

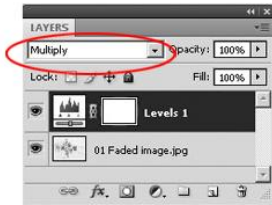
Digital restoration of old photographs

The source file

If you're starting from an old print, either photograph it (RAW mode if possible) or make a colour scan (even if it's a monochrome print) using a flat-bed scanner.

Photoshop blending modes

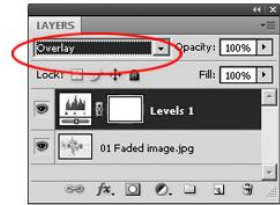
A levels adjustment layer with no changes made other than a change in blending mode can be a very useful "quick fix":



Multiply darkens.



Screen lightens.



Overlay, Soft Light, Hard Light increase contrast.

To cycle through the blending modes, select the move tool (shortcut v), hold down shift and press + or -.

Dodge & burn on a layer

1. Add a new, empty layer at the top of the layer stack.
2. Change its blending mode to Soft Light.
3. Paint on this blank layer, using a soft-edged brush: painting with white to dodge or black to burn.

Layer masks

Photoshop and Elements always add layer masks to adjustment layers. Photoshop (and Elements 9) have layer masks for "normal" layers too.

You can download a "fix" to add layer masks to earlier versions of Elements - highly recommended:

<http://graphicssoft.about.com/od/pselements/qt/layermasktool.htm>

- A layer mask that is black hides the effect of its layer, revealing what is below.
- A layer mask filled with white reveals the effect of its layer, hiding what is below.
- Painting with grey on a layer mask partially reveals what is on the layer below.
- When painting on a mask, I recommend using a soft-edged brush set to low opacity. This allows you to build-up density gradually.



The left-facing bracket makes a brush smaller.



The right-facing bracket makes a brush bigger.



Holding down shift while pressing the bracket key changes the hardness of the brush.



Removing marks from the background

This "quick fix" can save house of work with the cloning tool or healing brush.

1. Flatten the image and copy the background layer.
2. Change the blending mode of this copy to Lighten.
3. Select the move tool (shortcut v).
4. Use the arrow keys on your keyboard to move the copy layer two pixels right and two pixels down. (Each press of the key moves one pixel).
5. Add a layer mask to this layer, filled with black.
(Layer > Layer mask > Hide All).
6. Make sure that the layer mask is selected by clicking on it.
7. Using a soft brush with white as the foreground colour, paint over unwanted dark spots.

Dust & scratches

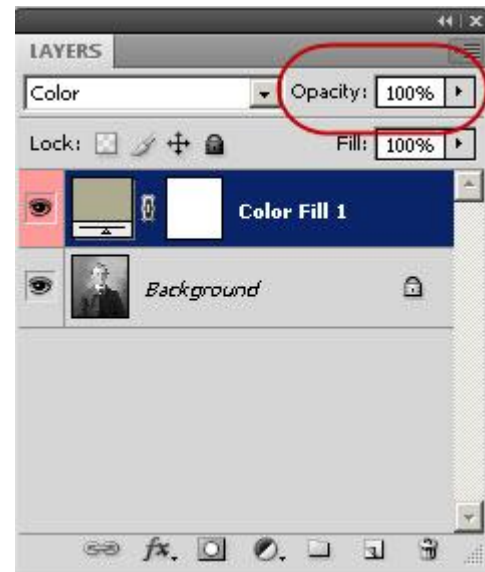
This method will *sometimes* help to clean-up image backgrounds:

1. Flatten the image and make a copy of the background layer.
2. Choose Filter > Noise > Dust and Scratches.
You will need to experiment with the radius setting.
3. Add a layer mask to this layer, filled with black.
(Layer > Layer mask > Hide All).
4. Using a soft brush with white as the foreground colour, paint over unwanted marks.

Toning an image

1. Choose a suitable foreground colour - this might be sampled from the original, un-retouched image.
2. Choose Layer > Fill Layer > Solid Colour.
Set the blending mode to Colour.

You can use the Opacity slider to vary the intensity of the tone.



Sharpening

I recommend making a "composite layer" at the top of the layer stack and sharpening this using Unsharp Mask.

To make a composite layer, click on the top layer of the layer stack. Then hold down Ctrl, Alt and Shift and press E at the same time.

After sharpening, use a layer mask to fine-tune areas of the image.