

Starting Off - with Adobe Photoshop CS3

Create a new folder in your StudentBackup storage area (or on your USB drive). Name this new folder with your last name and first initial (*lastnamefirstname Photoshop Lab*). You will save all work into this folder.

The original files are in your class OUT folder in a folder called *Photoshop Fun*. **Copy** the files from this folder into your work area folder. *You cannot work directly from the OUT folder!*

Although you are not expected to be artists, the operations involved in this lab should be done with care and relative competency. Points will be deducted for “artificial” aspects of image.

Review your tool palette.

Using your cursor, go to each of the tools in the tool palette and wait for the pop-up help. If a tool has a small arrow in the lower right corner, take time to click on the arrow and review the other choices for that tool. For this set of exercises we will be using the following (and perhaps more):

Marquee (ellipse and rectangle)

Move

Lasso

Magic Wand

Clone stamp

Pencil

Eyedropper

Type

Dodge

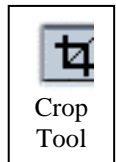


Read the entire section before beginning work on that section

1) Correcting Poorly Scanned Color Images

The image **Bad Scan** is the result of digitizing a photograph using a scanner. Unfortunately, the quality of the image is poor. Fortunately, Photoshop has features that permit you to correct some of its flaws.

- First, let's remove some of the unwanted portion of this image. Find and use the Crop tool to trim off the top green portion of the image: Simply select the area you wish to keep and then hit the Enter key.
- Now fix the coloring. The easiest way to fix color is to use the **Image** menu >> **Adjustments** >> **Auto Color**. This will automatically fix most image color problems.
- Now fix the **Brightness** because the image is slightly overexposed (too bright). Again choose the **Image** >> **Adjustments** >> **Brightness/Contrast**. Move the slider to make the image slightly darker (Slightly – but noticeable).



You can also experiment with corrections to the color balance, brightness, contrast, and saturation by using the **Variations** command. The **Variations** command allows you to adjust these visually on the fly.

- Choose **Image** >> **Adjustments** menu and **Variations...** menu. Two thumbnail photos at the top of the dialog box show the *Before* (original version) and the *After* (the photo in its most recent version). As you make adjustments to the image, the *Current Pick* will show the cumulative results of these changes.

The girl's hat is supposed to be red and her sweatshirt is supposed to be purple.

You can select *Shadows*, *Midtones*, *Highlights*, or *Saturation* radio buttons to adjust either the dark, middle, or light areas of the image (**Select Midtones for now**). The choices available for modifying the image are shown in the bottom section of the dialog box. For example, when the *Midtones* selection is chosen, select the colored small image that looks “better” to you. (You may also adjust the brightness separately on the right). Finally, the slider bar marked **Fine...Coarse** controls how much each “click” alters the image. It's easier to use Fine or Medium.

- Experiment with the **Variations** and attempt to increase the red in the image without casting an unnatural red over everything. If it becomes really messed up, simply click on the *Original* image to and start over. Remember, sometimes less is more!
- Click “OK” to apply these changes

- Use *File >> Save As...* option to rename and save your work as a JPEG(jpg) file called: **Fixed Scan.jpg**
Use the default settings in any dialog boxes that appear.

Critical Assessment of Step #1

- Is the picture cropped properly?
- Do the colors appear natural?
- Is the hat red and the sweatshirt purple (as required)?
- Find the file you saved – is it actually a JPEG file (or is it simply NAMED ".jpg") ?

2) Touching-Up Photographs

Using the fixed scan image from #1, zoom in to at least 300% zoom. We are going to use the "Clone stamp" tool to remove the necklace from girl. The stamp tool uses a cloned copy of a piece of the existing picture somewhat like copy and paste would. However, the stamp tool applies the copied pixels like the brush tool (strong in the middle, feathered on the edges). The softer edges prevent the cloned pixels from looking unnatural. Also, the rubber stamp displays a "cross-hairs" icon to show from where it is cloning pixels. Every time you "click" it is pasting with a new set of pixels from the area around the cross hairs.

- Before beginning, use *File >> Save As...* to save this file as a PNG file, choose PNG from the **Format** option box. Name the file: **touched up.png** Use the default settings for PNG files.
Select the *Clone Stamp Tool*. Now select a reasonable brush size for this operation. Using the toolbar at the top of your window, select a fuzzy brush that is relatively small size – less than 20 ("px" means "pixel"). Now you are ready to use the *Clone Stamp Tool*.
- Check that the *Aligned* option is NOT selected. (*Aligned cloning will move the sample area each time you start again, Un-aligned will sample from the same area each time you start again.*)
- To "copy" or clone a piece of the existing picture, hold the Alt key while clicking on a area of the image suitable for cloning. Now anytime you use the *Clone Stamp* tool, this color and texture will be brushed on. With a series of well-placed clicks the necklace is removed! Remember not to over-edit! UNDO ANY MISTAKES
- Use the sweatshirt texture to cover-up most of the necklace. Use her hair to cover up the necklace on the right.

