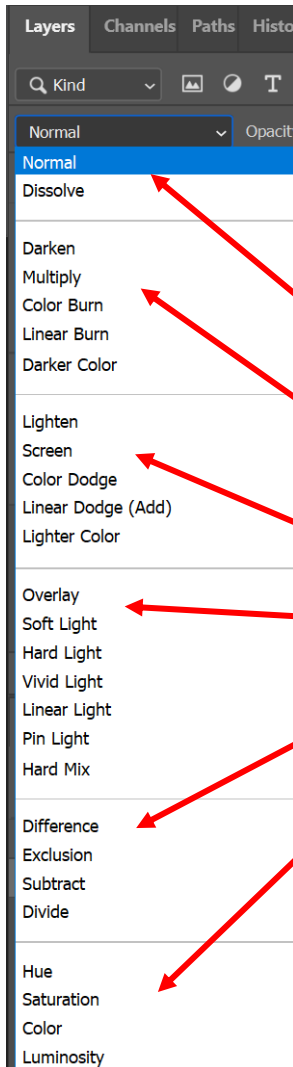# THE DIGITAL DARKROOM - 05

LAYER BLEND MODES

There are twenty-seven blend modes in Photoshop. They allow you to blend layers together in various ways, creating unique visual effects and composites. Each blend mode alters how pixels on one layer interact with pixels on underlying layers, producing different results based on factors like colour, brightness, and opacity.

There are several categories of blend modes:

1. **Normal**: These blend modes have no special blending properties and simply stack layers on top of each other.
2. **Darken**: These blend modes compare the pixel values of the layers and keep the darkest pixels visible while hiding the lighter ones.
3. **Lighten**: These blend modes do the opposite of Darken modes, keeping the lightest pixels visible while hiding the darker ones.
4. **Contrast**: These blend modes enhance the contrast between pixels on the layers, either by increasing or decreasing it.
5. **Equation Blend Modes**: These blend modes compare the colour information of the pixels on the layers and blend them accordingly.
6. **Colour attribute blend modes**: These blend modes only affect specific colour channels (RGB or CMYK) individually.

The most commonly used layer blend modes are **Normal, Multiply, Screen, Overlay, Soft light, Linear light, Colour and Luminosity.** These are all useful especially when doing composite images.

Four helpful modes and their effects are:

- **Multiply layer blend mode** multiplies the selected layer by the underlying layers. Black stays, white goes away.
- **Screen layer blend mode** multiplies the inverse of the selected layer, by the inverse of the underlying layers. White stays, black goes away.
- **Overlay layer blend mode** is a combination of Screen and Multiply. It creates lighter lights and darker darks. Midtone grey is dropped.
- **Soft light layer blend mode** will block grey. Similar to Overlay. Nothing gets pure black or pure white. Lightens light pixels and darkens dark pixel.

Nest we will look at some practical applications of layer blend modes.

The FILL blend modes

There are eight special blend modes that make very different results when used with the Fill Slider.

Fill in these blend modes acts as the calculator and Opacity as the intensity of the calculation.

Colour Burn	Linear Burn
Colour Dodge	Linear Dodge
Vivid Light	Linear Light
Hard Mix	Difference

Relationships / Effects

OVERLAY	=	SCREEN + MULTIPLY
HARD LIGHT	=	LINEAR BURN + LINEAR DODGE
VIVID LIGHT	=	COLOUR BURN + COLOUR DODGE
LINEAR LIGHT	=	LINEAR BURN + LINEAR DODGE
PIN LIGHT	=	LIGHTEN + DARKEN
HARD MIX	=	LINEAR LIGHT & 8 COLOUR BREAKDOWN
HUE	=	PRESERVES LUMINANCE & SATURATION
SATURATION	=	PRESERVES LUMINANCE &HUE
COLOUR	=	PRESERVES LUMINANCE
LUMINOSITY	=	PRESERVES HUE & SATURATION

This chart is from notes by Blake Rudis in the Virtual Summit No 5

## An example of using the Screen layer blend mode

We will introduce some atmosphere into this image using the screen blend mode.

This is the image we will use to give some atmosphere to the image.

