

LAYERS, THE HEART OF PHOTOSHOP AND ELEMENTS

In Adobe Photoshop and Photoshop Elements the layers feature is probably the most useful and underused feature in the programs.

At this time we will concentrate on Photoshop Elements and in particular version 9 which was released in November 2010. In this edition, as in the previous versions, the tools in the tools panel, of which there are over two dozen, are for the most part self-explanatory but layers are usually either ignored or not understood by some users.

However layers are probably the most useful feature in the software, enabling a multitude of adjustments to be made to an image without changing the original.

The layers panel, usually docked on the right hand side of the work space is the area where all the layers are controlled and manipulated. **Fig. 1** shows the layers panel with an image made up from several different layers. Layers can be considered to be transparent sheets of glass or plastic on which you can draw, make adjustments to color, brightness and create vector based text and shapes. With the exception of the background or lowermost layer the layers can be moved up and down the hierarchy shown in the panel.

Layers are usually split into types which cover their function:

Ordinary layers are the pixel based image or images being manipulated.

Fill layers which contain a solid color, color gradient or pattern.

Adjustment layers which allow you to change color, brightness and saturation.

Type and shape layers for creating text and shapes.

All of these layers can be applied to any image, “the background”, without changing this original until such time as you flatten or collapse the layers into the original. You can start your adjustments and pause and save all of the layers as a .PSD file. You can then return to work on the image later with the original intact and unchanged. Only when you are completely satisfied with the result do you merge or

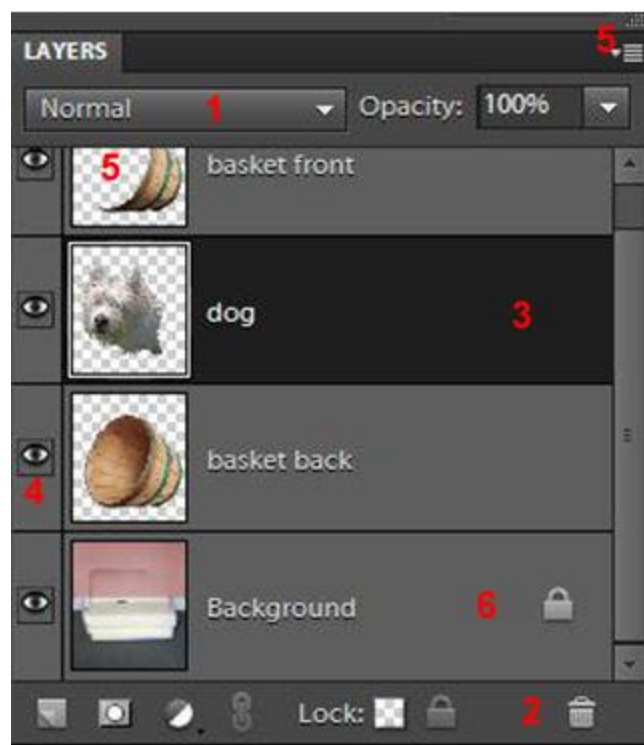


Fig.1

flatten all the layers into a single layer. At this time you would normally save the image under a new name thereby preserving the original.

In addition to the images and layers the panel contains the following areas and controls:

1. The blending mode drop down menu with the layer opacity control on the right
2. The lower panel with (from left to right): Add a new layer: Add a layer mask: Add a new fill or adjustment layer: Link layers: Lock layer transparency: Lock layer: Delete layer.
3. Highlighted layer is active
4. Show/hide layer
5. Layer drop down menu.
6. Padlock indicating the layer is locked

Note: the size of the thumbnails can be adjusted in the layer dropdown menu (5) under “panel options”.

ADDING LAYERS

Layers can be added in several ways:

- From the menu bar, Layer>New Layer.
- In the Layers Panel (2) lower area.
- Create a new blank layer or select a portion of the original image and turn into a layer.
- Convert the background into a layer (unlock).
- Paste into the original image, this automatically creates a new layer.
- Add type or a shape to the image, this automatically creates a new layer.
- Duplicate an existing layer.

You can have up to 8,000 layers an image each with its own blending mode and opacity. In reality computer and operator memory will lower this limit! However if you are regularly creating projects with many layers (75+) you might want to upgrade to Photoshop which can handle large numbers of layers easier.

