

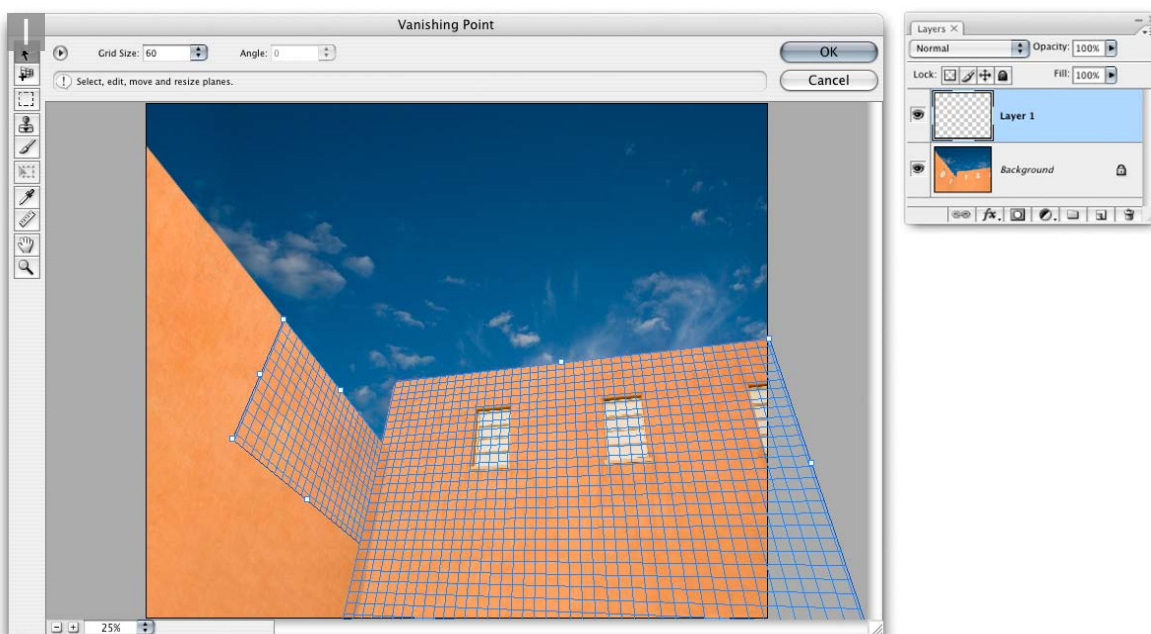
Vanishing Point

Vanishing Point

The Vanishing Point filter provides a modal dialog in which you can define the perspective planes in an image and then use the tools available inside the Vanishing Point dialog to carry out basic retouching work that will match the perspective of the picture. You can make a selection within the Vanishing Point preview area and clone the selection contents within one or more predefined plane areas. You can paste the contents of a selection and align it in perspective with the target image. And you can also apply the clone stamp in Healing or Non-healing modes, or paint with the paintbrush in perspective.

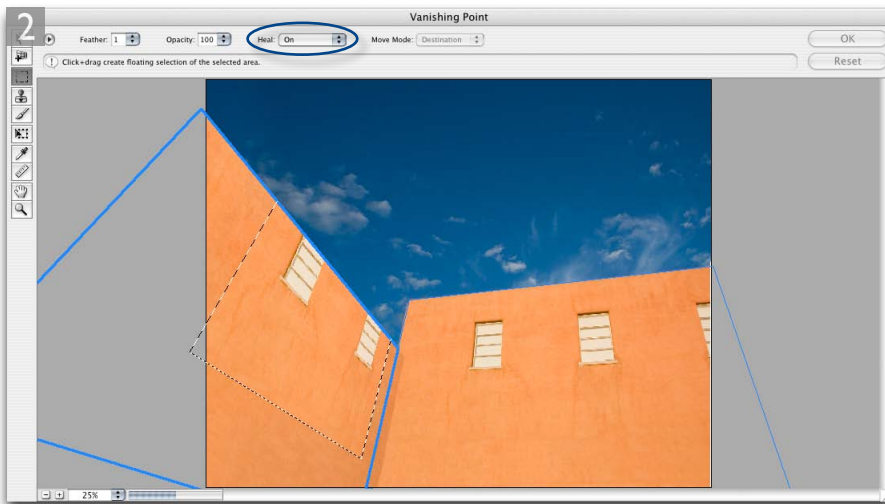
Rotate in perspective

If you have a copied selection active in Vanishing Point you can, if you wish, move the cursor outside the selection area to rotate the contents.



