

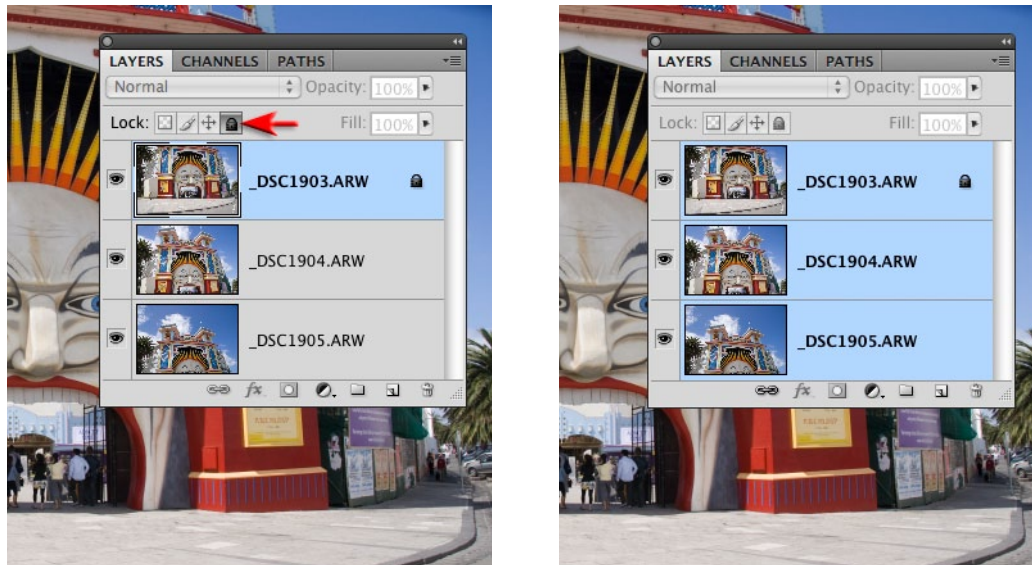
New Book - Available December 2008  
 Photoshop CS4 Essential Skills  
 by Mark Galer and Philip Andrews

<http://www.photoshopesentialskills.com>

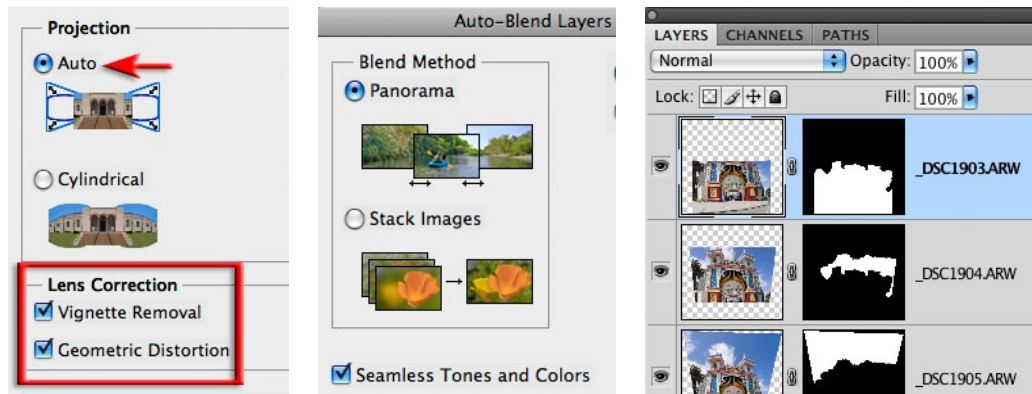


## Transforming a Smart Object in CS4

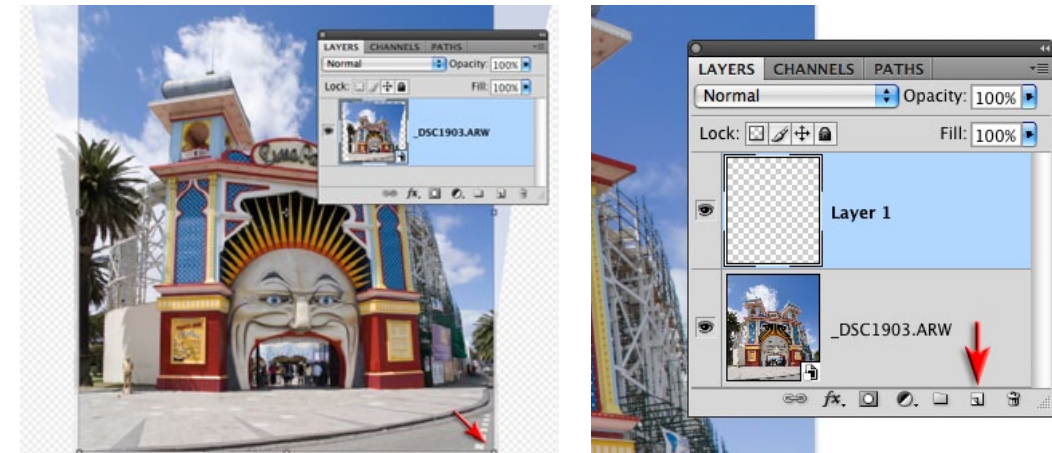
In the image above if I had moved any further back their would have been power lines, telephone lines and tram lines between me and the front of this old theme park. Capturing a building so close will inevitably lead to aggressive converging verticals due to a combination of the wide-angle lens and the angle of view required to capture the top of the structure. When capturing images for a vertical panorama it is recommended that you capture images using the horizontal (landscape) format. If you allow the Photomerge to take full control of the stitching you will end up with a poor result. If you intercept the automated process and use the following essential skills you will end up with a more professional result... just one of the many essential skills from the CS4 Essential Skills collection.



