FIT 100

Lab Activity 5: Seeing is Believing--Or is it?
Adobe Photoshop and Image Alteration

Winter 2002

Introduction:

In Lab 3 you learned the basics of creating a HTML document to post on your web page and Assignments 1 and 2 helped you search for sites and then establish criteria for evaluating the credibility of those web sites.

Today we will focus on issues of authentication by learning the basics of Adobe Photoshop to alter an image and make the alteration look authentic. The images given to you to work with have no copyright associated with them. You are allowed to use them because each comes from a government agency that does not hold copyright or require copyright fees to be paid for non-commercial use of images.

Adobe has a great deal of functionality in the area of graphics and image creation and manipulation. However, today's lab will focus on using certain tools to eliminate and alter areas of an image. We will not cover all tools, which will require you to play with them on your own if you wish to use them as part of your project.

Objectives:

- Use Adobe Photoshop to select and manipulate areas of an image
- Remove and add selections to an image
- Through the manipulation of photos, create awareness about issues of authenticity and misinformation in photographic displays.

To Do:

Adobe provides a work area for images that includes a Selection Tools Box. Hover over each tool with your mouse for the name:

Tool Descriptions for this Lab

Marquis Tools: The marquee tools let you select rectangular or elliptical areas in an image.

Crop Tool: This tool allows you to select an area of an image and crop it.

Move Tool: Lets you drag a selection or layer to a new location in the image.

Lasso Tools: The lasso and polygon lasso tools let you draw both straight-edged and freehand segments of a selection border.

Magic Wand Tool: The magic wand tool lets you select a consistently colored area (for example, green grass) without having to trace its outline.

Clone Stamp Tool: Takes a sample of the image, which you can then apply over another image or part of the same image. Each stroke of the tool paints on more of the sampled image. *[Also called Rubber Stamp Tool]*

Eyedropper Tool: Sample color from an image to indicate a new foreground or background color.

Paint Bucket Tool: Fills adjacent pixels that are similar in color value to the pixels you click.

You will be using the Crop, Lasso, Move, Eyedropper, Stamping and Magic Wand Tools for this lab.

The first thing to do is get a copy of the images we'll work with and save them to a disk or a local drive. When we finish the lab, use FTP to send the finished images to your Dante account for access later on.

Getting Started:

1. ***Go to http://courses.washington.edu/gbw/images/ and copy StHelens.jpg and RedSquare.jpg to your local folder.***
    a. Click on the link to the **StHelens.jpg** image
    b. *Right click* on the **StHelens.jpg** image and select **Save Picture As...**
    c. Save it to your disk or in Documents on the C drive
    d. Do the same with the second image, **RedSquare.jpg**

2. ***Open Adobe Photoshop***
    a. **Start>Programs>Adobe Photoshop**

3. Open the images in Adobe Photoshop and save copies.

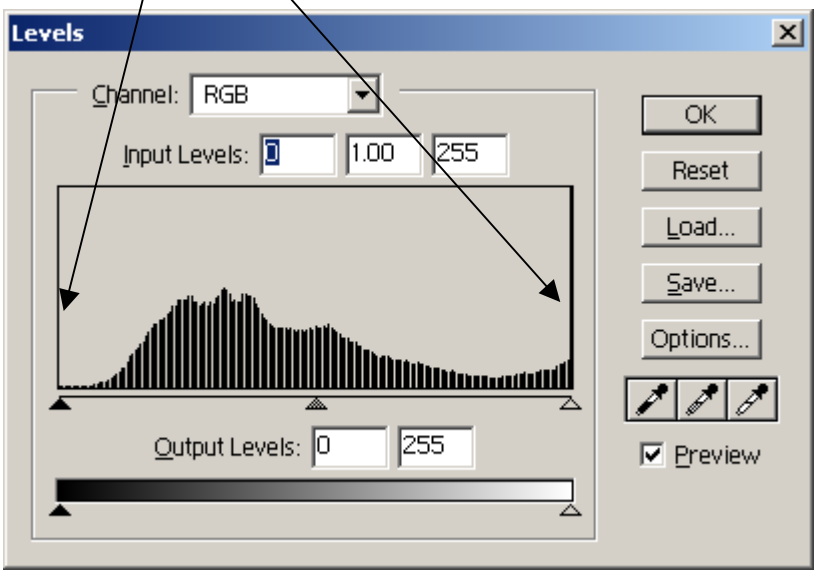
a. **File>Open...** open up both of the images you just saved by navigating to the Documents folder on C.
b. You don't want to work on the original, so create a copy of each:
    i. **File>Save As**... and give them each a different name.(ex. StHelensCopy.jpg)
    ii. Close the originals.
    iii. Open up the copies you just created.

Whenever you want to indicate that you are dealing with one image versus another, make sure the image is "selected". That is, click somewhere on the image you want to work with to select it.

4. Adjust the image color levels on the Mount St. Helens photo

Notice the color in the Red Square image is a bright but the St. Helen's photo is a little darker. To lighten or darken one of the images, adjust the color levels:

a. Image>Adjust>Levels....
Using the slider bar on the right and left sides of the Input Levels, decrease the amount of darkness in the image, without making it too bright. When you are satisfied, click OK and go back to your image.



