Adobe Photoshop Lab Manual

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There are several versions of **Adobe Photoshop** on the market today -versions 5.0, 5.5 and 6.0. This course will deal with **version 5.0** simply because that is the only software available at this point in time. For a beginner to Adobe Photoshop the differences between the three versions is mostly advanced features and will have no impact on beginner learning.

This course is project orientated in which we will work from one project level of skills to another project level with increasing difficulty as we progress along in the course.

It is critical that each student in the class have at least a dozen different variety of color photographs ranging from portraits, group photos, outdoor nature shots. The photos need be both good and bad. It is the poorly taken shots that provide the most practice for each student in trying to improve the lighting or color balance of a picture and cropping out the distracting background.

One floppy disk will be provided for some very basic and minimal classroom work. It will be necessary for every student to have at least 10 formatted DS floppy disks to store all their photos on. Students will be shown how to store a backup set of pictures on the internet on www.xdrive.com. This will allow for any forgetful students that do not bring their computer disks each and every class. Also if any files should be accidentally deleted by a student from another class the copies on www.xdrive.com will be a lifesaver.

It should be noted that with only 15 hrs. of class time available this course will only be an introductory course and not an advanced course in Adobe Photoshop. Ordinarily the intermediate level alone should be 30 hrs. and 30 hrs. more is required on the Advanced level. Practice on a home computer will make all the difference in the world rather than a once a week exposure to Adobe Photoshop.

I hope you enjoy the course.   Dr. P. Mead   Spring 2001
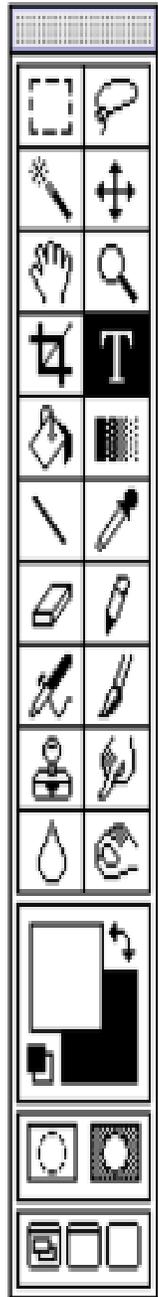
Adobe Photo Course Class Guide for the Beginner Course
Instructor: Dr. Pelham Mead, ED.D.

Part I– Introduction to Graphics
Terminology, vector graphics, clipart, true pictures, images, pixels, anti-aliasing
Computer Basics-saveas important, copy and paste, reading file size in My Computer
Types of Adobe Photo programs by Adobe: **Adobe Photo, Photo LE, Photo Deluxe.**
20 Picture formats .bmp,.gif .tif .jpg
Learning the Toolbar (over five classes 15 hrs. only)
Color Palettes
Vector graphics and raster graphics (pixels vs. mathematical formula)

Part II– The Input tools to learn how to use- Scanners and Digital Cameras

How to use a **scanner** (using Adobe Photo shop to scan) Everyone will master this skill.
Twain driver and what it is (not Mark Twain)
Converting scanner .tif file endings to .gif and .jpg , saveas vs. export commands
How to use a Digital Camera Everyone will have an opportunity to master this skill
Importing pictures in .jpg format, .gif, .bmp, tif , etc. differences in applications

Part III-The Adobe Photo Toolbar
Project #1-Working with the Cropping tool (marquee)
Instructions:

Opening a **10 photos** in Adobe Photo (use sample photos if available)
Using the Marquee Icon to crop a picture (4 different icons available)
Drag the dotted box outline around the portion of the picture you want to keep.
Cropping and Saveas a photo
Practice makes perfect. Each student is to scan ten photos and save them on floppy disks as
.jpg compressed pictures. Some students will be working in pairs with the digital cameral
saving pictures they took in class of other students. All students will need at least ten
photos to work on with cropping.

Project#2– Changing the size of a Picture to allow for a faster load time in a Web page.
Sometimes reducing the size of a picture is necessary for a web site for a faster load time.
Otherwise pictures need to be reduced to fit in a newsletter or brochure.
.bmp format should never be used since they are unusually large and cannot be easily worked
with.

