

Perspective - Part 1

By [PhilDavies](#) on 11th October, 2013

Easily Master Basic Perspective - Part 1

The concept of perspective allows you as an artist to create depth in your drawings and paintings. And nothing will ruin a painting faster than poor perspective and proportion.

It doesn't matter how realistically you're able to render various textures and objects, if your perspective is out your painting will have that awkward, displeasing-to-the-eye appearance.

In fact, you could argue that the more time and detail you put into a picture, the more offensive sloppy perspective becomes – a loose, impressionistic style can claim those wonky lines and disproportion are all part of the effect!

What is Perspective?

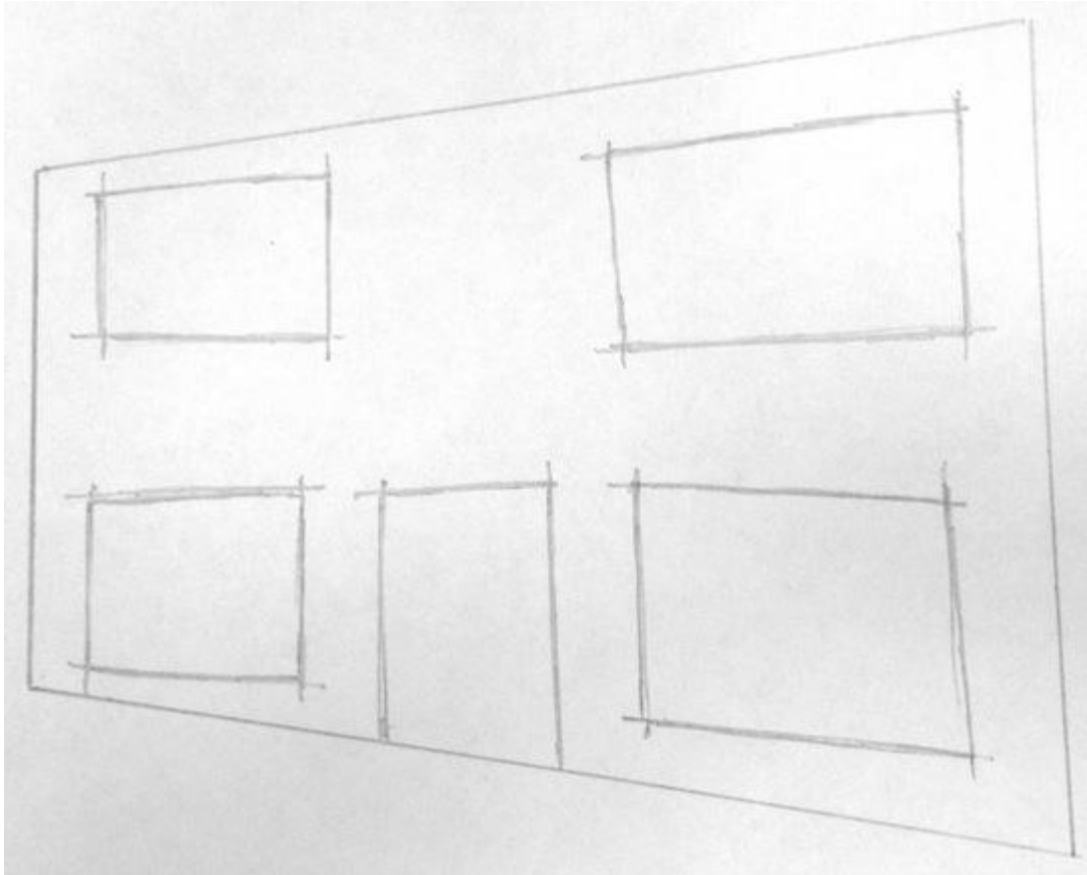
Perspective, in a nutshell, is all about objects (or parts of the same object) appearing smaller the further away they are from us and how that distorts their shape.

The classic perspective example is viewing a building from a side-on angle, rather than directly front-on. Looking 'down the line' of the building means that the far end of a building is further away and therefore appears smaller.

