

# Ely Photographic Club – Digital Workshop

by

Ian Stacey – 06/02/2008

In this digital workshop we will cover sharpening, creating borders and using adjustment layers. All the procedures in this workshop can be used in all recent versions of Adobe Photoshop including Elements.

## **Sharpening**

Whether you sharpen your images is a matter of personal preference. There seems to be a lot of confusion around the issue – to sharpen or not – how to sharpen? etc.. This is probably due to the fact that if you read any books or articles on the subject they never really tell you what to do and most seem a little vague. The reason for this vagueness is because there is no definite way to sharpen and as mentioned before it's also down to personal preference. Therefore this part of the workshop is based upon my personal preference.

I think most images will benefit from some sharpening. Please note that if you shoot your pictures in jpg mode then your camera will almost definitely be sharpening your images automatically and you probably won't need to do any additional sharpening. If you shoot in Raw mode then most images could do with a little sharpening especially if you are going upsize or print or images. Any scanned image will be 'soft' and will need sharpening.

## **Some guidelines**

- ◆ Don't confuse focusing and sharpening – they are two separate things. Sharpening is used to counteract the digital capture process, which is normally quite 'soft' compared to film. This has nothing to do with focusing and sharpening won't fix an out-of-focus image. If you have an out-of-focus image, delete it and try again, concentrating on your technique.
- ◆ Don't overdo your sharpening. This can lead to strange artefacts in your images. The most common being a halo effect.
- ◆ Beware that you could be sharpening your images numerous times. Your camera may be sharpening your images. Your raw software may also be sharpening your images and then you could also be sharpening in Photoshop. As a general guide only sharpen once.
- ◆ Sharpening should be the last thing you do in your workflow before you print your images. Do any adjustments, levels, colours etc. upsizing/downsizing or any fancy Photoshop stuff first.
- ◆ If you send any images to magazines, book publishers, image libraries etc. don't sharpen anything.
- ◆ If you save your sharpened image make sure you also save an unsharpened version. Either save the sharpened image as a separate file or as a separate layer.

## How to sharpen

To sharpen our images we use the unsharp mask filter. An odd name that dates back to a darkroom technique, where a negative was copied to produce a positive image, the two were then sandwiched together but very slightly offset from one another. This was then processed normally, resulting in a halo effect at the edges in the final print. This gave the impression of increased sharpness.

There are other filters for sharpening, sharpen, sharpen edges, sharpen more etc.. These should be avoided at all costs. The only one you need is unsharp mask. These other filters don't give you any control over the process. As photographers we should be in control of all aspects of our image making process.

## Unsharp Mask

Before instigating the filter view your image at 100%

The unsharp mask filter increases the contrast at the edges in your image.

Go to **Filter** ⇒ **Sharpen** ⇒ **Unsharp Mask**

You are presented with three settings Amount, Radius and Threshold. These settings will depend on personal preference, the resolution of your image, the desired output amongst other things. The following suggestions are based upon my personal preference for images captured on an 8.2 Mp camera in Raw mode.

You can either use the sliders or enter a value in each box.

**Amount** – The Amount slider controls the strength of the sharpening effect. Typical values would be between 75 and 150. You could go higher for high-resolution images that are to be printed very large.

**Radius** – This determines the number of pixels around the edge that are affected by the sharpening. A low value will only sharpen pixels at the edge. Higher values affect more pixels further away from the edge. Typical values would be between 0.6 and 2.

**Threshold** – This determines how different the pixels must be before they are considered to be part of the edge and therefore sharpened. A value of 0 will sharpen all pixels. A value of 10 will only sharpen the area where the pixels are different in value by 10. Most images you can leave the setting at zero. However images with skin tones or large areas of sky for instance could benefit from a setting of between 2 and 6. This has the result of not sharpening the skin tones or the sky.

## Summary

Don't overdo your sharpening. Stick to the typical values above and you shouldn't go far wrong. However do experiment – these are only guidelines. View your image at 100% while sharpening. You should only see a small difference in your image on the screen. If you see a major difference then you have probably overdone it.

## Sharpening – Alternative Method

In some images we only need to sharpen certain parts of the image. For instance:

- ◆ Images with a shallow depth of field – There's no point in sharpening the out-of-focus parts of the image.
- ◆ Images with large amounts of similar pixels. i.e. A vast expanse of blue sky.

