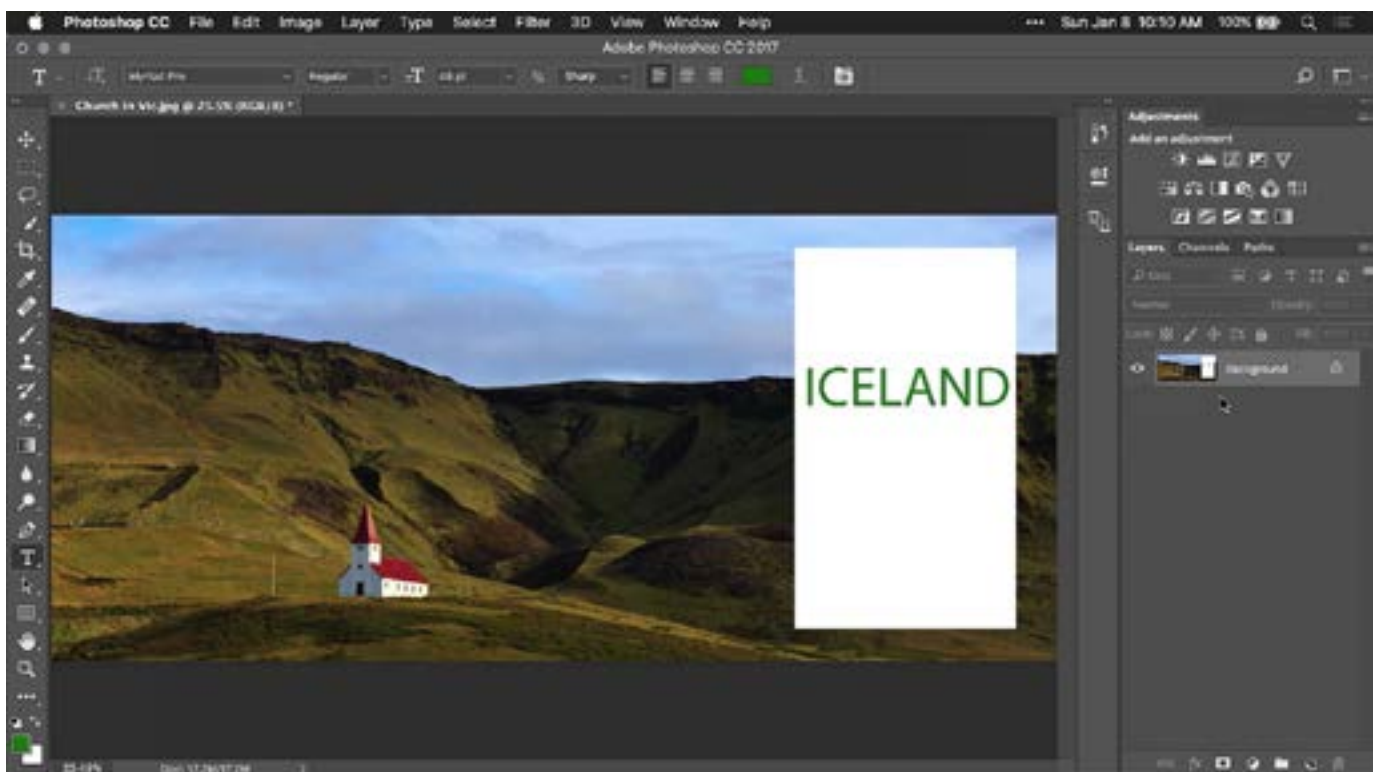# learn to love
PHOTOSHOP

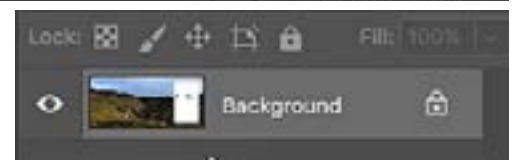Lesson

5

Getting Started with Layers

Getting Started with Layers

Layers are the most fundamental feature in Photoshop. They allow us to non-destructively construct a document, while giving us the most versatile way of working. Layers can be used for something as simple as creating a photo grid or as complicated as a complex composite.

