UNDERSTANDING LAYERS

DEMONSTRATION USES PHOTOSHOP, BUT THERE ARE NOW MANY OTHER PHOTO EDITING PROGRAMMES WHICH ALSO MAKE USE OF LAYERS & MASKS.

/LAYER TAB\

NEW ➡ Empty Layer
DUPLICATE LAYER........ (*Background Copy*)
DELETE ➡ Layer

RENAME LAYER........

NEW FILL LAYER ➡ Solid Colour

NEW ADJUSTMENT LAYER – 16 off - ➡

Brightness/Contrast

Levels

Curves

Exposure

Vibrance

Hue/Saturation

Colour Balance

Bl & Wh

Photo Filter

Channel Mixer

Colour Look Up

Invert

Posturize

Threshold

Gradient Map

Selective Colour

LAYER MASK ➡

Reveal All – (White Mask)
Hide All – (Black Mask)

Delete – (the mask)
Disable – (the Mask)

FLATTEN IMAGE

/IMAGE TAB\

This tab can still be used when working with layers but pay attention to warnings which may appear, eg "Image needs to be flattened".

Under the **IMAGE TAB** there are **22 "Adjustments" available,** but they can only be applied to a layer which has pixels in it, e.g. Background layer

The 6 "Adjustments"
[Shadows/ Highlights, and, HDR Toning]
[Desaturate; Match Colour; Replace Colour, and Equalize]
are only available under the **IMAGE TAB**.

The 16 "Adjustments"
[Brightness/Contrast; Levels; Curves, and, Exposure] -
[Vibrance; Hue/Saturation; Colour Balance; Bl & Wh; Photo Filter; Channel Mixer, and, Colour Look Up]- [Invert; Posturize; Threshold; Gradient Map, and, Selective Colour]
are available under both the IMAGE TAB & THE LAYER TAB.

/FILTER TAB\

Filters only work on layers which contain pixels

Camera Raw ….takes you to the RAW EDITOR even if the image is in jpeg format.
Blur > Gaussian Blur…….
duplicate the layer, apply the filter to the top layer, create a black mask, paint with a white brush on the mask to bring back the blur in the required areas.
Sharpen >Unsharp Mask…..
Other >High Pass….. Uses 2 layers (for sharpening) Apply "High Pass" to the top layer, the image will turn grey. Keep the Radius low – you only want to sharpen the edges of the objects in the image. In the Layer Palette change the Blend Mode to Overlay and reduce its opacity to 30%'

/WINDOW TAB\

This is where you choose what palettes you want to see on your screen. Eg the History, and the Layers Palettes.

Also the TOOLS BAR, and the OPTIONS BAR that accompanies the tools being used.

This is the tab you use to see more than one image on your screen. To do this use Arrange ➡
Tile all Vertically – for Portrait shaped images, or,
Tile all horizontally – for Landscape

BRUSH TOOL - Looks like an artist's paint brush.

In the **drop down box** of this tools OPTIONS BAR, there is an option to reduce/increase the size of the brush, - the brush size can also be changed by using the keyboard -**] (right bracket)** to increase its size, and, **[(left bracket)** to make it smaller. Also in the **drop down box** there is a slider for increasing or decreasing the hardness/softness of the brush – 100% will produce a hard edged circle, whilst 0% will produce an edge that fades out into its surroundings.

A "white mask/brush" reveals a change, whilst a "black mask/brush" conceals it.

A **"white brush"** paints onto a black mask,– or any area within the mask where you wish to reveal the change being applied and doesn't affect the white areas of the mask ; a "**black brush**" is used to paint onto a white mask– or any area within the mask where you wish to conceal the change being applied and doesn't affect the black areas of the mask . A "white brush" with reduced opacity can still paint over a grey area, and, a black brush with opacity reduced can also still paint over a grey area.

There is a slider for reducing/increasing the opacity of a white, or black, brush: a "white brush" with an opacity set at 25% will only reveal the change made at an opacity of 25% ; whilst a "black brush" with an opacity set at 25% will only conceal the changes at an opacity of 25% . A brush with its opacity reduced will appear on the mask as a shade of grey; low opacity = light grey/ high opacity = dark grey.

An adjustment layer will appear with a white mask attached revealing the full effect of the adjustment. White, or, black masks can also be manually added to a pixel layer.

Always ensure that you select the "mask" before painting onto the image on the screen.

HOW DO YOU KNOW WHICH COLOUR OF BRUSH IS BEING USED?

At the bottom of the TOOLS BAR you'll find the tools which control the BACKGROUND COLOUR & FOREGROUND COLOUR **this is where you select either black or white paint for your brush from the FOREGROUND COLOUR**.
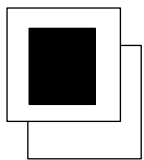
Foreground Colour Black

Paints with a black brush
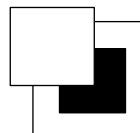
Foreground Colour White

Paints with a white brush

Resets the foreground and background colours to the default black & white

Toggles foreground and background between black & white

ZOOM TOOL – looks like a magnifying glass. This will either have a **+** (enlarge) inside the glass, or, a **–** (shrink), nb the options bar will also show whether a + or - is being used. To alternate between the two when working on an image hold down the ALT key.

