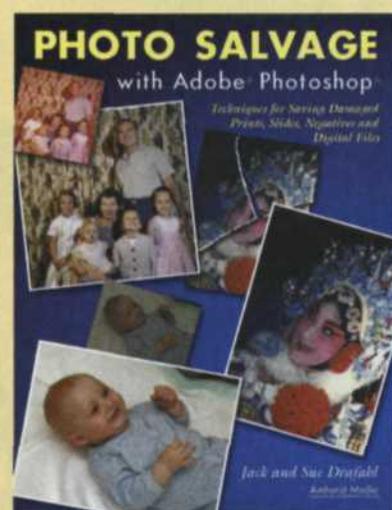# Photo Salvage

How to fix 'em up digitally

Text and photos by Jack and Sue Drafahl

Once you take images and have them processed, then comes the job of sorting and screening them, selecting only the best. Those with problems due to shooting techniques or processing errors are either put in the round file, or shelved for further evaluation. Today, thanks to photo-editing programs like Adobe Photoshop (www.adobe.com), most of those images you once thought were unusable can now be restored.

When you first venture into the digital darkroom, it can be rather intimidating. If you take the time to understand the tools available, you will slowly gain expertise in photo editing. Before long, you will be salvaging images with just a keystroke.

To guide you along the way, we have selected three problem images to help provide a peek into the world of photo salvage. These examples will introduce you to the fundamentals of digital editing as they become increasingly more difficult and use some of the various tools for image repair. We are using Adobe Photoshop as our editing program, but most other editing programs have similar tools, just with different names or other locations in the editing menu.

PHOTO SALVAGE
with Adobe Photoshop
Techniques for Saving Damaged Prints, Slides, Negatives and Digital Files

Jack and Sue Drafahl

The Waterfall

Our first image is of a waterfall, taken on color negative film and scanned into the computer as an 18-megabyte file. The scanner settings were not set correctly during the original scan and a flat off-color image was the result. The original negative could not easily be found, so the correction would have to be done in Photoshop.

Step 1: In addition to being poorly scanned, the image was also shot at a slight angle. So the first step is to rotate the image using the Rotate Canvas function found under the Image pulldown menu. We tried several settings from 4–7° and used the Backwards or Undo function until we had the correct setting, which was 6°.

Step 2: After the image was rotated, we ended up with a white background border around the image. Using the Crop tool from the toolbox, we selected an area just inside the white border, and cropped the image.

Step 3: The off-color problem was easily corrected by using the Levels editor in the Image pulldown menu (Image –> Adjust –> Levels). We first used the white eyedropper to select the water highlight and then the black eyedropper to select the deepest shadow area. The corrected image then appeared in a preview box, before it was saved as the final corrected image.

Step 1
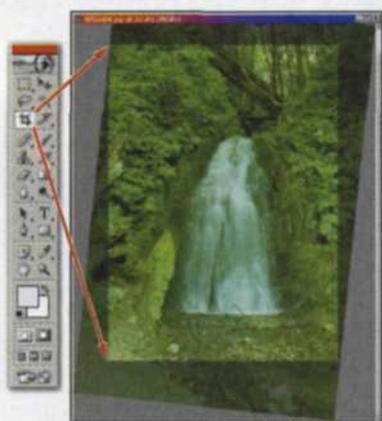
Step 2

Step 3
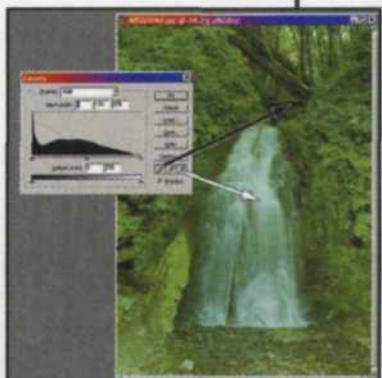
The Clown

Our second example is a parade clown image taken on a color slide film, and scanned into the computer as an 18-megabyte file. Since this was the only shot taken of the clown, the shadows would have to be lightened, and the hand would have to be removed.

Step 1: To make the first adjustment, we went to the Levels editor in the Image pull-down menu in Photoshop (Image –> Adjust –> Levels), and moved the middle slider to the left to increase the detail in the shadow of the face. With this increase in midtone detail, the highlights became too light. To compensate, we moved the highlight slider at the bottom of the menu to the left which added some density back into the highlight areas.

Step 2: Additional detail in the face was provided by using the Burn and Dodge tools found in the toolbox. These tools work much like burning and dodging tools in the traditional film darkroom. The dodge tool is represented by a black circle with a line attached. The burn tool is a hand formed in the shape of a circle. In this sample we used the dodge tool set to 50%, which slowly lightened the density in the face.

