Advanced Restoration Techniques

Using Channels to restore detail

You should always look at the channels for possible recovery of detail in the photo.
Go to Window>Channels to open the Channels window.

Do not use the eyes for viewing. Instead click on the thumbnail or name of the Channel. Example; click on the word Red to see the black and white photo in the Red channel.
If you find a channel that holds some helpful detail there are a few ways to use it…

A. For black and white restoration, a color scan will separate out some of the yellow stains to one channel so you may find one of the other channels is a better picture and needs much less retouching.

To extract that image
1.Click on the good channel so it is highlighted
2.Select>All (get marching ants on the whole image)
3.Edit>Copy
4.In channels click back on RGB. (this is required in order for paste to make a layer)
5.Paste
This procedure will create a layer from the channel. You can then proceed to make your usual retouching on an empty new layer added above. If you decide that you would also like part of another channel you must turn the layers off except for the original background/bottom image. Then repeat the procedure.

If you are want just a portion of the image from a channel, choose the channel, select the area, Edit>Copy
Follow the same procedure as above but do not loose the marching ants! Keeping them in place will make the image drop into the exact same position when you say paste. Then you are done and they will then go away.

B. For color restorations with orange stains, find a channel with the least damage. You can either use it just as a reference to see accurate detail in the image or you can sometimes use it to remake that part of the image. One way to do this is to use the same technique listed above and then after pasting, hand color the area to match the color photo.

Sometimes you can rebuild the area right in the channels. Here are the steps…
1. draw a selection around the damaged area.
2. then go to the good channel (often the blue channel for orange stains)
3. Edit>Copy   (do not loose the marching ants!)
4. highlight one of the damaged channels
5.Edit>Paste
6. Go to the Image menu and choose Levels, adjust the tone to try to match the picture in this channel.
7. Go to the other damaged channel and Edit paste.
8. Go to the Image menu and choose Levels, adjust the tone to try to match the picture in this channel.
9 Look at the results by turning the eye on for RGB
10. you can fine tune the result by going back and doing levels a second time to individual channels OR you can finish in channels by clicking on the word RGB to highlight the whole picture and then you still have marching ants and can do an adjustment layer to fine tune the area.

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Using Levels to restore color balance

Film based images often have uneven color even when new due to color processing issues. But older color photos have even more issues. Most will have yellowed with age. But many will also fade and will do so unevenly in the colors.

A good starting point in restoring color is to "balance the white point and black point"
1. Create a Levels adjustment layer.
2. In the Levels window go to the RGB menu and look at each color histogram
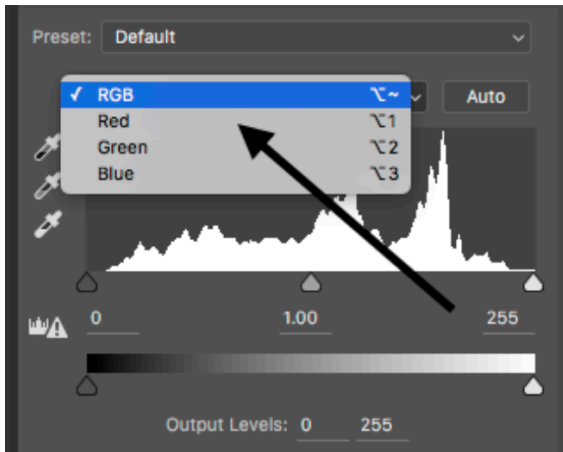
3. If the white arrow on the right does not meet up with the edge of the histogram move it until it does. Then to check further hold down the option key and drag the white point further into the histogram.

Holding down the option key while dragging will show a preview of solid color and any clipping by showing colorful speckles on the image. . It is OK to clip the white border area but the image area should not be clipped.

Continue this process for all three colors and then repeat for the black point too.

4. When this is complete the color will be improved but more adjustments may be needed.
5. If the color looks good but the picture got too contrasty, or dark, or light, try changing the blending mode of the adjustment layer to Color. This will change Color ONLY.
6. Then make a separate Levels (or Curves) adjustment for tonal value and contrast if needed.