Firstly, notice the direction of light in the two images. The light is coming from different sides. To match the direction of light, flip the atmosphere image horizontally.

Before we combine the images, the sky in our scene is too colourful. Select the sky and use CTRL+J to move it to its own layer. Then use a curves adjustment layer and clip this to the sky layer, so that it will only affect the sky. Adjust the curve to lighten the sky by pushing the curve upwards.

Curve adjustment layer

Clipped to the sky layer

Sky layer
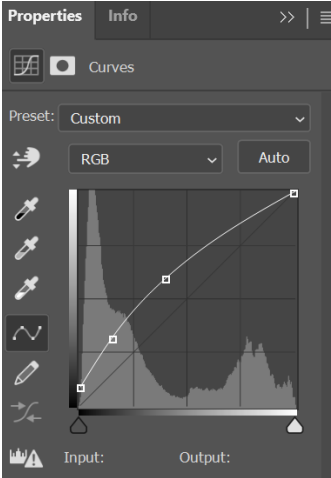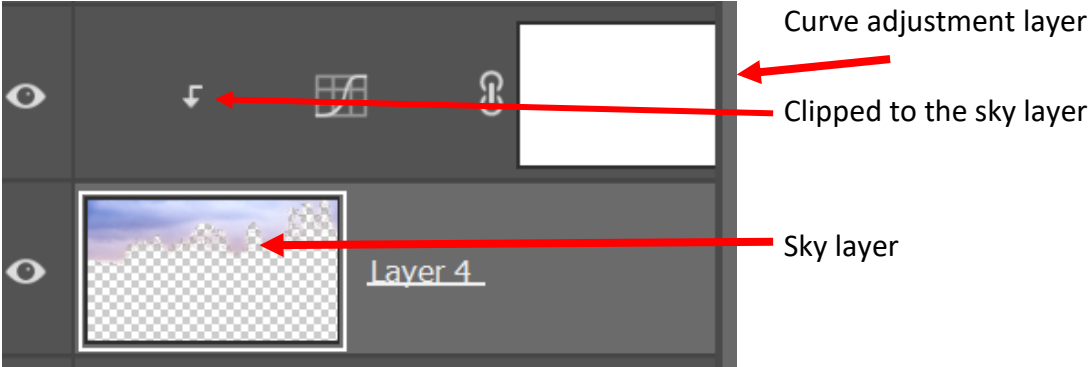
The curve used to lighten the sky.

Next place the atmosphere image over our beach scene. There are several ways to do this. An easy way is to use CTRL+A to select the whole atmosphere image and then CTRL + C to copy it.

Use CTRL+V to paste this image over the beach scene.
The result is shown below.

Now change the blend mode to **screen.** The black in the image disappears.
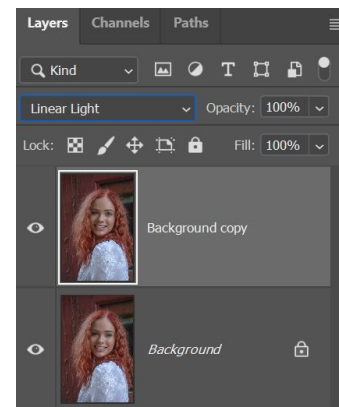

Our final image. I have used a mask to remove most of the atmosphere from the sea.

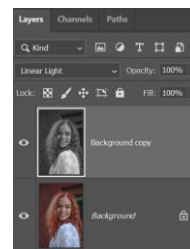## Using Linear Light Blend Mode for High Pass Sharpening

Make a duplicate of your image. (If you have a lot of adjustment layers then make a stamp of all the layers (CTRL+ALT+SHIFT+E).
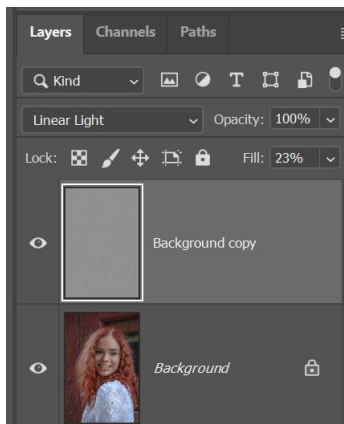Set the blend layer mode to **Linear Light**.