Step 3: In order to remove the hand, we first created a mask by selecting an area around the hand located over the clown's coat. The key is that the masking will always restrict your editing to those areas inside the mask. The next step was to go to the Select pull-down menu, and feather the selection by 2 pixels so that the editing would blend better. Using the Clone tool from the toolbox, we dragged data from similar areas over the hand. The mask protected the sky area so that none of the cloning would spill over into that area.
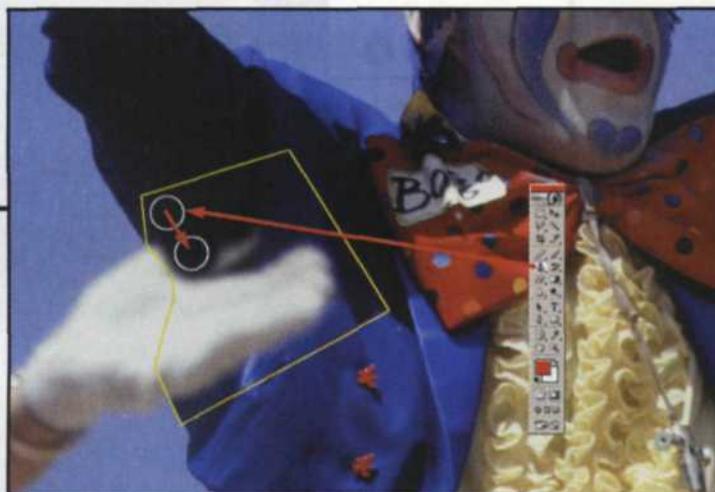
Step 4: Once the hand was removed from the coat, the mask was inverted (by choosing Inverse under the Select pulldown menu), and the clone tool was then used to remove the hand from the sky area. After the hand was removed, we zoomed in on the image for a final review to remove any final dust and scratches that might have been missed.
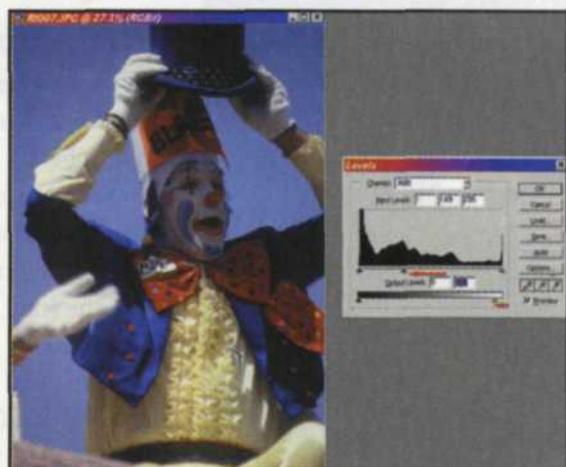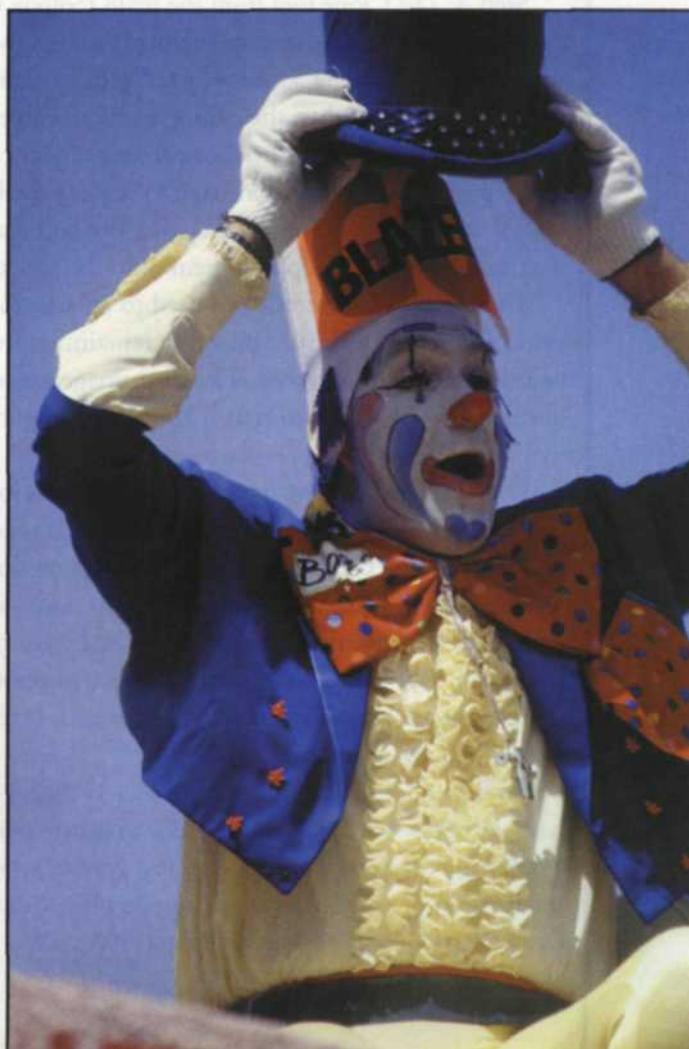