Look at the photo of the house below and notice how the roof line and floor line run at very different angles - one sloping down and one sloping up. In effect, the left hand side of the building looks significantly smaller than the right hand side of the building:



From the floor, the angles of other horizontal lines (such as the tops of door frames and window frames) are going to gradually change until you reach the roof top line. If you get any of these angles wrong - if the line of the first floor windows is too steep for example - your perspective will be off and your picture will look wrong:



And it doesn't have to be out by much for something to just look 'not quite right'.

As you'll see below, using **vanishing points** will ensure that all the details on objects like buildings are in both correct perspective AND correct alignment with each other.

The Vanishing Point

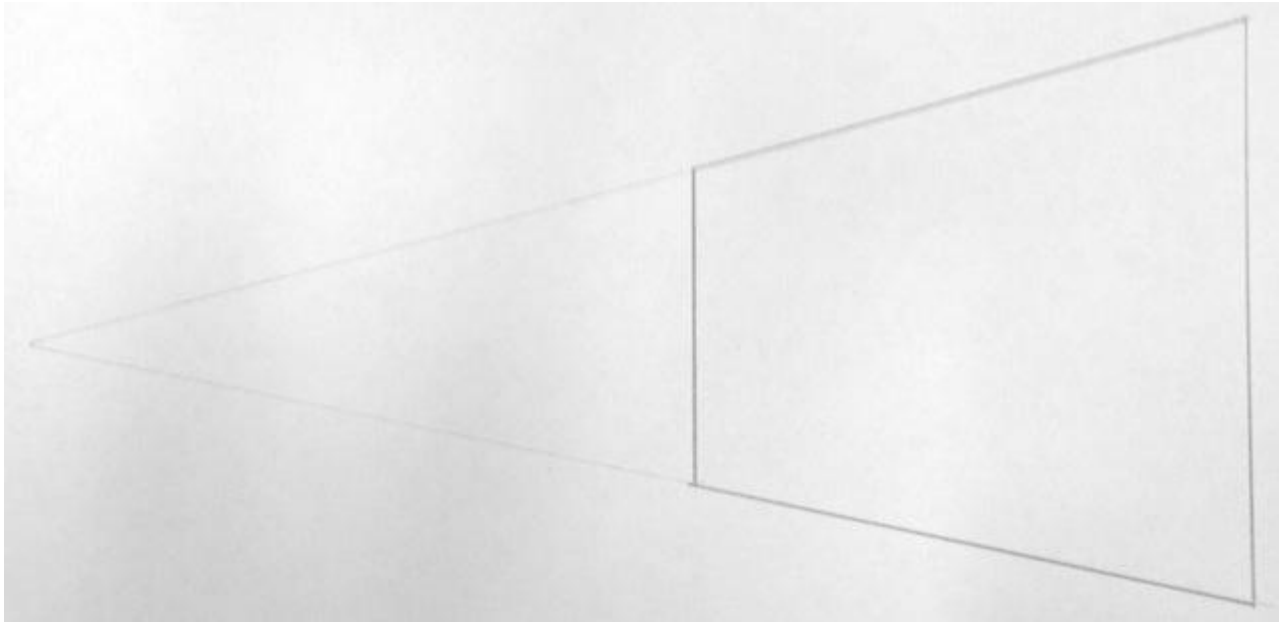
You've heard of it before but maybe the vanishing point has never been properly explained... or perhaps it's time for a refresh.

The vanishing point is simply an imaginary point where all lines along one plane meet and disappear. As soon as you realise that EVERY horizontal line along one aspect of a flat building HAS to meet at the same point, basic perspective becomes a breeze!

