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Two point perspective drawing exercises pdf

We've already gone over one-point perspective and now you're probably wondering what the heck two-point perspective is and how many more points you're going to have to figure out later. Don't worry—two-point is as far as we're going to go. There's also three-, four-, and even zero-point perspective, but we won't be worrying about those. If you were an architect you'd want to know about them but for our purposes, two-point is complex enough. In this lesson: Perspective Art History Lesson Two Point Perspective Other Types Of Perspective Exercise 1: Drawing A Box In Two Point Perspective Exercise 2: More Two Point Perspective Drawing But first—a history lesson! Perspective Art History Lesson Perspective hasn't always existed. There were no "how to draw" books with tips for drawing perspective in the Middle Ages. That's why some of them look so strange... Artist Unknown, Frankfurt Paradiesgärtlein (Garden of Paradise), 1410, mixed media on wood Giotto, St. Francis Denounces all Worldly Goods, 1297, fresco John Gipkyn, Old St. Paul's (sermon at St. Paul's Cross), 1616, oil on panel Artists back then had to figure out perspective on their own. One of the first major players to invent a system for this was Giotto di Bondone (1267-1337). He came up with an algebraic formula to work out linear perspective in his works. Although it didn't work as well as the more refined rules we have today, you can see the huge improvements Giotto made (especially from his earlier work): Giotto di Bondone, Christ Before Caiaphas, c. 1305, fresco The stairs are still a little wonky, but the ceiling is looking pretty darn good. A few books were written on the subject of perspective and a lot of artists spent a lot of time perfecting it before they started coming up with things like this: Perugino, Delivery of the Keys, c. 1481, fresco Raphael, School of Athens, c. 1509, fresco So even though perspective is tough to learn, at least you didn't have to invent it. The difference between one-point and two-point perspective is the number of vanishing points. One-point perspective has only one vanishing point and two-point perspective has two vanishing points. Both of the above examples are using one-point perspective. We can see that because everything is vanishing into one singular point in the center. We can see two-point perspective at work here in Caillebotte's Paris Street, Rainy Day: Gustave Caillebotte, Paris Street; Rainy Day, 1877, oil on canvas See how the building in the background is going off into two separate vanishing points? Below, I've drawn the lines so you can see it more clearly: The yellow liner is the horizon line and the two red dots are the vanishing points. You can see how not only the one building is using the two-point perspective but the rest of the objects in the painting are following the same lines. I've outlined the sidewalk too so you can see how it's also using the same vanishing point. Exercise One: Drawing A Box In Two Point Perspective Let's do this exercise together. Take out a piece of paper, your pencil, eraser, and a ruler. Draw your horizon line then two vanishing points on either side of the paper. For this exercise, we're going to make another cube (I told you to draw a lot of them!). So make a vertical line somewhere on your page between the two vanishing points and below the horizon line. Now use your ruler to draw lines from the vanishing points to your vertical line. Draw four lines so you have lines from each vanishing point to the top and bottom of your vertical line. Then you'll draw two more vertical lines to define the size of your box. Once you have all these lines drawn, continue making lines coming from your vanishing points to touch the tops and bottoms of your new vertical lines. You can see in the picture above the new lines (red) extending from the vanishing points to the tops and bottoms of our new vertical lines (blue). After those four lines have been drawn in, there will be a new intersection where the back corner of your box will be (pictured as a green vertical line in the image above). It looks pretty messy right now so start cleaning up around your box with your eraser until it looks like this: Congratulations—you have now made a box in two-point perspective! If we add some value to it, it becomes a block or the beginnings of a building. Exercise Two: More Two Point Perspective Drawing (...can you guess what it's going to be?) That's right! Draw more boxes! Use your same sheet of paper and practice drawing more boxes/buildings. Draw at least two more boxes–more than that if you're feeling ambitious! Here I started out by drawing a lot of lines coming from my vanishing points and using vertical lines to connect them at intersections. If you look closely, you can see the outlines of my boxes starting to take shape. You can erase the unnecessary lines. I just filled in some value so you can see the forms better. For now, while we're learning, our vanishing points