Step 1
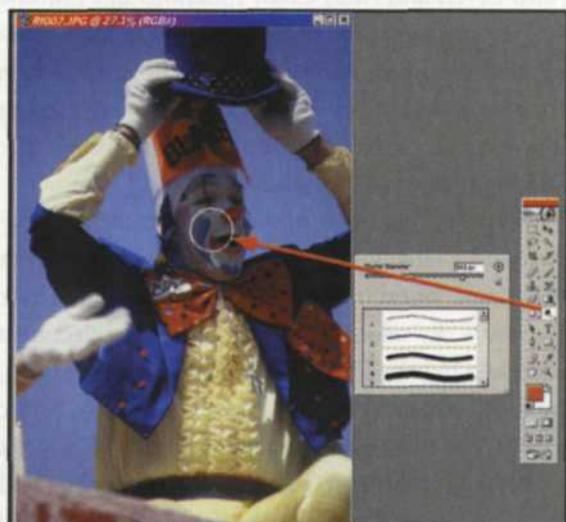
Step 2

Step 3

Damaged Bird

This color negative of a child's day at a local park has many problems. The negative was scanned using a scanner without the capability of removing dust and scratches during the scan. Many of today's scanners use the Digital ICE technology from Applied Science Fiction (www.asf.com) to remove these problems during the initial scan.

Step 1: First on the agenda is color correction. We tried the Auto Levels and Auto Color functions in Photoshop, but neither worked to our satisfaction. We used the Undo function and selected the Levels Editor from the Image pulldown menu (Image –> Adjust – Levels). Using the gray eyedropper, located in the center of the eyedropper section, we touched the concrete and the image was magically balanced.

Step 2: Over time, mishandling of the negative embedded dust and a large scratch became part of the final image. Using the Magic Wand tool we selected the sky in sections until we had the entire sky selected. We feathered the selection at 3 pixels, and then selected the Dust and Scratches plug-in from the Filters pulldown menu (Filter –> Noise –> Dust & Scratches). We previewed the effect and then applied it to the selected area.

Step 3: In order to reduce our editing time and allow us to focus on the bird and girl, we decided to crop the image at the top and side so that only a small portion of the little boy at the left edge remained.

Step 4: The Clone tool from the main toolbox was used to slowly remove the large scratch running through the image. Care was taken to keep the Clone tool parallel to the same tonal values under the scratch. When the editing became visible, we used the Undo function and tried the Clone from a slightly different angle.

Step 5: We used the Clone tool to remove the boy on the left side of the screen by carefully dragging similar data from areas next to the boy and dropping them onto the area to be removed.

Step 6: The Zoom tool was used to enlarge the image so we could pan across to insure than any remaining problems could be discovered and removed. The final image was saved out under a new file name so that it could be compared to the original image.

Keep in mind that we have made the process look simple and easy to do. Most people who attempt photo salvage get frustrated in the beginning because they expect perfect results immediately. It takes time to hone your editing skills, so don't give up. Set aside some practice time to work on several types of images. Eventually, you will become very proficient at photo salvage and will be amazed how your efforts will save images that you would have tossed away before.

To help photographers explore this new digital world, we have written a new book entitled *Photo Salvage with Adobe Photoshop*. It is available from Amherst Media (www.amherst-media.com) or you can order an autographed copy directly from our Web site (www.jackandsuedrafahl.com). ∎
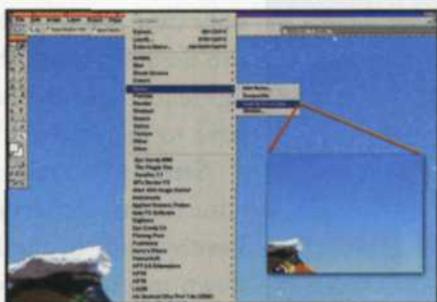

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6