FILL LAYERS

The fill layer has a choice of solid color, gradient (a rainbow effect) or pattern. Under each are numerous choices. The fill options are used mostly with drawings and objects rather than photographs. A very striking way of using them is to create text for inserting in postcards etc. However patterns can be used to highlight and accentuate some photographs.

To give an example I used this photograph of an old wall and fountain taken in Italy (**Fig.2**).



FIG. 2

In this case I felt the image was a little flat and needed a focal point. To achieve this I decided to add a pattern overlay in a layer mask and then adjust it to suit. (Fig.3 below)

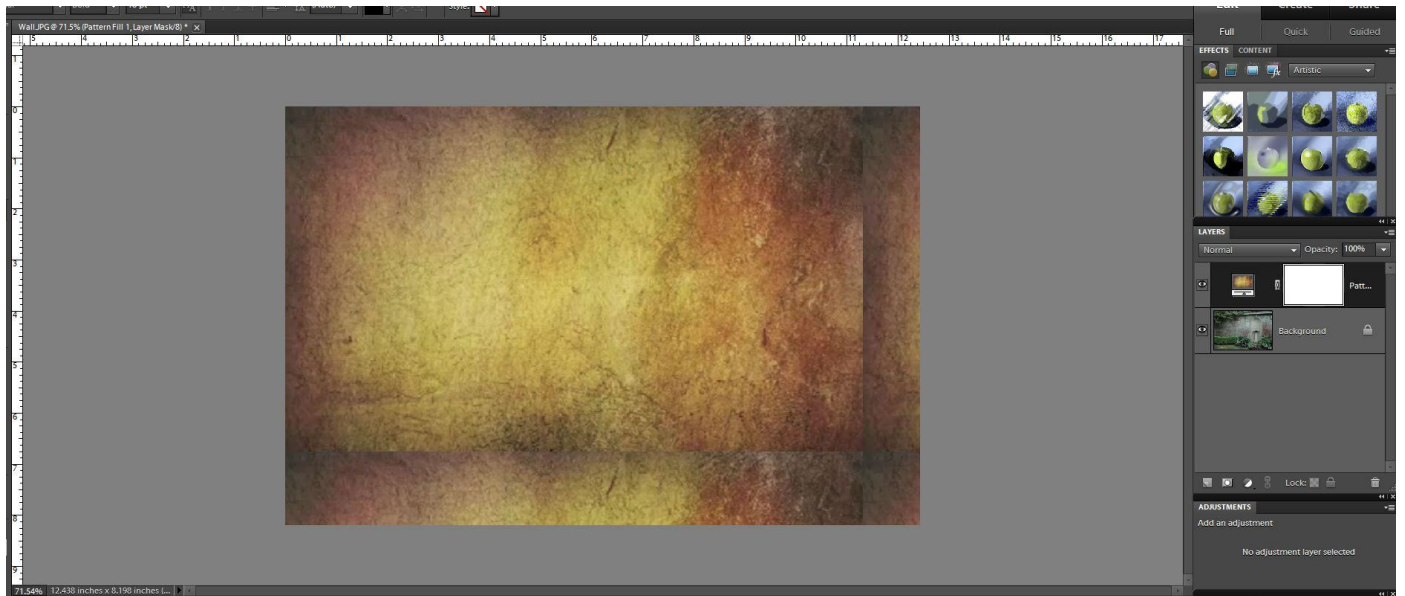


Fig. 3

This layer obviously blocks the background layer or picture of the wall but by opening the dropdown menu and selecting overlay as the mode for the layer, even at 100% opacity the background shows through (**Fig. 4** below).

