Perspective Drawing

The key to good perspective drawing in Illustrator is to properly set up your construction lines. In order to do this effectively, you will need to understand how each element relates to the others.

Rectilinear forms have three sets of parallel lines that show height, width and depth. This cube is color coded to show each set of parallel lines. There are many ways to draw 3D forms in 2D. This cube is shown in isometric projection. That means that there is no dimensional distortion; there are no converging lines. This kind of drawing is often used for technical drawings.
Perspective Drawing

In order for a drawing to convey a sense of depth, we need to use perspective. This is how the human eye perceives objects. Lines in a perspective drawing converge towards a common point. This Escher print uses three point perspective.

This is an example of one point perspective. Notice how two sets of lines are still parallel, but the set showing depth is converging towards a point on the Horizon line. These lines are built along guide lines that run from the foreground to the Vanishing Point.
Perspective Drawing

In two point perspective, two sets of parallel lines run towards two separate Vanishing Points on the Horizon. Only one set of parallel lines remains. Notice that the vertical lines that indicate the object’s height get shorter the further away from the viewer they are. The closer the Vanishing Points, the more distortion there will be in the image.
Observer
Distant
Observer Height
Observer Position

Angles 60/30

Angles 45/45

Angles 30/60
Cone of Focus
Cone of Focus
Cone of Focus

CONE OF FOCUS
$45^\circ - 60^\circ$

PICTURE
PLANE

OBSERVER

1 2 2 1 2 3
Cone of Focus
Cone of Focus
Circles in Perspective

EYE LEVEL

EYE LEVEL
Circles in Perspective

Diagram showing different views of circles in perspective, including top view, side view, and 3D representations.
Circles in Perspective

horizontal plane

draw any perspective square

locate center and 4 mid points

estimate somewhat 2/3 distance from 0 to corner

draw ellipse

minor axis coincides

vertical plane

draw any perspective square

locate center and 4 mid points

estimate somewhat 2/3 distance from 0 to corner

draw ellipse

minor axis coincides

horizontal plane

draw any perspective square; divide into 4 parts; locate mid points

locate 8 additional points using rectangle diagonals

draw ellipse

minor axis coincides

vertical plane

draw any perspective square; divide into 4 parts; locate mid points

locate 8 additional points using rectangle diagonals

draw ellipse

minor axis coincides