If we construct a document without using layers (where all the content would be placed on a single, "background" layer), we will not be able to make changes to the individual parts. In the video example, we have a document with an image, a white text box and text inside of the box. We first created this document without using layers and as a result, we could not go back and change the text, the color and size of the text, the position and opacity of the box, etc. It's all baked in and we can not make changes to one piece without affecting the document as a whole.

In this document, everything is placed on the same layer. This prevents us from making changes to the individual components.
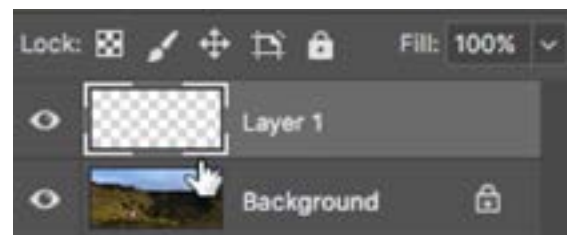
Let's reconstruct this document a second time, using layers so that we have more versatility.

The Layers Panel The Layers panel is located, by default, on the right side of the Photoshop interface. The panel will show all of the layers in your document. When you open an image for the first time, you will only have one layer, titled the Background Layer.

Creating a New Layer To create a new, empty layer, click on the New Layer icon at the bottom of the Layers panel. After creating a new, empty layer, the layer's thumbnail will appear in the Layers panel and there will be a checkerboard pattern on it, indicating that the layer is completely empty. (Any time you see this checkerboard pattern, it represents empty space on which there are no pixels.) You can change which layer is active simply by clicking on the layer thumbnails in the Layers panel. When a layer is active, little white brackets will appear around its thumbnail.

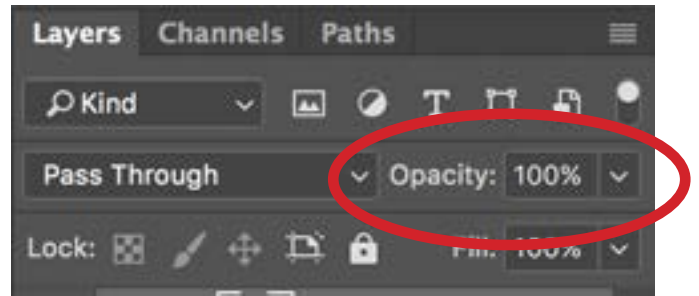To create a new layer, click on the New Layer icon at the bottom of the Layers panel.

The new, empty layer will be represented by a thumbnail filled with a checkerboard pattern.

Fill a layer with color To fill a layer with a particular color, make sure the layer is active, go to the Edit menu and choose Fill. A dialog box will appear giving you some options. Use the Contents menu to specify what color you'd like to fill with and then click OK. Note that if you have a selection active when using the Fill command, only the area inside the selection will receive the fill color. That's what we're going to do here in order to create that white box.

Here, we are using the fill command to fill the active selection. If there were no selection active, it would fill the entire layer with the chosen color.

Changing opacity When you fill a layer or an area with a color, the color will be completely opaque (meaning you can't see through it). If you would like to partially see through the layer, use the Opacity setting at the top of the Layers panel to lower the opacity of that active layer, making it partially transparent. The easiest way of changing the Opacity is by clicking and dragging back and forth on the word "Opacity" at the top of the Layers panel. This will cause the setting to act like a slider.

The Opacity slider/setting can be found at the top of the Layers panel. Use this setting to change the opacity of the active layer.

Adding text To add text, we'll activate the Text Tool (located in the Tool Bar on the left side of the interface) and click in our document to place the cursor. By default, when we add text to a document, that text is placed on a new layer. We'll then type in our text. The tool will remember the last settings used. If the text is too small or large (as it is in this case), we can highlight the text and then use the size setting located in the Options Bar above the main image window. You can change the size in the same way that we changed the opacity of a layer, by clicking on the Size icon and dragging left or right until the text is at our desired size. When we're done setting the text, we can either click the little check mark in the Options Bar at the top of the screen, or we can click away from the layer in the Layers panel.

Note: To select all of the text, make sure the cursor is somewhere in the text and then use the keyboard shortcut Command+A (Ctrl+A on Win).