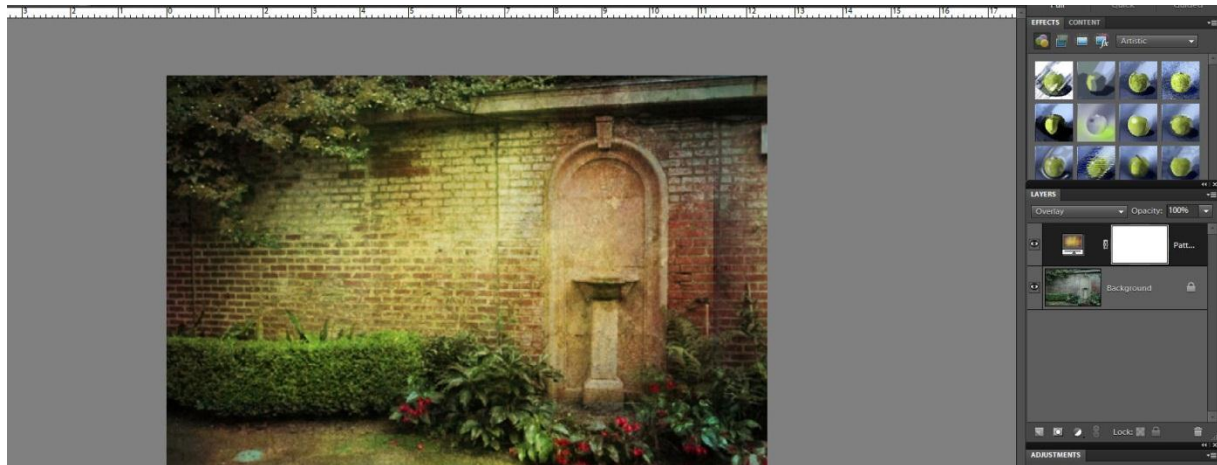


Fig. 4

This has added a glow to the image but I wanted something that highlighted the wall fountain rather than the whole image. This can be easily corrected using the layer mask. Using the paintbrush tool (in this case a square brush about 80 pixels) paint black over the area where you want the original background to show through. I decided to eliminate the entire overlay except in way of the fountain. The resulting image is shown in **figure 5** below.



Fig. 5

Note on the layer mask the area removed from the overlay is shown as black.

As a side note the pattern overlay used above was one I loaded into Elements. Should you see a pattern you like, open it in Elements, using the rectangular marquee tool select a representative area, open the "Edit" dropdown menu and click on "define pattern from selection". Choose a suitable identifying name for your selection and the new selection is added to your pattern collection.

Another use for layers is to create type “pictures” for insertion into other images. For example:

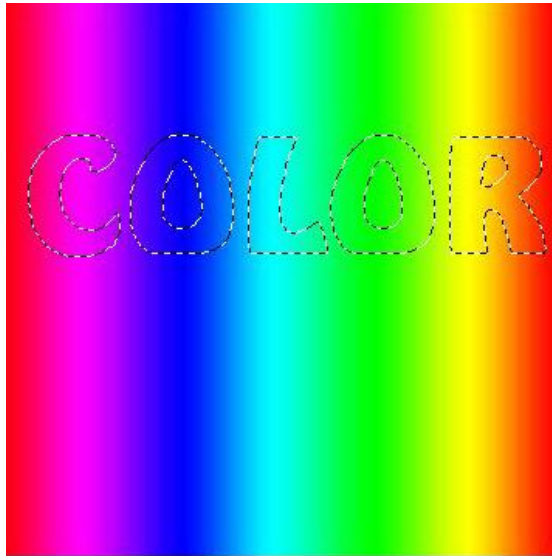


Fig. 6

Opening the gradient image, using the type masking tool and the Emmett type face (or any other wide font) I type the word color onto it. See **Fig. 6**.

Copy the text by using Edit>Copy which puts it onto the clipboard.

Now opening the receiving image, which in this case I have chosen a Ferris wheel click on Edit>Paste and the text is inserted on top of the background image as a separate layer . See **Fig. 7**.

As you can see the word is now in a new type layer above the background and can be “flattened” to become a new image.



Fig. 7

Gradients can also be used with images. Some of you might know Solid Impact golf here in Walnut Creek. I am the webmaster for the site and the old website had the following as the page heading, **Fig 8**.

This is simply an image of a golf course overlaid left to right with a black to transparent gradient and