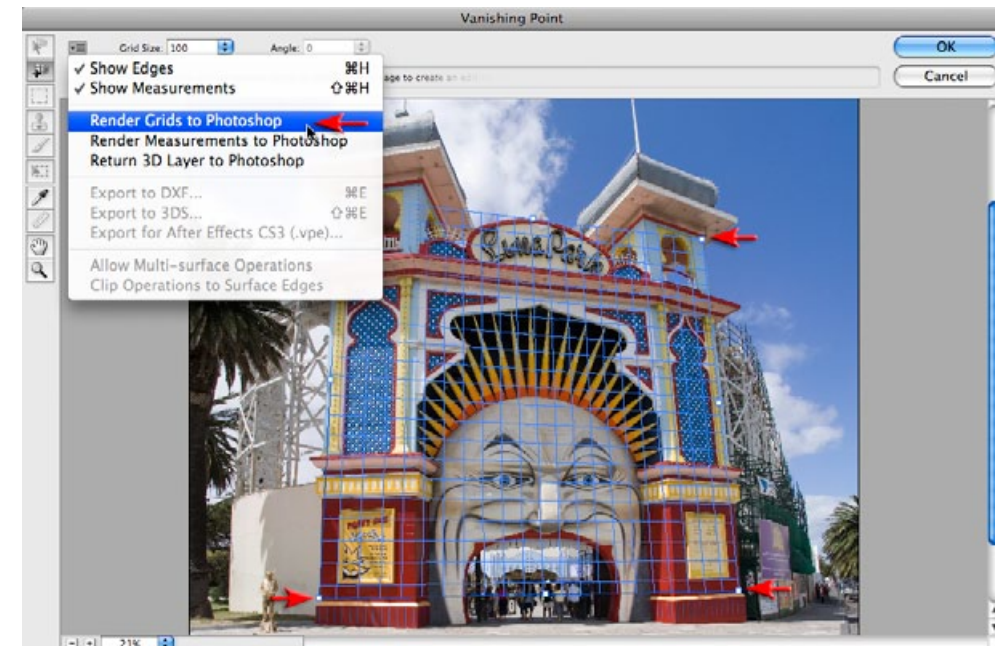
1. Go to File > Scripts > Load Files into Stack. Select the Open files but do not select the Attempt to Automatically Align Source images option in the dialog. When the files have been loaded into one image select the layer with the subject matter that is closest to the ground (the one with the least amount of converging verticals). Go to the Lock options and in the Layers panel and lock this layer to force Photoshop to respect the perspective on this layer (the other layers will be forced to adopt the perspective of this layer when you then align the images). Select all three layers in the Layers panel (shift-click the top and bottom layers).



