the right from the viewing and vanishing points.



**Step 1.** As we know, by establishing a horizon line and a vanishing point we can draw objects in proper size, shape and relationship to one another. Here, a simple rectangular box is shown. It could turn into a house or a refrigerator or any other object that fits that shape.


**Step 2.** Using the same perspective point, we have added another form. Now the boxes have started to take on the appearance of buildings.




**Step 3.** By drawing horizontal lines parallel to the horizon, and depth guidelines to the vanishing point, we have drawn streets. By using the vanishing point, we draw windows and start to turn the rectangled boxes into buildings. The way to get the proper distance between windows is discussed in the section titled "Measurements."

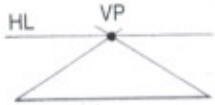
**Step 1.** Draw a straight horizontal line to represent the width of the top front edge nearest you.



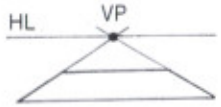
**Step 2.** Lightly draw the angle of the top left side receding into the picture.

**Step 3.** Lightly draw the angle of the top right side receding into the picture.

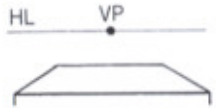
Where the lines cross, place a vanishing point and draw the horizon line.



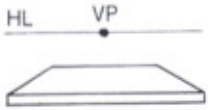

**Step 4.** Now connect the two sides by drawing a horizontal line for the back edge and you have drawn the top of the table in perspective. Darken your lines.



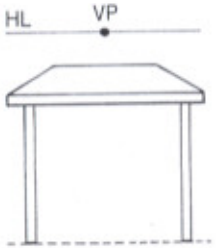

**Step 5.** Draw two short vertical lines for the sides of the top.



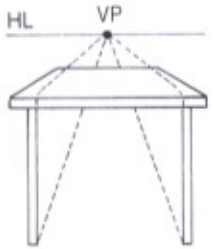

**Step 6.** Connect them with a horizontal line and there is the end of the table.



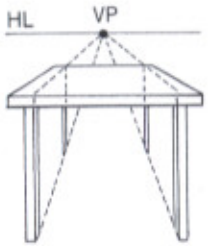

**Step 7.** Draw the front of the two legs as shown. Make sure they are exactly the same length.



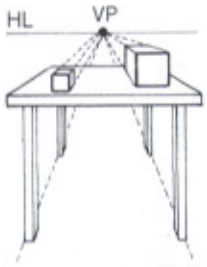

**Step 8.** Lightly extend two depth guidelines from the inside bottom of each leg to the vanishing point. Then, extend guidelines from the top of the legs to the vanishing point, as shown.




**Step 9.** Where the top guidelines cross the back edge of the table, draw two vertical lines down to meet the bottom guidelines. This gives us the proper length of the back legs. Now, draw two vertical lines for the depth of the front legs.




**Step 10.** Draw two guidelines from the bottom outside corner of each front leg to the V.P. This determines the width of the back legs. Now, place two boxes on the table using the same vanishing point.

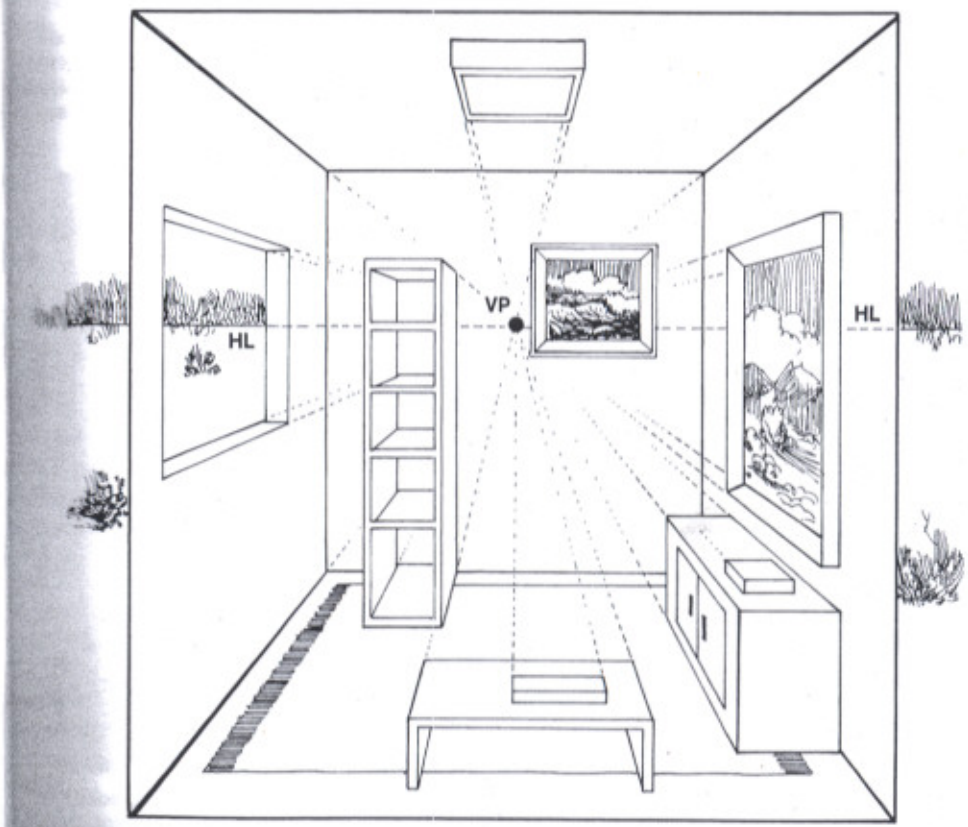





Here, the open cube is shown with items placed in it. This is a good example of one-point perspective shov the horizontal and vertical lines that parallel the picture plane; therefore, having no vanishing point. It is e to see the lines that *do* recede to the vanishing point giving the illusion of depth as we discussed on page e under "Vanishing Point."

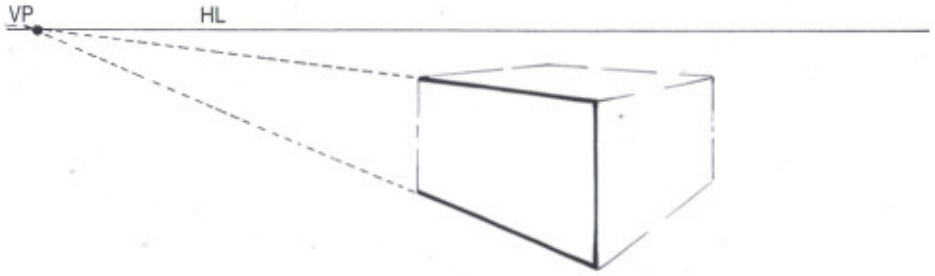
Notice that you do not see the horizon line due to the walls, but it is established by using your *eye level*. As already know, the horizon line is always at eye level and the vanishing point is placed on the wall at the point we see the wall when looking straight ahead. If we turn while looking straight ahead and face ano wall, the vanishing point and horizon line would move to eye level and the point we look at on *that* wall. vanishing point is lightly placed at this spot on the wall and all objects that are viewed straight on and par to the horizon line will be drawn using this vanishing point.

Practice drawing this room and then practice on a room in your home. Remember, that in order to ONE-POINT PERSPECTIVE you must face the wall straight on and not at an angle. Take your time and l sure that you will find it very easy. The more you practice, the clearer perspective will become. Relax make a game of it — it is fun to see these things develop.

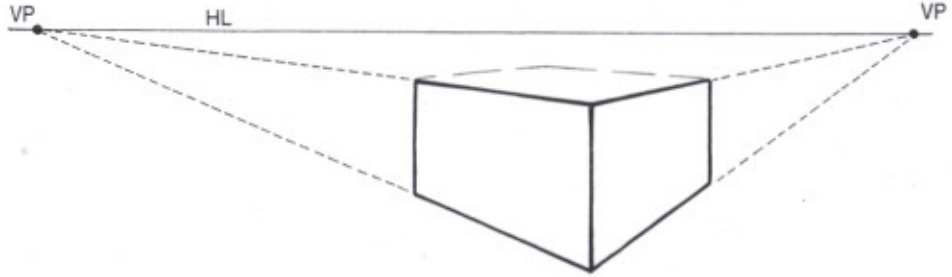


# Drawing a Box in Two-Point Perspective

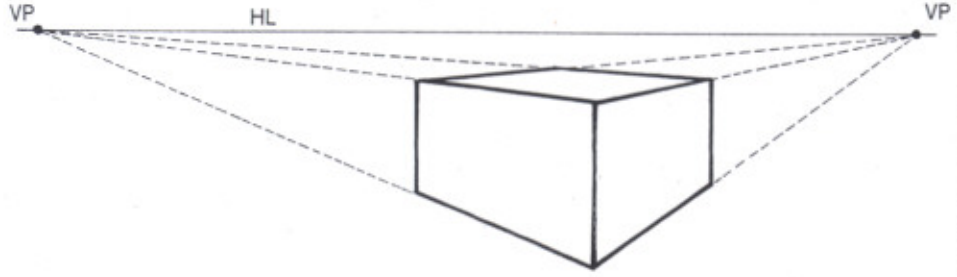
**Step 1.** Lightly sketch the general shape of the box. Notice that the corner is the closest part . . . darken that line.




**Step 2.** Extend the top and bottom lines of the left side. At the point where the lines cross, draw the horizon line and place a vanishing point there.



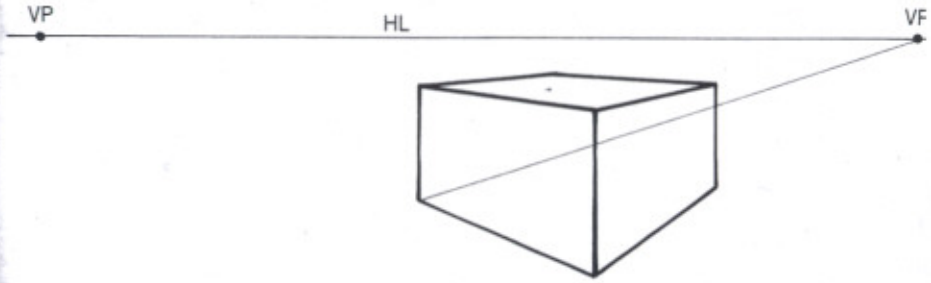

**Step 3.** Draw in the top and bottom lines of the right side, and place a vanishing point where they meet the horizon line. (They *must* meet.) Now draw the two vertical lines that are the back edges of the sides. This establishes the length of the sides.



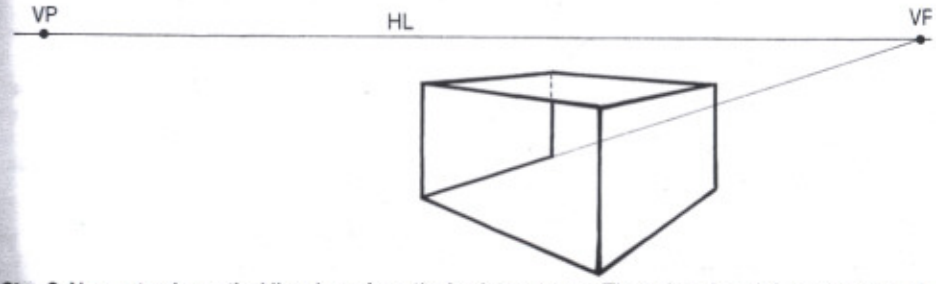

**Step 4.** Now draw the two top lines using the vanishing points. The top surface is automatically created at the point where they cross at the back of the box.