remain on the page. Eventually, though, the vanishing points will move off your paper and into the distance. We'll cover this more in Lesson Nine: Measuring. For now, just keep practicing with your vanishing points on the page. Other Types Of Perspective For those of you who are curious about zero-, three-, four-, five- (and more!) point perspective, here are some examples: Lynn Boggess, 21 March 2012, oil on canvas Zero-point perspective is a lot more common than you may think. It's basically any landscape or other natural scene where the lines are mostly parallel and don't appear to meet anywhere in the distance. There are no visible vanishing points, hence the name, "zero-point perspective." Three-point perspective Four-point perspective Five-Point Perspective Here's an example of a combination of two- and five-point perspective by the sensationally talented M.C. Escher: M.C. Escher, Still Life with Spherical Mirror, 1934, lithograph* *A lithograph is produced through the process of lithography—a printmaking process that involves drawing with a grease pencil on a large smooth surface (traditionally stone), inking the drawing with oil-based inks, and printing the image onto paper. Key Lesson Learnings: You have learned about two point perspective and how it is often used in scenes, particularly those with buildings. Next lesson: Cylinders And Cones This is where the message goes! Going through both the videos and the text is important - it allows us to attack this complicated material from many angles, learning from it more effectively and efficiently. Drawabox has been working with the guys over at Audiblogs to make our lessons more accessible. With much more natural intonation and inflection than normal text-to-speech, it makes absorbing the material vastly easier. You can test it out on Lesson 0, and the Lesson 1 Lines section for free. You can also learn more about our collaboration with them here. Before we get into this, I want to make one thing very clear: the lesson content on this page is a LOT to take in. The video may help you understand better, but it's not all going to sink in all at once. Watch the video, then read through the written material, then even if you're unsure of things, move onto the exercises. As you work at it and employ the concepts described, it will gradually start to make more sense over time. Finally, having sloughed through lines and ellipses, we've reached the namesake of this website - boxes. I chose that as our name not because it is all I wish to teach you, but because it is representative of so much more. A box consists of three sets of parallel lines. If you're familiar with three dimensional geometry, each set defines an axis - either x, y or z - and in doing so, it establishes the foundation of what we understand to be 3D space. Any object can be simplified into the box that encompasses it. Any form can be represented and constructed within - you guessed it - a box. And any box can be subdivided, carved, and built upon to create any complex object. But if we want to learn how to draw a box, first we need to learn something about perspective. If you've heard anything about perspective in the past, you've probably heard about the concept of a 'vanishing point'. It is a representation of the most fundamental rule of perspective - as an object moves farther and farther away from you, it's going to appear smaller and smaller to you. Eventually it'll get so small that it collapses to a single point, after which it effectively vanishes due to being so infinitesimally tiny. A vanishing point. Instead of an object, we can also think of this as applying to a distance, represented by a single line. As this line moves farther and further away, its length (the distance between the end points of the line) would shrink until it too collapsed to a vanishing point. Finally, if you think of this distance as being the distance between any two parallel lines (which remains consistent in 3D space by nature of them being parallel), when drawn in 2D any lines that are parallel to one another will ultimately converge towards - you guessed it - a vanishing point. This brings us to the rule that exists at the core of understanding perspective: any set of lines that are parallel to one another in 3D space will, as they grow farther and farther away from the viewer, ultimately converge to a single, shared point. Again - if you know anything about perspective already, you'll probably have heard about 1, 2 and 3 (vanishing) point perspective systems. While we will deal with these each in small amounts at first, I want to make one thing clear: These 1, 2 and 3 point perspective systems do not exist. It's a simplification of the concept intended to help beginners learn, but one that I find to be extremely limiting. When I was first learning perspective, it was something that confused me for years, and I've seen the same in many of my own students. A scene will be governed by any number of vanishing points. It simply depends on how many sets of parallel lines you have. If you