Photoshop Layers The Basics

⌘ = Command on Mac and Control on PC

One of Photoshop's key features is it's ability to use Layers. the best way to understand Layers and to learn some of Photoshop's tool is to build layers and see how they work.

To Start; Open Photoshop and let's create a New File, File>New, make the Name Background and the Document Type U.S. Paper. Set the size to Letter and the units to Inches. Set the resolution to 300 Px/Inch and the Mode to 16 bit and the Background Color to White. Set the Color space to sRGB, Click Okay.

We now have a white background, let's build on that. To create a new layer, click on the Dog Eared page Icon on the bottom right of the Layers Panel. This creates a new Transparent Layer, you can tell it's transparent by the Gray and White squares. Change the name of the Layer by double clicking on the layer and and it's will highlight, let's call this layer Rectangle. In the Toolbar click on the Rectangular Marquee Tool (M), then move the cursor into the background and drag to shape a rectangle. Now let's give this shape a color, Pull down the Edit menu Edit>Fill. In the fill box double click on 'color' in the Contents Box and choose Red and click OK. Use the Move Tool (V) to move the Rectangle from the center. To remove the marching ants, use ⌘ +D.

Let's repeat this and this time name the Layer 'Circle' and use the Elliptical Marquee Tool and shape a Circle and fill it with Blue. Use the Move Tool (V) to move the Circle from the center. To remove the marching ants, use ⌘ +D.

Next repeat for another layer, name it 'Square'. Using the Rectangular Marquee tool and hold down the Shift Key and drag the cursor to make a perfect square. Color it Green. Use the Move Tool (V) to move the Square from the center. To remove the marching ants, use ⌘ +D.

Now we have a white background with three shapes.
Highlight the top layer and use the move tool to position the Square around the backdrop. Notice since it's the top layer it's always visible. Next Highlife the Circle Layer and using the Move Tool position it around the background, this time it gets hidden when moving on the Square, this is because it's below the Square Layer.

The Same works for the Rectangle Layer.

Highlight the Square Layer (top) and drag it below the Circle, now the Circle is on top and always visible.

One more thing since we have Layers constructed, let's add Text.

Highlight the background Layer and Hold down the Control key and select the Horizontal Text Tool (T). Note as you move the cursor into the image it changes to an I bar, click on the image to position the text. Now select the font and font size and font type. I'm using Helvetica Bold with a font size of 48 and the color is Black. Type 'Shapes' Notice the text layer is paced above the background layer and the layer name is the Shapes.

Let's save this so you can refer to it later. Pull down File>Save, suggest Naming it Layer and saving it on your desktop so you can find it easy.

Layers Part 2 Layer Masks

Now that we're comfortable using layers, let's put them to use. Let's explore Layer Masks.

A Layer Mask allows you to see through certain parts of a layer to view the layer below. Sounds very confusing, it is for a while.

Let's demonstrate how this works.

Add a new Layer in Photoshop File New, make it US Paper and 8 1/2 by 11, 300m DPI and 16 bits and make it Green in color. The Layer is locked and is named Background, let's unlock the Layer by holding the Alt/Option Key and clicking on the lock and then change it's name to 'Bottom'.

Let's add anther layer using ⌘+J, this is also green and named Bottom Ciopy, let's change it's color by using ⌘+A to select all, the Edit>Fill and click on Color, then double click on color again and you'll get a color display, choose Red and click OK Twice. Now change the layer name to Top. Use ⌘+D to Deselect the marching ants.

We can use the Eraser Tool to cut holes in the top Layer to see parts of the bottom layer, but this is destructive and will permanently damage the image.

Let me introduce Layer Masks, a layer mask will allow you to select areas of an image that can be masked out allowing you to look through an upper layer and see the layer below.

Well, the best way to learn and use layer masks is to use them to demonstrate how they can be useful in our workflow.

Photoshop Black and White

Let's explore a few ways to create a Black and White Image from Color.

Let's start in Photoshop, Open Image "Black and White with Color". Duplicate the background layer ⌘+J. Name the New Layer "B&W Adjust".

Pull down Image>Adjustments>Black and White. the Pop-up gives you sliders to use, and also some presets. Starting with the Presets, look through each and choose the one you like, I prefer the High Contrast with Red Filter, then I adjusted the Red slider to -52% and the Blue to -10%. When you're satisfied with the conversion, click OK.

We'll deal with adding color later.

Next Let's simply try desaturating. Let's Turn the the B&W Adjust layer off by clicking the eyeball. Now let's duplicate the background layer ⌘+J again and drag it to the top. Rename this Layer B&W desaturate.

Pull down Image>Adjustments>Hue and Saturation. This time the presets offer Sepia and Cyanotype for something close to B&W, but with this method, let's use the Sliders.

Move the Saturation slider all the way to the Left. This desaturates the image. you can use the Hue and Lightness sliders to create what you like, when you're satisfied, click OK.