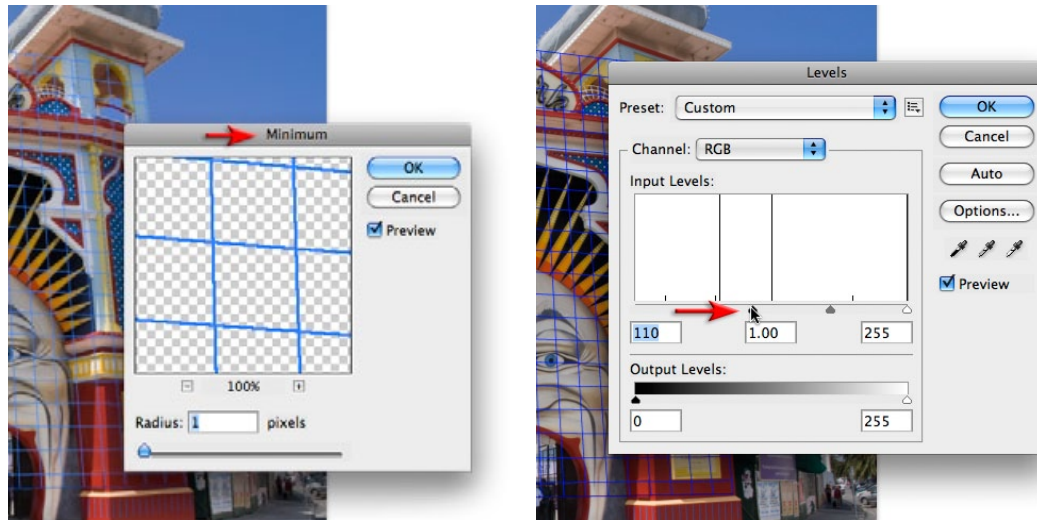
2. Go to File > Edit > Auto Align Layers. In the dialog select the Auto option and also select the Lens Correction options. Select OK to process the layers After the images have been Auto Aligned make sure all three layers are still selected and then go to Edit > Auto Blends Layers. Select the Panorama option and select OK to process the layers. In the layers panel select only the top layer and unlock this layer before proceeding with the next step.



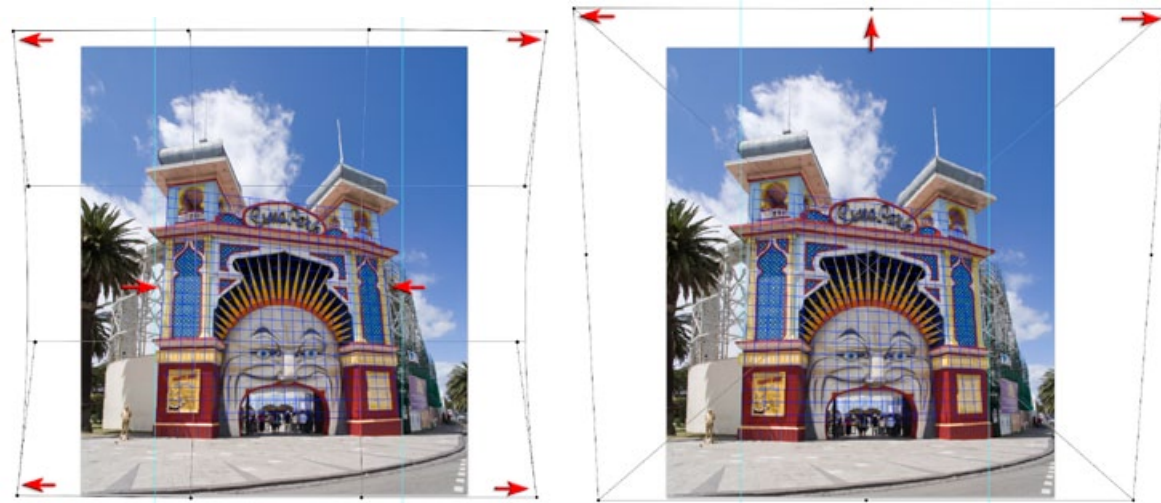
3. Select all three layers in the Layers panel again and then go to Filter > Convert for Smart Filters. Select the Crop Tool and crop the image to remove the transparency that surrounds this composite image. If you look at the image closely you will notice that there is a small amount of barrel distortion in this image (the sides of the building balloon or bow out). This defect cannot be accurately fixed using the Lens Correction filter as the distortions are not central to the cropped image. We can, however, use the Warp feature but first we need to create a perspective grid that we can work with. Click on the Create a new layer icon to create an empty new layer.