1 Before commencing any Vanishing Point work, it is a good idea to create an empty layer first and make it active before choosing Vanishing Point from the Filter menu. The next task is to define the planes of perspective using the create plane tool. I clicked to set four points to define the first plane of perspective, using visual clues in the picture as a guide (hold down X to temporarily double the preview magnification). Once the first four points have been set, a blue grid will appear within the plane. A blue grid means you have described a good perspective plane. A red or yellow grid will indicate that this does not meet the criteria of a good grid plane. I could then resize the grid by dragging on the side or corner handles. The grid size can be adjusted via the control settings at the top, and the individual grid corners can be realigned by using the edit plane tool (V). I then created a second plane to define the perspective of the left-hand wall, by **⌘** (Mac), **ctrl** (PC) dragging the side handle on the left side of the first plane.

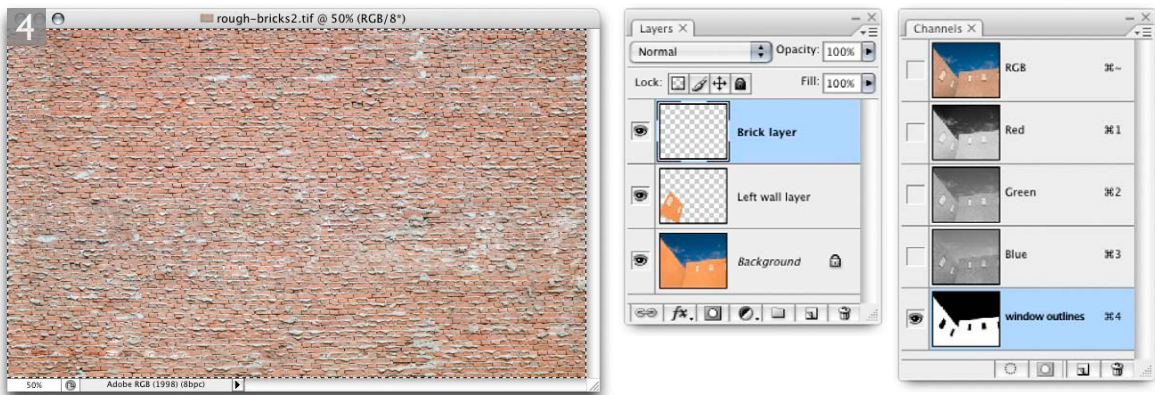
Original photograph: Jeff Schewe.



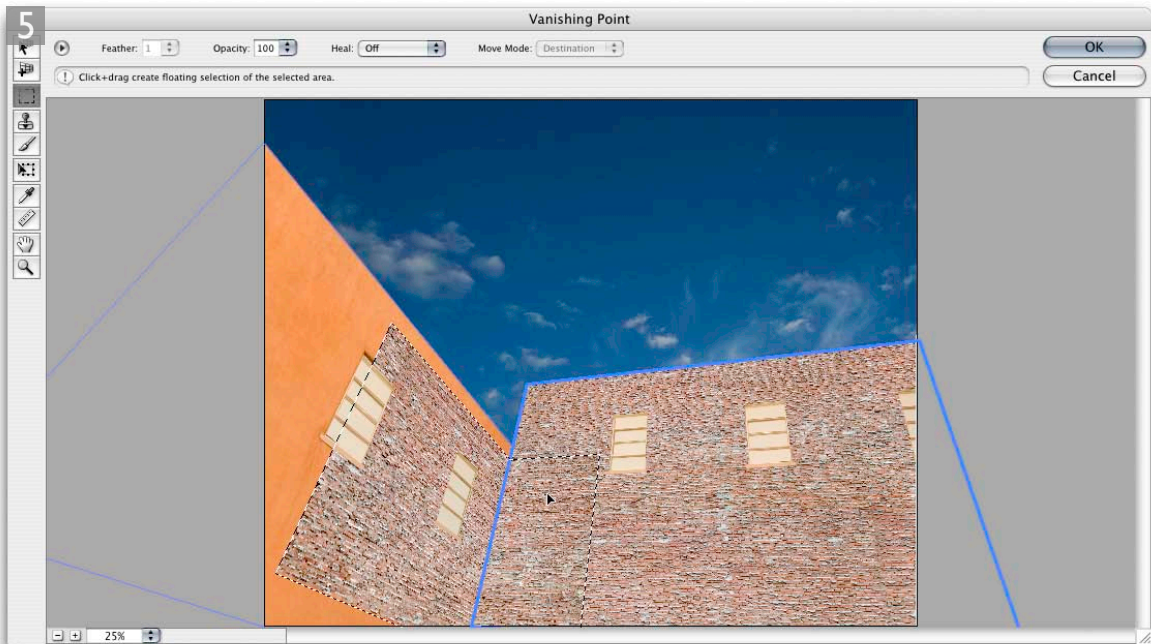
2 After the two planes of perspective had been defined, I dragged with the marquee tool **M** to define the two windows on the right-hand wall and held down the **⌘ alt** (Mac), **ctrl alt** (PC) key as I dragged from inside the marquee selection, to copy the selection and place it on the left-hand wall. As I did this the windows snapped to the predefined perspective plane of the second wall. Notice that before I commenced copying the selection contents, the Heal option was switched to On (circled).



