Our Mathematical Senses

The Geometry Vision

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Lecture - 13

Video 3B: demo: drawing in one point and two point perspective

So to begin with, let's draw a box that is oriented in one point perspective. In other words, a box that faces the picture plane. To do this, we need to first draw the front face of the box. We can place this face anywhere we want. Here, or here, or here. I'm going to place it right here.

Now we can connect all the corners of the front face of the box to the vanishing point. Note that two of the edges are not visible due to the placement of the box. Now let's try drawing another box in one point perspective. We won't use a square face this time.

Since we placed the front face of this box fully below the horizon line, there are three outgoing edges of the box that are visible. Let's now draw a box that is oriented in two point perspective. In this case, only one dimension of the box will be parallel to the picture plane, so we can start by drawing a single front edge of the box, represented by this vertical segment. We need to choose two new vanishing points to which the outgoing edges of our box can converge. Let's connect the two corners of this front edge to the two vanishing points.

Now we just need to decide where we want our box to end, and draw vertical segments to mark those back edges of the box. And that's all there is to it. Now we can have some fun with our perspective boxes. I'll leave it to you to experiment more with one point perspective and two point perspective. I'm sure you can create some very interesting drawings this way.