# Smartphone Photography – editing images on your phone By Nigel Goldsmith

## Introduction

This workshop builds on the topics covered in the smartphone photography workshop. While there is no assumption that you have attended the photography workshop prior to this, I only mention taking pictures with your smartphone briefly in this session.

There is an assumption that high quality digital images must be edited, archived and delivered from a desktop or laptop computer running industry standard applications such as Adobe Photoshop or Lightroom. I believe many of the benefits of the desktop or laptop computer for working with images are purely due to the larger screen and the ability to work quickly with a large archive of images. If you are prepared to compromise on screen size, a slower workflow and slightly fewer editing tools then the phone will allow you to undertake most types of image editing at a fraction of the price or even free!

#### Raw capture

Capture apps are mentioned briefly in the photography workshop but as image quality plays a key role in the later image editing workflow, I believe it is worth repeating briefly here. There are numerous camera apps available for Android and iPhone some are free but if you want some of the more powerful features not offered by you phone's standard camera app such as Raw, you will probably have to pay a few pounds for a more capable app. My personal favourite is the Moment app (sadly now only available for iPhone users), it has an interface similar to the standard camera app but with Raw, white balance control, shutter and ISO control, a histogram and other advanced exposure information such as zebra stripes. If you are looking for an app that offers greater control over the taking of your pictures, these are the features you should be looking for in a camera app.



Figure 1 Moment camera app - screenshot showing controls

### Retouching images

Retouching is the removal or masking of unwanted elements from your images. If you are using a desktop application then retouching tools might include the Clone Stamp, the Heal Tool and Content Aware Fill etc.

In the typical image editing workflow, retouching would take place after more general adjustments such as cropping and tone and colour adjustments have been undertaken. Purely for the smooth flow of this workshop, I will be covering retouching first.

For this activity we will be using TouchRetouch which is available for both Android and iPhones and is around  $\pounds 2$  to buy. The tools are very similar to those in Photoshop with the addition of a useful Line Removal tool which can work really well.

When you first open the app you will be presented with the home screen (Figure 2) where you can access the Albums, Tutorials or the last edits you applied using the tool.



Figure 2 TouchRetouch Home screen

Once you have opened an image, you will be given a choice of options, Object Removal, Quick Repair, Line Removal and Clone Stamp (see Figure 3)

Along the top of the screen you will see 5 menu items/ From left to right these are; the home button, the undo last adjustment, the redo last adjustment, compare (before/after) and export image options.



Figure 3 Screenshot of Touch Retouch interface

The image below (Figure 4) shows the Object Removal tool, first you paint over the object you want to remove. A green mask appears over the area, you can adjust the size f the brush using the Settings option (bottom right). You will notice that a magnified view of the area you are working on appears on the screen. When you are happy with the area you have masked, press Go.

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The Quick Repair option behaves in a similar way to Object Removal but without the user needing to click on the Go option. For the best results, you should try to mark the area you want to remove carefully and in a single stroke.



Figure 4 Object removal. Left area for removal marked. Right image after pressing Go

Line Removal deletes thin straight lines. Like the Quick Repair tool, there is no need to press Go to confirm the edit, just stroke along or close to the line you want to remove, following the direction of the line. You can adjust the width of the line tool by clicking on the Settings button on the bottom right of the screen. This tool works best with thin or medium width lines such as telegraph wires etc.

The Clone Stamp works in a similar way to the Clone Stamp in other image editing

applications. You need to choose the area you want to sample with a single tap on the screen. To apply the sample you stroke (not tap) on the screen to cover the area. If you want to paint back any areas you removed by accident you can use the Eraser option.

When you are happy with your edits click on the Export button (top right) on the screen. This will allow you to Save a Copy which is recommended, Modify Original which will overwrite the original version, Open In will allow you to import the image into another app such as Snapseed or you can copy it onto the Clipboard.

The Settings at the bottom allow you to choose the file format and quality of the saved image.



Figure 5 Export screen options in TouchRetouch

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# General image editing using Snapseed

Snapseed is a free app for Android, iPhone and also Mac OSX! It is free and offers many of the controls and adjustments you would expect from a professional image editing application such as Photoshop. One of its weaknesses is the Healing Tool (similar to Clone) which is why I also cover TouchRetouch in this workshop.