Copying an image from another document Now, we want to add another image to this document. We'll open the other image as a separate window in Photoshop. There are a couple ways we can move an image or layer between documents. With the image we'd like to add open in Photoshop, we can go to the Select menu and choose All in order to select the entire contents of the layer. Then we'll

go to the Edit menu and choose Copy. Next, we'll switch back to the document window where we want to add the image, we'll go to the Edit menu and choose Paste. This will deposit the image in the current document as a new layer.

Resizing a layer using the Free Transform Command The image is not the size that we want, so we'll need to scale it and we'll do this by using the Free Transform command. The Free Transform command can be found under the Edit menu, but an easier way of accessing it is by using the keyboard shortcut Com-

Here, we are resizing a layer using the Free Transform command. You can see the Free Transform handles surrounding the layer.

mand+T (Ctrl+T on Win). Transform handles will appear on the sides and corners of the layer and we can resize the image by clicking and dragging on these handles. In order to maintain the proportions of the layer while transforming, we can hold down the Shift key. If we don't do this, we can end up distorting the image. To lock in the transformation, we'll click the Return or Enter key and the transform handles will disappear.

The Move Tool & Auto-Select Layers To reposition the layer while using the Free Transform command, we'll click somewhere within the picture (that is not one of the transform handles) and drag around the document. Otherwise, we will use the Move Tool to reposition the contents of a layer. If we'd like to move the layer perfectly horizontally or perfectly vertically, we can hold down the Shift key while dragging the layer. This will constrain the movement.

With the Move Tool active, there is a setting we must be aware of because it will drastically change the way the tool works. The setting will appear on the left side of the Options Bar and it will either be represented as an icon or as an Auto-Select check box. If this setting is turned on, when you click your mouse button, it will
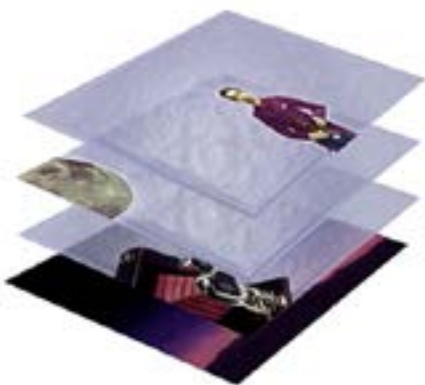

The Auto-Select setting in the Options Bar. This setting may also be represented as a check box.

look at what is directly beneath your cursor and it will target the layer that content is contained on. That means that Photoshop will automatically change what layer is active in the Layers panel when you click and drag your mouse.

If the Auto-Select feature is turned off, then whenever you click and drag using the Move Tool, Photoshop will only target the active layer (regardless of where you click). It will not automatically switch between layers. The Auto-Select setting is a personal preference, but I usually keep the feature turned off because I find that it can get in the way. For example, If I'd like to target a layer that is hidden under the content of another layer, I would have to move the overlying layer first because Photoshop will not be able to target the hidden one.

Even if you keep the Auto-Select feature turned off, there is a way to temporarily access the setting when you need it. With the Move Tool active, I'll hold down the Command key (Ctrl on Win) to temporarily turn on the Auto-Select Layers feature. When I release the key, it will be turned off again.

Thinking about layers When it comes to layers, you can think of it as having a bunch of flat items on a table in front of you. Some of the items may be stacked such that they hide all or parts of the items beneath it. Each item is a layer, and the items on top will be at the top of the layers panel. Picture yourself standing at the top of the Layers panel and looking down. When you try to see the image that's on the bottom layer, the content in the overlying layers will obstruct your view of it.

The graphic above demonstrates how layers were used to construct the image on the right.

Moving multiple layers at a time To work with multiple layers at once, we'll have to select them in the Layers panel. To select more than one layer, we'll click on the first layer you'd like to target, hold down the Shift key and then click on the last layer (providing we're targeting layers that are all in a row). Note this will only work if the Auto-Select setting is turned off.
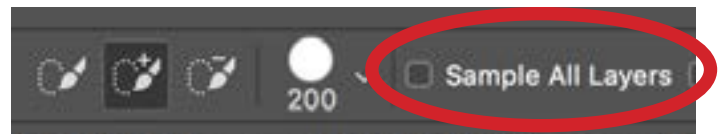
Toggle a layer's visibility You can turn off the visibility of a layer by clicking on the eyeball icon to the left of the layer's thumbnail in the Layers panel. This will not delete the layer. It will only hide it. Click on the square where the eyeball icon was to turn the visibility back on again.