EXERCISE 1

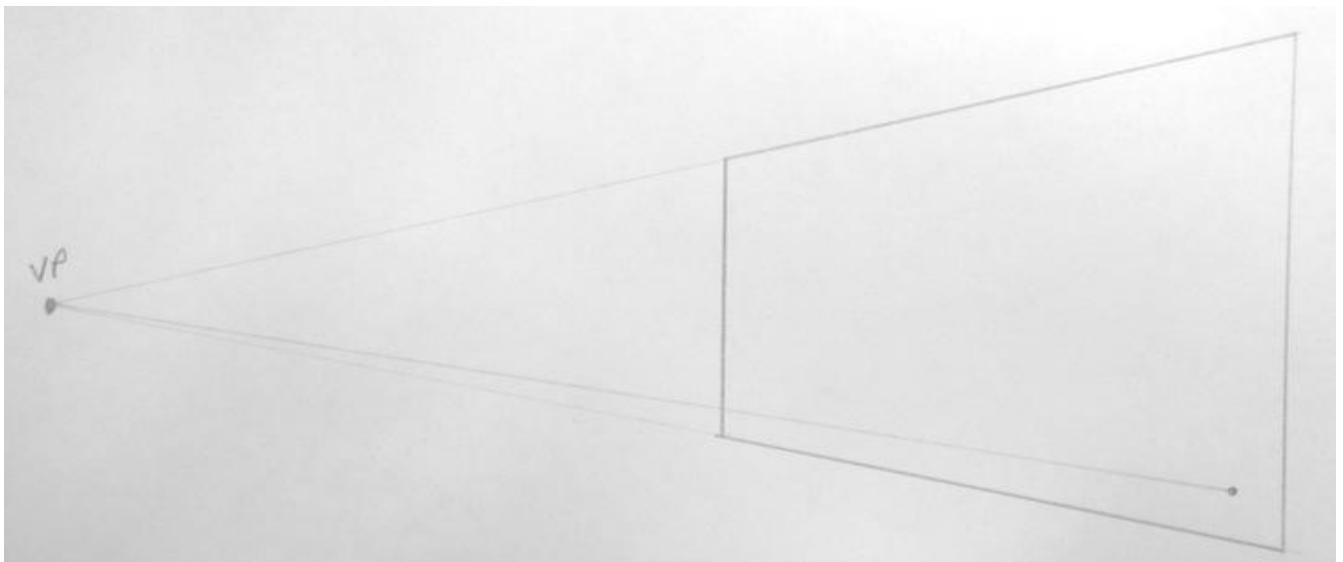
Let's draw a windowless house and extend the roof line and floor line as far as we need to until they meet (I suggest using a ruler for this).

By the way, it doesn't matter what angles you draw your floor and roof line at. Literally. Just draw the floor line sloping up and the roof line sloping down for now, a few inches apart:



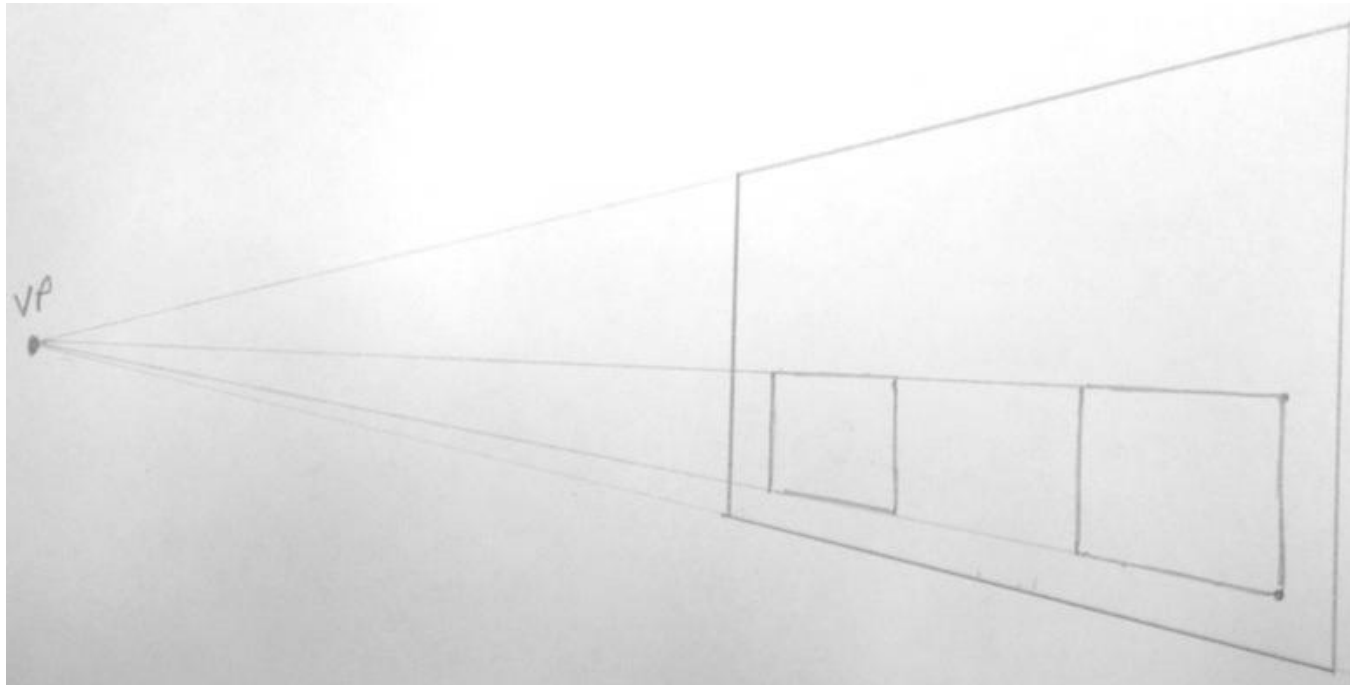
Let's draw one ground floor window (there will actually be two, but the other one will start to 'happen' automatically as we draw the first). We'll draw the nearest one to us. All I have to do is mark a faint spot (not a line, just a spot) about where I want the BOTTOM RIGHT of the right hand window to be.

