

Using the Healing Tool and Patch Tool to Restore Photos with Photoshop CS4

The Healing tool is one of the handiest tools in Photoshop CS4. This tool allows the user to retouch photographs easier than was possible in earlier versions of Photoshop. The healing tool is a significant improvement over the other tools.

One of the traditional techniques for removing dust marks and scratches from a photograph involved using the Clone Stamp tool. The Clone Stamp is similar to the Rubber Stamp found in older versions of Photoshop. The Clone Stamp tool simply picks up a selected portion of a photograph and deposits the copied pixels in another area. Although some blending options are available, the Clone Stamp tool really just copies one portion of a photo to new location.

The Healing tool works even better than the Clone tool for repairing damaged photographs. The Healing tool also transfers pixels. When the pixels are deposited in the area that needs to be repaired, Photoshop CS4 matches texture, lighting style, and shading. The results are repairs that are much more accurate than those made using the Clone Stamp tool.

The Patch tool is similar to the Healing tool. But it works on a much larger scale

In this class you will repair damaged photographs using the Healing tool and Patch tool, and experiment with some of their options.

Repairing Photographs with the Healing Tool

The first thing is to open the photograph that needs to be repaired in Photoshop.

Click File on the Menu bar. A drop down menu will appear.

Select Open from the drop down menu. The Open File panel will be displayed.

Navigate to the folder containing the file Old Image.jpg.

NOTE: This is the photograph that is used in IMC classes. If you do not have access to this photo because you are not in a class, you may use any photograph that is available.

Select the image.

Click Open. The file will appear in the workspace. Your screen will resemble the illustration on the right.

Never work on the original image. You always want to retain it as a backup just in case something happens. Our first task will be to make a copy of the photo that we can safely edit.

Click Select on the Menu bar. A dropdown menu will appear.

Select All on the dropdown menu. The famous Photoshop marching ants will outline the photograph.

Note: It is often quicker to use keyboard shortcuts. To select All using the keyboard, **click** CTRL+A.

Click Edit on the Menu bar. A dropdown menu will appear.

Select Copy from the dropdown menu. The keyboard shortcut is CTRL+C.

The image has now been copied into the computer's clipboard.

Click File from the menu bar. The dropdown menu will appear again.

Select New from the menu. The New file control panel will be displayed. The keyboard shortcut is CTRL+N.


Name the new file `oldimage2`. Photoshop will automatically add the file name extension `.psd`.

Set the other specifications for the file as shown in the illustration on the right.

Click OK. A new blank image will appear.


Click Edit on the Menu bar. A dropdown menu will appear.

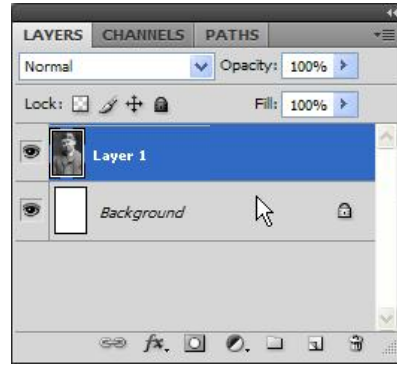
Select Paste. The photo in the clipboard will be placed in the blank image. The keyboard shortcut is CTRL+V.

Click the Minimize button  in the upper right hand corner of the original image. This will place the image on the bottom of the screen and out of the way. Minimizing the image will reduce the chance of it being accidentally changed.

The Layers pallet will now show two layers. The top layer contains the photograph and is labeled Layer 1. lower layer is appears as the white background layer.

Select Layer 1. It will become highlighted in blue.


Click the Layer Options button  in the upper right hand corner of the Layers pallet. A dropdown menu will appear.



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Select Duplicate Layer from the dropdown menu. A Duplicate Layer control panel will appear.

Click OK in the Duplicate Layer control panel. A new layer will be created. This layer will appear in the Layers Pallet.

Click the Layers Visibility button  of the original Layer 1. This will turn off that layer.


NOTE: It is generally considered good "Photoshop policy" to maintain the original version of an image as a layer. This layer should remain untouched and turned off. If at any time you decide that the other layers you are working have been changed in a way you do not like, you can activate the original layer and start over from scratch. If the original layer is not maintained in its pristine condition, it may be impossible to revert back to start over from "square one."

Examine the photograph closely. Observe the position and nature of the marks on the image. Some of these marks are from dust and made during the printing process. Others are places where the emulsion has disappeared. There appears to be at least one scratch which could also be a crease.

Observe the position of the marks in relation to the picture. Ask these questions; What type of surface are the marks over? What is the texture of the surface? Is the photo light or dark near the mark? What is the character of the light? Is the mark in shadow or highlight?

Answers to the questions will help you determine how to use the Healing tool.

Check the display size of the image. It should be set at 100%. One way to do this is to look at the size display in the lower left

corner of the screen. This display  shows the image size in percent.

