Photoshop Elements 3 – Layers

One of the most powerful features of modern imaging software is the ability to work with layers. If an image is made of layers, we can work on the part that is in one layer without affecting the others. This is best understood by creating an image made of more than one layer.

Creating a Composite Image

First we will create an image made of layered components. Create a new blank 1024 x 768 image, 180 pixels/inch, with white contents. Save it as Composite_1.psd

Open Grief.jpg and save as Grief_1.psd.

Use the Selection Brush to select the figure in Grief_1, but not the background. Copy the figure and paste it into Composite_1.

Use the Move Tool to position the figure so it looks like the picture at the right. Note that the pasted figure “floats” above the white background when you move it. The figure has been pasted into the image as a new layer.

The Layer Palette

Select Window, Layers from the main menu.

You should see two layers in the Layers Palette on the right side of the screen – the blank white background and Layer 1, which contains the figure.
Click on Layer 1 in the Layers Palette so that this layer is selected. The selected layer is shown in dark blue on the palette.

The checkerboard pattern in the thumbnail image of the figure in Layer 1 indicates a transparent portion of the layer. Only the figure is opaque.

The Eraser Tool

You might notice that the right edge of the cloak in the figure is vertical and looks unnatural.

Use the **Eraser tool** to remove a little of the cloak to give a smooth and irregular edge.

*NOTE: If the Eraser tool does not appear to work, you probably have the Background layer selected rather than Layer 1.*
Fill Layers

A fill layer can be filled with a solid color, a gradient (in which the color gradually changes), or a pattern.

Let’s create a new layer that lies above the background and below the figure layer. We will fill this layer with an attractive pattern.

*Select the Background layer so that the new Fill layer will be added between the two existing layers.*

Choose Layers, New Fill Layer, Gradient from the main menu.

You will be asked to name the new layer. Click on OK.

In the Gradient Fill window, do the following:
1. Click on the triangle pointing downward next to the Gradient display to show the gradient possibilities
2. Click on the triangle pointing to the right to display a menu of other gradient possibilities.
3. Choose Simple from this menu.

From the list of simple gradients, choose Blue.
At this point, your picture should look something like this.

If you look at the Layers palette, you will see that the image now has three layers. The central layer is the new fill layer you just created.

**Viewing Layers**

You can hide or show a layer by clicking on its eye icon in the layer palette. If the eye is not visible, then the layer will be hidden on the screen. If the eye is visible, then the layer will be shown on the screen.

Try this with one or more of the layers and watch what you see on the screen.

When you are through, make sure all the layers are shown.
Layer Opacity

Select Layer 1, which contains the figure.

In the upper right of the Layers palette, you will see an Opacity slider, which controls how much of underlying layers will show through a selected layer.

- Opacity = 100% means a layer is completely opaque so nothing in a lower layer will show.
- Opacity = 0% means a layer is completely transparent and no longer visible.

Change the Opacity of Layer 1 to 60%, which means that it will be 40% transparent. The figure now is slightly obscured by the gradient layer, which is showing through from below.
Adding Text Layers to an Image

Choose the Text tool with a 30 pt Vivaldi font. Italic is the only type available for Vivaldi.

The Anti-aliased button should be on. Anti-aliasing fills in the edge pixels on type to make the edges smoother.

Set the Foreground Color to white (FFFFFF).

Position the cursor in the upper right corner of the picture and enter “Adams Memorial.”

Choose the Text tool again, this time with 18 pt Vivaldi font. Position the cursor below the other text and enter “Augustus Saint-Gaudens.”

Position the text so that the picture looks something like this.
Text is added to an image in layers. With the addition of two text layers, our image now has five layers.

Layer Styles

Layers also have styles. Choose the Move tool from the toolbox and then select the “Adams Memorial” text layer. When the layer is selected, it will be surrounded by a dotted line with rectangles at the corners in the image.

Select Windows, Styles and Effects from the Main Menu.
This will display the Styles and Effects palette on the right of the window. Select “Drop shadows” in the Layer Style palette.

Try the different drop shadows. I chose a low drop shadow for the picture, but the choice is yours.

Do the same for the other text layer.

Save the image as Composite_2.psd

Arranging the Order of Layers

You can change the order of layers from the Layers menu.

Select Layer 1, which contains the figure.

Choose Layer, Arrange, Send Backward in the main menu.