Now draw a faint line with your ruler through to the vanishing point.

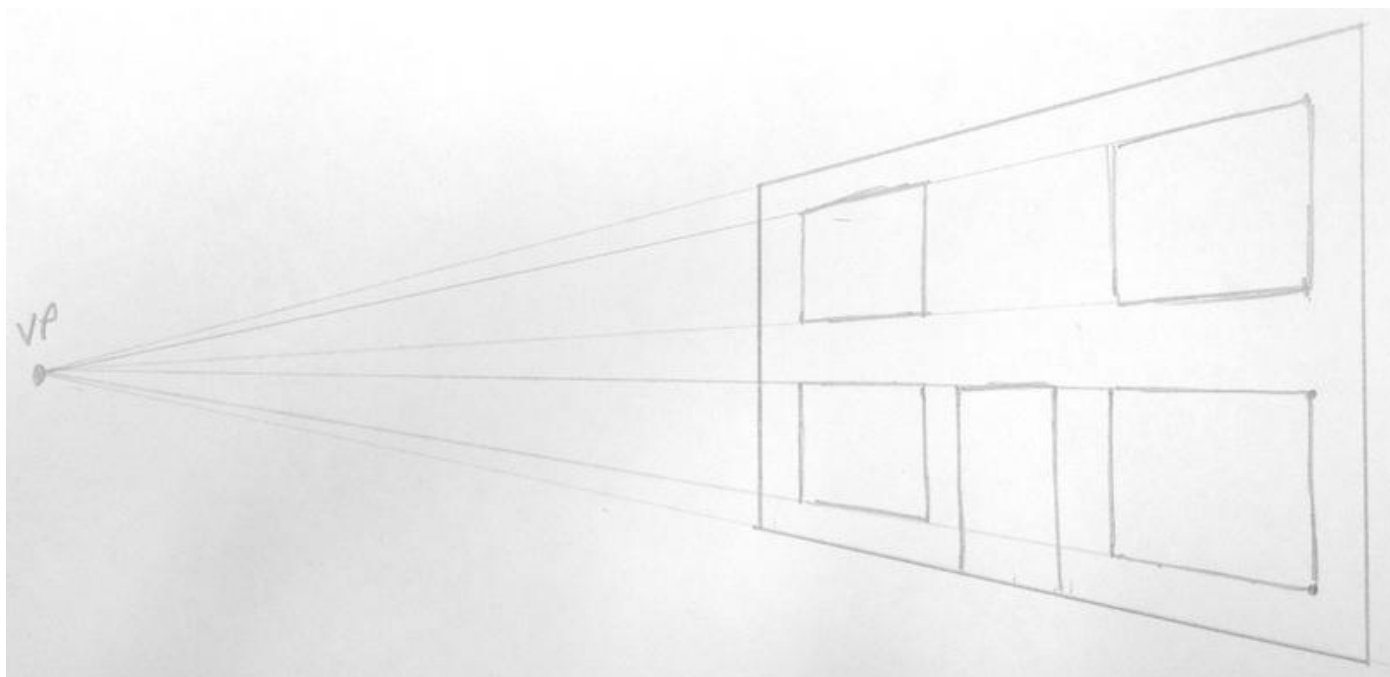


You now have the bottom line for BOTH ground floor windows.