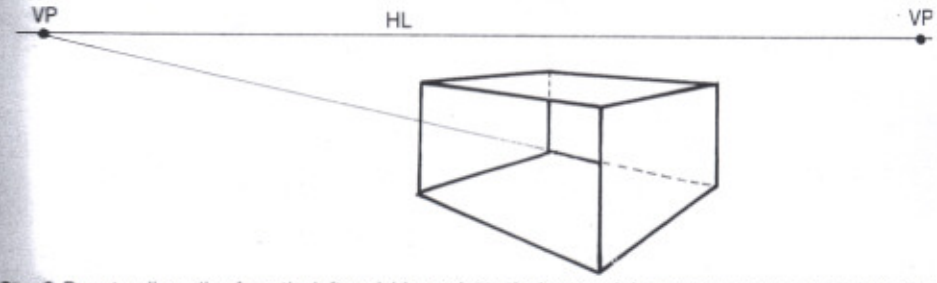
# Drawing the Inside



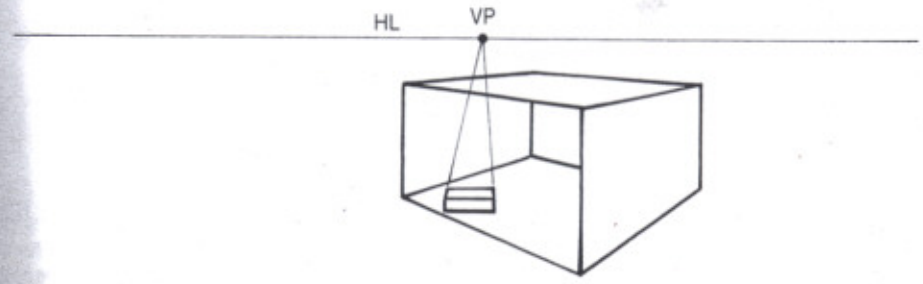

**Step 1.** Using the box we just drew, draw a light extension line from the bottom left corner to the rig vanishing point.




**Step 2.** Now extend a vertical line down from the back top corner. The point where it intersects the oth extension line is the rear corner. Darken the two lines to form the left wall.

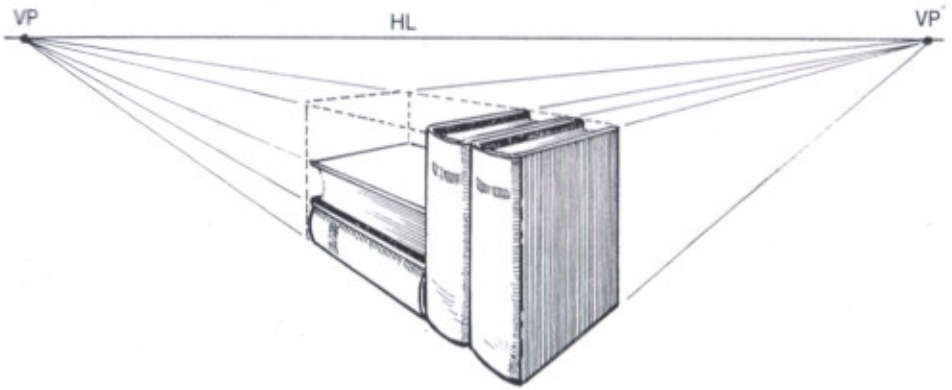



**Step 3.** By extending a line from the left vanishing point to the bottom right rear corner, we establish the flo and back wall. All of these corners, seen and unseen, must meet.



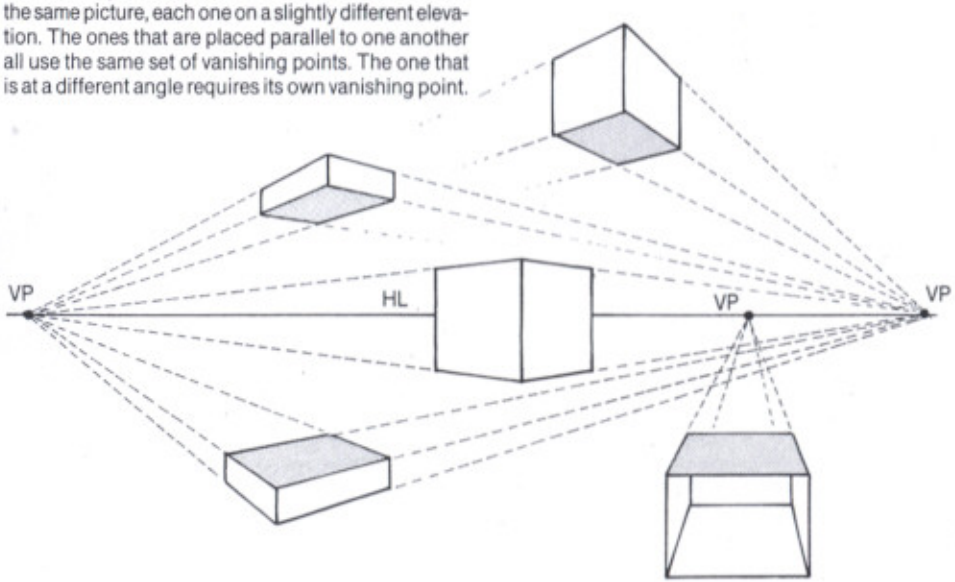

**Step 4.** Now using one-point perspective, place a box inside this one. This combines the two types perspective.

## Exercises to Practice




In this exercise, notice how we can turn the simple rectangular forms into objects. Here we have books as they appear in two-point perspective. Almost any form can be blocked in using the cube and rectangle shapes as guides. Try an object in your room, starting with the outside cubic shape for the major form. After it is sketched in, develop the individual shape of the object within the cubic outline. Notice how helpful blocking in can be rather than trying to develop the detail of the object first.

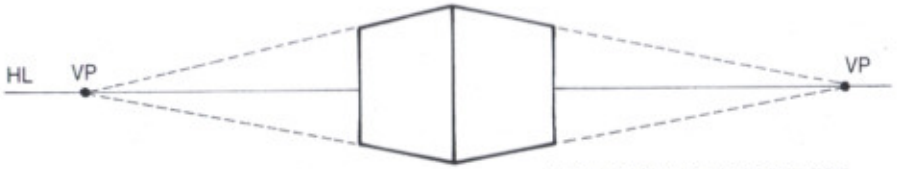
In the example below there are a number of boxes in the same picture, each one on a slightly different elevation. The ones that are placed parallel to one another all use the same set of vanishing points. The one that is at a different angle requires its own vanishing point.



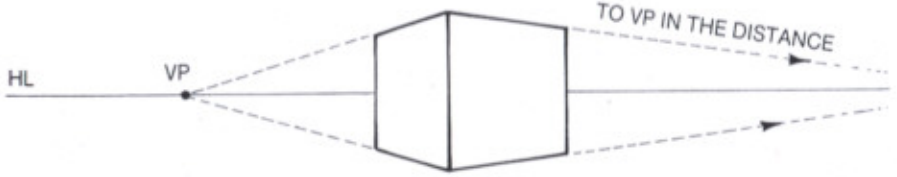

With the addition of the open box on the right, we have a combination of one- and two-point perspective in the same picture. This is very natural and occurs often in nature. Add a few more of your own for practice.



Here are some examples of changing vanishing point placement. As we see more of the right side of the cu we see less of the left, and the vanishing points move accordingly. Practice drawing other positions using cube as the subject. Also, place some cubes above and below the horizon line.

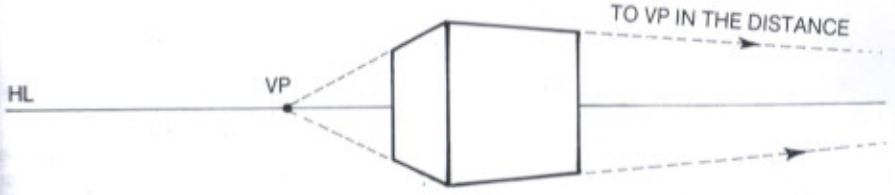



HERE WE SEE SLIGHTLY MORE OF THE RIGHT SIDE OF THE CUBE.

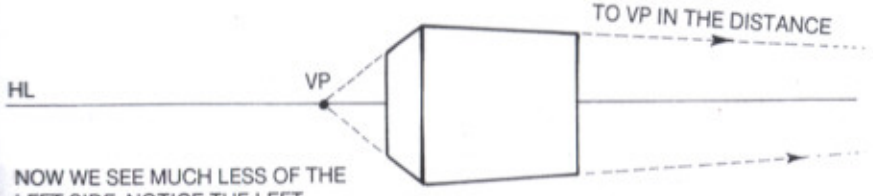



AS THE CUBE TURNS TO THE LEFT, THE VANISHING POINTS MOVE TO THE RIGHT.

HERE WE SEE MORE OF THE RIGHT SIDE AND LESS OF THE LEFT.

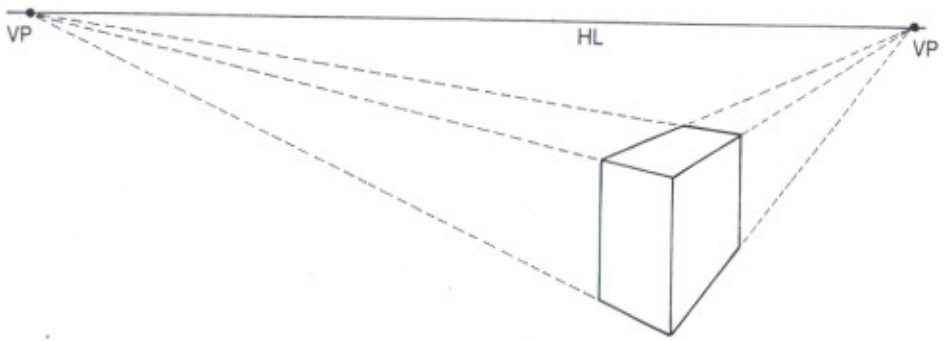



AS THE CUBE TURNS, NOTICE THAT THE RIGHT CORNER BECOM LARGER AS IT MOVES FORWARD.

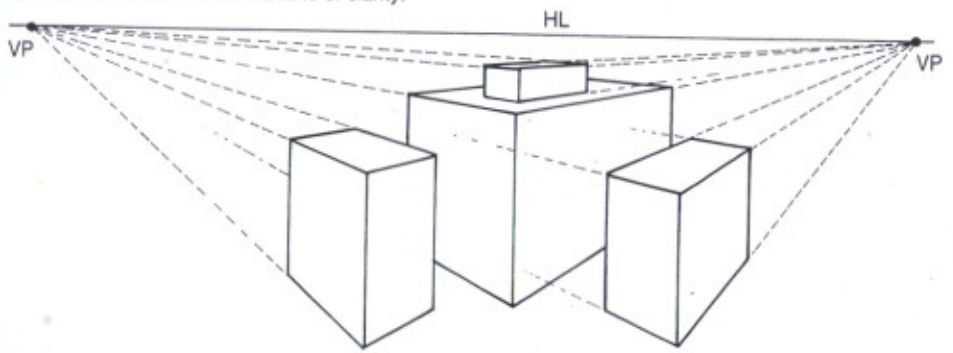



NOW WE SEE MUCH LESS OF THE LEFT SIDE. NOTICE THE LEFT CORNER BECOMING SMALLER.