throw a box into your empty scene, that gives you three sets of parallel lines. If you duplicate this box and move it slightly to the side - so it's still sitting parallel to the original, you still only have three sets of parallel lines between them, and therefore 3 vanishing points. If however you take that second box and rotate it on one of its axes, two of its sets of lines will no longer be parallel to the corresponding ones in the other box, and you'll end up with 5 sets - therefore, 5 vanishing points. If you think about drawing a scene in your kitchen in perspective, you're going to have all kinds of objects laying around - a fridge, a microwave, a cutting block, an oven, etc. And while you may be super neat and obsessive about keeping everything perfectly aligned to a grid, you're not perfect - some of those things are going to be off at some kind of an angle. In fact, if everything were perfectly aligned, it'd feel... off. Too sterile. Not to mention the fact that not everything is just a simple box. There are so many different sets of parallel lines in a scene, and a vanishing point for all of them. Now, 3 point perspective would be fine if all we had was a single perfect box in a scene, alone. But what about 1 and 2 point perspective? Those are also used to draw similar setups (a perfect cube alone in a scene), but we know that our box is made up of 3 sets of parallel lines - so how can we have fewer than 3 vanishing points? There are ways, based on how we look at a given object, that we can eliminate some of its vanishing points. Or, perhaps a better way to put it is, those vanishing points are placed so far outside of our canvas or page that the convergence of all the parallel lines leading to it is negligible. It's effectively at infinity, and while in theory if we can look infinitely far away from where we're actually drawing, we'd be able to see those lines converge. Two point perspective generally involves the vanishing point for your vertical lines, which usually sits very high up, generally off the page or canvas, being moved so high up that the convergences become pointless. Anywhere within the frame of your composition, any lines going up to that vanishing point will effectively run straight up and down, perpendicular to the horizon. We can achieve this effect only when we are not looking at the box from too high or too low of an angle. One point perspective goes one step further. In two point, the vertical vanishing point is at infinity, leaving the remaining two vanishing points on the horizon line. To move into one point perspective, we move one of those vanishing points so far off to the side that it too goes to infinity. Your one remaining vanishing point in this scenario is going to be sitting somewhere visible within your composition (rather than being off the page/frame), otherwise things are going to look really weird and distorted. This means that the viewer is going to be looking down the barrel of your box, or at least close to it. Now, all of this is probably really confusing and is going to take a while to sink in. Don't worry about that, you'll start to grasp it gradually. What you can keep in mind for now, in terms of when to use 1, 2 or 3 vanishing points for a box are these much simpler rules of thumb: If your view is aligned mostly to a box's face, use 1 point perspective. If your view is aligned mostly to a box's edge, use 2 point perspective. If your view is aligned mostly to a box's corner, use 3 point perspective. This actually works pretty well, until you're able to grasp the more complex reasons behind it all. When you're looking directly at a face of a box, one set of its parallel lines are going to be receding to a vanishing point in the frame, somewhere pretty close to the face you're aligned to. When you're looking directly at an edge, you've got two sets of parallel lines going off to either side of it. When you're looking at a corner, all three sets of parallel lines are coming off of that single point towards their own vanishing points. Every Drawabox lesson consists of lecture content and exercises that are assigned as homework. It's best to complete this homework before moving onto the next section. As this lesson consists of three sections (lines, ellipses, boxes), it is best that you only submit your work for review when you've completed all three. The homework assignment for this section is as follows: All the assigned work for this section should be done in ink, using fineliners/felt tip pens as described here. In a pinch, I will accept work done in ballpoint, but only if the situation is dire. This is an exception only for this lesson as students get started. This page has student-made readings/recordings They can be helpful for those of you who cannot follow along with the text, or who need live examples for the exercises to follow along with. Just keep in mind that as the lessons themselves are continually being updated and adjusted, the audio recordings may not be completely up to date. two point perspective drawing exercises pdf