Repeat this for the top of the windows and then add the verticals. Oh, and do make sure they are precisely vertical (compare the line to the edge of your paper). Even the best artists get caught out by this - not because they don't understand; because it's easy to get forget to check, check and check your verticals again!



Now go ahead and add your top windows and a door in exactly the same way:



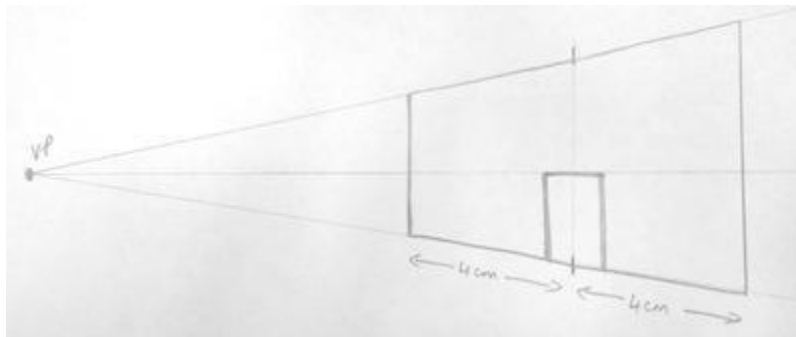
Foreshortening

In the picture above, notice how my right-hand windows (those closest to us) are wider than the left-hand windows. And look at the door. It *appears* to be in the centre of the house but if you were to measure either side, you'll find it is actually placed more to the left of the house.

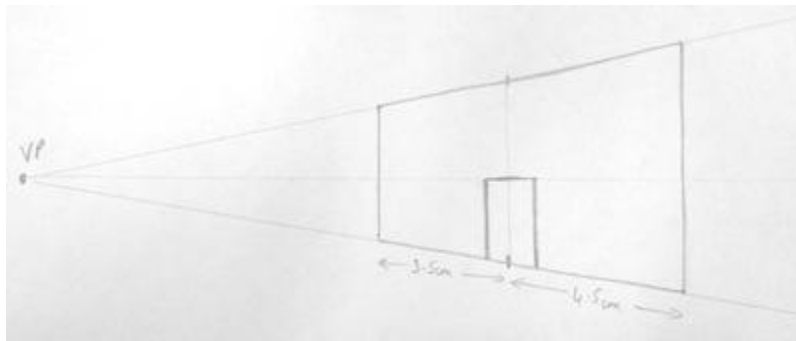
This is something called foreshortening, where more 'stuff' is crammed into a smaller space because of the effects of perspective.

EXERCISE 2

Let's draw another windowless house and this time I want you measure the width of your house and mark the centre point. Then go ahead and draw in your door over this centre point:

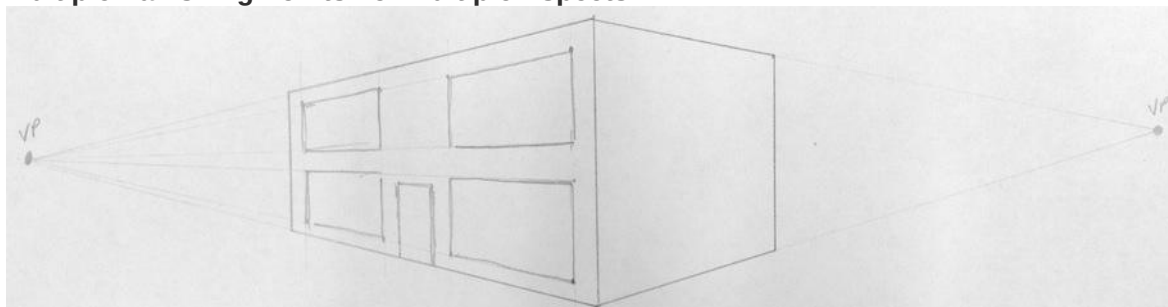


Even though it's technically in the centre it looks too close to us to be in the centre. Erase that door and this time just use your eye to 'feel' where the door should go so it *appears* to be in the centre of the wall:



Measure again and you'll see that the door is off centre. Bear this in mind when you're drawing. It's not about being numerically accurate - it's that old adage in art - if it **looks** right, it probably **is** right!

