

ART 109 GARY MESA-GAIDO ASSIGN.#7 "Nature Collage"
(Photoshop CS and Scanning)

This assignment is designed to help you with understanding and using the scanner in relationship with the program Adobe Photoshop CS This assignment asks you to find organic objects from nature, not photos, but found objects that exist in nature and create a composition from them. Take a walk in the woods and start collecting things that are interesting to you. Look for tree bark, colorful leaves, dead insects, feathers, rocks, minerals, flowers, plants, sticks, etc., anything that you can find that is not made by humankind. Take a small bag or book bag with you on your walk to put your findings in. There are many trails around campus that you can venture onto. The next step is to scan the objects directly into the computer by placing the objects on the scan bed. You may want to prop the lid of the scanner open so you do not crush delicate items under the weight of the lid or scratch the glass with sharp or gritty objects. If you prop the lid open you will have a black background; a little hint, if you want a white background but have to prop the scan lid just lay a piece of white paper over the object before you scan. If you have something that is sharp or gritty like a rock, for example, I have a couple sheets of clear vellum located next to or under each of the scanners that I would like you to place on the scanner glass before placing anything hard on the glass scan surface. The things I am going to be critical of while looking at your finished pieces are principles of design and color theory. Balance,(asymmetry, symmetry) patterns, (juxtaposition of related or dissimilar patterns) color relationships, (complementary, primary, secondary, triadic, monochromatic etc..) Please keep the scanner and the computer lab clean. This can potentially be a messy project. Clean up after yourself. The next stage of the assignment involves the program Adobe Photoshop CS. This is an image manipulation software that allows individuals to edit digital images. By edit I mean, correct color, sharpen, blur, clean up scratches, dirt, water marks, unwanted parts of images, distort, scale, warp, alter colors, apply textures, patterns, masks, layers, etc.. the list goes on and the possibilities are endless. You will learn how to bring your scanned objects into Photoshop and manipulate them and collage them together. I will be showing examples in class. The material you find in nature should give you some starting points for this project. But the big challenge is learning the new peripherals and software.

Recommended Reading: Under the Photoshop Help Menu: Photoshop Help...

- Learning Photoshop CS
- What's New in Photoshop CS
- Looking at the Work Area
- Getting Images into Photoshop and ImageReady
- Producing Consistent Color (Photoshop)
- Working with Color
- Making Color and Tonal Adjustments
- Selecting
- Transforming and Retouching
- Drawing
- Painting
- Using Layers
- Applying Filters for Special Effects
- Using Type
- Saving and Exporting Images
- Printing (Photoshop)
- Keyboard Shortcuts

Scanner Check List:

1) Ask yourself (what do I want to do with this image?) or (why am I scanning this image?) This will force you to think about what resolution or Path you should be using. Examples of answers are as follows:

- *I am going to use it on a Web page = 72-75 ppi.
- *I am going to print in B/W in Comp. Art Lab. 210= 300 ppi.
- *I am going to print in Library Comp. Lab. = 200 ppi.
- *I am going to print @ Printing Services = 200 ppi.
- *If you are printing to any other printer make sure you know the output resolution of that printer. All you have to do is ask the person who is running it.

Once you know the output, [it should be in dot per inch, dpi.,] take that number and divided it by 2 and that should give you your resolution settings. For example, if you are printing to a color printer off campus that has an output resolution of 600 dpi. then the resolution you should use to scan in an image you wish to have printed on that printer should be no lower than 300 ppi.

2) Check your bit depth or **Type** of scan. 1 bit scan, black and white drawing for line art or images with no colors or grays. 8 bit or B/W photo for black, white and gray images. 24 bit or millions of colors for full color images.

3) Check your Scale or the size of the scanned image. Make sure that the physical size is the size you want. This should be listed in inches and percentages. You can enlarge and reduce with the scanner software so make sure you get the size of image that you want. Rule of thumb: (it is always better to scan in an image that is too large and have to scale it down than to scan in an image that is too large and have to blow it up.) This process of blowing up is know as interpolation.

interpolation- a formulated process which assumes, on the basis of the data making up a digitized image, what a sharper version of the image would be, and rewrites the data representing the image accordingly. This process is used frequently with scanners to give a scanner which actually scans at 300 ppi the effective resolution of 600 ppi. The effectiveness of interpolation to actually effect a sharper image simulating a higher ppi count is often dependent on the nature of the data relationships representing different image characteristics. In other words, interpolation can be more effective with some images than others. Also the act of adding more or subtracting the amount of pixels in a digitized image.

4) Check you brightness and contrast and make sure what you see on the screen is the correct image. Use the radio dial controls to correct this or tell the computer to automatically adjust it using the (yin yang) button.

5) Check your color balance and make sure the colors you see are the colors you want. If this is not the case use your color controls to adjust the right color balance. Note that you must leave the color controls floater open until you have saved your document or the scanner will not use those corrections.

6) Save your document with the file format you wish to have it written in. PICT, TIFF, or EPS are the 3 types that you can use. Do not use any compression at this point. You can compress the file later using other software. The scanner's compressor is not reliable.

scanner- A device that converts images (such as photographs) into digital form, so that they can be stored and manipulated on computers. When used in conjunction with OCR software, a scanner can convert a page of text into an editable document.

digitize- To turn something from the real (analog) world into digital data on a computer. You might use a scanner to digitize pictures or text, a sound digitizer to record music or a human voice, or a video-digitizing board to input video from a VCR or camcorder.

bit depth- Refers to the number of bits the Mac's memory assigns to each pixel on the screen or each sample point on a scanner. One-bit color gives you just black and white; 8-bit gives you 256 colors or shades of gray; 16-bit gives you over 32,000 colors or shades of gray; and 24-bit gives you over 16.7 million colors.

bitmap- An image made up of pixels.

pixel- One of the little points of light that make up the picture on a computer screen. (The name is short for picture element.) The more pixels there are in a given area, that is, the smaller and closer together they are, the higher the resolution. Often, pixels are incorrectly called dots.

dot pitch- On a monitor, it is the distance between individual dots of phosphor on the screen, and affects the overall clarity of the image. Generally, anything below .30mm is acceptable but .25mm is better.