If the image is not shown on the screen at 100%, **change** the size.



NOTE: The size display is part of the Status bar. If the Status bar is not visible, **click** Window on the Menu bar. A dropdown menu will appear. **Select** Status bar on the dropdown menu. The bar will be placed on the screen.

Click the Healing tool  on the Tool bar. The tool is now activated.

NOTE: The healing tool button may not be visible. Other tools occupy the same space. If the Healing tool is not shown, **place** your mouse pointer over the Patch tool, then **click** and **hold** the left mouse button. A small pop out menu will appear. **Select** the Healing tool from the menu.



The Options bar has changed to show the options associated with the Healing tool.

NOTE: If the Options bar is not visible, **click** Window on menu bar and **select** Options from the dropdown menu that appears.

Your mouse pointer will change to a small circle when it passes over the photograph. The diameter of this circle represents the area that you can work in. It is controlled by the Brushes display on the Options bar. The display is shown on the right.



You should change the brush size to match the area you are working on as closely as possible.

***Remember,** the bigger the circle, the more pixels are used.*

Experiment with different settings later in the project.

There are two important points to using the Healing tool successfully. The first is to make sure that the diameter of the circle is as close as possible to the size of the mark that has to be repaired. The second point is that the color and texture of the photograph where you will "pick up" pixels should resemble the "deposit point," where the scratch is, as much as possible.

Examine the photograph and choose the first scratch to repair. This first scratch should be about the same size as the brush circle you are using.

Now **find** a part of the photograph that resembles the scratched area's light qualities and texture. This will be your "pick up" point.

Move your mouse pointer to the pick up point.

Click ALT and your left mouse button. This will cause the Healing tool to pick up pixels.

NOTE: When you first press the ALT key on your keyboard the mouse pointer changes to a cross hairs type of symbol. A message also appears at the bottom of the screen in the Status bar telling you to click your mouse button so you can select pixels. Messages of this sort often appear in the Status bar when you press certain keys.

Move your mouse pointer over the scratch you want to repair.

Click to deposit the pixels on the scratch. Depending on how accurately you set up the brush, the scratch will disappear completely, or at least nearly so.

Photoshop has taken the pixels you selected at the pickup point and deposited them on the scratch. The Healing tool calculates the appropriate method of depositing the pixels and tries to match the color, shade, texture and other characteristics. This is not a direct copy as is done with the Clone tool. The Clone tool simply copies pixels from one spot to another. However, the Healing tool actually goes through a matching process.

Repair a few more scratches that are in the larger consistently colored areas of the photo, such as the background or suit jacket. DO NOT attempt to repair a scratch where light and dark areas meet, such as the shoulder line of the man's coat.

Photoshop does not "understand" that the line separating the light color of the coat shoulder from the dark background represents the division between two elements of the photo. One element is the man's suit jacket the other is the background. Photoshop only "knows" there are light colored pixels next to dark colored pixels. It assumes that this may be a problem. You must know is correct and what a scratch is. So if you try to deposit pixels along the dividing line you will probably blur the image.

This is especially a problem when you try to correct the large scratch along the man's shoulder. This scratch is shown on the right.

This scratch must be divided into two parts. One part is the area on the man's coat; the other area is on the dark background of the photograph. Repairing this scratch will require treating it as two separate marks.

Enlarge the photograph so that you can see the scratch clearly. Zooming in to about 400% will usually work well.

Change the brush size to match the size of the scratch over the jacket shoulder. About 7 pixels will be satisfactory.

Pick up pixels from an area of the jacket near the scratch.

Deposit the pixels on the scratch. The results should be similar to the illustration on the right.

Be careful that you do not deposit pixels on the background.



Change the brush size to match the size of the scratch over the background.

Pick up pixels from the background near the scratch.

Deposit the pixels on the scratch. Avoid placing pixels on the coat shoulder. The scratch should now be nearly invisible as shown on the right.

Return the image size to 100%.

Continue with correcting the scratches and marks on the image. The Healing tool will correct both light marks and dark ones. Correct as many problems as you can.



The illustrations below compare the original scratched photo with the retouched version. Your corrections will probably look similar.



Original version



Retouched version

Using the Patch Tool

The Patch Tool works in a similar manner to the Healing tool. However, it is designed to repair larger areas of a photograph than the Healing tool will fix.