We could do this by making a selection around the parts we do want to sharpen, then use the unsharp mask filter.

An Alternative Method is to use the High Pass filter together with layer blending modes.

First make a duplicate layer of your image – in the layers palette drag your background layer to the new layer icon.

Make sure your “background copy” layer is highlighted.

Then goto **Filter** ⇒ **Other** ⇒ **High Pass** (this maybe under a different menu option in some versions of Photoshop). This will turn you image grey but worry, it's meant to do that. Move the Radius slider until the edges in your image start to show through. Typical values might be between 1 and 2 but you do need to experiment. Don't overdo it. When you have finished click OK.

Then back in your layers palette, with your “background copy” layer highlighted, change the blending mode to overlay.

You can also use the opacity slider to alter the effect.

## Borders

Adding borders can enhance your images. There are numerous ways of doing this. Here we are going to look at the stroke command and then adding our own borders using shapes and blending modes.

### Stroke

The simplest way to add a border around our picture is to use the stroke command. This places pixels with our choice of width and colour around a selection. You can place your border on a separate layer. That way if you decide you don't want it later you can delete the layer.

To place a border at the edge of you image:

Create a New Layer – In the layers palette click the **New Layer** icon

Goto **Select** ⇒ **All** or press Control A. This will place a selection around the edge of you image.

Goto **Edit** ⇒ **Stroke**

In the width box select the width in pixels of your border. This will depend on the resolution of your image and personal preference. Try a value of 20 pixels.

Next pick the colour of your border. Click in the colour box. You can select a colour from the colour

selection window or move the colour picker into your image and pick a complementary colour from within your image.

Now the important bit. Select the location. This places your border inside, outside or in the centre of your selection. In this instance we need to select inside, as our selection is right on the edge of our image. There isn't anything on the outside, so if you choose outside nothing will happen. If we select centre then we will only get half our chosen width as half will be inside and half will be outside.

Click Ok and we have created our border.

Now we can add a border with different colours. It probably looks better if the outer border colour is bigger than the inner colours. Try this:

As before, select all and then goto stroke. Choose a 20 pixel width and the colour as black. Click OK. Then goto Stroke again, this time choose 15 pixel width in White. Click OK. Now goto stroke again and choose a width of 10 pixels in Black.

You can experiment along these lines to produce different borders of your choice in different widths and colours.

## Sloppy Edge Borders

We can also create our own borders. I call these sloppy edge borders. It involves using shape layers and blending options.

- ◆ Open an image
- ◆ In the layers palette create a new blank layer, the fill this with white – **Edit** ⇒ **Fill** use White
- ◆ Make sure your foreground colour is black
- ◆ In your tools palette click on the rectangle shape tool. Drag a rectangle shape onto your image. It might help if you turn the grid lines on.
- ◆ Next you will need to simplify (Elements) or Rasterize (CS) your shape layer. Right click the shape layer in the layers palette and select the correct option depending on your version of Photoshop.
- ◆ With your shape layer still highlighted select the eraser tool from the tools palette. Select a brush of your choice. Then erase the edge of your rectangle shape. Use the square bracket keys to change your brush size.
- ◆ Back in your layers palette, merge down from your shape layer. This creates one layer combining the shape layer and the white fill layer. You should now have two layers left – your original image layer and the shape layer.
- ◆ With the shape layer highlighted change the blending mode to screen.

Experiment with different shapes and brushes.

## **Adjustment Layers**

Adjustment layers can be used for adjustments to layers, brightness/contrast, hue/saturation and adding gradients and much more depending on your version of Photoshop.

The advantage of using adjustment layers is that they don't alter your image and if afterwards you decide to change the adjustment you can edit your settings or delete the layer. All without affecting your image.

If you make these adjustments using the menu options then once you have completed the procedure it's very difficult to go back. You could use the undo tool but this doesn't work after you have closed and reopened your image, whereas adjustment layers can be saved in your image file just like a normal layer.

To use adjustment layers click on the "create new fill or adjustment layer" icon in the layers palette, then choose the appropriate adjustment you wish to make. This creates an adjustment layer above your existing layer. You can double click this adjustment layer anytime to edit your settings. If you want to remove the adjustment just drag the adjustment layer to the trash icon in the layers palette.