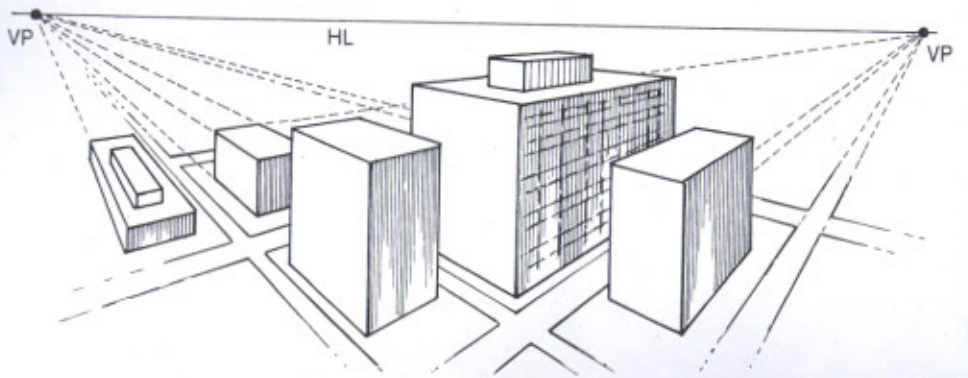
As we saw in one-point perspective, drawing a city scene or any combination of boxes is easy. Once the first object is placed, all others will relate to it. By establishing a horizon line and vanishing points, we can place a rectangular box onto the ground plane in two-point perspective. Notice that the center front corner is the closest point to us.




Using the same perspective points, add more boxes of various shapes and sizes. Now they start to look like buildings, as did the boxes in the one-point exercise. Compare the difference in views. Some of the extension lines have been omitted for the sake of clarity.

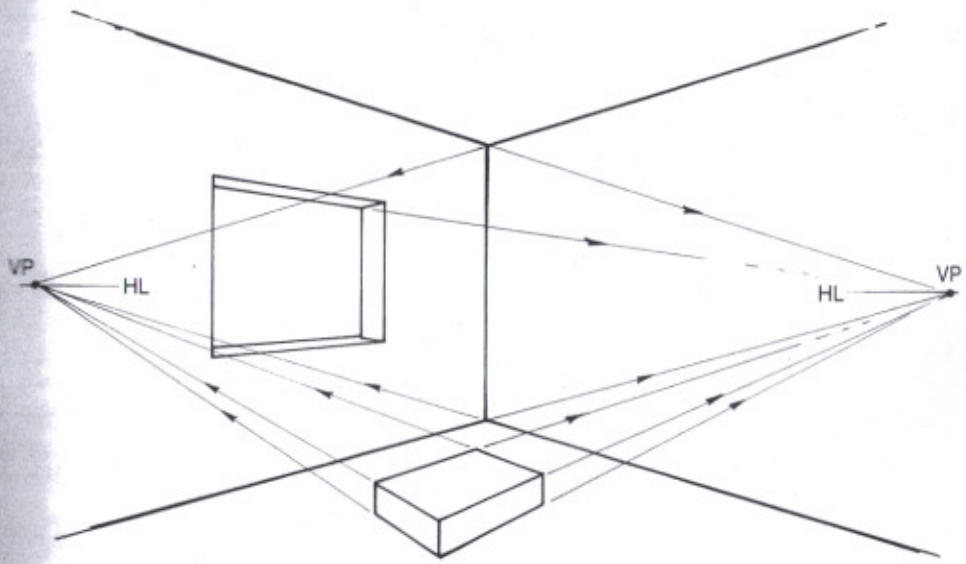



Now, by drawing lines to each vanishing point, we lay in areas of streets and the starting placement of windows and other objects. The distance between the windows is discussed in the section titled "Measurements." As a practice exercise, place some empty boxes of different sizes on the floor and draw them. If they are placed parallel to one another, they will use the same vanishing points.



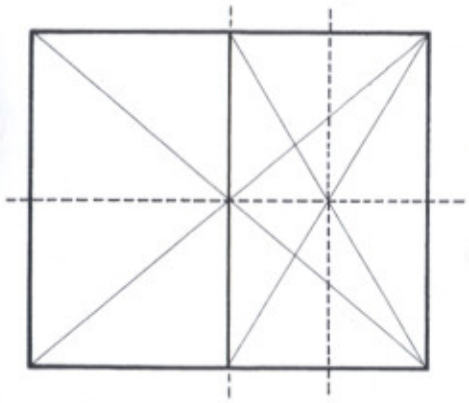


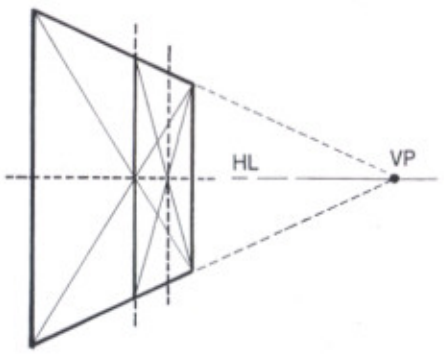

Here is the cube as a room, viewed from the inside. The far corner is vertical and the lines for the right extend to the left vanishing point. The lines for the left wall extend to the right vanishing point. The point where each meets on the horizon line is a vanishing point. Any other lines that are parallel to these would use the same vanishing points.



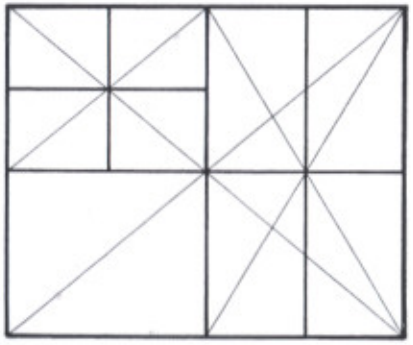

Here is another view of an inside scene using two-point perspective. This one has two rooms with a doorway to look through. Notice that the only lines parallel to the picture plane are the ones indicating height. Only a few extension lines are drawn for the sake of clarity. Also notice that the subject in the painting on the wall has its own horizon line and set of vanishing points. It is, however, still affected by the ones for the room too.

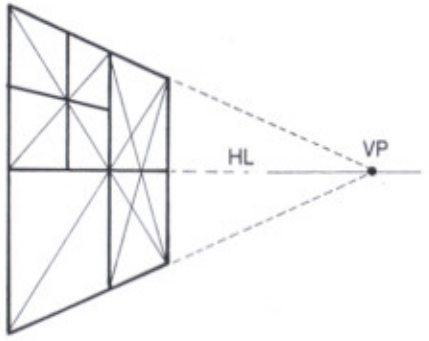
To divide a portion of the square, the same method is employed, as shown.



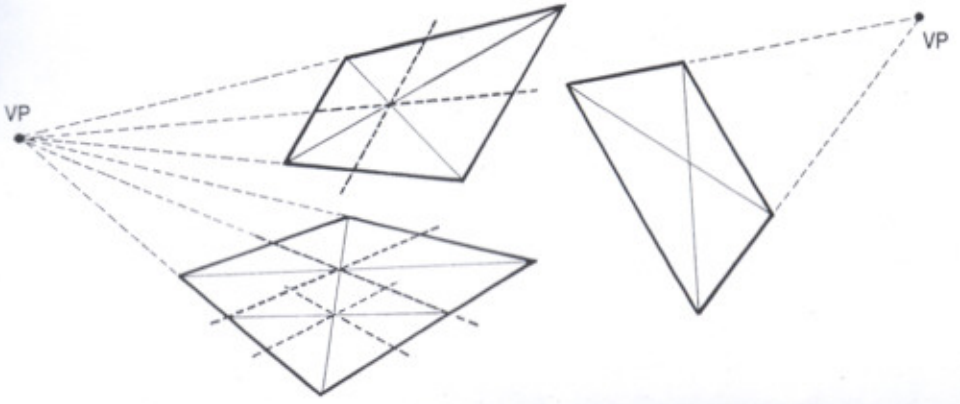



By using this method the area can be divided into as many parts as you wish — squares, rectangles, etc.






No matter what the angle of perspective is, the same method works.

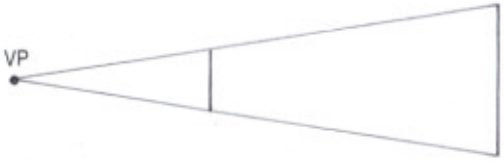




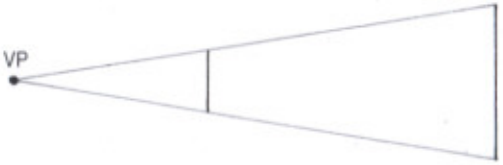

## Dividing Areas

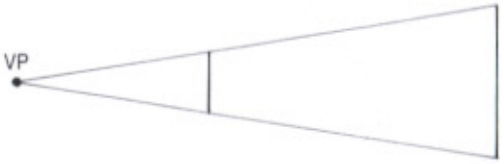
If we need to divide the side of an area, like the side of a building for the placement of windows with the proper size and the shortened distance between them as they recede into the depth of the picture, the following method is an easy one to use. In order to divide an area such as this, we must rely upon a line in the drawing that is parallel to the picture plane, either the horizontal base, the top of the object, or the vertical side lines.

**Step 1.** Establish the area to be divided in proper perspective.

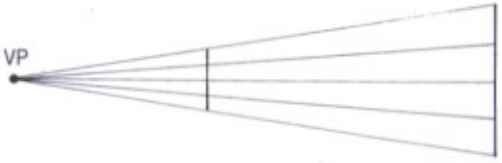


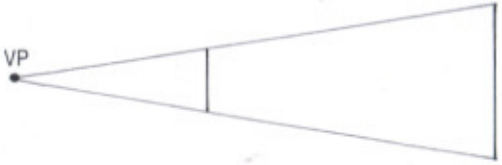

**Step 2.** Now, using a piece of tracing paper, make a tracing of the area. Then place it directly above the area to be divided. We now have two identical drawings.



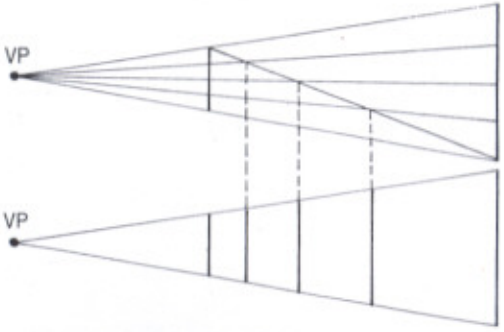



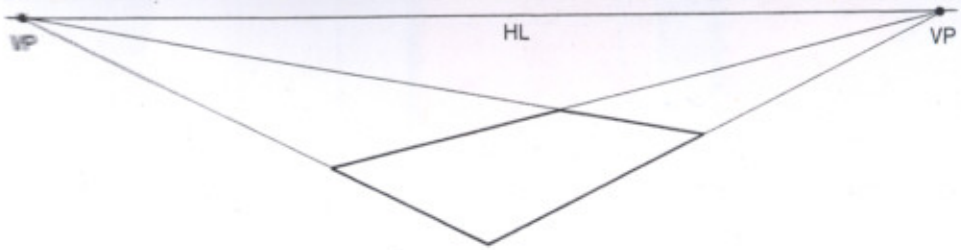

**Step 3.** Next, using a ruler, divide the right vertical line into the number of equal spaces needed. Draw light projection lines to the vanishing point.



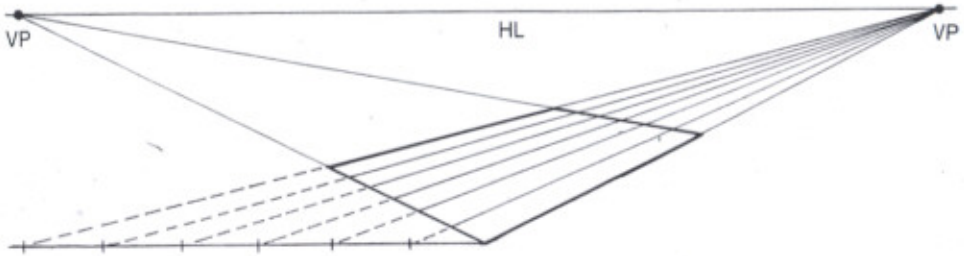

**Step 4.** Next, draw a diagonal line from corner to corner. By drawing vertical lines down from the points where the diagonal line crosses the division lines, the spaces of division in proper perspective are established. Notice how the spaces and sizes diminish in size proportionately.