Fig. 8

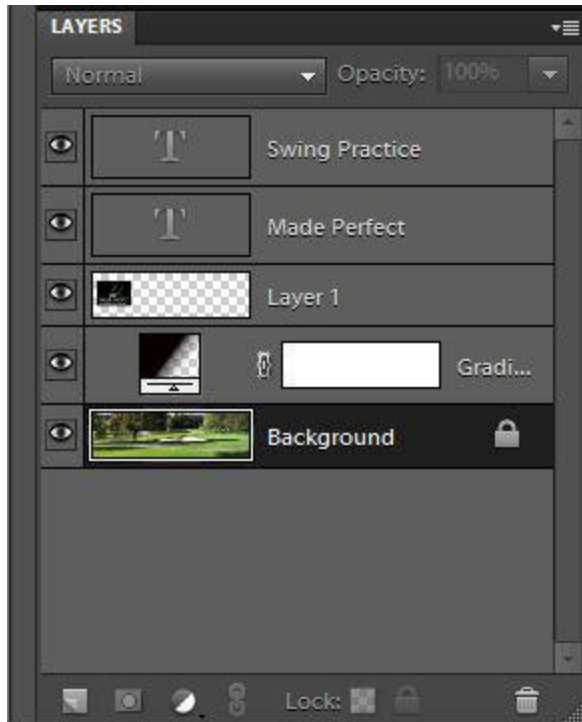


Fig. 9

then the company logo added as a layer. Finally two lines of text were added towards the right hand side. The layer hierarchy is shown in **Fig.9**.

There are basically 5 layers:

- The background image
- The gradient applied over this image
- The Logo layer with the logo on the left
- The first text layer
- The second text layer

These layers can be moved around as required in the state as shown but once everything is finalized a PSD copy is saved, just in case changes are needed in the future before the layers are flattened or merged and the resulting image saved as a jpeg for use in the site.

ADJUSTMENT LAYERS



Fig.10

Frequently the image we have from the camera is not exactly what we had in mind and needs adjustment. Take this black and white image (Fig.10).

The image was over exposed resulting in a picture lacking in detail and generally washed out.

Opening this image in Elements and using a “brightness and contrast” adjustment layer we can restore details and produce an image which shows detail although it still has an



Fig.11

ugly subject!

In this case you would probably not bother keeping the original but just flatten the image and save the result.

However if we take a different image such as this rare beast, the Saint Bernard, which only can be found in the upper reaches of Mount Diablo, Fig 12 . This image is under exposed, as a rule of thumb, dark images are under exposed light and washed out looking images are over exposed.



Fig. 12

First we can adjust the levels to balance the under exposure. Using levels is easy but needs to be explained in greater detail than I have time for here but suffice to say the input sliders on the bottom are your tools. The right hand slider controls the lighter pixels and the left hand slider controls the darker pixels. Normally bringing both sliders to the edge of the color data graph corrects most of the problem. The middle slider adjusts the brightness of the image and should be used after



Fig. 13

the exposure correction has been made. If this seems a little complicated Elements has added a shortcut from “Quick Fix” which takes care of the adjustment for you. If you are really interested in seeing what the actual histogram looks like with all the color channels showing go to window>histogram> and select colors from the channel dropdown menu.



Fig. 14

Another useful feature of layers is color replacement. If we take the fire truck shown in Fig. 14 in previous versions of Elements we could use the selection tool to outline the area where we wanted to change the color and then apply the “Hue/Saturation” command under enhance>adjust color. This would be adequate for bulk color changing but for selective areas this method

could be tedious.

In Elements 9 the easy way is to apply a hue/saturation adjustment layer using the lower panel and selecting “hue and saturation” from the drop down menu (fig. 15).

Of course any adjustments made to the colors using the adjustment sliders (as shown in Fig. 16 will affect the whole image and colors will change accordingly. For this image I want to make the blue