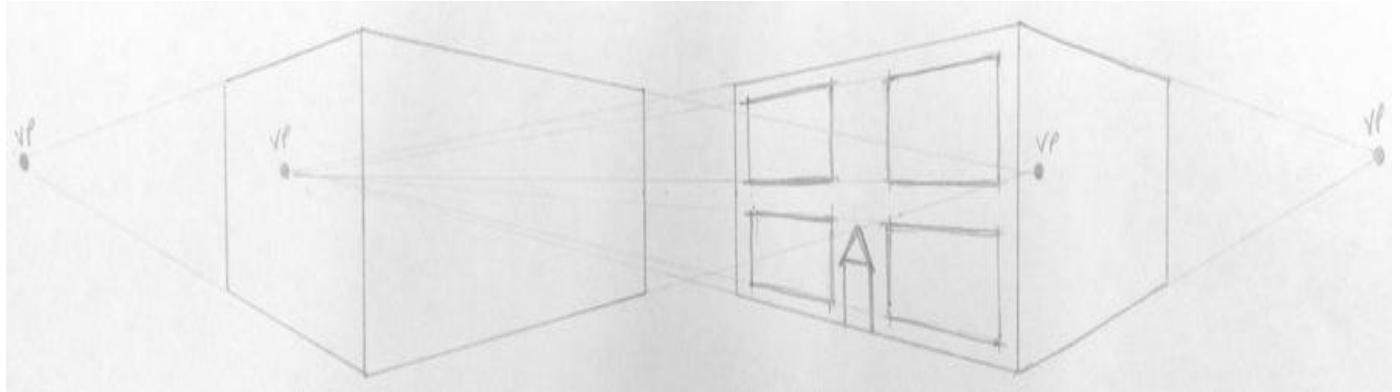
Multiple Vanishing Points For Multiple Aspects



EXERCISE 3

Add a second wall to your house from Exercise 1 by adding a second vanishing point to the right of the page. Make sure this second vanishing point is on exactly the same line as the first vanishing point. This is the **horizon line**, which is something else we'll look at in more detail in the next part to this perspective article.

Then, let's add a second building on the other side of the street. You should be using 4 vanishing points in total:

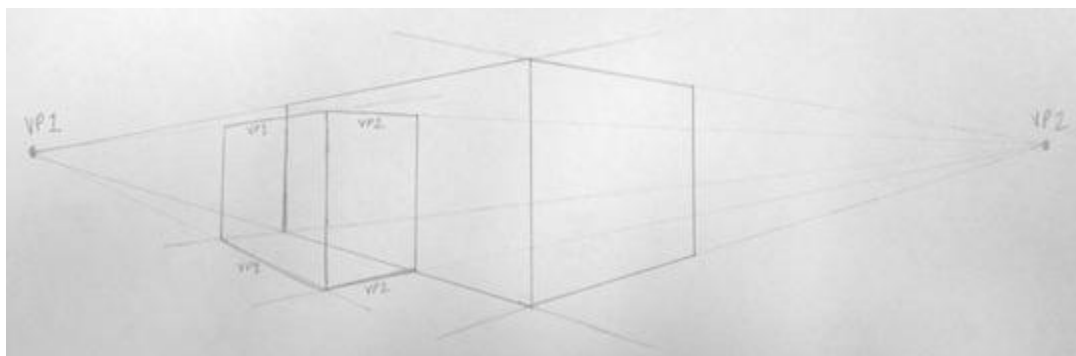


While all those construction lines might look a little untidy, in reality you'd erase them as you go.

The point to remember is that each aspect, or face, of the objects you are drawing need to have their own vanishing points.

Many, if not most, buildings don't have flat walls. They have various protrusions, like an adjoining outbuilding for example.

Adding these is simple. Use the SAME vanishing point for anything along the same aspect (i.e. the same side of a house). Let's take one of our earlier drawings and add a small out-building to the side:



Both aspects (i.e. both visible walls) of this smaller building follow the same 2 vanishing points.

Changing The Vantage Point

Suppose you were to view an object from very low down - a worm's eye view. How do you think that object would differ compared to a roof top view? Would the object and its perspective change significantly?