Other hints and tools:

- Dragging the *Clone stamp tool* will give you a continuous sampling, which works great for repeating the texture of her hair. DON'T DRAG TOO FAR! Keep an eye on the crosshairs too!
 - Choose new sample locations often
 - Zoom in and manipulate individual pixels with the *Pencil tool* (Use the eyedropper to select colors, also use 30% opacity to make changes more gradually)
 - Use the *Smudge* tool to make subtle blurring.
 - Use the *Airbrush* tool to soften and blend
 - Use **Edit/Undo** or the **Undo History** Tab (upper right) to undo bad cloning decisions
- Finally, use the *Type tool* (capital T on the tool bar) to add your first name to the top of the image. Select the **Type tool**, then choose a dark blue color and *Viner Hand ITC* or *Vladimir Script* font of 36 points size. Reposition this (if needed) to the top.
 - "Flattening" the layers: Sometimes in order to save a file in a format other than Photoshop, you must eliminate the layers (since only Photoshop uses them) – Use *Layer/Flatten Image* to do this. **Now all your layers are "flattened" into one layer** of pixels – text is no longer editable! It is just pixels. Flattening is also required to apply a filter on everything – which you will do in the next exercise. **Make sure that you go to menu Layer > Flatten Image.**

g) Save the changes you made to this file.

Critical Assessment of Step #2

- Does the **TEXTURE** of the sweatshirt and hair appear natural? (squint slightly)
- Do you understand the proper situations to use the Clone Stamp tool?
- Is the concept of pixel-based editing clear? Why use layers?
- Is your name in the proper location? Proper font and color? (36 points is ½ inch)

3) Masking

Open the file "pastaman.jpg". We will use techniques to create a fuzzy-edged elliptical image of the pasta maker and adjust some of the colors for proper emphasis.

- a) First choose *white* as the background color. Then use the *Elliptical Marquee* tool to select the man's head and the pasta rack. Keep it at least ½ inch from the edges - don't go left and right beyond his wrists. Use the **Select/Modify/Feather** menu set at 9 pixels to give a large, fuzzy edge.
- b) We really want to delete everything EXCEPT this portion of the image. Use the *Select / Inverse* option to invert the selection. Now the **Delete** key will change the selected portion of the picture to the background color (white). Note the "soft" blurred edges given by feathering.
- c) We now want to enhance the color of the yellow pasta on the pasta rack. Use the *Lasso Tool* to select only the pasta rack in his hands. Using the **Image/Adjustments/Hue-Saturation** menu option, increase the saturation by about +60. Notice the improved color of the pasta only inside the selected area!
- d) Use the *Type Tool* to add your name **to the top-left** of the image. Make it 24 pt Arial. Set the exact RGB colors for the text as follows: R:252 G:179; B:3
- e) Since many images grow to be very large file (over 1Mb!) we wish to reduce the file size by reducing the image quality. We will save your file as a Low Quality JPEG image. This should reduce the file to a more manageable size. Use the *Save As...* option to save your file as a jpeg format file named *pasta.jpg* – **You will be prompted for changing the quality settings!**

Critical Assessment of Step #3

- Does the pasta man image fade softly into white as requested? Why is Step 'a' necessary?
- What RGB color would be made from the numbers 0, 200, 0?
- Do you fully understand the select-then-do process of editing?

4) Filters

Use the Pasta man file you just saved to experiment with some PhotoShop filters – artistic variations/transformations on digital images. Use **File/Save for Web&Devices** to save at least 2 filter results GIF files using file names: *pasta1.gif* and *pasta2.gif*

When you save files this way, notice the "2-Up" option tab – you can see the image quality change as you change the file save options – **TRY IT.**

5) Composite Images (Merging two images together)

Have you always wanted to take a balloon ride in the mountains? You can fulfill this dream (sort of) by **compositing** (merging) a picture of some mountains with a different picture of some balloons. We will place a copy of one picture into a "hole" selected in another picture.

- a) First, open the images ballons.jpg and mountains.jpg. We are going to copy a portion of the mountains and use that to replace the sky in the balloons picture. In order to do this compositing, we must make the size of the selected mountains equal to (or slightly larger than) the sky behind the balloons. Choose the **Window >> Info** panel to display information about sizes. Next, choose the rectangular marquee tool and select the whole balloon image. Notice that the Info panel indicates the width and height of the selected area: about W 8.8; H 6.6. (This is in inches.

Click **More** in the Info palette and then *Palette Options* to change this if your measurement is in pixels instead.)

- * To make the mountains about the same size, we first crop out the black borders using the *Crop tool*. Then use the **Image >Image Size** command to make the mountains at least 8.8 inches wide.
 - * When you are done, select the mountain range and clouds using the rectangular marquee selection tool *Remember to remove Selection feathering if needed!* Select a rectangle– this should be at least 8.8 inches wide -- from the upper left to the middle of the trees. Choose **Edit >> Copy** which saves a copy of it into a special memory location called the *clipboard*. (It will be available for later use.)
- b) Now, return to the **balloons.jpg** image. Using the *magic wand* tool, select the sky around the balloons. While holding down the **shift**-key, select other areas of the sky until the **entire** sky is selected. You may also choose *Grow* from the *Select* menu to “grow” the selection (repeat as needed to cause the sky segment to be selected).
- c) Now, to replace the selected area with the copied picture: Choose **Paste Into** from the **Edit** menu and the copied mountains will be pasted **into** the selected area of the image. Use the *Move* tool to position the mountain peak behind the central yellow, green, and orange balloon -- The mountain should loom large over your balloon festival!