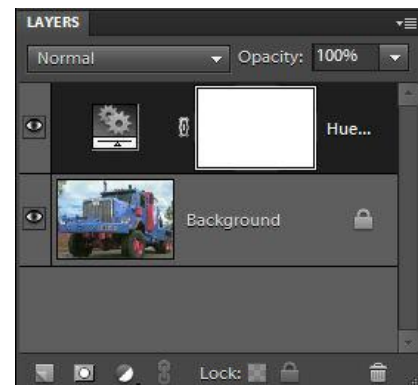


Fig. 15

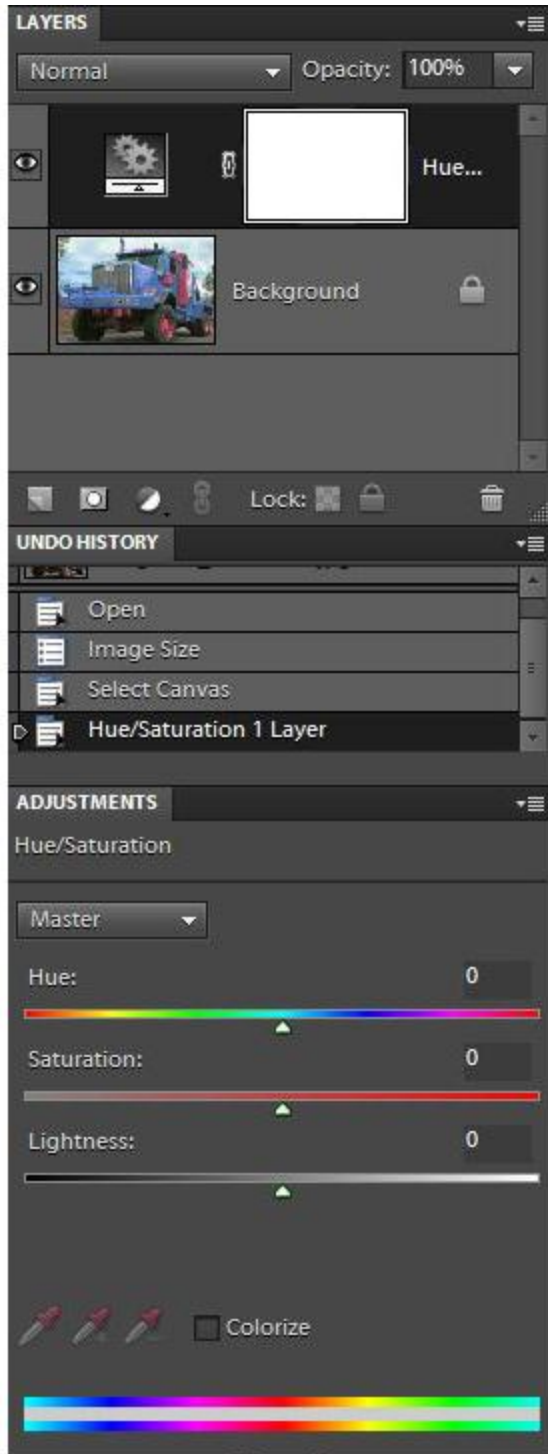


Fig. 16

areas of the truck yellow so the adjustments are made as shown in fig. 17.

If you look under the adjustments there is a drop down menu (showing Master in fig. 16) which will allow you to adjust only one color.

I have left the drop down set to “master” to manipulate all the colors.

By moving the hue and saturation sliders I can change the colors and get the main body of the truck yellow. See Fig. 17.

Now when you look at the original and our new image with the yellow truck body it is obvious that although we have the truck body to the color we wanted the rest of the image colors are all out of whack!

Fortunately we are doing this in Elements 9 and the layer is a layer mask which can be changed.

By selecting the paint brush tool and ensuring the foreground color is black we can paint over the areas on the layer mask to remove the mask and reveal the original color underneath.

The rule of thumb with layer masks is that black subtracts from the mask and white adds to the mask.

By carefully following the outlines of the image I can restore the original colors, such as the sky and landscaping plus in this case I have changed the wheels and the other items that were re back to that color, see Fig 18.



Fig. 17

As you can see by erasing the mask from the sky and the details on the truck (wheels, exhaust etc. which were green restored to the original red) we have changed the truck color. Try this with your own images and experiment.



Fig. 18



Fig. 19

outside scenery better even though I am making the subject worse. See Fig. 20.

Now I use the paintbrush to erase the adjustment



Fig 21

Finally there are the brightness and contrast adjustments.

Frequently you take a photo where the background light overpowers the light on your subject.

To correct this used to be a very tricky process and pretty much a hit and miss as to whether the final result was acceptable.

Now however we can take the image shown in Fig. 19 and apply the layer mask for brightness and contrast. Initially I adjust the back light to show the



Fig 20

layer mask from the area around the subject and restore it to the original state.

Now we are in a position to enhance the subject and have a reasonable image.



Fig 22

Again we will open up a new brightness and contrast layer and adjust until we are satisfied with the state of the subject. Once that is achieved we can then proceed to erase the layer mask all around the subject and reveal the original background. See Fig 22.

Compare this image with our original, Fig 19 and I think you will agree it is a great improvement.

This is just a brief introduction to layers in Photoshop Elements 9, for further information I recommend "The Photoshop Elements 9 Book" by Kelby and Kloskowski (Amazon \$27.49). There are plenty of other books about Elements 9 out there including a free one from Adobe. For more information on books please visit the book review page on my website, click [here](#)