We turned off the visibility of the top layer by clicking on the eyeball icon to the left of the thumbnail.

Note that when working with layers, many of the tools only work with one layer at a time. If we try to use the Move Tool to reposition the content on layer A, we need to make sure that layer A is active in the Layers panel. If a tool is ever not working in the way you think it should, check to make sure that you have the correct layer active and that its visibility is turned on.
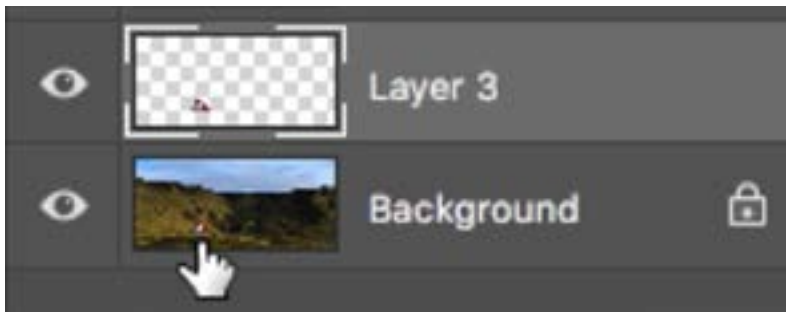
Some selection tools have a setting that enables you to target layers other than the active one, and that will appear as a "Sample All Layers" check box or icon in the Options Bar above the image window.

The Sample All Layers setting will allow the active selection tool to work with more than one layer at a time.

Copying/duplicating a layer There are a couple ways of duplicating a layer, or part of a layer, and we must make sure that the layer we want to copy from is active in the Layers panel. Note that if there is a selection active, we will only duplicate the content within that selection and not the entire layer. That's what we're doing in the video example. We created a selection around the church and we want to copy it to its own layer. One way of doing this would be going to the
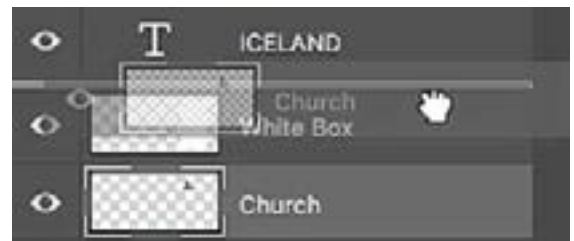
Layer menu and choosing New > Layer via Copy. We can also use the keyboard shortcut Command+J (Ctrl+J on Win) to achieve the same result.

Here, we made a selection around the church in the background layer and used the keyboard shortcut Command+J (Ctrl+J on Win) to copy the contents of the selection onto a new layer.
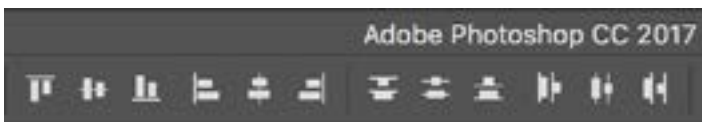
Renaming a layer When you start to get multiple layers in your document, it's a good idea to start naming your layers. This will help you to identify what each layer's purpose is or what it contains. To rename a layer, double-click on the name of the layer and the name will become highlighted. You can then type in the new name and hit the Return or Enter key.

Changing the layer stacking order You can change the order of your layers by clicking and dragging up or down on a layer in the Layers panel. When you do this, Photoshop will give you feedback to show you where the layer will be positioned when you release the mouse button.

We're changing the stacking order by dragging a layer to a new position.

