Digitally Scanning Your Archival Photos

You use a scanner (a computer device) to "take a picture" of the image and convert it to pixels. You can then save that digital image of your archival original photo,.

Scanners and digital cameras both create digital pictures, with an important difference in how they deal with resolution.

The resolution of an image is how many pixels it contains and how large it would print on a digital printer. A digital camera converts a real-life scene into a fixed number of pixels. A scanner converts an image to as many pixels as are necessary to create a digital image with the chosen number of pixels per square inch of the original image.

For instance, if you scan a 3" x 5" postcard at 300 dots per inch, there will be 1,350,000 pixels in the digital image ((300 dots per inch x 3") x (300 dots per inch x 5")). If you scan that same photo at 1200 dots per inch, the finished scan will contain 21,600,000 pixels in the digital image ((1200 dots per inch x 3") x (1200 dots per inch x 5")). If you scan an 8" x 10" image at 300 dots per inch there will be 7,200,000 pixels in the final image.

You can choose how high to set the scanning resolution depending upon what you will do with the final image. For archiving photos you might want to scan them at least at 600 dpi so that you will be able to print them at high quality later on. If you are scanning a slide to make into a print you might need to scan it as high as 2400 dpi.

Check to see what the hardware resolution of your scanner is; it's best not to scan at a resolution higher than that. Most scanners can scan at least 600 dpi, and many can work at higher resolutions than that.

Some scanners can accommodate negatives and slides if that is the format of your original images. There are dedicated scanners that can scan only slides and negatives, and which are designed to do the best job with those image formats.

When scanning archival photos:

- Clean the photo and the scanner bed carefully, to avoid dust specks
- Use cotton gloves to protect priceless photos from the oils on your hands
- Place the photo on the scanner bed carefully
- Set the resolution and color options in your scanner software
- Check the preview scan and adjust the scanned area before doing the final scan
- Save a copy of the original scan in TIFF format before working on editing the scanned image. Only edit a copy of the scan.
- If the back of your photo has writing that might be of use later on, scan it too and name it so that it is clear that it is connected with the original scan.

Digitally edit your scanned image with an image editing program. Some programs like the editors in iPhoto or Picasa will do an ok job, but for the best results a program like Adobe Elements or Photoshop will offer you the most options.

Crop out unwanted areas of the scan and straighten the image with your image editing program.

Adjust the Levels (or Exposure) control to make sure that there is the maximum range of tonality in your scan and that the details in the darker areas show the way you would want them to.

Adjust the color shift or color cast to correct the color in images that have faded over time.

Using the Clone Stamp tool you can remove blemishes in the image by copying an adjacent area over them.

If a large area is missing and can be filled in with detail from an adjacent area you can make a selection and move the selection over to the missing area.

Sometimes you need to get creative in filling in details; this is why you keep a copy of the original scan, so that the original pre-edited exists image as well.

You can convert the image to grayscale, but sometimes it is more satisfying simply to lower the color saturation to keep some of the original color of the photo. If you have scanned a color photo whose colors have shifted over the years, converting it to grayscale may be the only way to salvage it.

Tips:
- Come up with a naming convention for your files that will work for you.
- Write up all you know about each photo and save your notes as a digital text file that you can include with the image files. This way the "oral history" associated with the photo gets saved too.
- Save your original scans and your edits on your hard drive, but also burn them to CD or DVD for your neighbor to keep, save them to a separate hard drive, upload them to an online backup service, even print them out, to save them in as many locations as possible.
- CDs and DVDs don't last forever; check your backups every few years to keep up with latest developments in storage technologies.
- Share your photos on line with Picasa Web Albums or Flickr, and invite family or community members to leave comments and help you identify them.
- Be sure to save your original photos in a safe place in acid-free storage. Your originals will always be the highest-resolution copies that you have!

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