Repairing a Damaged Diploma

I have a web site that sells certificate paper, certificate display plaques, padded presentation folders, and other supplies for making diplomas. I also do diploma service for small schools and companies that do in-house training. Not surprisingly I get a lot of request to fake a diploma, which I turn down. I did get a most unusual request that I did take. One of my long-term clients runs on site training for a number of companies and has always ordered the training certificates from me.

It seams her High School diploma was in storage down in her basement when the basement flooded. When it finally dried out it was covered with mildew. She put it on a scanner and sent me a 72 dpi jpeg of it and asked if there was anything that could be done to save it. I quoted her a price and told her I needed a higher resolution scan to work with. She was busy and not sure she wanted to pay the quoted price so nothing happened.

The image sat on my computer's hard drive for about 2 years. I use a Mac and moved onto a newer machine on OS 10.4 and loaded all the new software on it including Photoshop with some unusual filters. I decided to play with the image to try out some of the new software.

I started by using the lasso to select the center text area and then inverted the selection. I filled the selection with white rendering the outer areas of the diploma white again and eliminating the mildew image in those areas. I then did the same with blank areas in the center and rendered them white. This left only the text areas to clean up.

Then I used a filter called pxl SmartScale to increase resolution. I set the print size to 11 inches and dpi to 600. This filter allows images to be re-sampled at up to 1600% All brightness and color data preserved. When an image is scaled from one size to another, the original image data is analyzed, interpolated and recreated at the new size, Scaling any image causes an entirely new set of pixels to be created based on the image data. This process is called image re-sampling. Unlike the re-sampling tool in Photoshop this image is smooth and lacks the characteristic jaggedness of Bicubic re-sampling.

Next I used the Image adjustments "Brightness/Contrast" control to lighten and increase the contrast of the image. This did minor damage to the gray scale drop shadow behind the school name in the header, but increased the separation between the black printed ink image and the medium gray mildew image.

Then I used the view command to move in close and get an enlarged view of the lettering. I used the magic wand selection tool to select the mildew adjacent to the letter and fill the selection with white. Then I used the paintbrush tool with a small brush and used white or black as appropriate to touch up the letters where possible.

In a few cases the mildew damage was inseparable from the text. For example the signature lines had a "Secretary of the Board" and a " President of the Board " title under their signature. The word "Board" was damaged on one, but not the other. I copied the word and pasted it on a new layer. I then selected the word with the rectangular Marquee tool, Inverted and deleted the rest of the white. I used the nudge tool to move it over the damaged word " Board" and flattened the layers leaving a clean word. I used the same techniques to copy individual words or letters where needed. When I finished there was only one damaged letter that could not be fixed that way. I set the missing letter in an identical fond and used the scale command under the edit/ transform menu to make it the right size and then nudged it into place.

Finally I printed the diploma on 65Lb cover natural Astroparche and one on White Astroparche. The finished diploma appeared to be an exact match for the High School diploma originally issued June 14, 1956.

If you have a damaged certificate or diploma:

I can clean up stains and damage to your document if it is complete and you send me a high resolution scan 300 dpi or better (600 dpi preferred) in 256 grayscale (use color if there is color on the document being restored.. Send it as a tiff format.. e-mail the scan to damagedoc@bay-mall.net. I can use the same techniques described above to restore your document. I can then print a new copy. I will not change any information on the document, only erase evidence of damage from the image and reprint. In order to restore the document I have to be able to see what was there before the damage. If the damage completely obscure any image or text, then I can't restore that image. If I know what the text is I might be able to set type in a similar font. If an image is damaged I would need a clean copy of that image to replace it.