Once you open the Snapseed app you will see the home screen which will normally have the last image you edited on it. To open and image, click on the Open button on the top left of the screen, you will then be presented with a choice of locations to search for your images.

You use familiar smartphone gestures to expand (two fingers together and stretch) or reduce (pinch fingers) the image. Swiping with two fingers together will allow you to move around the image. There is also a small navigator with a blue frame in it which can be used to move around the image.



Figure 6 Home screen Snapseed

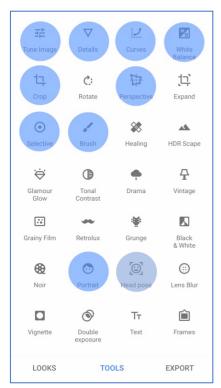


Figure 7 Tools in Snapseed. Tools mentioned highlighted in blue

The Looks option (bottom left in Figure 7) provide a set of preset adjustments to images, adjustments include, monotone, tinted, vintage, etc etc..

In the workshop we will be using the most commonly used editing controls found in the Tools menu in Snapseed highlighted in blue in Figure 7. If there are features you are interested in but that are not covered in the session today, there is a huge amount of material

available online on using Snapseed, YouTube is a very good place to start.

The Tune Image option is one of the most useful Tools, it offers familiar tone and colour adjustments such as Brightness, Contrast, Saturation etc.

To choose the type of adjustment you wish to use. Touch and hold on the screen and a menu appears, slide up or down to selects the option you wish to use and slide left or right to increase or decrease the

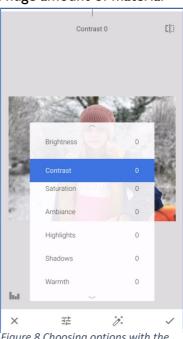


Figure 8 Choosing options with the Tune Image tool

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adjustment. This adjustment is global and alters the whole image.

The Details tool provides two options, Structure and Sharpness. This will improve the sharpness of detail in the image but should be used with care as over sharpening can be very obvious.

Curves adjustments are very powerful and tend to be found in the professional image editing applications such as Photoshop (it isn't in the entry level Photoshop Elements).

When you first open the Curves tool, you will see a grid with a diagonal line on it and a semi-transparent histogram at the bottom. The histogram provides a graphic representation of the tonal range of an image from dark tones on the left to lighter tones on the right. In the histogram for the image below (figure 9), it is clear that most of the tone is on the left side of the histogram meaning the image is quite dark. In the middle image, the graph has been lifted on the right side to lighten the mid tones. To boost the colour you can work on each colour channel (Red, Green and Blue) separately. To do this, click on the second button from the left at the bottom of the screen. In the third image in Figure 9, the red information has been boosted by lifting the line from two points.

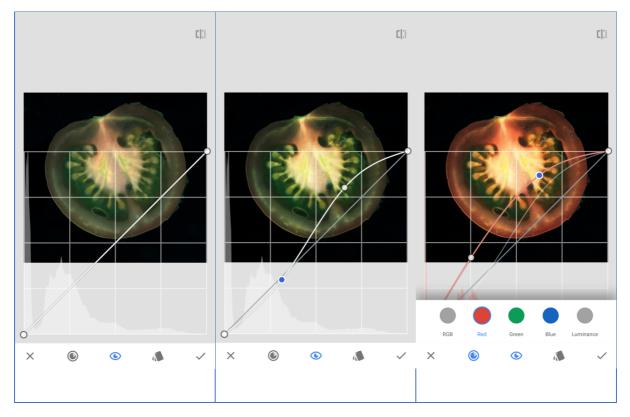


Figure 9 Curves. Left; original image. middle; contrast boost. right; colour (red) boost

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The adjustment in Figure 9 is global, it is possible to apply adjustments locally. With applications such as Photoshop, the user might isolate areas to be edited using selection tools. With Snapseed it is done slightly differently.

