Merry Christmas

Abertawe Photographic Society

The Image – Monthly NEWSLETTER

The Abertawe Photographic Society –

Based near the heart of Swansea, Abertawe Photographic Society is an established, friendly and welcoming club, who's members both amateur and professional all share a common interest, in all aspects of photography.

Whether you are a complete beginner or a seasoned snapper, interested in digital techniques or 35mm film, there is a warm welcome by a likeminded group of people sharing in the search for the perfect image.

By sharing, not only our enthusiasm but also our skills, techniques and knowledge, we all grow as a club and by trying new things we all get the opportunity to stretch our boundaries. All members are encouraged to take part in club events.

The Society meets every Tuesday at:
**Greenhill Community Centre
Chapel Street, Dyfatty,
Swansea.SA1 1NB.**

This Month's Events: November

**5th All Winners Competition
12th Xmas Dinner at the Eagle
19th No Club
26th No Club**

This Month's Inspirations…………….

Here's another six inspirations, did you try any of last month's, hope you did? Just remember, you don't have to follow exactly, you maybe have ideas of your own, or thinking of something stemming from these ideas.

Hope you try this month's ideas, and enjoy

1. Take a self-portrait in the style of a well know photographer.
2. Interpret the phrase "As different as chalk and cheese" with your camera.
3. Make a symmetrical image using reflections.
4. Make something, photograph it, then photograph its destruction.
5. Interpret the phrase "A chain is only as strong as its weakest link" photographically.
6. Using objects, make a portrait of someone you know.

Go on, have a go and let's see what you have.

The Reason Why We Have To Sharpen Images

We often take things for granted and carry out tasks not think why we are doing what we are doing. Ever wondered why we have to sharpen images? Well I will try to explain.

Images are actually made up of lots and lots of squares; however, in reality we don't have straight edges throughout our images. They are actually made up of curves, jagged or irregular edges, etc. If all edges were straight and square then we would not need to sharpen our images. Below is a rectangular box, the prime importance of this is that it has straight edges, no curves, or irregular edges.

Enlarged area shown
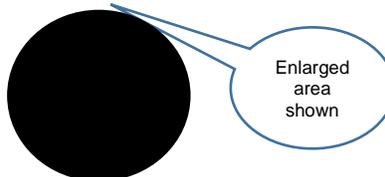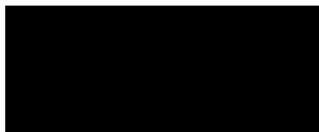
If you enlarge this rectangle you will continue to see straight edges. However, if you have a circle and enlarge it you will see a series of miniature boxes that go from a solid colour through to a series greys and eventually become white.

Let me show you both objects that are enlarged.

As you will notice the edge around the circle is not straight, or as we would say, not sharp. That is because it is made up of squares and squares do not easily form a straight and sharp line. Therefore the only way to correct this is by sharpening.

It's not easy to show you here, so why don't you draw a square and a circle together in Photoshop. Zoom into the area between them and you will see what I have shown you above. Now go to **Filter>Sharpen>Un-sharp Mask**, and you will see the grey squares change to black, and reduce in numbers, these mean that the circle edge is sharper.
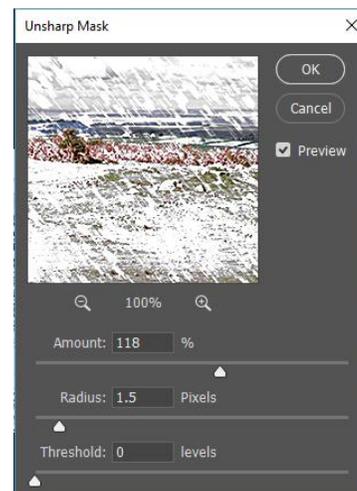
Image Sharpening

As described earlier, image sharpening is required due to irregular lines in an image, as well as any blur created by camera sensors and lenses. Consequently, image sharpening is a great means to emphasise texture and to draw a viewer's focus.

Digital camera sensors and lenses always blur an image to some degree, for example, and this requires correction. Not all sharpening techniques are straightforward. When carried out to much, unsightly sharpened areas may appear. However, when done correctly, sharpening can often improve apparent image quality even more so than upgrading to a high-end camera lens.

Photography software, such as Photoshop are able to sharpen images in a number of ways, the most common is a method called "**Unsharp Mask**," which despite its name, actually sharpens an image.

So why is it called "**Unsharp Mask**"? Well, the name comes from the original photographic procedure used to increase the apparent sharpness of a photograph on film. First the original negative was copied and turned into a positive (In a *negative*, black is white and white is black. In a *positive*, it's the other way around.). During the copy, the positive was intentionally blurred. This is where "unsharp" comes from. Then the positive and negative were put in contact and exposed to light again. The blurry portion of the positive cancelled out (masked) the blurry portion of the negative. Yep, I don't understand that neither!!!!