Let's try one more in Photoshop, This will be very similar to the first B&W we made.

Let's Turn the the B&W Desaturate layer off by clicking the eyeball. Now let's duplicate the background layer ⌘+J again and drag it to the top. Rename this Layer "B&W Adjust Layer".

In the Layers panel make sure the top layer is Highlighted, click the New Adjustment Layer icon, (it's the black and white circle at the bottom of the panel) and select Black and White.

Just like before, Starting with the Presets, look through each and choose the one you like, I prefer the High Contrast with Red Filter, then I adjusted the Red slider to -52% and the Blue to -10%. When you're satisfied with the conversion, click OK. Highlight both the B&W Adjustment Layer and the B&W Adjust Layer and Pull Down Layer>Group Layers. This will group the Adjustment layers together.

Okay. once more, Let's Turn the the B&W Adjust Layer layer off by clicking the eyeball. Now let's duplicate the background layer ⌘+J again and drag it to the top. Rename this Layer "B&W NIK".

Now we'll use the NIK Plug-in Silver Effect Pro2. Pull down Filter>NIK Collection>Silver Effect Pro2. This is my Favorite method.

NIK has several presets, they are named to suit the effect, Modern, Classic and Vintage. you can also save the preset you prefer by clicking the star next to the name and they will be stored in your Favorites folder. Let's choose Classic>Push Process. The presets can be modified by using the sliders in the left panel.

For this demonstration let's just stay with the preset as designed and Click OK. the NIK preset will be loaded on a separate layer. Highlight both the Silver Effect Pro2 Layer and the B&W Nik Layer and Pull Down Layer>Group Layers. This will group the NIK layers together.

So now we've discussed 4 methods to create Black and white images. To compare+ each method, turn all the eyeballs on to active each layer, then working from top to bottom layer, turn off the eyeball to see the method below. Naming each layer helps to identify each process.

So now let's add some color to the B&W image.

In the Layers Panel, turn off all layers expect the Background Layer now Highlight the Background Layer to make it active. You'll have a color image now. Using the quick selection tool, and select the flag. You can add use the Alt/Opt key to subtract stuff outside the flag boundaries. Once you have a decent selection, click the Layer Mask icon and the bottom of the Layer Panel, it looks like a front loading washing machine. Now you have a Layer Mask, but it's the wrong mask, so let's invert it, ⌘+I, so the flag is covered with black.

Now turn on the top layer with the NIK B&W Layer. Now Click and drag your mask from the background layer up to the Layer Group with the NIK B&W Layer. The Flag should show in color with the background in B&W.

So, let's go back to our Photoshop image with 2 layers, Top & Bottom.

With the Top Layer highlighted, click on the Add Layer M‹ask Icon, it looks like a Front Loading Washing Machine. This will add a Layer Mask to the right of the thumbnail. Notice that the Mask is a solid white in color, this means that the mask reveals the layer it's attached to.

To demonstrate how the Mask works, let's paint with black on the Mask. Make sure the foreground color is Black click the 'x' key to alternate between foreground and background colors, if the colors are not White and Black, click the 'D' key to set the default foreground and background colors. Just make sure the foreground is black.

Select the Paint Brush from the toolbar (B), set the brush size to 150 px, the Hardness to 50% and the Opacity to 100%.
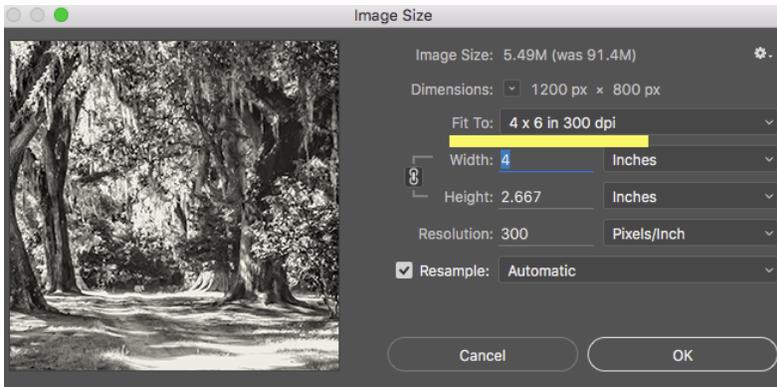
Now paint with black on the top layer. As you paint portions of the bottom layer are revealed.

This can be really useful in many applications and there are several ways to select what areas reveal and what areas conceal, the rule of thumb is that White Reveals and Black Conceals.

How to resize Photos for Projection

In Photoshop, have the image you want to resize open.

Pull Down Image>Image Size and you'll get this Pop-up screen.

Change the Fit To: to 4x6 300 DPI using the pull down tab. This will change your file size to about 5.5 MB

Then Pull Down File>Save as and save it as a JPG into a desktop folder. the file will now project full screen.