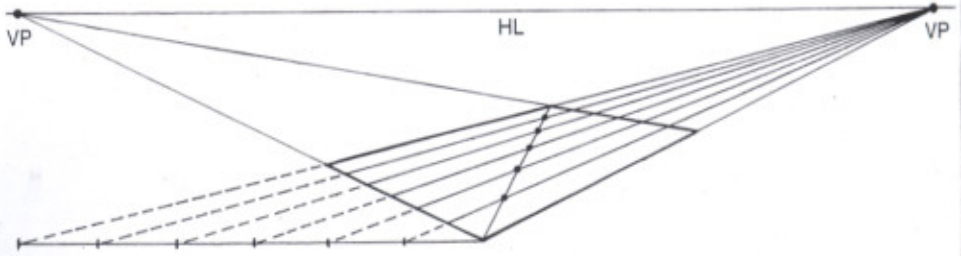



In order to divide a flat surface, such as a tile floor, into proper segments, use the following example.

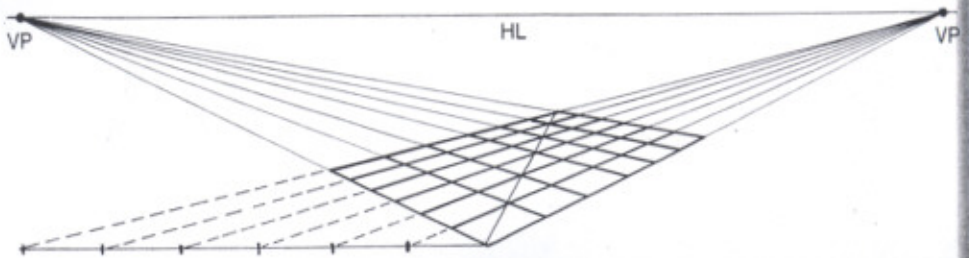
Draw the area to be divided using two-point perspective.




Next, establish the width of the divisions by placing a horizontal line at the bottom of the area and dividing it into equal portions. Now, draw the receding depth lines from the points on the line to the vanishing point on the right.




Next, draw a diagonal line from corner to corner and notice that it crosses the depth lines. This establishes the correct depth of each tile.



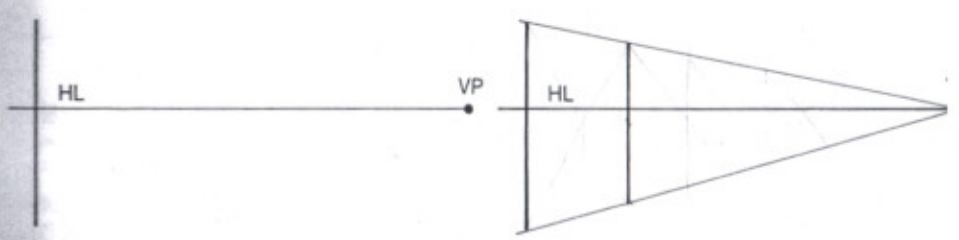

Now, extend lines from these points of contact to the vanishing point on the left and we have a tile floor complete and in correct perspective.



Fence posts, railroad ties, cracks in sidewalks, telephone poles or any other objects that are equally space apart are drawn correctly by using the following example of proportional division.

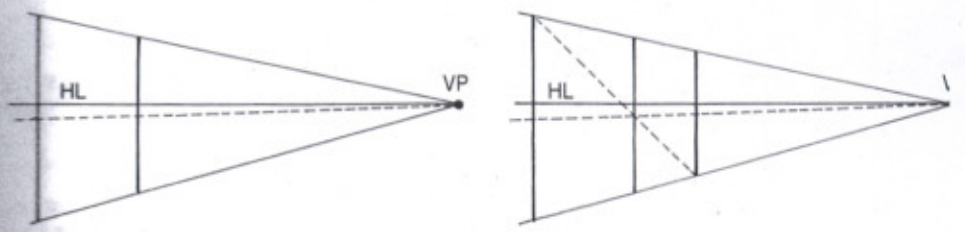
First, establish the horizon line and the vanishing point toward which the posts will be receding. Then, draw the first post in the position desired.

Draw a line from the top and bottom of the firs post to the vanishing point. This gives the heigh guidelines for all posts. Now draw the second pos by using visual measurement to establish how fa apart they are.

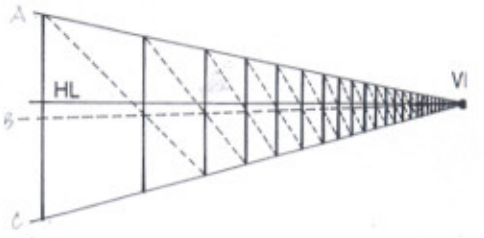



Next, find the middle of the first post and draw a line from that point to the vanishing point.

Next, draw a line from the top of the first pos through the center point of the second post anc where this line crosses the bottom line, is the location of the next post.



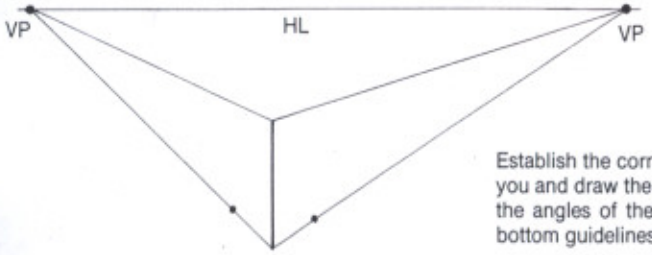

Repeat this procedure as often as necessary to establish the rest of the posts.




See how easy it is! Try some exercises of your own and do not be afraid to waste paper practicing. The more you practice, the more experienced your eye will become and you will find that you are seeing and drawing more accurately than ever before. Most of the time you will be measuring and drawing using eye judgements and most of the time you will be right. If something does not look quite right, the knowledge of perspective and the methods of proportional measurements are extremely helpful in finding and correcting the error.

# THREE-POINT PERSPECTIVE . . .

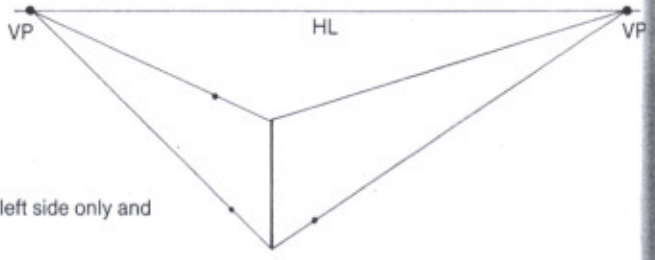
When we view an object from the top, we are most likely viewing it in three-point perspective. Most often we are able to draw this view without worrying too much about the third point, but if the object is viewed at such an angle as to make the sides appear to be oblique from side to side *and* top to bottom, then we must use the third point. A good example of three-point perspective is to look at a tall building from either a top view or a bottom view as shown below.



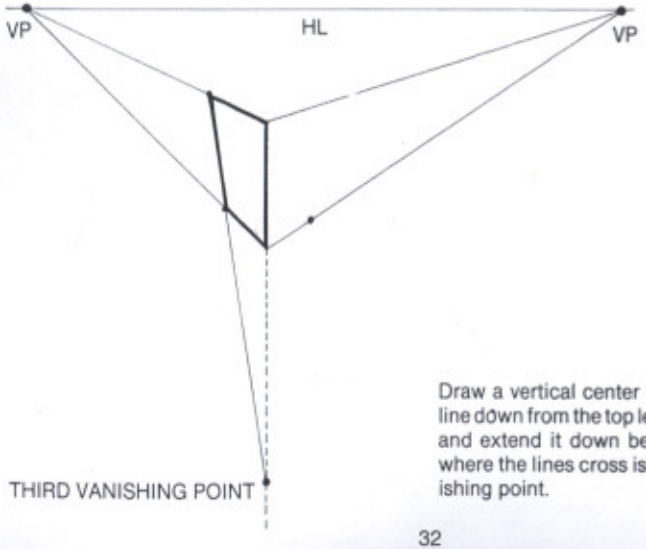

HIGH ELEVATION OF VIEW,
HIGH HORIZON LINE

Establish the corner of the building that is closest to you and draw the vertical height line. Next, establish the angles of the sides by drawing in the top and bottom guidelines.

Using visual measurements, establish the bottom width of each side by placing dots on the bottom lines.

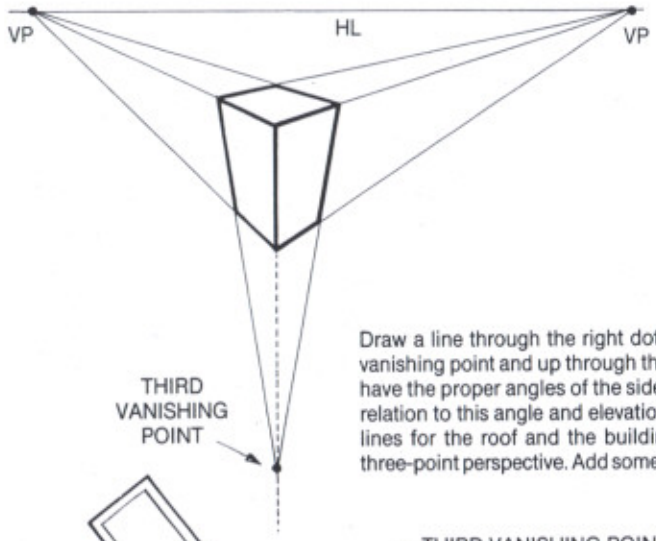



Now, measure the top width of the left side only and place a dot on the guideline.



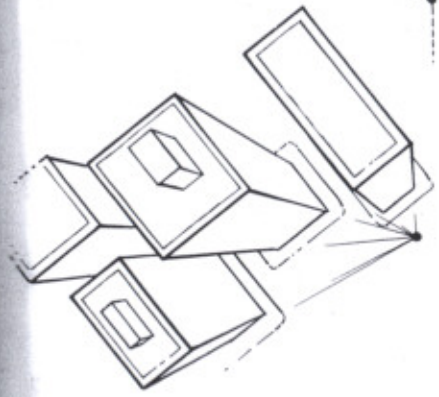

Draw a vertical center line downward. Now draw a line down from the top left through the bottom left dot and extend it down below the building. The point where the lines cross is the position of the third vanishing point.