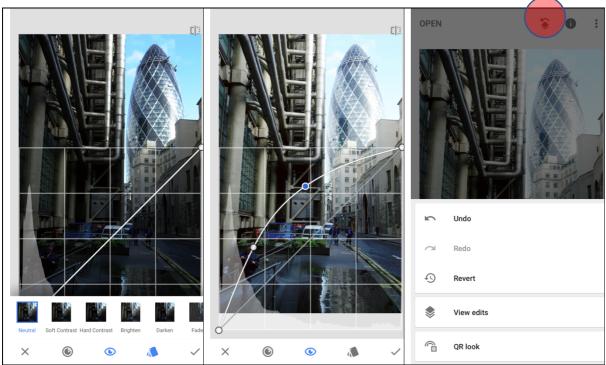


Figure 10 Left; original image. Middle; midtones lighter. Right; view edits

Start by using curves to adjust the area that is too light or too dark (Figure 10, 2<sup>nd</sup> image). In this example, the foreground looks better but the background has now been over lightened. Click on the tick (bottom right) to commit to the adjustment. Once adjusted, a button appears, third from the right at the top of the screen (highlighted in red). This allows you to view edits (3<sup>rd</sup> image in Figure 10). Choose Curves and then the middle button from the sub menu. This conceals the Curves adjustment you have just made, you can now paint it back in by stroking your finger over the area you want the adjustment to apply to. The final Image in Figure 11 show the final adjustment.

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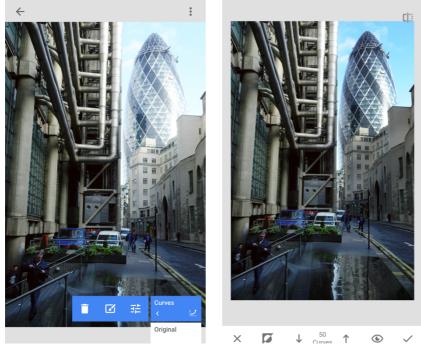


Figure 11 Left; Show edits, choosing brush option. Right; final edited image

This technique can be used for the popular 'colour poping' look where colour only appears in areas of interest or other similar adjustments where you want the effect to apply locally rather than over the whole image.

The White Balance option allows you to correct the colour appearance of an image to simulate different light sources.

The Crop tool offers a range of preset cropping dimensions or you can use the Free version to drag the crop to your preferred shape.

The Perspective tool allows you to drag the image out to correct any perspective issues you might have in your image. This can be done before cropping the image.

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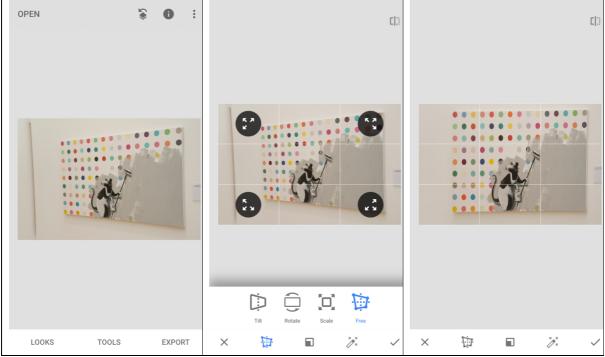


Figure 12 Left; original image. Middle; before adjustment. Right; after adjustment

With the Perspective tool, you can stretch the image by dragging across the screen. The grid can help if you are trying to fit the final image within a horizontal and vertical grid.



Figure 13 Changing the type of adjustment with the Selective tool

The Selective tool allows you to adjust user selected colours without altering other areas in an image. First tap once on the colour in the image you want to edit. Normally a letter 'B' appears on the screen. Like the Tune Image option, you can change the type of Selective adjustment by holding on the screen and dragging up or down to change. Left or right swiping increases or decreases the adjustment.

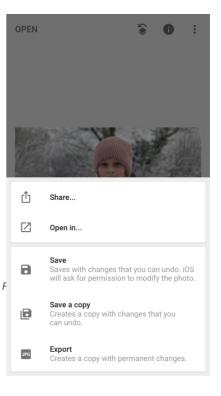
The Brush tool in Snapseed allows the user to apply local adjustments such as exposure +/-, saturation and dodge and burn to areas in an image.

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The Portrait tool allows the user to adjust the appearance of portrait images, the user can draw attention to a face in an image, smooth skin and increase the brightness of the eyes.

The Head Pose tool takes this a stage further and allow the user to adjust the pupil size of eyes and give the subject a more obvious smile.

When you have finished editing in Snapseed you can choose what you do with the finished image in the Export option (bottom right of screen). The option include, saving copy, open in and share.



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