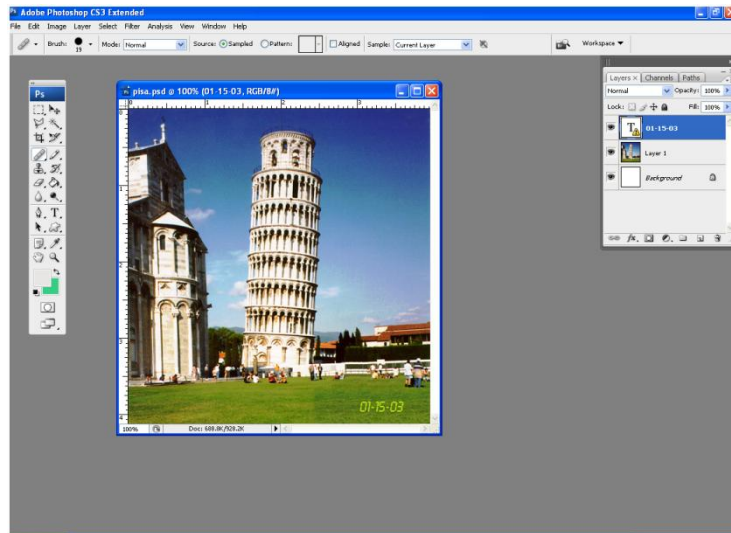
Click File on the Menu bar. The dropdown menu will appear.

Select Open from the dropdown menu. The Open file control panel will be displayed.

Navigate to the file pisa.jpg.

Select the file.

Click Open. The photograph will be displayed. Your screen will resemble the one on the right.



Convert this jpg image into a Photoshop file using the same steps you used previously.

The keyboard shortcuts for the steps follow.

Click CTRL+A to select the image. The marching ants will appear around the photograph.


Click CTRL+C to copy the image to the computer clipboard.

Click CTRL+N to open a new image. The New image control panel will appear.


Type a name for the new file in the control panel.

Click OK. A new blank image will appear.

Click CTRL+V to paste the image from the clipboard into the new image file.

Place your mouse pointer on the Healing tool button  on the Tool bar.

Left click and hold your mouse button. A small pop out menu will appear.

Select the Patch tool button. 

Duplicate the layer as you did with the previous photograph. This new layer will be the one you want to work on.

Select Layer 1 in the Layers pallet again. It will be highlighted in blue as before.

Name the new Layer Destination Layer.

Click OK.

Select the Source layer.

Make the Destination layer invisible by **clicking** the Layers Visibility button.



The Options bar now has two radio buttons that allow you to select either Source or Destination.



The Patch tool allows you to start your repair with either the Source of the pixels you will pick up, or the Destination where you will deposit them. You will make the repair with the Source setting first.

Select Source on the Options bar.

Left click and **drag** an oval shape around the date on the photograph. The marching ants will appear around the selection. It will resemble the illustration on the left.



Release the mouse button when you are finished.

Move the mouse pointer to the inside of the oval shape you just drew. The pointer will have the patch tool shape. It may be difficult to properly position it within the selection. **Watch for the tool shape to change** and a message to appear in the Status bar at the bottom of the screen. The message will advise that you should move the selection to apply the patch.

Left click and **drag** the shape to the portion of the photograph from which you want to "borrow" pixels.

Release the mouse button once the selection is in the right area. The date will be removed.

The Patch tool works in a manner similar to that of the Healing tool. The pixels are not copied directly from one place to another. Rather, the pixels are selected and matched to complete a **fairly** seamless repair.

Now you will try the repair using the Destination setting.

Select the Destination layer in the Layers pallet.



If the Destination layer is not visible, click the Layers Visibility button.

Make the Selection layer invisible by **clicking** the Layers Visibility button.

Left click and drag to draw an oval somewhere on the grass away from the date. The result may resemble the illustration on the right.

The area you select must match the area that is to be patched as closely as possible.

Place your mouse pointer within the oval. As before, the pointer will change shape and a message will appear at the bottom of your screen in the Status Bar.

Left click and drag the oval to a position over the date.



Release the mouse button. Photoshop will make the calculations and replace the problem pixels in the date with pixels from the selected area.

Other Tools to Use

Along with the Healing tool and the Patch tool, the Spot Healing Brush tool can be very useful. This tool works in a manner similar to the Healing tool, but it does not require you to specify a “pick up point” for the pixels you wish to use to repair the damaged area.

All you have to do is select the tool, place the tool over the blemished area of the photograph and left click your mouse. The Spot Healing Brush tool samples the zone immediately around the target and calculates how best to remove the flaw. This is particularly helpful for smaller problem area. For larger area or repairs that require more control, use the Healing tool.

The Red Eye tool is used to remove the red in a subject's eyes that is caused with a camera flash is used. Most modern cameras have a red eye reduction feature, but it may not always work. The result is that the eyes in the photo may have a significant red tinge.

Using the Red Eye tool you draw a circle close around the pupil and click. Photoshop makes a calculation and removes much of the red. The exact amount of red reduction depends on such things as the exact shade of color, how accurately you were able to draw the circle, and other variations.

Conclusion

Photoshop offers advanced features for altering the way that the Healing tool and Patch tool work. These include the use of patterns and selecting different modes. As you become familiar with these tools you should experiment with the additional features. With practice you should be able to create perfectly retouched photographs.