Aligning layers If we'd like multiple layers to line up with each other, we'll first need to select all of the layers in the Layers panel and make sure that the Move Tool is active. When the Move Tool is active, a series of icons will appear in the Options Bar above the main image window and these are the alignment settings. We can choose to align the selected layers by their top edge, center line horizontally, center line vertically, etc. If you hover your cursor over each of the icons, a little box will appear telling you what that alignment setting does. In the video example, we select-

The Align icons in the Options Bar.

ed the white box, the text and the church so that we can center them. To do this, we chose the Align Horizontal Centers icon.
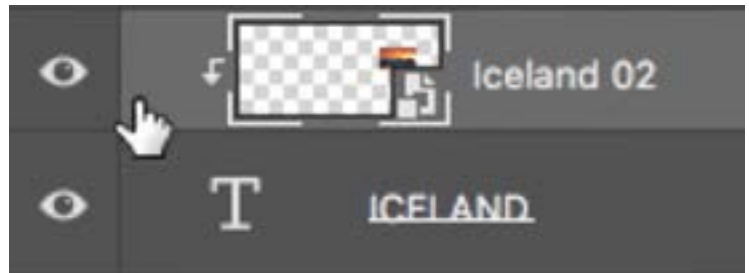
Using the Move Tool to move a layer between documents We already talked about how we can copy and paste a layer between documents. Now let's look at how we can use the Move Tool. We'll open the document containing the image we'd like to move into another document. With the Move Tool active, we'll click within the document and drag so that our mouse hovers above the Photoshop tab for the target document (without letting go of the mouse button). Photoshop will automatically switch to the other document. Now, we'll move the mouse into the target document and release the mouse button. If the document we move from is a different size than the document we move to, then the image we move will appear to be a different size in the document we placed it in.

Moving images into a document from Bridge We can drag images into our Photoshop document from Bridge by first selecting the image or images we'd like to add and then dragging them directly into our Photoshop window. When we release the mouse button, the first image will be placed in the document with active free transform handles for scaling. If the image was larger than the document, it will automatically be scaled to fit. After we scale the image to our liking, we can hit the Return or Enter key to lock in the transformation. When we do this, the next image we dragged over will now appear with the same free transform handles. We will continue to scale the images and hit Enter/Return until all the images we dragged over were scaled and placed as separate layers in our document.
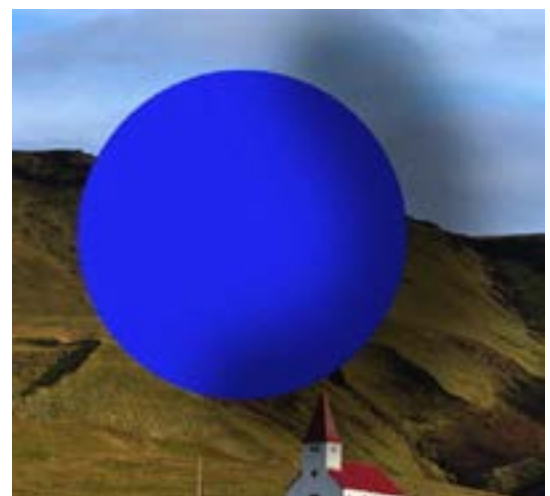

Here, we are dragging multiple images from Bridge directly into our Photoshop document.

Clipping masks A clipping mask can be used to make the contents of one layer appear within the confines of the layer that's directly beneath it. One of the many things we can do with this feature is make it look as if a photograph is appearing inside of some text. That's what we're going to do in the video example. We'll start by making sure the text layer is directly beneath the photo layer that we want to appear inside of the text. We'll also reposition the photo layer so that it covers the text. With the photo layer active, we'll go to the Layer menu and choose Create Clipping Mask. When we do this, the thumbnail for the photo layer will become slightly indented and a little down pointing arrow icon will appear to the left of it. This indicates that the layer is clipped to the layer beneath it and that layer will only show up where you can see information in the layer below.

When we create a clipping mask, the layer that is clipped becomes indented in the Layers panel. At left, the photo now appears to be contained within the word Iceland.