THIRD VANISHING POINT

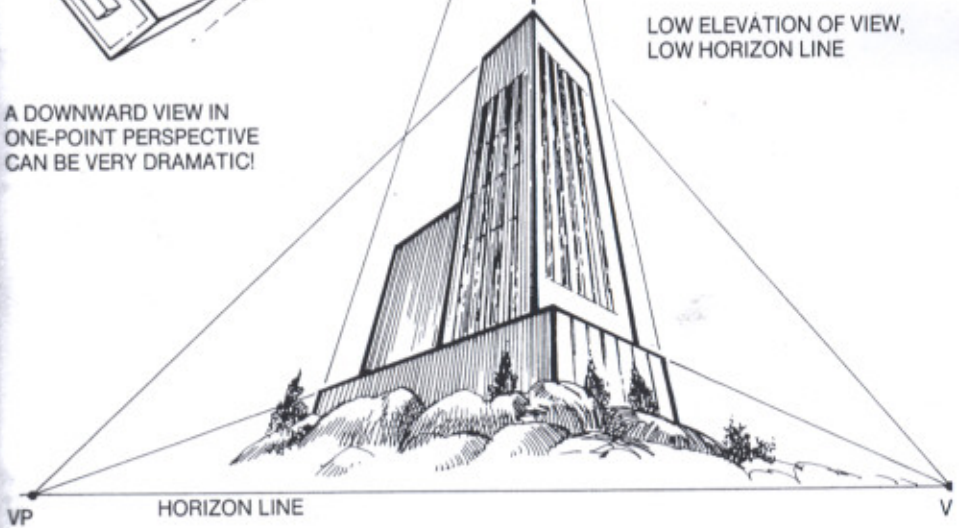
Draw a line through the right dot, down to the third vanishing point and up through the top line. Now you have the proper angles of the sides of the building in relation to this angle and elevation of view. Draw the lines for the roof and the building is completed in three-point perspective. Add some streets for practice.



THIRD VANISHING POINT

LOW ELEVATION OF VIEW,
LOW HORIZON LINE

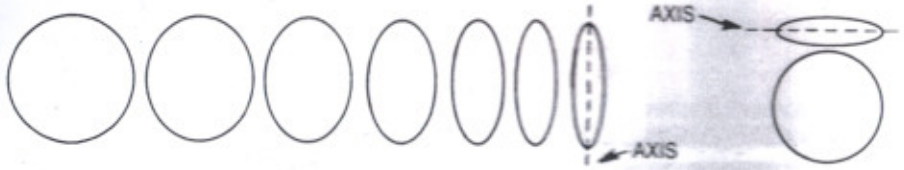
A DOWNWARD VIEW IN
ONE-POINT PERSPECTIVE
CAN BE VERY DRAMATIC!




Here is an example of a building from a view looking up at it. The third vanishing point is above the building. A general rule of perspective is that all vertical lines be kept truly vertical unless three-point perspective is used for dramatic effects. Three-point perspective can be a tremendous aid in making dramatic presentations in our pictures.

# DRAWING ELLIPSES . . .

An ellipse is a circle that is viewed other than straight on. When we look across the surface of the face of the circle, it is foreshortened and we see an ellipse. No matter what degree of angle the ellipse is viewed, one dimension will always remain constant with the circle. The constant (the axis) is a straight line through the circle and ellipse upon which it supposedly or actually rotates like a spinning coin.

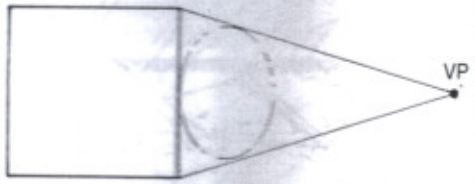



Here are a number of ellipses at various degrees of angles. Notice that the height is constant with the circle on the left.

It is important to draw ellipses correctly. If not, any object they are a part of will appear distorted. The top of a glass, a cylinder, a lampshade, a tin can, and a vase are all examples of ellipses.

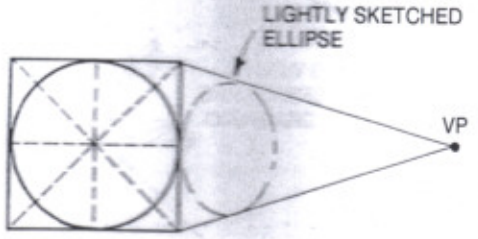
Here is an exercise that shows how to build an ellipse using the circle as a guide.

The easiest way to start is to place a circle into a square. By doing this, we have edges that we can use for measurements. The circle is uniform in measurement and so is the square. Together, they become the perfect tool.



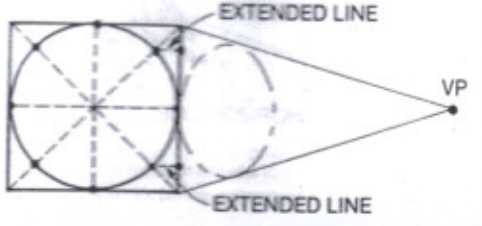

When drawing the ellipse from your subject, it is best to sketch it in freehand. Then use the following method to prove or correct it.

First, from the vanishing point and the top and bottom of the sketched ellipse, project lines across to the edge of a separate piece of paper. Draw two horizontal lines from the point of contact with the paper's edge. This is the height of the square. Now, draw two vertical lines the same distance apart as the height lines and we have the square established in relation to the sketched ellipse.



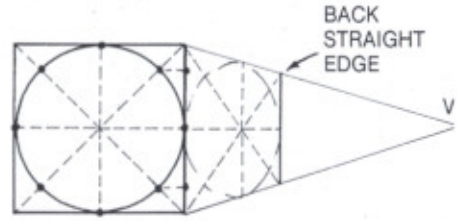

Now, divide the square in the manner shown, using the methods we have already studied. Then, fill the square with a circle.

Place points where the circle crosses the division lines. Then, extend two lines to the right from these points to the edge of the square.

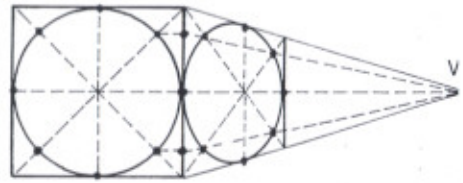


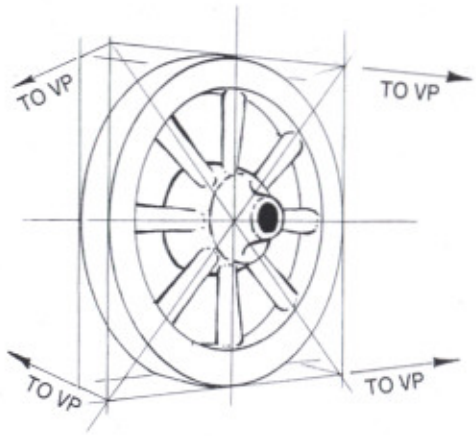



Next, draw the back edge of the ellipse using eye measurement for width. Then, divide this perspective square like the flat square.




Now draw perspective lines from the three points at the edge of the square to the vanishing point. Next, place a dot at each point where the lines cross the division lines. Now we have a set of points to use in checking and drawing the ellipse in proper perspective.



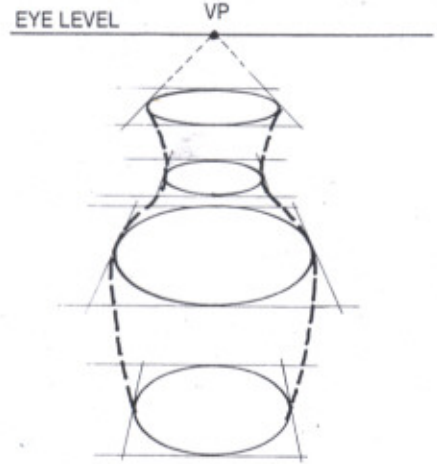




For this wagon wheel, a square in perspective was drawn as the outer boundary. Then it was divided in the same manner as before. Then, the circle/ellipse was drawn in it using a separate piece of paper as a tool. Like above, at the cross points, the ellipse was drawn.

The spokes are placed by using the division lines as guides. Simply extend the hub outward using the vanishing point and draw smaller ellipses.

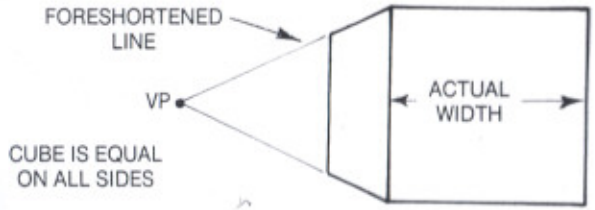
The closer the ellipse is to eye level, the flatter it appears. As it moves down and away from eye level, we see more of the face of the ellipse. In order to make each one correct, we must first place it into a perspective plane then work out the different planes as shown here.

After the planes are established, by using the same methods used previously, we establish the points to check and draw a very correct ellipse into the plane where it is located.



# FORESHORTENING . . .

According to Webster's Dictionary, "foreshortening" means, "to represent the lines of (an object) as shorter than they actually are in order to give the illusion of proper relative size, in accordance with the principles of perspective." Here are a few simple examples of foreshortening to practice.





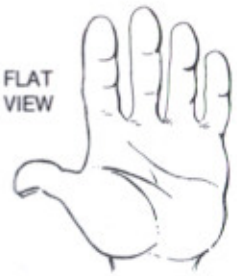
SIDE (FLAT) VIEW


END (FORESHORTENED) VIEW


FLAT VIEW


FORESHORTENED VIEW


STRAIGHT DOWNWARD VIEW


FLAT VIEW


SLIGHTLY FORESHORTENED


FORESHORTENED

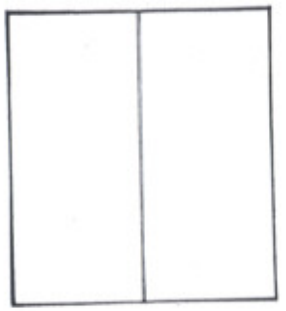

SLIGHTLY FORESHORTENED


FLAT VIEW

A hand pointing toward you is in a foreshortened position. We all know the true length of the hand, but accept the illusion of appearing shorter on the drawing if the drawing is properly executed. Here, a simple cartoon hand is shown in various positions of foreshortening. Try to fit the objects into block forms as guides at first. The more you practice, the easier foreshortening will become. Pretty soon, there will be no need for the block-in guides; freehand sketching will do it all!

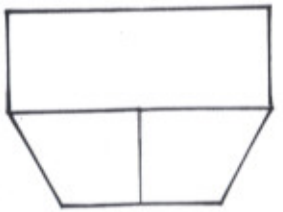


BOX BOTTOM



CYLINDER SIDE

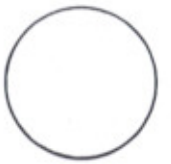
BOX END AND BOTTOM



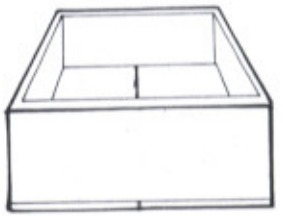
CYLINDER FORESHORTENED

BOX END

CYLINDER END VIEW

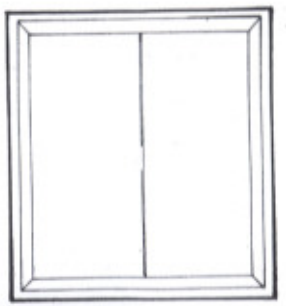


BOX END, TOP AND INSIDE FLOOR



CYLINDER FORESHORTENED

BOX TOP AND INSIDE FLOOR



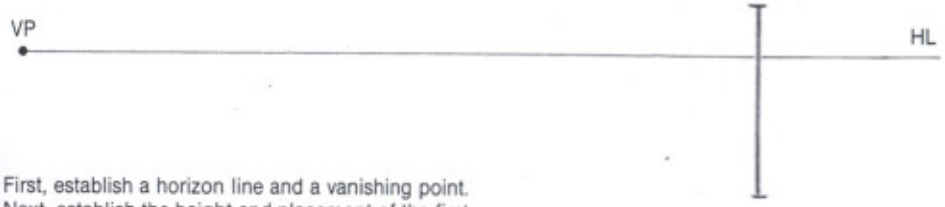
CYLINDER SIDE

# DRAWING PEOPLE IN PERSPECTIVE . . .

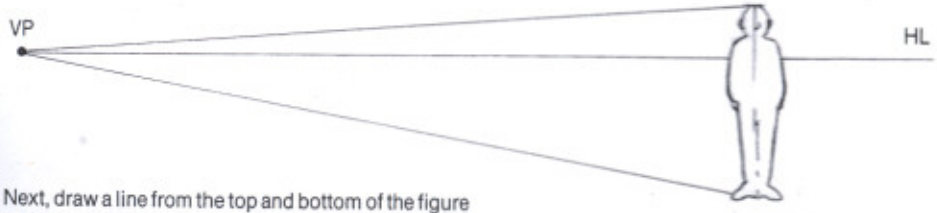
If we place figures at random in our picture and do not measure them one against the other we will probably end up with some of the figures out of proportion and some possibly appearing to float.