Information about working with Palettes (developing drawing and editing skills)
The color/swatches/brushes group*The Navigator/Info/Options group *The
layers/channels/paths group*The actions palette (repetitive tasks that can be played
back)Selecting Palettes
Hiding Palettes
Moving Palettes
Selecting Palette options, collapsing a palette, resizing, Customizing

Quiz Review: (do this during the break)

Name two ways to select a tool from a toolbox?
Name two ways to select hidden tools in a toolbox?
Name two ways to change the view (display) of an image?
How do you preview the position of an image on a screen before printing?
How do you select the hand tool and the zoom tool from the keyboard without deselecting the active tool?
How do you display a palette once it's hidden?

Section IV- Image Basics for Adobe Photo

Vector and Raster images...vector are composed of mathematically composed lines as in clipart allowing for easy enlargement and manipulation. Raster images are created by Adobe Photo on a grid called pixels. For editing a raster image you edit the pixels.

Image resolution-pixels per square inch. The more pixels per square inch the higher the resolution as in printing . Now for the math part….One inch square of an image scanned at resolution and 2400 dpi photo 72 PPI contains 5,184 pixels (72 x 72) and has a file size of 6k.

Project III– Formats for Saving Files

There are 20 different file formats in which to save in Photoshop 5.0.

You need to remember to both save in the Photoshop format and the other format you will need for a Web page or document. Saving in Photoshop preserves all the layers, channels and paths you created.

Quick Edit is an optional plug-in available in Adobe Photo 5/5.5 that will allow you to save a very large flattened image in a format that will let you open part of it.

For files to be used with **Adobe Illustrator** use- .eps or .tif   endings

For **Macromedia Freehand** (a drawing program) use .tiff files when you save.

For **Adobe Acrobat Reader** use .PDF files.

For **Pagemaker or QuarkXpress** use .tiff and .eps formats.

To save a bitmap (.bmp) image whose white parts will be clear instead of opaque white save in .tiff or .eps format, choosing the transparent Whites Option.

To Save a Duotone file for use in Illustrator, Pagemaker or QuarkXpress use. Eps format.To save a file for the internet use .jpg or .png format and export , Gif89a format. In both 5/5.5 Photoshop you can use the [File] SAVEAS command.

In addition 5.5 has a Save for Web interface which lets you do side-by-side comparisons of .**jpg or jpeg, .png and gif formats** to optimize the size and color of images for the Web.**.jpg or .jpeg** formats are useful to compress a picture in order to send it by modem

.**lzw** is another compression program that can be used with .tiff formats and does not degrade the image as much as .jpeg but the compression is far less than a .jpeg file.

Paint Programs save in .**bmp. Pcx, amiga iff, tiff and targa**

Graphics Endings Review

<u>Matching List:</u> (connect the item in the list on the left with a line to the correct answer on the right.)

.bmp   scanner default file ending
.tiff   graphic interface format
.gif/gif89a   bit mapped protocol
.jpg/jpeg   Adobe Photoshop default file ending
.eps   Adobe Acrobat reader default file ending
.pdf   default ending for compressed photos
                         Paintshop Pro default file ending

*Remember to bring another dozen pictures or so, some poorly taken and some better. Individual objects against contrasting backgrounds are good, nature shots, portraits, etc..

Assignment: In class work: List all the navigation Tools without looking at the cheat sheet and number them.

Mr. Melon Head Project-Class II

Explanation: This project will take some time so don't rush it. You are going to be working with the four basic selection tools in the toolbox of Adobe Photoshop. The Marquee tool, the Move Tool, the Lasso Tool and the Magic Wand Tool. In this project you will move the various parts of Mr. Melon's head onto a melon and then do some brush up editing. You will use all four basic tools in this project.