HAND TOOL – looks like a hand. Use this to move around the image when it is larger than your screen. Hold down the left button of your mouse/laptop pad and pull the image around. Helpful when also using the zoom tool to target a particular area/object in the image.

MOVE TOOL - This is the tool used to drag one image over the top of another.

Prior to doing this make sure that both images are using the same colour space, eg both should be sRGB or RGB; both should also be in the same mode, and also the same bit depth, eg 8 bit or 16 bit. They don't have to be the same size, but it is helpful if they are. The image being "dragged" should be the Background Layer – the "dragged" layer will appear as a new layer on the destination image. It is also possible to drag a single layer from one image to another.

THE LAYERS PALETTE

BLENDING MODES ⬇

NORMAL
DISSOLVE
_____

DARKEN
MULTIPLY
COLOUR BURN
LINEAR BURN
DARKER COLOUR
_____

LIGHTEN
SCREEN
COLOUR DODGE
LINEAR DODGE
LIGHTER COLOUR
_____

OVERLAY
SOFT LIGHT
HARD LIGHT
VIVID LIGHT
LINEAR LIGHT
PIN LIGHT
HARD MIX
_____

DIFFERENCE
EXCLUSION
SUBTRACT
DIVIDE
_____

HUE
SATURATION
COLOUR
LUMINOSITY

NORMAL ⬇   20 % ⬇

Opacity:

0%___ ▲ _____100%

👁

Layer Thumbnail

👁 ▢ Layer name (no mask)
e.g. Background copy

Indicates that the layer mask is **linked** to the layer.

Layer mask

👁 ▢ 🔗 ▢ Layer name

👁 🌼 BACKGROUND COPY

👁 🌼 BACKGROUND 🔒

Your Original Image   This Layer is locked

OPACITY BOX / SLIDER

either type in a value or use the drop down box to reveal the opacity slider

👁 **Switches a layer ON/OFF**

LAYER THUMBNAILS

👁 ◓ Adjustment Layer Thumbnail: Double click on this icon to view /re-use the adjustment layer properties.

▢ Colour Picker Thumbnail: Displays the colour being used on this layer. Double click on this icon to view the colour picker – allows you to choose an alternative colour for this layer, including the different shades of grey.

🔗 ▢ Both of these will appear together when a layer mask is added to a layer; they are automatically added when an adjustment layer is created as well as the Colour Fill layer; the name of the layer is also automatically added, eg. Curves, Levels, Colour Fill etc. You can create as many layers as you want, the names will have the relevant number added eg. Curves 1 2 3 etc. The default colour for the layer mask is white.

The link 🔗 can be toggled ON/OFF.

LAYERS

ADJUSTMENT LAYERS AND THE COLOUR FILL LAYER DO NOT HAVE PIXELS: LAYERS THAT HAVE PIXELS WILL DISPLAY AN IMAGE. THIS MEANS THAT CERTAIN TOOLS eg THE CLONE TOOL WILL DISPLAY AN ERROR MESSAGE - "Layer doesn't contain any pixels / information" or similar - WHEN NOT BEING USED ON A PIXEL LAYER.

TO USE THE **BLENDING MODES & THE OPACITY SLIDER IN THE LAYERS PALLETTE** SELECT THE LAYER TO WHICH THE CHANGES ARE TO BE APPLIED BY CLICKING ON IT FIRST BUT NOT THE BACKGROUND LAYER.

In photoshop: (Ctrl + Shift + Alt) = N = E   merges all layers below into a single layer (which has pixels)

USING TABS -THE LAYERS PALETTE - MASKS – and, BRUSHES FOR MASKING

TABS: THE IMAGE TAB some *adjustments can only be made directly to the pixels of an image* these adjustments can only be found under the **IMAGE TAB**, and not the adjustment tab. To apply adjustments that have been selected from under the **IMAGE TAB** a "layer containing pixels" must be selected; they cannot be applied to an adjustment layer as these don't contain pixels.

THE FILTER TAB – filters available under this tab also can only be applied to a pixel layer.

THE LAYER TAB – everything relating to layers can be found under this tab, including masks.

THE WINDOW TAB – useful for accessing the various **"PALETTES"** and placing them on your screen.

THE LAYERS PALETTE is a visual representation of the layers being used whilst **"constructing"** your image. Imagine you are standing in front of this structure on a factory floor; at the bottom of this structure is the **background layer a** "**pixel layer"** which is your original photo, it is "**locked"** in place and can't be moved – all other layers are added above. Above this background layer the structure is constructed by means of stacking your layers one on top of the other, - each layer has its own "**properties**" and functions in a similar manner to filters placed in front of your camera, i.e. they affect the outcome of your image, but don't alter the pixels. The difference between the filters on your camera and the layers being added to this palette, is that the strength of each layer's effect, on the final outcome of your image, can be altered.