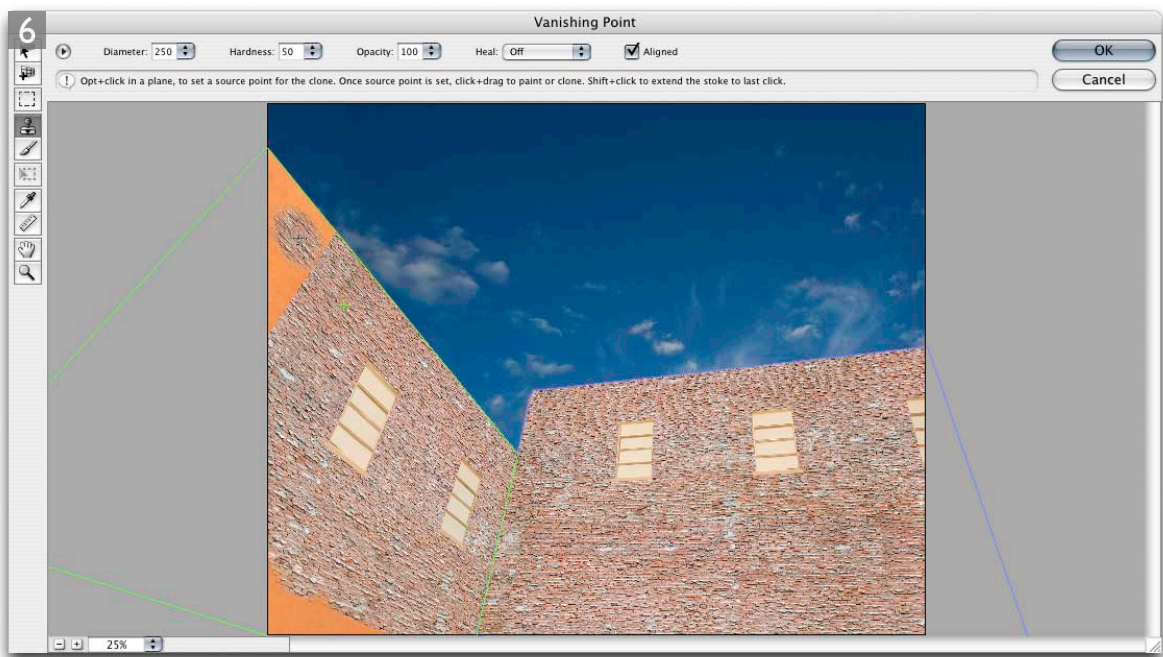
3 Because the Heal option was switched on, the area surrounding the window frames blended smoothly with the other wall. But the perspective of the windows themselves was wrong. So before I clicked outside the marquee selection to flatten the contents, I selected the transform tool **T** and this changed the control options view at the top of the Vanishing Point dialog so that I could check the Flip option (to flip the selection contents from left to right). I then clicked OK to apply the filter.



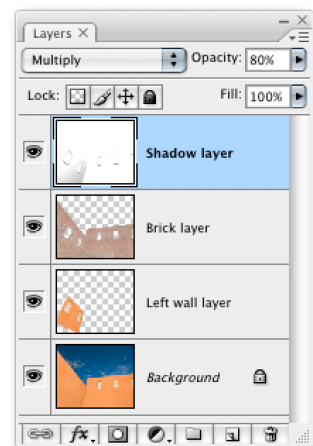
4 I opened a photograph taken of a brick wall and made a Select ⇨ All of the contents (⌘ A [Mac], ctrl A [PC]). Back in the original image, I added a new empty layer, loaded a pre-made selection of the walls that masked the two windows and chose Vanishing Point from the Filter menu again.