- What happens to the image when you do this?
- Look at the Layers palette. Has the figure really disappeared? Why can’t you see it?

You also can drag layers in the Layers palette.

Select Layer 1 in the Layers Palette. Click on Layer 1 and drag it up so that it is back above the Gradient layer. What happens to the image?
Deleting Layers

You can delete a layer by dragging it to the little trash can at the lower right of the Layers palette.

Try it with one of the layers.

*Use Undo or Step Backward in the Edit menu to undo any changes to Composite_2 you have made when you moved or deleted layers.*

Flattening an Image

Layers give Photoshop a lot to remember and can lead to large file sizes. If you are absolutely sure you are finished with an image, you may want to flatten the image, which combines the layers. If you have any doubt about needing the layers later, it would be a good idea to save the image under another name after flattening.

Choose **Layers, Flatten Image** from the main menu.

Save as Composite_3.psd.

Look at the Layers palette. How many are there now?

Look at the file sizes. Does the flattened image have a smaller file size than the image with layers?

Duplicating Layers

Open the file **B&B.jpg** and save it as **B&B_1.psd**

Up to this point we have been saving an image several times during its adjustment so we can return to a previous image if we become dissatisfied with changes we have made. One way we can avoid this is to create a duplicate layer and make all changes on that layer. The original image is retained in the background layer, which is never altered.

Choose **Layers, Duplicate Layer** from the main menu to create a copy of the background layer.

If you look at the Layers palette, you will see that you have created a new layer called “Background copy.” We will work with this layer.
Correcting Perspective Problems

If you take a picture of a building from ground level with a wide-angle lens, the edges of the building appear to slope back. This is particularly apparent if you view the grid, as shown in the picture at the right.

You can transform a building to straighten its edges if that building is not in the a background layer. This is another reason for creating a duplicate layer in this particular case.

View the grid.

Pull the corner of the image frame away from the image so you see gray around the picture.

Choose Image, Transform, Perspective from the main menu.

Drag one of the lower corners of the image horizontally into the image until the sides of the building are vertical when compared with the grid lines. When you drag one side of the image, the other one is moved automatically.

Click on the check mark in the options bar to confirm the transformation.

NOTE: It is better to drag the one of the lower corners in rather than pull out the top to adjust the perspective. Photoshop Elements does a better job of removing pixels than of adding them.
A perspective transformation usually leaves the building looking squat. After changing perspective, I have found it useful to choose **Image, Transform, Free Transform** from the main menu.

If you pull up on the center rectangle on the top, it will stretch the building vertically. A *small* amount of stretching removes the “squatness” of the building. Pushing in the sides of the rectangle a little also can help.

NOTE: If pulling the center rectangle up pulls the building out of the image, you will want to **Undo** the action, increase the canvas size (**Image, Resize, Canvas Size**), and make the transform again.

Finally, crop the image to make the right and left side vertical.

You also may need to sharpen the image slightly using the **Unsharp Mask**.
Practice Problems

1. Using Ben.jpg and Old_MainSpring.jpg, make this image shown below. The text layer is beveled with an inner ridge.

![Image of the combined Ben.jpg and Old_MainSpring.jpg](image1)

2. Open Street.jpg and make the following adjustments.
   - Correct its perspective
   - Sharpen the image
   - Increase the saturation of the image slightly to give it more punch

![Image of Street.jpg](image2)

3. Make adjustments to the scanned image, SantAntimo.jpg. Include the following adjustments.
   - Correct its perspective
   - Remove dust and people that are in the picture.
   - Sharpen the image

![Image of SantAntimo.jpg](image3)
4. Open **Famille.jpg** and make the following adjustments.
   - Brighten the shadows without changing the properly exposed sky. This may not take much adjustment to look OK.
   - Adjust the perspective
   - Change the saturation if necessary.
   - Sharpen the image
   - Crop the image to remove the telephone pole at the right.

5. Suppose that you work for an organization that is interested in downtown development and you need to convince a client to put a mural on the side of a building. You want to create an image that will illustrate what the mural would look like on the building. You have two digital pictures – one of the building (**Building.jpg**) and one of the mural (**Mural.jpg**). Use them to create a picture like this one, which straightens the building, crops the photo, and illustrates what the building will look like with a mural on its side.

   This is not an easy problem. You may need to use the various **Transform** menu options to distort the mural to fit the building. You can use the **Eraser tool** to erase the top layer so the windows and cars show through from the background layer.