People are of a general height and the minute a figure is placed in the picture we automatically judge the size of all other objects by it. Figures that are placed more distant than others will appear smaller. The farther they are placed from the viewer, the smaller they will be.

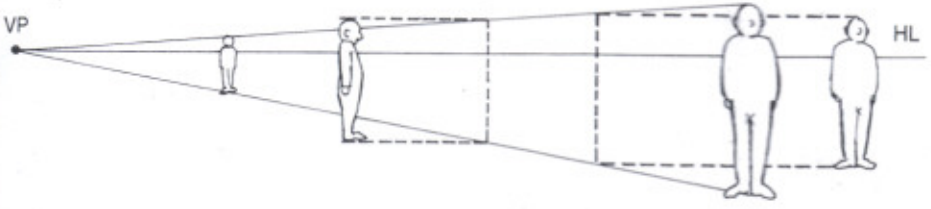
It is simple to create a drawing with all of the figures in correct proportion to one another and to all other objects in the picture. Here are some exercises showing the methods.




First, establish a horizon line and a vanishing point. Next, establish the height and placement of the first figure with a vertical line.



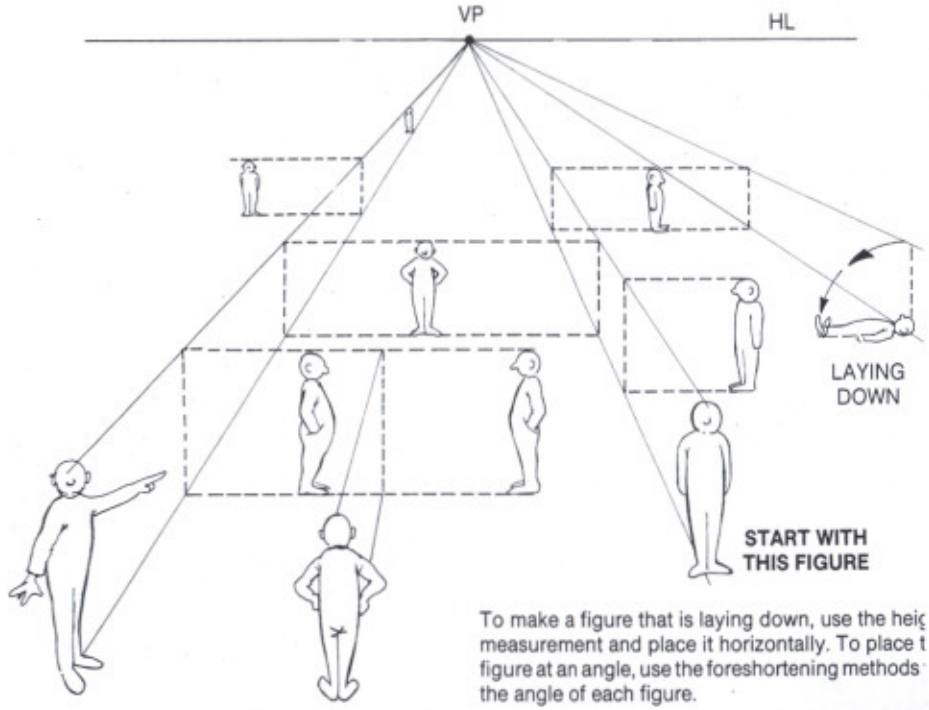

Next, draw a line from the top and bottom of the figure to the vanishing point. This establishes the first figure and the guidelines for others to follow. Draw in the figure.



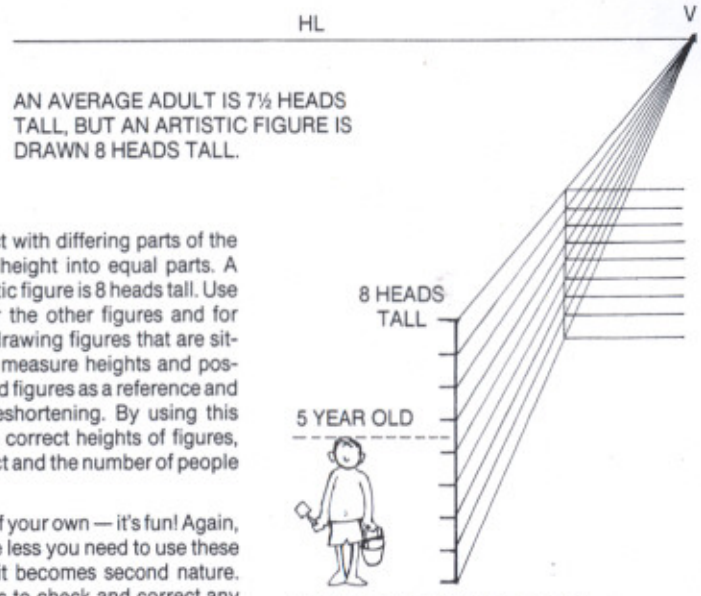

Next, using the first figure and the guidelines, draw in other figures in different places. The vertical distance between the top and bottom lines establishes the height for all of the other figures. This, of course, is for standing figures.



Here we see another example of this simple method of measuring figures and placing them in their proper heights for the position in the picture.



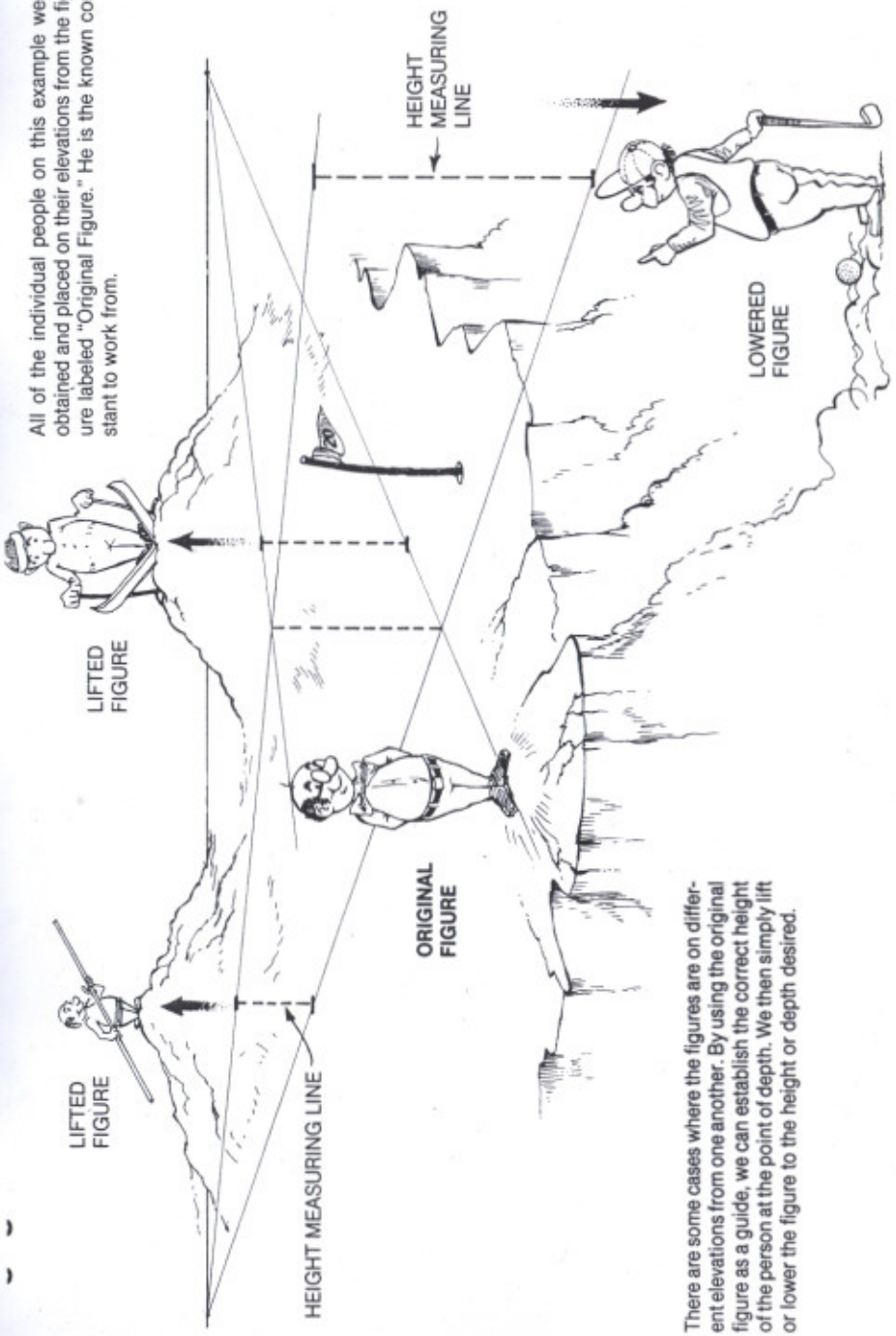

To make a figure that is laying down, use the heig measurement and place it horizontally. To place t figure at an angle, use the foreshortening methods the angle of each figure.




When we need to be exact with differing parts of the figure, simply divide the height into equal parts. A general guide for the artistic figure is 8 heads tall. Use this graph as a guide for the other figures and for drawing children. When drawing figures that are sitting or lounging, visually measure heights and postures. Use your established figures as a reference and sketch in the proper foreshortening. By using this method of measuring the correct heights of figures, we can see that our subject and the number of people can be endless.

Practice some exercises of your own — it's fun! Again, the more you practice, the less you need to use these guidelines. After awhile, it becomes second nature. Then we will only use this to check and correct any errors in our work.

All of the individual people on this example were obtained and placed on their elevations from the figure labeled "Original Figure." He is the known constant to work from.




There are some cases where the figures are on different elevations from one another. By using the original figure as a guide, we can establish the correct height of the person at the point of depth. We then simply lift or lower the figure to the height or depth desired.



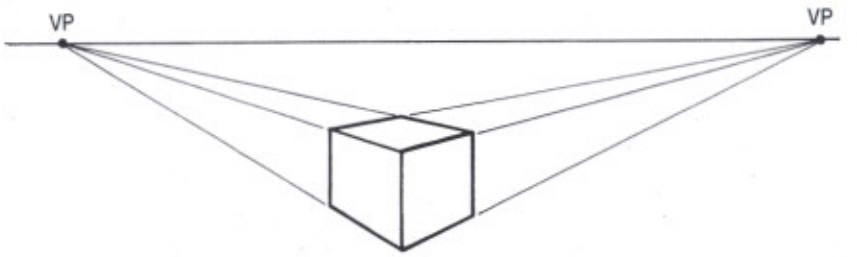
# CASTING SHADOWS IN PERSPECTIVE . . .

When we have a single light source, all of the shadows in the picture recede to the same vanishing point. This vanishing point is placed directly under the light source, whether on the horizon line or more forward in the picture. The shadows follow the plane on which the object is sitting. Shadows also follow the contour of the plane on which they are cast.