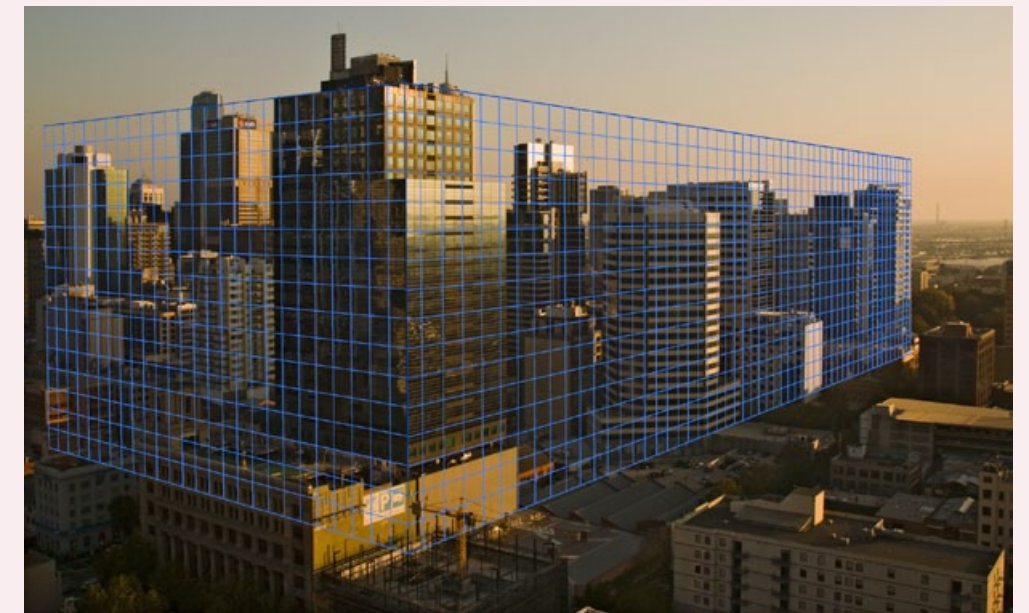
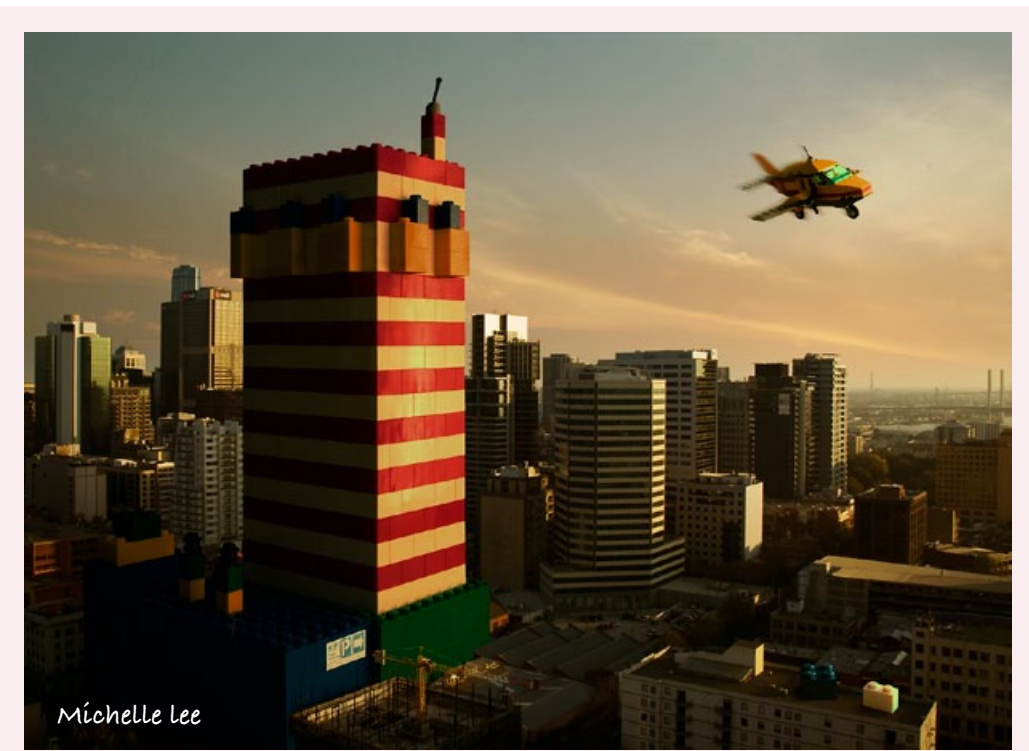
4. Go to Filter > Vanishing point and select the Render Grids to Photoshop in the options. Using the Create Plane Tool click in each corner of the entrance to create a perspective plane. Zoom in to make sure you do this accurately. Select OK to export this grid back to Photoshop.



5. The grid is not very dark but can be made more prominent by going to Filter > Other > Minimum. Choose 1-pixel and select OK. From the Image > Adjustments menu choose Levels and drag the shadows slider underneath the histogram to the right to darken the grid.



6. Now we can set about correcting the perspective of all three layers at the same time (one of the advantages of working with layers nested inside a smart object). Click on the smart object in the Layers panel and go to Edit > Free Transform > Warp. The barrel distortion can be very accurately fixed by dragging the four corner handles of the Warp grid outwards and tucking the sides in until they align with the grid. Zoom in to ensure you have fixed the problem accurately. Go to Edit > Transform > Distort and then drag the top two corner handles out to reduce the extent of the converging verticals. The verticals of the building cannot be aligned to the sides of the image or vertical guides otherwise the shape of the building at the top appears misshapen. Click on the Commit transform option in the Options bar and hide or delete the grid layer you have used as a reference grid.



### Exported Grids

Grids exported from Vanishing Point can help the photographer capture additional elements that must conform to the perspective of the first image. The layer containing the grid can be dragged onto subsequent images to ensure 100% accuracy.