Desaturate this layer by using the shortcut keys CTRL+SHIFT+U. This will give a grey image in the layer panel.

Now select the Filter menu, Other and High Pass.
In the dialogue box for the high pass filter, set the radius between 2 and 7 pixels.
In the layer panel then adjust the FILL to reduce the sharpening effect to your desired sharpening.
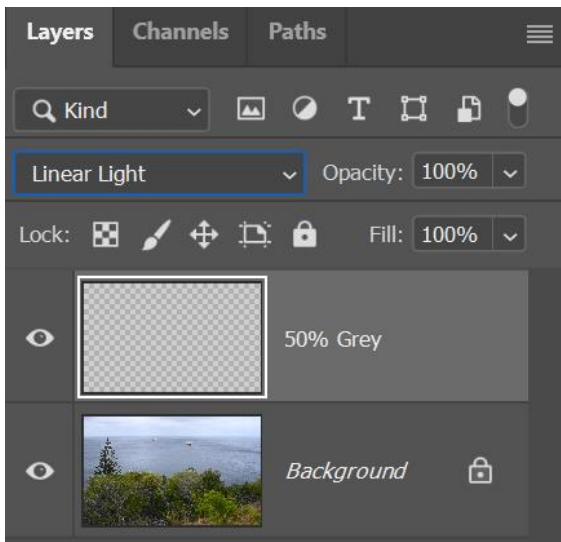

Masks (or blend-if, which we will cover later) may be used to control where you want the sharpening.

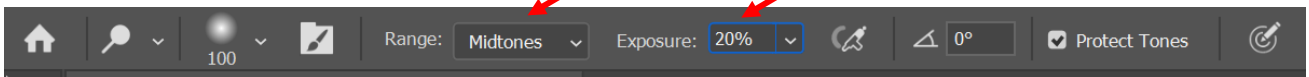## Dodging and Burning using the Linear Light Blend Mode

Make a new layer and fill it with 50% grey – use SHIFT+F5

Change the Layer blend mode to Linear Light.

Select the Dodge Tool and on the Tool Option Bar at the top of your screen (just under the menu items) set the Range to Midtones and Exposure to 20%.

Brush with the dodge tool where you want to draw attention to. Tod burn (darken) press and hold ALT (Option) key to switch to the burn tool and burn the areas you want to push the viewer's attention away from. You can alternate between dodging and burning until you are satisfied.

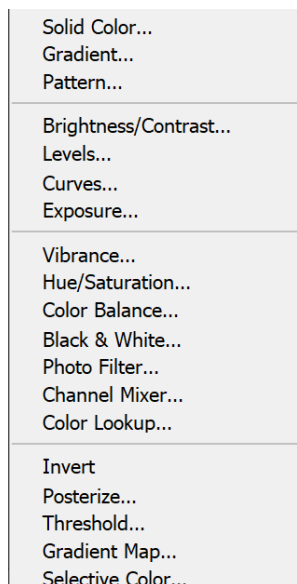In these two images I have exaggerated the effect to show it more clearly.

Once you have finished Dodging and Burning, reduce the FILL of the layer to make it more natural looking (usually between 15 and 25%0.

Using Vivid Light to create a Gel Effect

Create an adjustment layer – using the ⦿ symbol at the bottom of the layers panel. Select Solid Colour. Select a colour you want to fill the scene with.

Solid Color...
Gradient...
Pattern...

Brightness/Contrast...
Levels...
Curves...
Exposure...

Vibrance...
Hue/Saturation...
Color Balance...
Black & White...
Photo Filter...
Channel Mixer...
Color Lookup...

Invert
Posterize...
Threshold...
Gradient Map...
Selective Color...