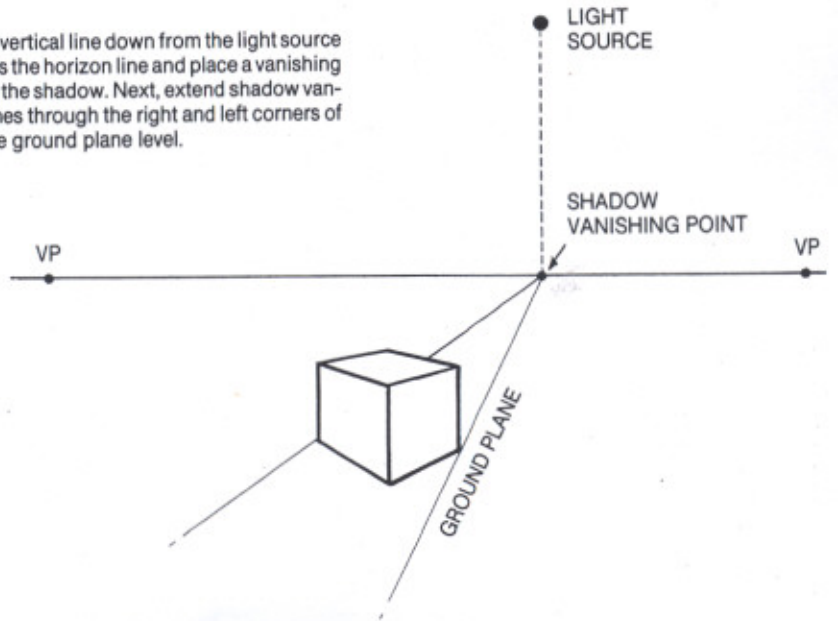
Light rays travel in straight lines and strike an object that is in the way. That object then blocks the rays from continuing onward. This creates the absence of light in the form of a shadow. Each shadow has its own shape that is peculiar to the object that casts it. Notice the different shapes of shadows in all of the following examples.

● LIGHT SOURCE

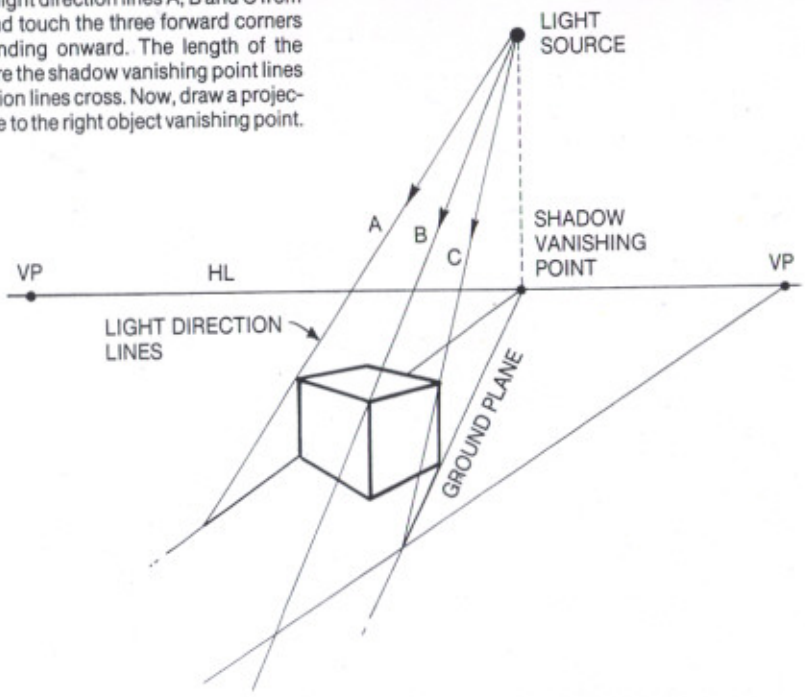
**Step 1.** Draw a cube using two-point perspective. Next, select a point for the light source and place a dot there.



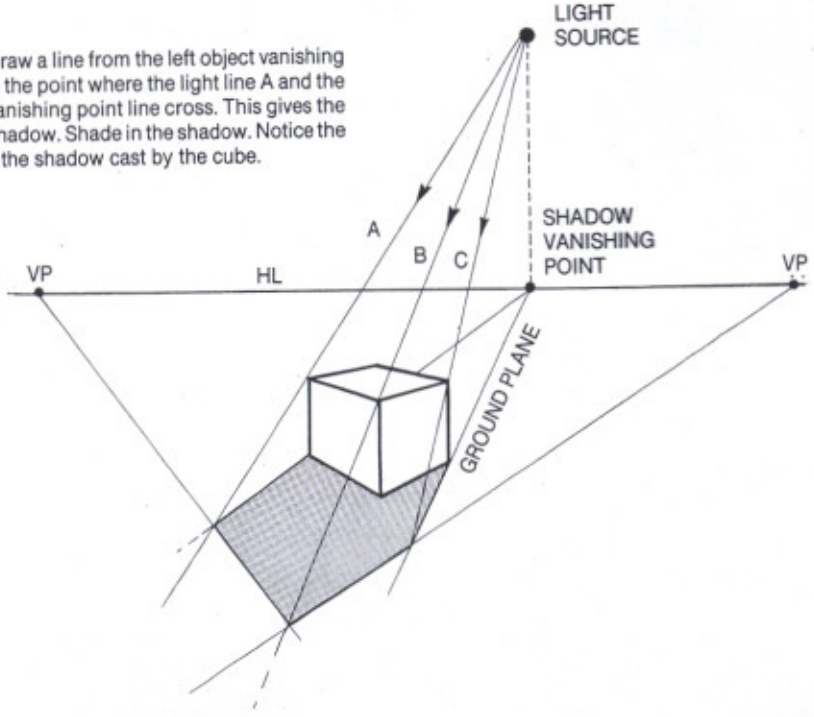

**Step 2.** Drop a vertical line down from the light source until it contacts the horizon line and place a vanishing point there for the shadow. Next, extend shadow vanishing point lines through the right and left corners of the cube at the ground plane level.



**Step 3.** Next, draw light direction lines A, B and C from the light source and touch the three forward corners of the cube, extending onward. The length of the shadow is set where the shadow vanishing point lines and the light direction lines cross. Now, draw a projection line for the side to the right object vanishing point.

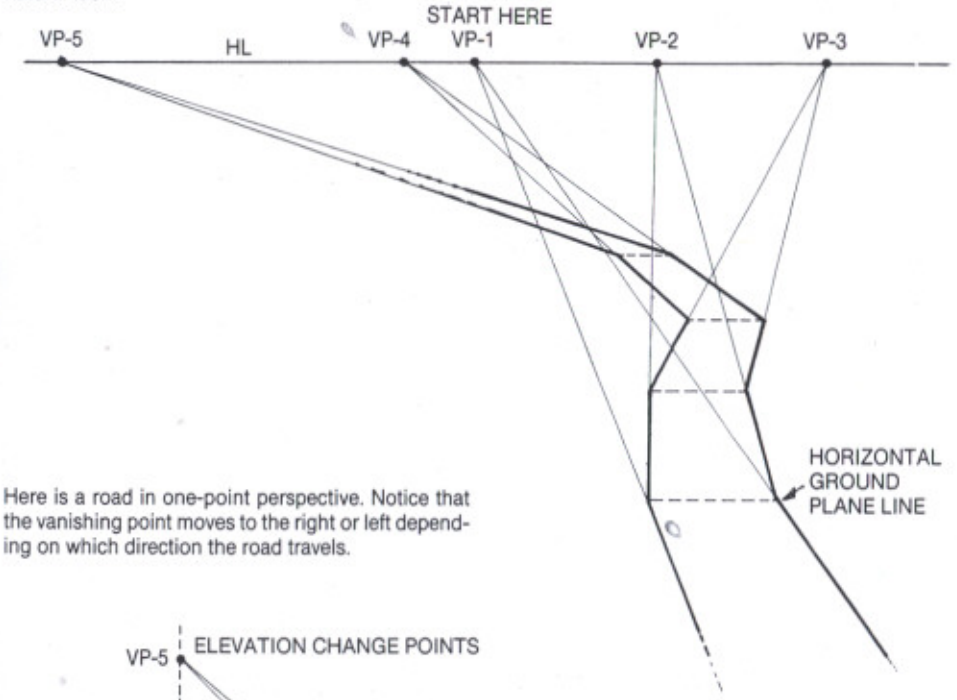



**Step 4.** Now draw a line from the left object vanishing point through the point where the light line A and the left shadow vanishing point line cross. This gives the depth of the shadow. Shade in the shadow. Notice the odd shape of the shadow cast by the cube.

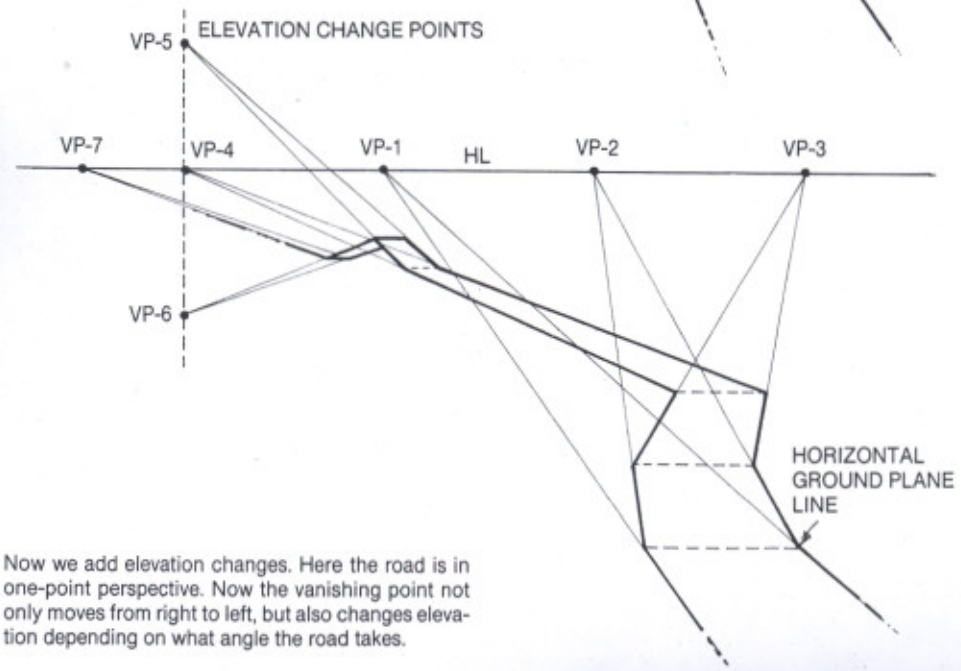


# CHANGING PLANES AND DIRECTIONS . . .

A wandering road not only changes direction, but, as it winds back and forth, it also changes elevations depending on the ground plane. In order to represent this correctly in our drawing, we use the following methods as guides. After establishing the directions of the roads, simply round the points at the curves for a natural look.