Marquee hidden tools
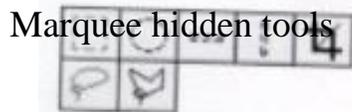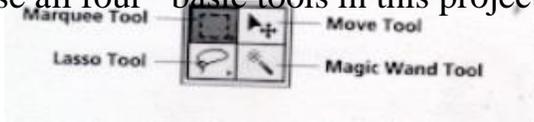
Explanation of Tool functions:

Marquee tool lets you select rectangular or elliptical areas in an image.
The Lasso tool lets you draw a freehand outline around an area.
The **Polygon Lasso** tool lets you draw freehand straight lines around an area.
The **Magic Wand tool** lets you select parts of a image based on the color similarities of adjacent pixels. This tool is helpful for selecting odd-shaped areas without having to trace a very complex outline with the lasso tool. Not available in version 5.0 sorry.
The **Move tool** lets you move a selection marquee or objects on a single layer.
Another selection tool is the **Pen tool** which will be used later. You can use the pen tool to draw straight and curved lines.

Let's Begin the Step by Step Process

First we have to copy the photos onto our harddrive into a file we will call Lesson1.
All photos needed for this project will be on a cd-ROM or floppy disk. Backup is located on the internet at **www.blackboard.com** under **BERC Adobe Photoshop Course.**
Using My Computer , open up the H: drive and go to the FILE menu at the top of the screen and select {NEW} Make sure the cursor is on H:\ so the subdirectory we are creating will be on the H:\ directory.
Type in under **New Folder**   [melonhead]
Copy the photo from Lesson 4 called **Melon** from the floppy disk or the internet to the Melonhead folder on H: Look under **Adobephoto Classbook 5/5.5**
Once you have accomplished this we are ready to open Adobe Photo.

Starting the Mr. Melon Head Project in Photoshop

<u>**Step by step instructions**</u>: see also the Pdf file in the AdobePhoto classbook folder.
Open Adobe Photoshop by double clicking the ICON for the program.
Now under **[FILE]** click **{OPEN}**
Go to the **H:/melonhead** directory you created
Double click the **H:/ melonhead** directory to find the picture we need called <u>melonhead</u>
Load the file **<u>Melonhead</u>** by double clicking it.
With the picture of the various parts of Mr. Melon Head on your workspace or monitor you need to not select the [**RECTANGLE MARQUEE TOOL**] from the toolbar.
Double-click the [**RECTANGLE MARQUEE TOOL**] in the toolbox and the marquee options palette appears.
Drag the rectangle marquee tool diagonally down from **<u>the top left corner</u>** of the melon to the bottom right corner of the melon by holding the mouse button down. This will create a selection marquee. A rectangular outline that looks like marching ants will now be surrounding the melon.
<u>**Click the Move Tool (>+) in the toolbox**</u> (to the right of the rectangle marquee tool), and position the pointer within the selection. The Pointer becomes an arrow with a pair of scissors, to indicate that dragging the selection will <u>cut</u> it from its present location.
Drag the melon downward, toward the bottom of the window, leaving about an inch of space below the melon. Now release the mouse button.
If you make a mistake do not panic. All is not lost. You can click **[EDIT]** in the menu on the top and click **[UNDO]** . This will undo your last command and move the melon back to where it started.
<u>**Now this is very important</u>– Before making your next selection, **you'll need to Deselect the current one.** <u>Use either of these methods to deselect an active selection:</u>
Choose Select>None
Click outside of the selection marquee anywhere in the window.

<u>**Now for the Elliptical Selection (making eyes) for Mr. Melon**</u>

The **ellipse marquee** tool lets you select elliptical or circular shapes. You will the ellipse marquee to select eyes for the face.
You want to **select the blueberry** now for the eyes.
They are a little small so you will need to **Zoom in on them or enlarge the view**.
Click the **zoom tool which looks like a magnifying glass**.
Click the zoom tool over the blueberry until you **zoomed 200%.**
There are **three ways to select the ellipse marquee tool:**
Click and hold the mouse button down on the rectangle marquee to display the hidden tools and drag to the ellipse tool and release the button.

Hold down the **Mac key /control** and click the rectangle marquee tool. Each time you click while holding down the modifier key the next hidden tool appears in the toolbox.
Press M ..M stands for Marquee and is the keyboard shortcut for Marquee. Pressing M repeatedly toggles between the two tools.

