

**Movie 3 (Chapter 6 extract)**

# Healing and Patching

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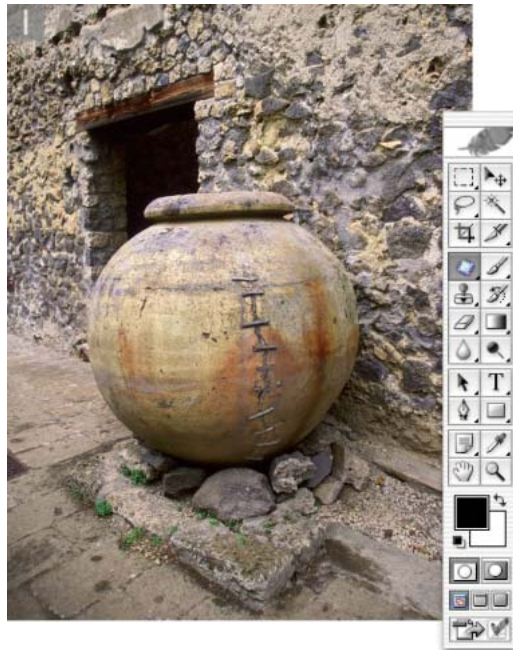
### Source and Destination modes

In Destination mode you can drag the selection area with the patch tool to a new destination point and Photoshop will perform a healing blend calculation to merge the sampled patch area with the underlying pixels in the new area of the image. In Source mode you can drag the selection area with the patch tool to a new destination point to select the pixels that will replace those in the original source selection area. The Use Pattern button in the Options bar for the patch tool will let you fill a selected area with a preset pattern using a healing type blend.

### Patch tool

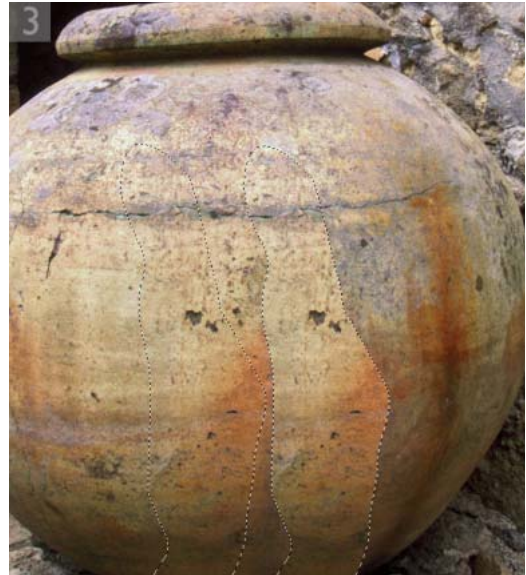
The patch tool uses the same complex algebra as the healing brush to carry out its blend calculations, but the patch tool uses selection-defined areas instead of a brush. When the patch tool is selected, it initially operates in a lasso selection mode that can be used to define the area to patch from or patch to. For example, you can hold down the  **alt** key to temporarily convert the tool to become a polygonal lasso tool with which to draw straight line selection edges. You don't actually need the patch tool to define the selection, any selection tool or selection method can be used to prepare a patch selection. Once you have a selection made, select the patch tool to proceed to the next stage. As before, the patch tool has to work with either the Background layer or a copied pixel layer. One of the nice touches in Photoshop CS is the way that the Selection area in Source and Destination mode will preview the image as you drag to define the patch selection.

1 The patch tool works in a way that is similar to the healing brush. Using the picture opposite, I can show you how the patch tool can be used in Source mode to cover up the metal staples that are holding the large pot together. When you select the patch tool you can use it just like the lasso tool to loosely define a selection area. For example, you can use the  **alt** modifier key to temporarily switch from free form lasso to polygonal lasso selection drawing mode. Or you can use any other preferred selection method (it really doesn't matter at this stage) as you prepare the image for patching.





**2** Having finished defining the selection for the area I wanted to patch, I made sure that the patch tool was selected in the Tools palette and dragged inside the selection to relocate it on an area of texture on the urn that I wished to sample from.



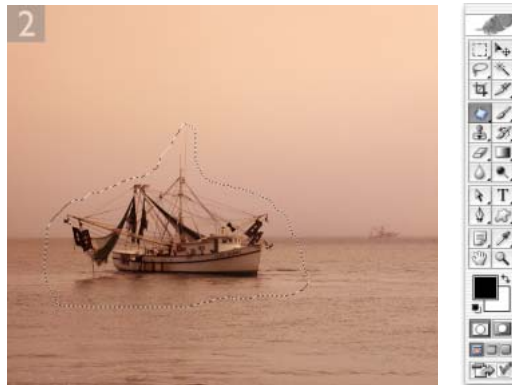
**3** As I released the mouse, Photoshop commenced calculating a healing blend, analyzing the pixels from the source area I had just defined and using these to merge seamlessly with the pixels in the original selection area.

**4** If the patch/healing process was successful, you should see an almost completely smooth join. The pixels that you select to be sampled from in the patch process will adjust their luminosity and color to blend with the pixels in the original defined area, to match the lighting and shade etc. However, you won't always get a 100% perfectly convincing result. In the example used here, I made a couple of attempts at patching the staples before finding a patch selection that worked well. Furthermore, as when using the Clone Stamp tool, you have to beware of any repeating patterns giving away the fact that the image has been cloned. I finished retouching this photograph by applying a few healing brush strokes to remove those telltale signs.





1 The patch tool uses the same blending calculations as the healing brush to perform its blend calculations. In this image I wanted to demonstrate how you can use the patch tool in Destination mode to make a duplicate of this fishing boat.



2 I used the patch tool to define a rough selection outline of the boat. In use, the patch tool is just like the lasso tool, you can use the **alt** modifier key to draw straight line points. If you prefer you can use any other selection tool such as the magic wand or convert a pen path into a selection.



3 I made sure that Destination was selected in the Options bar. When the selection was complete, I used **Ctrl+T** (**ctrl alt T**), which copied the pixel selection and added the free transform bounding box to the selected pixels. I dragged the transform to a new location. In this example I dragged the transform across to the right, aligned the center point to the horizon and held down the **Shift+alt** (**Shift alt**) keys, to scale the transform down in size to make the second boat smaller and appear to be further away in the distance.



4 I then hit Enter just to OK the transformation. After that I moused down with the patch tool inside the selection area and moved the selection very slightly. If you follow these steps precisely and release the copied selection, the patch tool will calculate how to merge the dropped selection with the underlying pixels. This will produce a smooth looking blend with the surrounding sky and sea area. The patch tool works well with a subject such as this, because the sea and sky provide a fairly smooth backdrop for blending the pixels smoothly.

Photograph: Thomas Fahey.