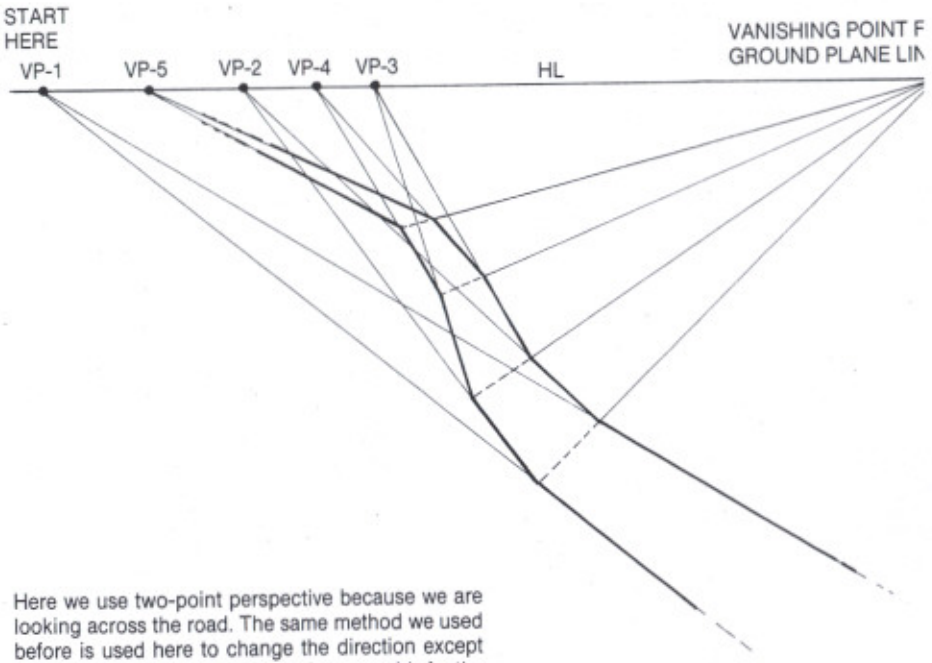



Here is a road in one-point perspective. Notice that the vanishing point moves to the right or left depending on which direction the road travels.

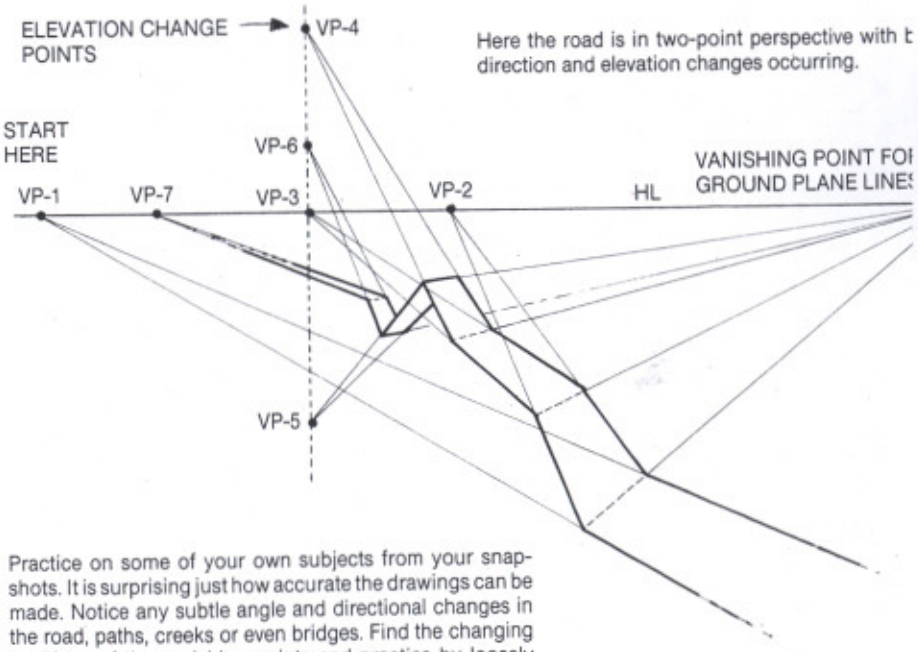



Now we add elevation changes. Here the road is in one-point perspective. Now the vanishing point not only moves from right to left, but also changes elevation depending on what angle the road takes.






Here we use two-point perspective because we are looking across the road. The same method we used before is used here to change the direction except that we use the right vanishing point as a guide for the ground plane lines.




Here the road is in two-point perspective with t direction and elevation changes occurring.

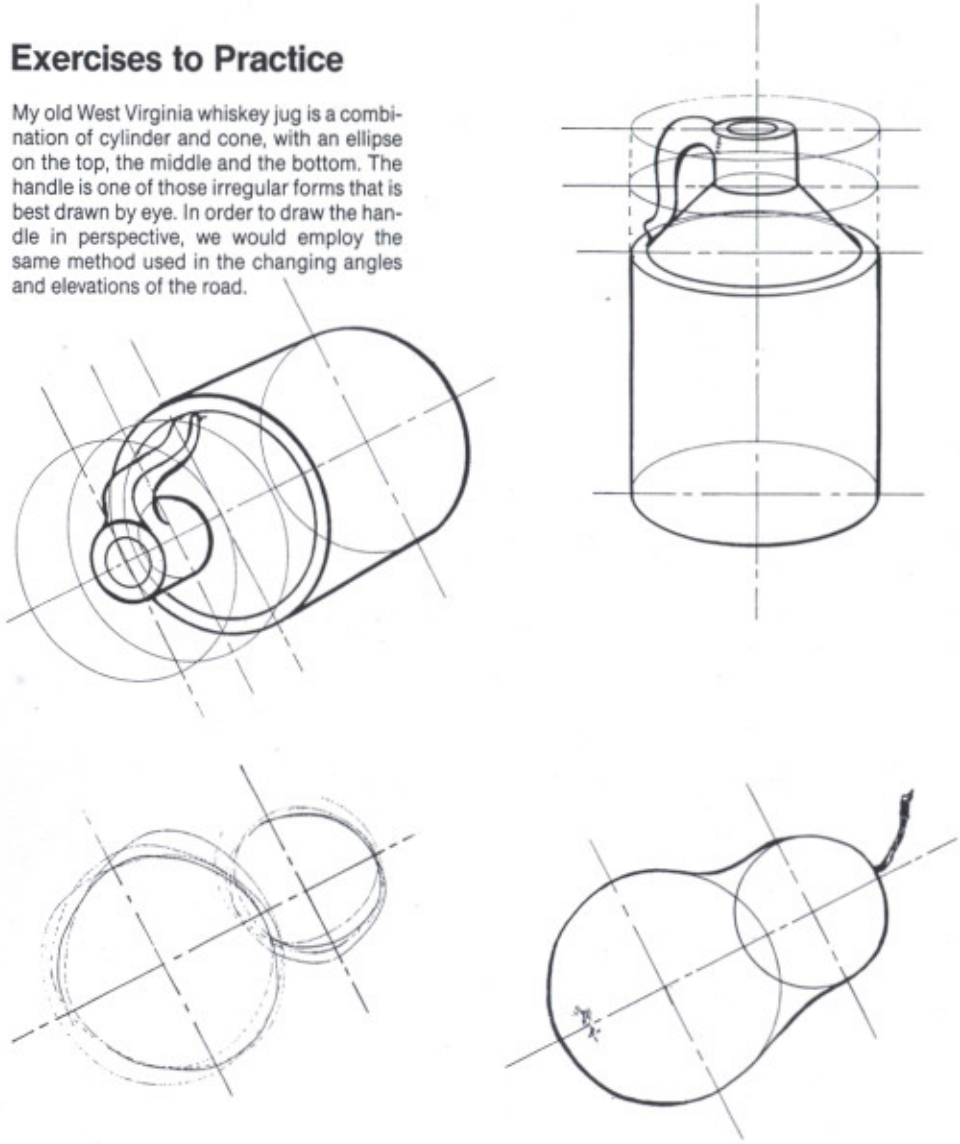
Practice on some of your own subjects from your snapshots. It is surprising just how accurate the drawings can be made. Notice any subtle angle and directional changes in the road, paths, creeks or even bridges. Find the changing positions of the vanishing points and practice by loosely sketching what you see. The drawings can always be corrected with the methods shown here.

# COMPLEX AND IRREGULAR FORMS IN PERSPECTIVE . . .

As we know, there are four basic forms — the cube, the cylinder, the cone and the sphere. Almost every object can be related to a cubic form, including the human head and body. Some shapes are a composition of many cubes. Some, however, do not relate to the cube. In this instance, we use either the cone, the cylinder or the sphere. Upon observation, we find that some objects are also a combination of several of these basic forms.

## Exercises to Practice

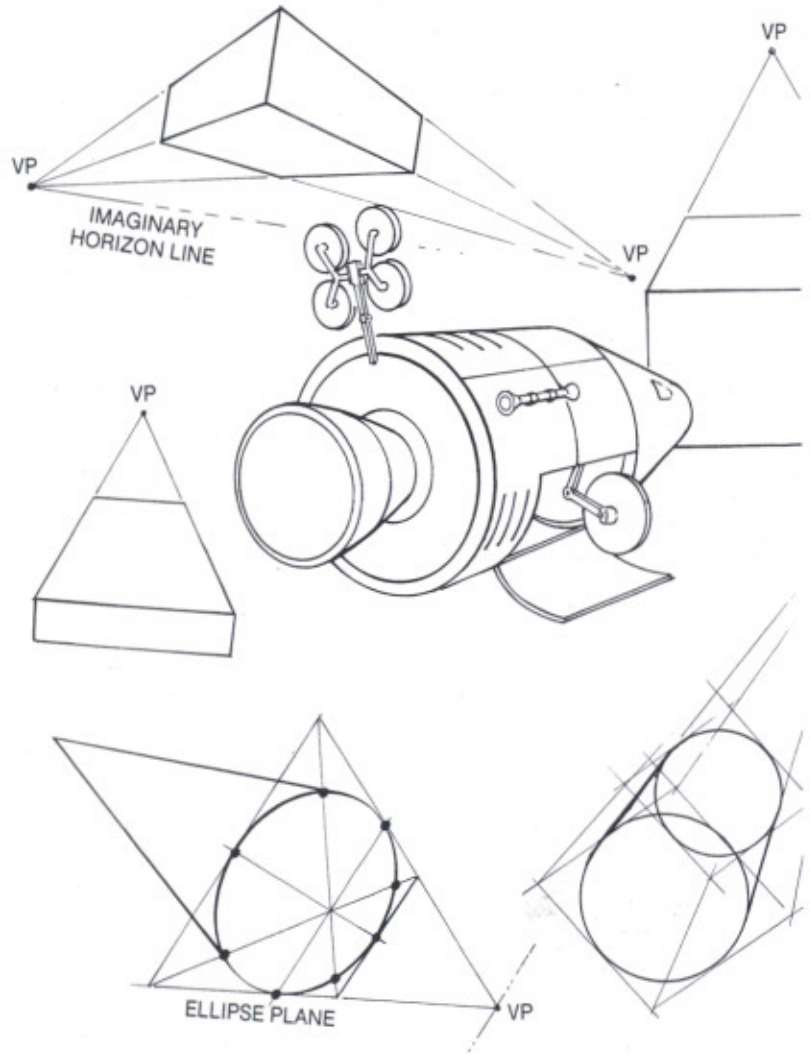
My old West Virginia whiskey jug is a combination of cylinder and cone, with an ellipse on the top, the middle and the bottom. The handle is one of those irregular forms that is best drawn by eye. In order to draw the handle in perspective, we would employ the same method used in the changing angles and elevations of the road.



Using these forms as basic guides for sketching is a great aid. After we have the general shape of the object sketched in, we can check it for accuracy, if necessary, by using the rules of perspective we have learned.



In views that depart from the "norm" and are considered unusual, or views that are changing to place the object into a rectangle that houses it comfortably. This will give us a general gu checking for accuracy. When checking, always refer to the three most important parts of pers level and angle, eye level or horizon line, and vanishing point or points.




Here are several forms floating in space. Notice that each has its own imaginary horizo vanishing points. This is the type of perspective theory used in illustrations of objects floatir The horizon line is imaginary, but necessary for keeping proportions of objects correct.