To Sharpen an image click on **Filter**, and you will see a drop-down menu, just under halfway down click on **Sharpen**, and you will see another drop-down menu, click on the last one called **Unsharp Mask**. Next a box will appear, as shown below.

Unsharp Mask
OK
Cancel
Preview
100%
Amount: 118 %
Radius: 1.5 Pixels
Threshold: 0 levels

Here you will see three adjustment areas: **Amount**, **Radius**, and **Threshold.** So what do these mean?

Amount- Controls the overall strength of the sharpening effect, and is usually listed as a percentage. A good starting point is often a value of 100%.

Radius - Controls the size of the edges you wish to enhance, where a smaller radius enhances smaller-scale detail. You'll usually want a radius setting that is comparable to the size of the smallest detail within your image.

Threshold – (*Sometimes referred to as Threshold Masking*) Controls the minimum brightness change that will be sharpened. This can be used to sharpen more pronounced edges, while leaving more subtle edges untouched. It's especially useful to avoid sharpening noise.

It's generally advisable first of all to optimize the **Radius** setting, then to adjust the **Amount**, and then finally to fine-tune the results by adjusting the **Threshold/Masking** setting. Best results may require a few attempts, and the adjustment value will dependent on each image.

High Pass Filter and Sharpening

Another way to sharpen an image is by using the high pass filter on a duplicated layer, and then using the overlay mode to reveal the effect. You can then use the opacity of this layer to adjust the level of sharpening needed, and it is also possible to paint on this layer in grey, to soften parts of the image and leave other areas sharp. This would be useful when selectively keeping some areas sharp to accentuate the effect, e.g. the eye areas.
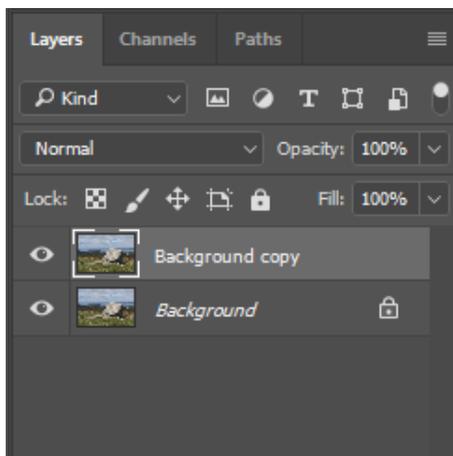
Duplicate your image using **Layer**>**Duplicate Layer** (or **Ctrl + J**). This will give you two images in the layers box. Then at the top of your screen, and with the top layer highlighted, go to **Filters**>**Other**>**High Pass**. This will turn the image grey, as shown below. Select a radius that just shows fine detail and then press OK.

With the grey layer in view, you now can use levels to fine tune the effect. Go to **Image**>**Adjustments**>**Levels**. You should have a histogram with all the information in the middle of the graph. Slide both the black and white markers to the starting points of the histogram and click OK. The closer the sliders come, the greater the sharpening effect.

You now need to change the mode of this layer from **Normal** to **Overlay** to see the sharpening effect. Then use the **Opacity** slider for this layer to decrease the effect until you are happy with the result.
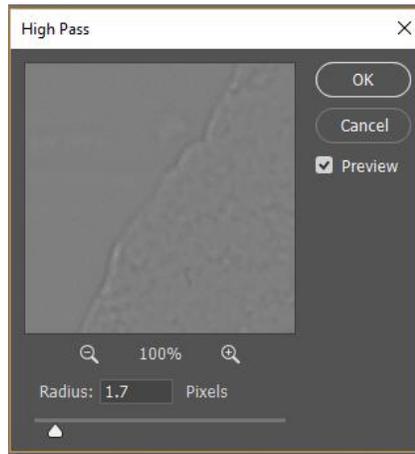
Sharpening the Edges

This technique will allow you to sharpen your photographs with your preferred process, but limits the effect to just the edges within your photograph.

1. Open your picture, and then open the Channels palette.

2. Go through the three colour channels and choose the one with the most contrast.

3. Click and drag this channel to the **Create a New Channel** icon- turning paper icon next to waste bin. This will duplicate the channel.

4. Go to **Filter**>**Stylize**>**Find Edges** and click ok.

5. You then need to invert the new channel by using **Ctrl + I.**

6. Now you need to create a selection of the detail. Click on the **Load Channel** as a **Selection icon**-dotted circle at the bottom of the **Layers Palette**.

7. Click back to the layers palette and click on the image layer. if the dots don't appear double click on the layer, click OK in the dialogue box then continue with 8.

8. Copy the selection you see with **Ctrl + J** and you should now have a layer above your image that just contains information on the edges.

9. Sharpen this Layer. Use **Filter**>**Sharpen**>**Unsharp Mask** or **High Pass**, and use the settings that suit your image or your style.

…….. and finally

How does Santa take photos? With his North Polaroid (sorry about that, but it is Christmas ☺