



## Everything old is new again

### A tutorial in digital photo restoration

As you learn more about digital imaging and look for the edge over your competition, you might consider adding digital restoration to your services. The process can be a labor of love and this tutorial serves as a small step into the restoration oeuvre.

At his class "Repairing and Restoring Damaged Images" at PhotoshopWorld East in Miami, Dave Cross demonstrated a variety of techniques to deal with damaged heirloom photos. Here are some excerpts that address common problems with "treasures" from the family album. As you'll see, many of these techniques can also be applied to modern images as well.

*The Editors*

**CROOKED SCANS.** OK, so this is not really a problem with old photos, it's a problem with how you scanned the image—but it still needs to be fixed, and you might as well get this out of the way right up front. Open the image in Adobe Photoshop and use the Measure tool (found under the Eyedropper) and click and drag along and edge of the image that is supposed to be horizontal. Don't worry if you can't get it just right the first time—you can readjust to make the line match up (Figure 1).

From the Image menu, choose Rotate Canvas>Arbitrary. A dialog box will open with the correct angle already entered for you. Click OK (Figure 2). Crop the

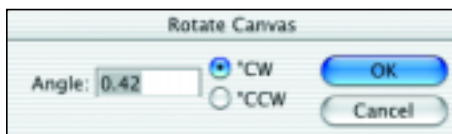


Figure 2

image if necessary. Figure 3 shows the rotated image with a Marquee selection to illustrate how well this method works.



Figure 1

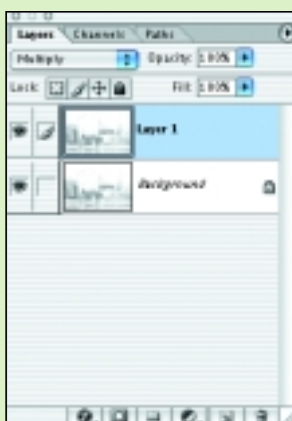


Figure 3

All Images ©KMW Media



Figure 5



**FADED PHOTOGRAPHS.** A common problem you'll face with old photographs is fading, as in Figure 4. You could attempt to remedy the problem with adjustment commands, but here's a quick fix to get you on the road to improving the image (and then you can tweak it with those adjustment commands).



Figure 4

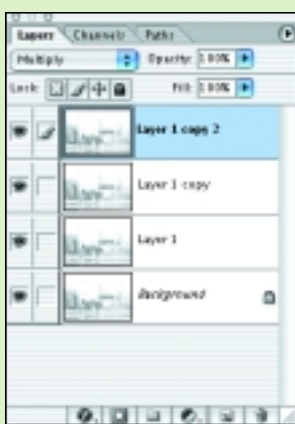


Figure 6



Figure 7

Press cmd/ctrl-J to duplicate the Background layer. Change the Blending mode in the Layers palette from Normal to Multiply (Figure 5). You should see some improvement in the image, since the image, in effect, is multiplied by itself.

Press cmd/ctrl-J once again to duplicate the copied layer. This will also keep the Blending set to Multiply. Repeat as necessary. In this example we made three copies of the background image (Figure 6).

For areas that need some additional help, you can use this same technique with a selection. In our example, the people are looking much better, but the top of the house and the sky could use some improvement. Make a selection of the area you want to adjust, then add a feather to the selection. (Select>Feather). We set Feather Radius = 18 pixels, but the radius will vary with the resolution of the scan. Just make sure that the edge of the selected area is soft enough to blend (Figure 7).

Press cmd/ctrl-J to duplicate only the selected area. Again, the Blending mode retains the Multiply setting. As before, you may need to duplicate this layer a few times.

Flatten the layers and then use your favorite adjustment commands to continue improving the image (Figure 8). Now you at least have something to work with!



Figure 8



Figure 9



Figure 10



Figure 11



Figure 12

**DARK PHOTOS.** Overly dark photos can be improved with a technique similar to the one we used for faded images. There's only one minor difference—in the Blending mode, use Screen.

**TOO BIG TO SCAN.** Your client brings you an image that's too big to scan in one piece. It's actually a pretty simple matter to end up with one big image, as long as you scan each side with a bit of an overlap. Make sure that at least one person or object appears in both halves that you scan (Figure 9). Then you can use the following method to put the pieces back together again.

Open both scanned halves and use the Move tool to drag one image onto the other (Figure 10). In our example, we dragged the right half onto the left half, then closed the right half.

Change the Blend mode of the "right side" layer from Normal to Difference. Using the Move tool, reposition the layer until it appears as close to solid black as possible. You may see a few gray areas, but aim for solid black (Figure 11). It may help to use the arrow keys to nudge the layer. Once the layer appears mostly black, change the Blend mode back to Normal.

From the Image menu, choose Reveal All. This will make the canvas large enough to display the both halves (Figure 12). Flatten and adjust as necessary.

*Dave Cross is senior developer, Education and Curriculum for the National Association of Photoshop Professionals. As an instructor and author, Cross has trained thousands of users across North America. He writes for Photoshop User magazine, is a lead instructor for the Photoshop Seminar Tour, teaches at PhotoshopWorld, and is featured on various instructional DVDs. For more information on NAPP, visit [www.photoshopuser.com](http://www.photoshopuser.com).*

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