5 I used ⌘ V (Mac), ctrl V (PC) to paste the selection contents. The selection containing the brick wall image could then be dragged across to the perspective plane area, and as I did so the selection contents snapped to the perspective of the wall, leaving the windows visible. The selection contents had not been flattened yet, so I could alt drag the selection to copy it and drag across to fill more of the wall area and copy the brick selection around the corner and onto the other wall. I could then keep on alt dragging to make more copies of the brick wall to fill both walls.



6 To fill the walls with bricks completely I also selected the stamp tool **S** and used it with Heal set to Off, to clone the bricks in perspective to fill in the gaps.



7 You can see that I carried out all the Vanishing Point work on separate layers. I faded the Brick layer to 72% opacity and I added a Shadow layer in Multiply mode at 80% to add some shading.

Vanishing Point planes and measurements

This latest version of Vanishing Point offers two new features that will make this plug-in tool more useful. To start with you can now drag off new planes using a custom angle. For example, in Figure 1 below, the interior has a sloping wall. One can now adjust the planes so as to accurately follow all the angled surfaces of the room. So long as you get the initial plane description completely accurate, you should find that the consecutive planes will match the remaining perspective planes in the scene. And now when you clone or copy objects in Vanishing Point you will notice that you can paint or paste continuously around the corners of a plane, as shown in Figure 3.

If you happen to have the extended version of Photoshop, you can make a calibration measurement along a line on one of the planes and from this be able to make further measurements of objects on associated planes. So for example, in Figures 2 and 3, one could create a calibration measurement based on the known height of a room, and from that work out the distances and sizes of some of the objects in the room.

Rendering options

People have long asked for angled guides in Photoshop. With Vanishing Point, you can now create an empty new layer, launch Vanishing Point, use the Create Plane tool to create a perspective plane and go to the Vanishing Point options menu (circled below in Figure 1) and choose Render Grids to Photoshop. This will draw the guides shown in the preview on the empty layer. Likewise, you can use the Render Measurements option to do the same with the recorded measurements.

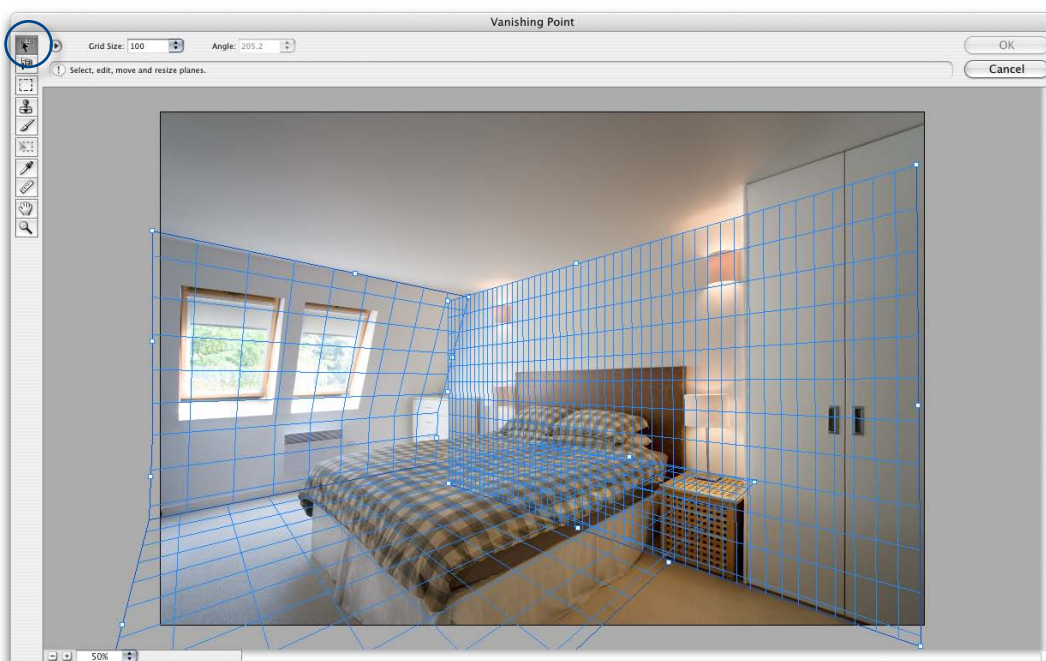


Figure 1 Vanishing Point in Photoshop will allow you to describe planes that are at any combination of angles.