5. Save your changes

a. File>Save

Cropping an image:

6. ***Crop the image of Mount St. Helen's***
    a. Now look at the image of Mt. St. Helen's. We need to crop it to get rid of the USGS fonts and make it a size we can use later. Select the crop tool from the Marquis tools options:

    b. Select the upper 2/3 of the image with the crop tool. The image will be the same width when you crop it, but not include the fonts and part of the lake at the bottom.

    c. Right click on the area you have cropped and click on Crop to finish the action.

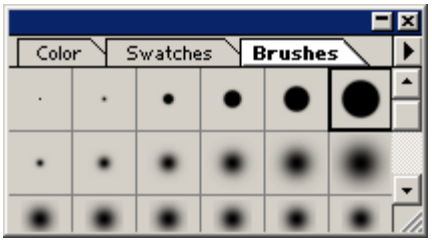
7. ***Save your work:***
    a. **File>Save**

Removing objects from an image:

8. ***Remove some of the many pedestrians from the Red Square image.***
    a. Select the **Rubber Stamping Tool (**it may also be called the **Cloning Tool)**

    b. While holding down the **ALT** key, use the mouse to click on an area near a pedestrian (in order to match the color of the brick nearest to them).

    c. Look at the size of the size of the pedestrian. Select the proper brush size to paint over the pedestrian.
        i. If the Options box is not showing for Brushes, go up to the menu bar:
            a. **Window>Show Brushes**



        ii. Select a brush that will cover the area. You will decide whether to use soft or hard edges
        iii. Move your mouse over the pedestrian and click. They are replaced with the stamped area.

*****NOTE:**
Any time to make a move or take an action that you don't want to keep, you can use the **Edit>Undo** button to remove the last step taken.***

Selecting an area of an image by color:

9. ***Using the Magic Wand Tool, select the area of the Red Square image where there is sky***

You can use the **Magic Wand Tool** to select whole areas by their similarity in color.

a. Select the **Magic Wand** and click in the area of the Red Square image where there is sky. Not all of the sky area may be selected at one time. To add to the area, hold down the **shift key** as you click on other areas of sky.

Use the **ALT** key if you want to subtract selected areas one at a time

b. Once you have selected the entire sky area, go onto the next step.

Replacing colors:

10. ***Fill the area you just selected in Red Square with the Blue of the Mount St. Helen's image.***

In a few moments you're going to put the image of St. Helen's into the backdrop of Red Square. To make sure there is color continuity in the photo of Red Square, let's fill the area you just selected in Red Square with the blue in the Mt. St. Helen's image.

a. Click the **Eyedropper tool** to select it.

b. Click on the upper left corner of the Mt. St. Helen's image. Notice the color palette on the Tools box is now that shade of blue.

c. Select the **Paint Bucket Tool** and click inside the selected area of the Red Square image. It should turn blue.

When you are finished, select one of the **Marquee tools so you don't paint everything you click on!**

Inserting an image into a layer:

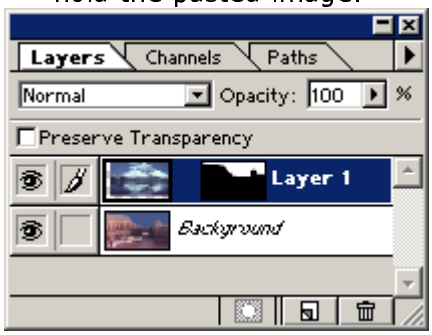
11. ***Copy the image of Mount St. Helen's so we can insert it into the background for Red Square.***

a. Go back and click on the cropped image of Mt. St. Helen's. The tools are now focused on this image.
b. **Select>All** The whole image should be selected.
c. Edit>Copy You now have a copy of the image on the clipboard.
c. **File>Close** Close the St. Helen's image.

12. Insert the picture of Mount St. Helen's into the Red Square image.

a. Go to your Red Square image. (The bar at the top of the Red Square window should be blue.) The sky area should still be selected. You are now ready to insert the copied image into this one.

b. Edit>Paste Into Notice a new layer has been created to hold the pasted image.



c. With the new layer selected, use the **Move Tool** and adjust the mountain image so it looks "normal"!

13. Flatten your image

In order to save our new image as a .jpg or a .gif, we need to flatten the image. To do this you will combine the two layers that currently make up the image into one. This reduces the size of the file. Once an image is flattened, the layers can no longer be modified.

a. Go to **Layer>Flatten Image** on the menu bar across the top.
b. You image is now a single layer, instead of two different layers.

14. Save your image.

15. *FTP your image to Dante*.

a. Add it to your web page from Lab 3 and 4 (**fit100.html**), or make sure it is linked off of that webpage. You want to keep those web skills current!

Bonus Practice:

The obvious choice for a picture in the background to replace Mt. Rainier would have been something like the Mt. St. Helen's explosion. On your own, for more practice, go find a photo of a volcano, or a famous city skyline, and insert it into the image the way you inserted Mt. St. Helen's. Use the copyright free images in the same folder as Mt. St. Helen's and Red Square for practice.

Images and Copyright:

Now is the obvious time to give a little background and advice about the use of images on the web. Most of you don't have any intention of using the images created for your project or here in lab for anything other than completion of a homework assignment. Regardless of your intentions for the use of this material, it is your responsibility to understand the laws surrounding copyright and the ethics of photo manipulation.

http://www.utsystem.edu/ogc/intellectualproperty/cprtindx.htm#top

More Tutorials:

This lab is focused on the use of Adobe Photoshop for photo manipulation. There is a great deal of functionality of the software that we are not covering. Plan on searching out different ways to use the tool to manipulate images for your project.