Clipping masks can be used for all kinds of things. Another use would be clipping an adjustment layer so that it only affects the layer beneath it. We could also use them to paint on an empty layer while ensuring that we don't get paint outside the confines of the layer beneath it. In the video example, we created a blue circle on one layer and we started painting with black (using a lower opacity setting) on an empty layer above it for the purpose of adding shading to the circle. When doing this, we got a lot of overspray, where paint was applied outside

We are using the Brush Tool (with a lower opacity setting) on an empty layer to create shading in the orb.
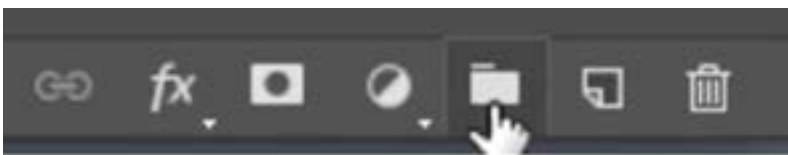
of the blue circle. To fix this, we clipped the paint layer to the circle layer beneath it so that the paint only shows up over the circle. Note that we can clip multiple layers in a row to one underlying layer.

The layer with the shading was clipped to the orb layer. This prevented any overspray from being visible in the background.

Layer Groups/Folders After creating a complex document that includes a lot of layers, the Layers panel can start to look a bit messy. Let's look at how we can organize the Layers panel to make our work in Photoshop a little easier. Photoshop allows us to organize our layers into folders. You can see the folder icon at the bottom of the Layers panel. To place layers into a folder (or group, as they're interchangeably called), first select all of the layers you would like in the folder and then click on the folder icon at the bottom of the Layers panel. All of the selected layers will then be placed inside a layer group that will be condensed inside of the Layers panel. Click on the 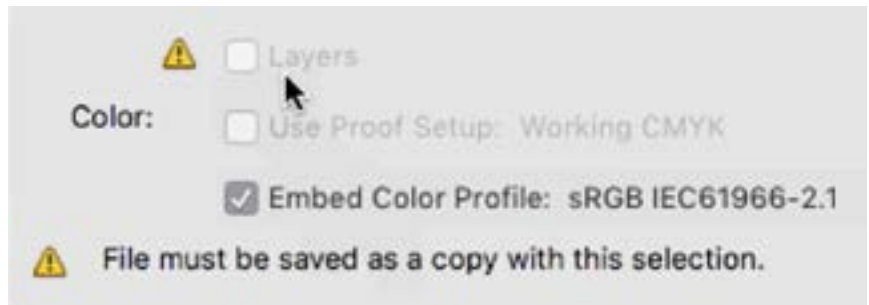arrow to the left of the folder icon to expand it and see its contents. Double-click on the name of the folder to change the name. It's always a good idea to do this so you know what the group's purpose is even when it's not expanded.

The Folder/Group icon at the bottom of the Layers panel.

When you have layers in a group, you can use the Move Tool to move all of the layers at once. To do this, just make sure that the name of the group is active in the Layers panel and then use the Move Tool to reposition the entire contents of the folder.

Layers and file formats When you save your document, it's important to know that there are only two file formats that support layers. If you save your document as a psd file or a tiff file, then your layers will stay intact and the next time you open your document, it will appear exactly the same as when you last worked with it. If you save your doc-ument as a different file format, jpeg for example, it will be saved as a flat docu-ment and the layers will not be maintained. If you have a multi-layered document and you choose jpeg in the Save dialog, you will see a little warning symbol at the bot-tom, letting you know that the layers will not be saved.

If you try to save a multi-layered document in a file for-mat other than PSD or TIFF, you will get the above warn-ing symbols in the Save dialog. PSD and TIFF are the only file formats that support layers.

The Background Layer When we open an image in Photoshop, the image layer (which will be the only layer) is called Background. We can add as many addi-tional layers as we'd like, but the bottom layer will be called Background (unless we do something to change it). This is a special layer that will have some limita-tions. For example, you can't delete parts of the background layer. If you attempt to use the Eraser Tool on the background layer, the area will be filled with the background color (instead of being erased). Additionally, the background layer can not extend beyond the bounds of your document. You also can not place any other layers beneath the background layer. It will always be at the bottom of your document.

If your document does not have a background layer, the contents will be converted into a background layer when you save the document using certain file formats (the ones that don't support layers). You can also flatten your entire document into a single background layer by choosing Layer > Flatten.

If you would like to convert the background layer into a normal layer, simply click on the lock symbol to the right of the name "background layer." Additionally, if you change the name of the background layer, it will be converted into a regular layer.

Revert This command will bring your document back to the state it was in when you first opened it. You can access this command by going to the main menu at the top of the interface and choosing Image > Revert.