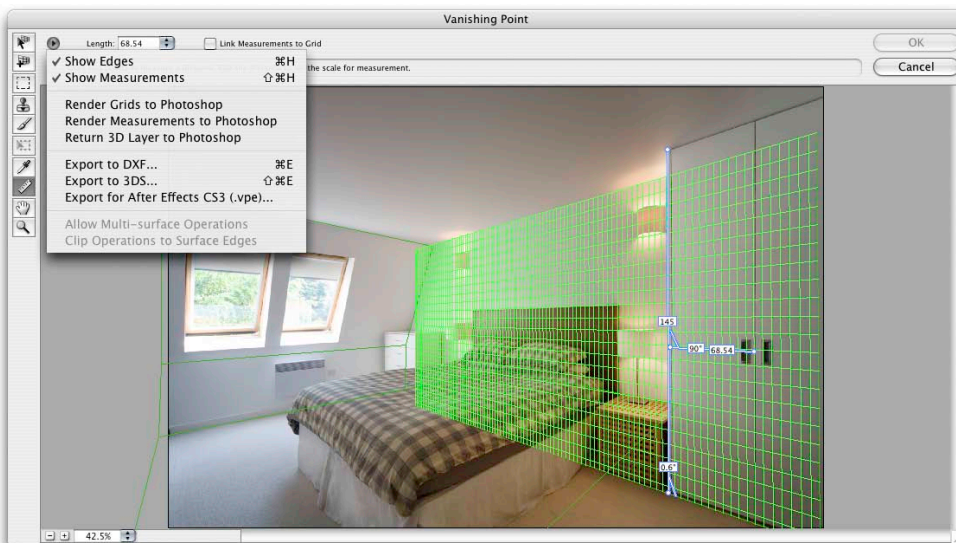


Figure 2 The measurement tool in Vanishing Point can be used to make comparative measurements in a perspective plane. In the example shown here, if I know the height from the floor to the ceiling I can draw a measurement line along the vertical axis and enter a unit value that corresponds with the known height of the room. Once I have done this, I can use the measurement tool to calculate other measurements relative to the first measurement.

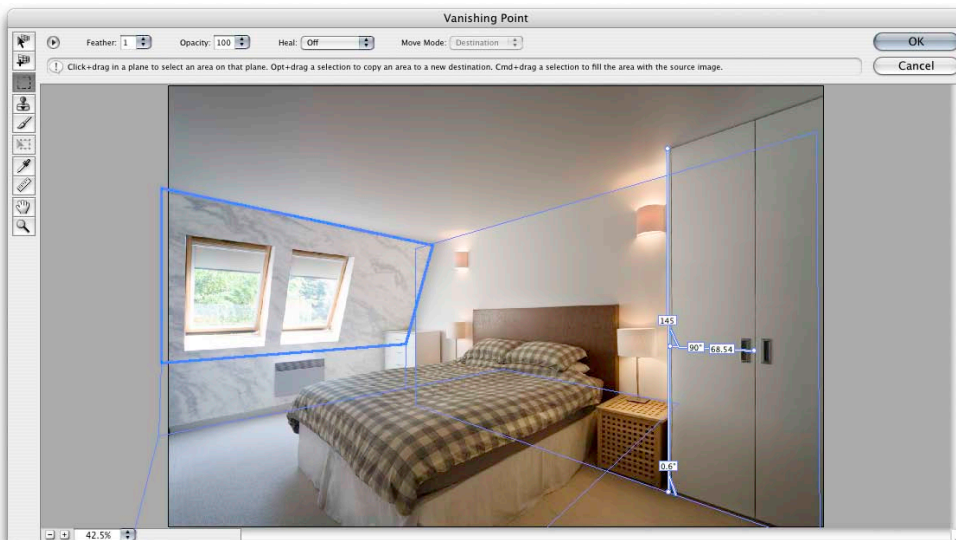


Figure 3 In this last example, I used the same technique described on the previous pages of making a mask selection of the wall with the windows, opened Vanishing Point and pasted a selection of a texture pattern. Note how you can now place a texture across more than one plane at a time.