# Perspective (for Artists) 

Boxes to Buildings, drawing with Sighting and Measuring

## View Finder



## One Point vs. Two Point Perspectives The vertical lines are always vertical.

One Point Perspective

In one point perspective, you will not see any sides of a box, only the front. Depending on the perspective, you can often see either the top or bottom of the box. There are two total vertical edges (left and right).


Two Point Perspective

In two point, you will see two sides of the box, and possibly the top or bottom. There are three total vertical edges (center, left and right).



## Horizontals and the Eye

 LevelEye level (horizon line) is a line the indicates the level of your eyes in space. It raises and lowers if you stand up or sit down.

Horizontal lines can mean two things:

1) The top or bottom of the box is resting on the eye level.
2) The box is in one point perspective.


If you see the top of a box, it's below the horizon line (eye level).

If you see the bottom of a box, it's above the horizon line (eye level).


## Two Point Perspective

You will see more of the top or bottom of the box, depending on how far away it is from the eye level.

In two point perspective, the diagonal lines will become flatter the closer they are to the eye level, and degree of the angle will increase. As the diagonal edges move further from the eye level, the angle becomes more like a right angle



## Using "Sighting and Measuring" The Basic Unit



## Virtual Example!



## \#1 Find your "unit of measurement"


\#2 Use that unit of measurement to find the left and right verticals of the box (the blue lines are the UM turned horizontal). Note that the left and right verticals will never be bigger than the center vertical.


## Next step is to find the diagonals



## Verticals are always vertical, but how do I get the diagonals? How do I SEE (estimate) the diagonals?

- When you measure the angles of the diagonal lines, you can hold your pencil (or ruler) either vertically or horizontally and estimate the measure the angle with the aid of the "negative space" (the space between my pencil and the bottom of the box). I like to draw doted lines to represent the pencil on my drawing paper to better estimate this.
-There is also a "transfer" method,
 which I will demo later.

By creating a horizontal "plumb line" with your ruler, you can see the negative space between the ruler and the diagonals of the box.


You're estimating the negative space, and it's not an exact science.


## Plumb lines

These are used to check the spatial relationship between objects. For our purposes, these lines can be used vertically and horizontally. Plumb lines often utilize "negative space" to make comparisons.


## Things to Remember While Sighting and Measuring

- Closing one eye to reduce depth perception is a useful trick when looking at your subject. You will see in 2-D instead of 3-D binocular vision.
-When measuring diagonals, remember to keep your pencil parallel to your eyes. Your angles will not be accurate if you "poke through the drawing"
- Keep your elbow locked when you sight and measure to keep things consistent
- Angles may vary , only true verticals and horizontals are consistent and reliable. For this exercise, even if the box is lopsided (due to old cardboard), use a vertical line to describe the heights of the boxes.

-Chose a unit of measurement that is either a true horizontal or vertical. Not a diagonal.
- You must draw objects as you see them, not as you think they actually are. It is the only way to make them look real on the 2-D surface. "Draw what you see, not what you know."
Even though we know that the table top is square, doesn't mean we can draw it as a square.



## Foreshortening

## Albrecht Durer c. 1525



Draughtsman Making a Perspective Drawing of a Woman



## Three Point Perspective

## Bruns, Jordan

Rebirth- graphite on BFK, 42x42in, 02-07

Bird's Eye View


## Bruns, Jordan

Jenga- graphite on BFK, $14 \times 21 \mathrm{in}, 03-10$

Worm's Eye View


# Circles in Space 

## The dreaded ellipse

## Circles and Ellipses

Top circle is looking up at the circle, bottom is looking down at the circle


Common problems....