If the mountains still don’t completely fill the sky, you can select the mountain layer and choose **Edit>>Free Transform** . Click and drag any “re-size” handle to resize the image dynamically. **You must** hit Enter to actually “apply” any transformations

We will now add your first name and create a transparent and “shadow” effect.

- e) Use the **eyedropper** tool to select the pink color from the large balloon.
- f) Use the Type Tool to add your name (in the selected pink color) using **36 point Impact** font.
- g) From the layer with text on it, select **Layer>>Layer Style** option – choose Drop Shadow. You have many options available, but for now, use the default values.
- h) Make the entire text layer itself 50% opacity: Find the **Layers** list and select your text layer (if not already). Adjust the opacity from the upper-right corner of that Layer panel.

Center your name on the large pink balloon so that the transparency is clearly noticeable.

Finishing Touches – using your skills

- i) Using your newly acquired skills, completely remove the Red and Blue balloon near the top. **Clean up this removal so it looks as if it never existed.**

Tip: Look in the **Layers** palette. Notice the small eyeball icon – this controls the “visibility” of a layer. Click on the background layer’s *visibility* icon – then click there again. By turning on and off visibility, editing complex images can be simplified.

- j) Now, on the **left** side (***NOT where the red/blue balloon was***) of the image, make 3 *copies* of the yellow, green & orange balloon. Use an appropriate selection tool (that you’ve learned today) to select the balloon, then *copy* and *paste* it once. Note that a new layer is formed. (Also note that the new balloon may be right on top of the old one. Don’t let this confuse you.) Use the move tool to move the copy where you want it to go. Having made one copy, you can now continue to *paste* additional copies, or use the **Layer>Duplicate Layer** command. Then relocate the balloons. Resize one of them larger. (**Edit>Transform>Scale**) Make another one slightly rotated. (**Edit>Transform>Rotate**) If needed, use the layer visibility feature (mentioned in the tip above) to help isolate the appropriate layer and help identify your layers during editing.
- k) Make sure there aren’t any “artificial” remnants of your work. Use any tools/techniques necessary.

- A) Save the finished version as a jpeg named *smallballoon.jpg* by using the *Save for Web&Devices...* option. Select appropriate options so that the file will be smaller than 80K. (Change the *quality* attributes/options until the download time is within these limits.)
- B) Save another version called *thumbnail.jpg* as a small sized jpeg format file by using the *Save for Web&Devices...* option. Choose the *Image Size* tab in the *Save for Web* window to change the output resolution (pixel dimensions) to $\frac{1}{4}$ of their original values. (You can also do this using *Image >Image Size* as you did previously.)

Critical Assessment of Step #5

- Does the result look (relatively) seamless? Are there artificial remnants (smudges or “halo” around parts of the image?)
- Check the resulting files – are they properly sized?

Only when your work is correct and complete...

Remove all files except your 7 project files: *fixed scan, touched up, pasta, pasta1, pasta2, smallballoon, thumbnail*

Copy your entire folder to the class IN folder

DUE: Friday 5 p.m.

Check List

At the conclusion of this lab, you should be able to complete the following tasks with relative ease.

- Remove unwanted parts of pictures
- Identify and use tools from the tool palette
- Copy parts of pictures
- Use layers effectively
- Use selection to localize changes
- Use filters for interesting effects
- Modify colors and/or saturation
- Apply Text with various effects
- Use file saving variations (file type *and* attributes)
- Explore new features and evaluate their usefulness

Photoshop Homework DUE: TUESDAY MIDNIGHT

Keep copies of the original Photoshop documents as well as the JPEG and GIF images for the following exercises.

Playing with Photoshop is the best way to learn its capabilities. These activities allow you to explore. Do the activities listed below:

THIS IS AN INDIVIDUAL ASSIGNMENT

- 1) Take a picture of yourself (you may use the class roster if you wish) and make it look like the girl in the ACM-W poster (in the hallway between the Computer Science Suite and our lab) -- **just** the portrait on the left side. Match the font for the text "Women in Computing" but replace "Women" with your name. Save this as *poster.jpg*

- 2) Using a personal photograph
 - Remove a portion of the image (unwanted person, ugly building, light poles, etc)
 - Save two files as gif images named: *before.gif* and *after.gif*
 - On the *before* image, draw a box around the area that will be removed in the *after*

This should be an original and unique photo that can demonstrate your skills. Points will be deducted for trivial removals.

Make sure that all your JPG and GIF files are in one folder called **PSHW-*Lastname*** and put a copy in the IN box by *next* Tuesday at midnight. DO NOT SUBMIT YOUR **.PSD** FILES or other work files.