THE OPACITY SLIDER (usually found at the top right of the layers palette) is the means by which the strength of a layer's effect can be changed. Think of this slider as affecting the layer in the same manner that a dimmer switch would affect the lighting in a room; when fully on, i.e. at 100%, the room is fully lit, however as the dimmer switch is used to reduce the lighting in the room until the room is eventually totally dark, the opacity slider slowly reduces the effect of the layer until there is no effect visible at all. The opacity slider will only affect the layer you have selected. Adjusting the opacity slider in the layers palette doesn't affect the layer mask which will remain white, or black (sometimes a black mask is more useful if the area to be affected by the layer is small).

THE BLENDING MODE DROP BOX:(usually found at the top left of the layers palette) when used on a selected layer it affects how the layer interacts with the layer below it. E.g. when a Colour Fill Adjustment Layer has been inserted only the colour chosen for this layer's effect will be visible – this is because the default blend mode is **"normal"**, however choosing **"colour"** from the drop down box will allow the image below to be revealed in the tone of the "colour fill", - the strength of this adjustment layer can be reduced. When referring to articles, blogs etc for help with processing your image - **blending modes, and the opacity slider"** could be mentioned as part of the creative process.

RULES FOR WORKING WITH LAYERS: A new layer will be added on top of the active (selected) layer – if you make a mistake and insert your new layer in the wrong position, your new layer can be moved up or down (dragged and dropped). Layers can be switched/toggled on, or off, by clicking the 'eye' icon. You can make changes to the properties of an adjustment layer by clicking on the layer properties icon, eg if you have introduced a levels layer to lighten your image but want to darken it slightly at a later stage – you can return to this levels adjustment layer and alter its settings to darken the image; just double click the layer properties icon. You can rename a layer to something more meaningful e.g Levels – Darken Sky, RENAME can be found under the LAYER TAB.

THE LAYER MASK an **adjustment layer** appears in the layer's palette with a white mask already visible on the layer – this means that the effect of the layer is operating at full strength. Under the LAYER TAB a layer mask can be deleted, or "disabled" as a temporary measure. Under the layer tab a mask can be added either to **"reveal the effect of the layer on your image" (a white mask) – or, to conceal it (a black mask).**

THE PAINT BRUSH this is used in a similar fashion to the opacity slider in the layer palette. The difference is that the brush can adjust the effect of the layer in chosen areas of your image, by painting onto the mask. E.g. to completely hide the effect of the layer in a particular area use a black brush on the white mask, to partially reduce the effect of the chosen area reduce the opacity of the black brush (in the options bar for the paintbrush tool) – a black brush with reduced opacity will be represented on the white mask in varying shades of grey; the darker the grey the more the strength of the layer has been reduced. Alternatively, when a black mask has been applied a white brush will reveal the chosen areas of the image that is to be affected by the layer, and a white brush with reduced opacity will slowly strengthen the effect of the layer's properties on the chosen areas of your image. Once again the opacity of the white brush is represented on the black mask in shades of grey, this time the lighter the shade of grey the stronger the effect becomes in the area where the white brush has been used.

NOTES: A black mask cannot be added to an adjustment layer which will appear with a white mask already attached, either delete the mask then add a black one, or, use a black brush and paint the white mask black, before painting on the black mask with a white brush in the areas of the image you want the adjustment to be applied to.

When painting onto a mask which has been added to a '**pixel layer'**, select the mask not the image; otherwise you will end up painting straight onto the image, if you are on an adjustment layer the same rule applies – you will not see any change to the image if you have selected the adjustment properties icon.

THE IMAGE ON YOUR SCREEN: The final outcome of the image continuously changes as you construct your LAYERS PALETTE and make changes within it – this is represented by the image on your screen – **imagine you are positioned above the layer palette structure in the factory, and you are looking down into this structure** - **as each layer is added; as each change via the blending modes & opacity slider is applied; as masks are applied and modified, you will only ever see one image below you as the effects of each change accumulates**.

FURTHER READING

https://lenscraft.co.uk/photoshop-tutorials/tutorial-layer-masks-photoshop/

TIP: At the end of the Lenscraft tutorial there is a link to become a member, this won't cost anything. Go to the members area and select "Photo Guides and Files" – this is where you will find "Magic Masking eBook", it is a free download.

https://photzy.com lots of help here, but only free for a limited time.

www.lightstalking.com Free, lots of helpful articles here – just type layers, or, masks into the search box. You might have to register first.

https://fstoppers.com/ Freely accessible articles and tutorials. The search box will bring you up results from google but you don't have to scroll far to find what you want. It doesn't matter what post processing package you use just type its name in before typing layers etc.

e.g. Affinity layers, or ON1 masks, ACDSee layers

www.photoshopessentials.com/basics/understanding-photoshop-layer-masks Free, and offers pdf downloads, as well as downloadable files to follow along with the videos.