Change the layer blend mode of this selected colour layer to **Vivid Light** and set the Fill to between 15 and 35 %.
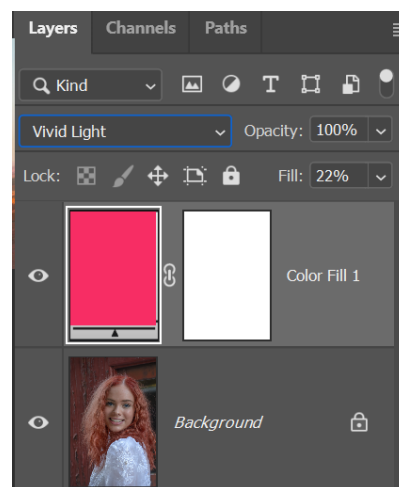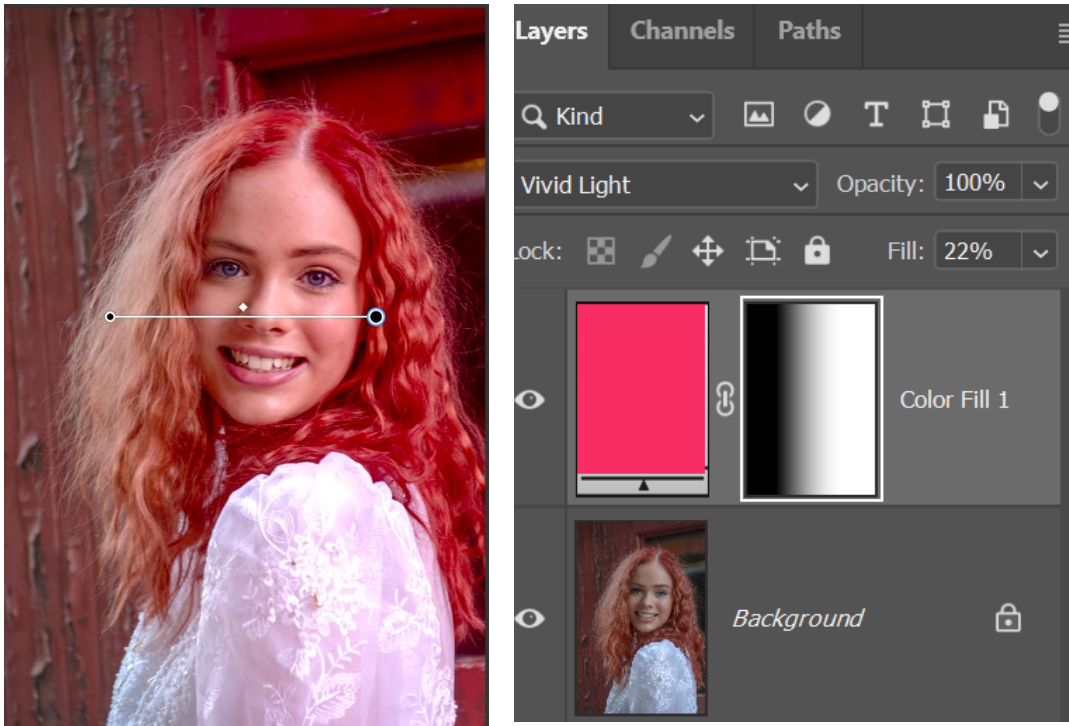
Now click on the white mask in the colour fill layer. You will see a white border around it.

