

## 2007-01 Transforming Skewed Images

by Ken Hales

Often a picture of an object such as a painting is taken where the image of interest is at an angle with the lens. It is desirable to transform and crop the image of interest so that it appears face-on and full screen. See the before and after images that follow:



Original



Final

### Technique:

1. Open image
2. Select Polygon Lasso tool
3. Select the part of the picture that is of interest
4. Invert the selection (Shift + Ctrl I)
5. Delete the selection (removes unwanted portion of image)
6. Invert the selection
7. Go to Edit > Transform > Distort
8. Drag handles at the four corners as appropriate
9. Accept the transformation
10. Deselect
11. Crop (with no settings) to true up the image
12. Accept
13. Enhance as appropriate
14. Save as jpg with unique name
15. Close out image

## Barrel Distortion Correction:

Zoom lens have distortion to some degree. Know your lens and shoot accordingly. If you choose a focal length that creates a detrimental distortion, correct that distortion in Photoshop (CS2, CS3 or Elements 5). To correct go to Filter > Distort > Lens Correction and make your corrections in the window that opens. Then crop your image.

Note that in addition to the barrel/pincushion correction there is a Straighten Tool, as well as settings to correct chromatic aberration, vignetting, and in addition transform settings to correct vertical and horizontal perspective and angle of the image. Here is a before and after with barrel correction and angle change (Barrel +4.8 and Angle +1.1) for a Nikon 18-200 VR image shot at 18 mm:



Before



After

For the 18-200 VR lens the starting corrections are as follows:

<b>Focal Length</b>	<b>Distortion</b>	<b>Correction</b>
18 mm	Barrel	+4.0
24 mm	Neutral	0.0
35 mm	Pincushion	-3.5
50 mm	Pincushion	-3.8
70 mm	Pincushion	-3.9
95 mm	Pincushion	-2.8
135 mm	Pincushion	-2.7
200 mm	Pincushion	-2.5

Note the lens's sweet spot at 24 mm!

As stated above the Lens Correction window contains a vignetting adjustment. This adjustment will lighten or darken the corners of the image. This correction can be used to darken the corners of an image so that the viewers eyes are pulled into the center of the image. Try it out!