You can alter the whole feel of a picture simply by changing the view point - or vantage point - from which the subject matter is being observed.

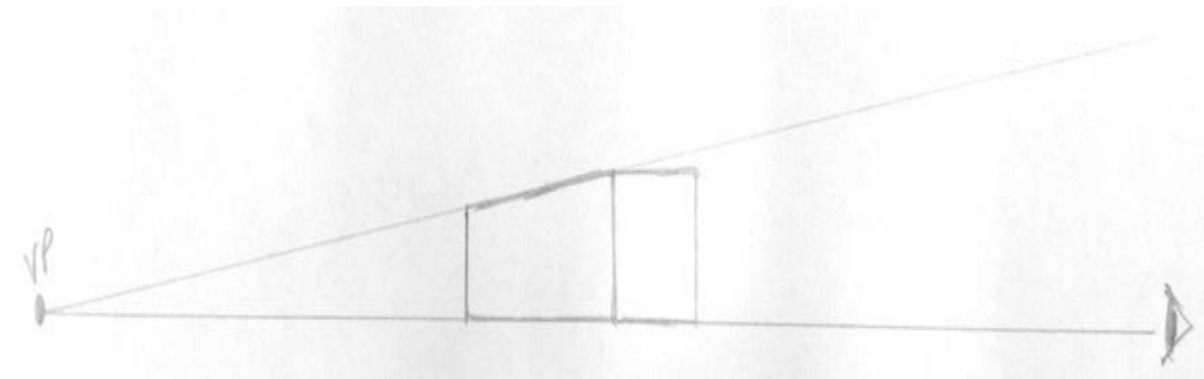
EXERCISE 5

You're going to draw 2 houses on one page. Start near the top of your paper to give yourself room.

Draw a dot on your paper to represent the observer's vantage point. Now draw a perfectly horizontal line from the dot across the paper (check this line runs parallel to the bottom of your paper).

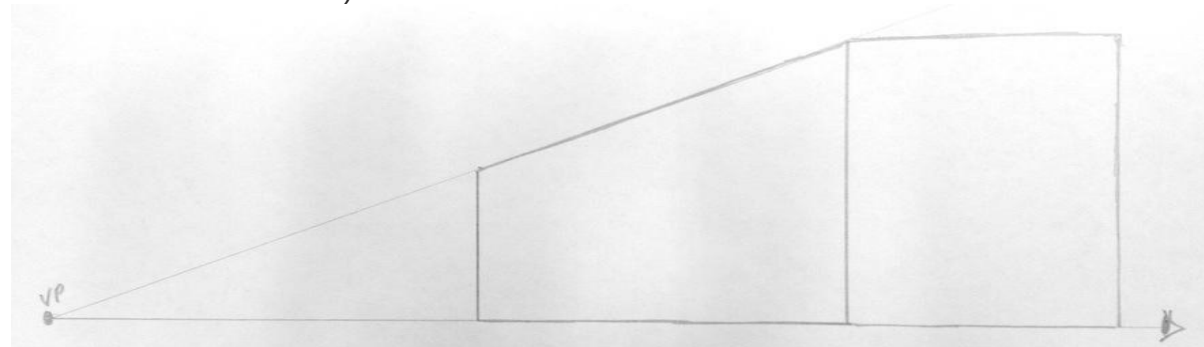
The end of this line is your vanishing point. For the first house, that line is going to represent the FLOOR of your building. It's also known as the 'eye-line' hence the little 'eye' on the right to remind you.

Now draw a relatively SHALLOW angle line for the roof of your building. Something like this:



Notice how this gives the appearance that the building is off in the distance?