Now, use a linear gradient set to Black to Transparency and block out the area you do not want to be affected with the black part of the gradient. (To do this, make sure you have the layer mask selected, then on the image draw your gradient).
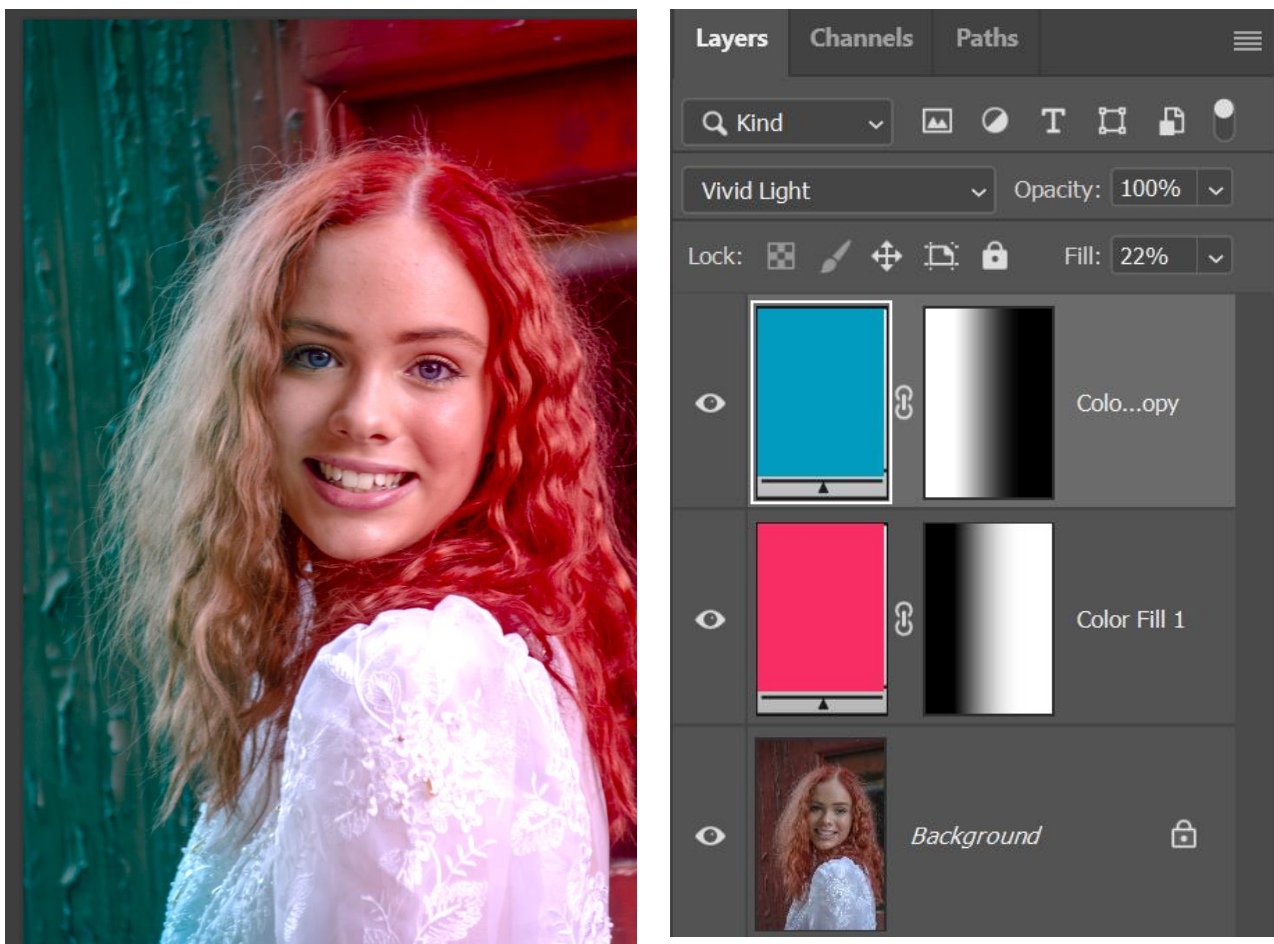
This is the gradient tool and the tool bar.

Duplicate the colour fill layer, select the mask and invert the mask by using the shortcut keys CTRL+I
Now change the duplicated solid fill colour to a different colour of your choice. (Double click on the
colour to bring up the colour picker so that you may choose another colour).

Using Blend Modes to create a Pep Ventosa effect.

The Pep Ventosa effect is a photographic technique named after the Spanish photographer Pep Ventosa. It involves capturing multiple images of a subject from different angles and then overlaying or blending them together to create a composite image. The result is a unique and visually dynamic representation of the subject, often with a sense of movement or abstraction. This technique is particularly popular for capturing subjects like landscapes, cityscapes, and still life in a creative and compelling way.

This image was composed of about 12 images. Each image was taken trying to keep the trunk of the tree in the same position but each image was taken at a slightly different angle. The resulting images were loaded into photoshop and stacked so that there was a group of layers. Each layer was given a suitable blend mode, opacity setting (and /or fill) and moved slightly if needed.

Note that masks may also be used with this technique.