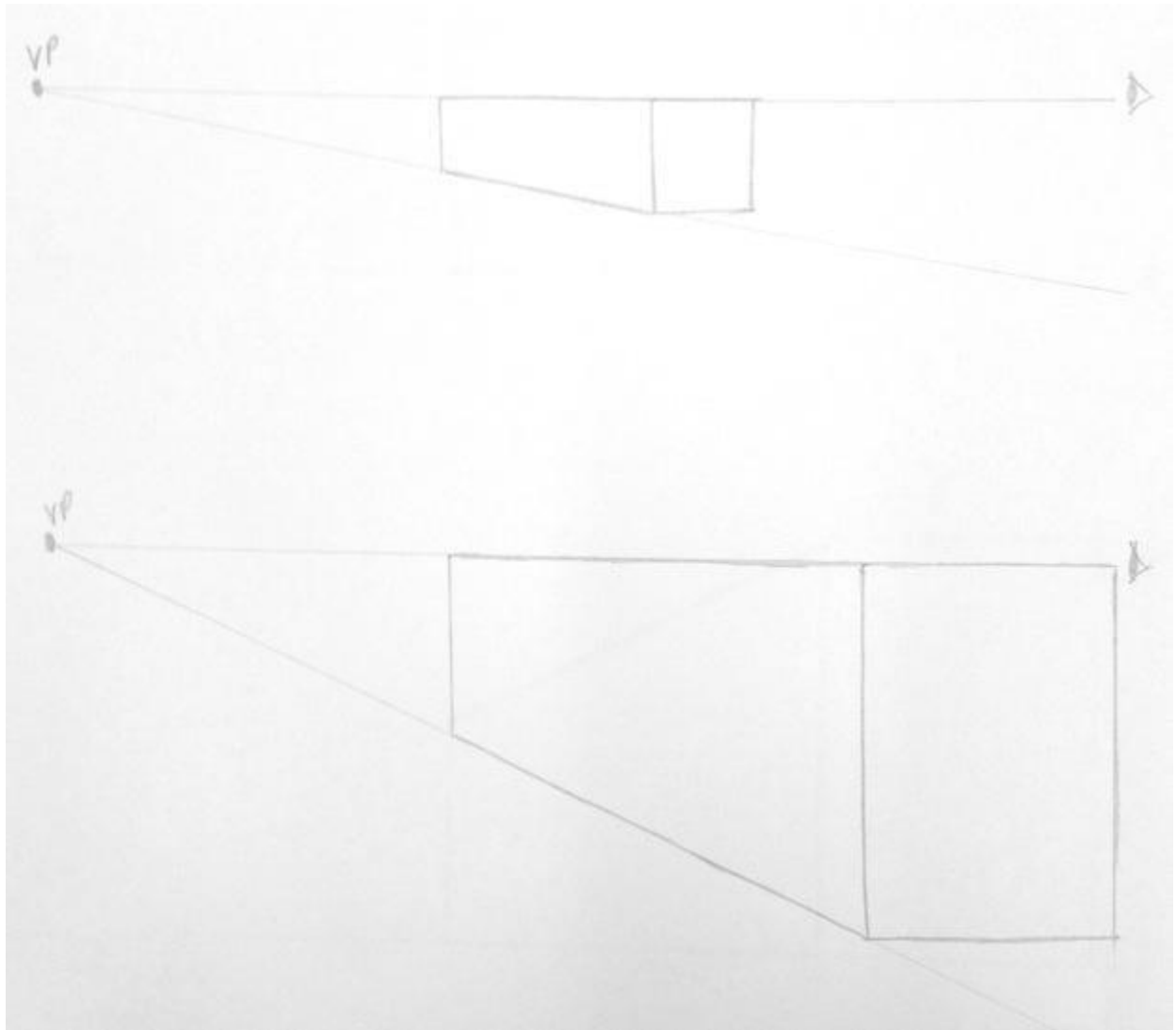
Now move down your paper and repeat the above drawing but this time draw a STEEP line for the roof. Draw the house with approximately similar proportions (i.e. don't make one really long and thin and the other short and tall):



This has the effect of bringing you very close to the building, but still with the low vantage point. This 'worms eye view' occurs because everything in the building is drawn **above** that eye line

EXERCISE 6

Let's draw 2 more houses but this time I want to set the eye line as the ROOF line. For one house draw a shallow FLOOR line and for the other, draw a steep floor line. See that now everything in the building is drawn **below** the eye line so it automatically lifts up the viewpoint to the roof level.



Drawing From Photos & Plein Air

Here are some photos that you can practice drawing from. Don't worry about the detail, just focus on creating a solid perspective drawing.

TIP: use your pencil to measure the angle of the LOWEST construction line (i.e. the floor line) and the HIGHEST construction line (i.e. the roof line):

REFERENCE PHOTOS:



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