7. **Move the pointer over the blueberry** and the pointer becomes a cross-hair.
8. Drag diagonally from the top left of the blueberry to the lower right edge of the blueberry to create a selection marquee. **DO NOT RELEASE THE MOUSE BUTTON**.
9. ***This is another critical step. **Still holding the mouse button down– hold down the spacebar and drag.** The selection marquee will moves as you drag.
10. **Release the spacebar.**
11. Drag again with the mouse button down.
12. What happens?
13. You will notice that without the spacebar being held down the size of the marquee changes, but the location of the marquee does not.
14. The **spacebar-drag method of moving a selection marquee while drawing works with any selection tool**. Just remember to continue holding down the mouse button when you press the spacebar and drag.
15. **Take some time to practice here.**

The next major step: Now for surgery Mr. Melon Project

You need to remove the star shaped inner portion of the blueberry to place it on the   carrot as eyes.
In order to see the blueberry you will need to zoom or enlarge it 200% to be able to work with the elliptical marquee. Click the icon in the toolbar that looks like a magnifying glass.
Press the right button and click **[Zoom IN]** until 200% appears in the top margin of the menu.
3. Select the **ellipse marquee tool** (
Click and hold down the mouse button or Hold down the MAC option key and click the rectangle marquee tool or Press M...the keyboard shortcut key (3 possible ways)
Move the pointer over the blueberry; the point becomes a crosshair.
Drag diagonally down from the top left edge fo the blueberry to the lower right edge of the blueberry to create a selection marquee. Do NOT RELEASE THE MOUSE BUTTON.
If the selection marquee isn't where you want it you can adjust it by holding down the Spacebar and dragging the selection around to center it.
You can release the **Spacebar** and drag again. Notice that when you drag without the Spacebar being held down, the size of the marquee changes, but the location of the   marquee does not.
Just remember that in order to resize or drag the marquee around you must hold the mouse button down and then press the **Spacebar** down.

10. Position the marquee tool anywhere inside the selection border surrounding the blueberry. The pointer becomes an arrow with a small selection icon next to it.
11. Drag to reposition the selection marquee around the blueberry.
   Note: Any time an image contains an active selection, you can position the marquee tool, the lasso tool, or the magic want tool within the selection outline and drag to reposition the selection border.
12. **Now move the blueberry onto the carrot slide** to use as eyes for Mr. Mellonhead.
13. You can move it by holding down the Command key in MAC and hold the mouse button down and in PCs use the Control Key and the mouse button.
14. Release the mouse button and the control key when you place the blueberry on the carrot slice.
15. **Choose Select>None to deselect everything**.
16. **Choose [File] SAVE to save your artwork.**

Anti-Aliasing vs Feathering

Ordinarily pixels in pictures are little squares and therefore every picture in digital format is really a jagged edges but undetectable by the human eye. To create a smooth line appearance we create an extra jagged box in between each pixel.(otherwise partially transparent). This creates a softened image called anti-aliasing.
The **anti-aliased option is available in the marquee, lasso, and magic wand options** in the toolbar. **Feathering differs from anti-aliasing in that it blurs the edges of a selection** when you cut , copy, move or fill a selection. Feathering works by creating a gradual transition from the hard edges of the selection into the pixels in the surrounding area.

Next step in the process ...anti-aliasing the carrot slide.

The anti-aliasing Process
   Smoothing the edge of a line by adding extra spaces between each pixel.

The Feathering Process
   Uses a gradient of dots to appear to feather of shade in an edge or object

In-class Assignment for all students

Take a photo from scanning or digital camera to internet use or print out.

Demonstrate how to use a scanner through Adobe Photo Shop.
Scan a picture you have. Set up the frame for preview.
Determine the final scan.
Make any editing changes such as brightness and contrast
Crop out any extra background with the marquee tool and the menu CROP.
Balance the color.
If necessary decrease the picture size.
Otherwise Saveas a Photo Shop format file, a .jpg file and export as a gif file.
That is three files you are saving to.
Print out the final picture using the color printer if available and working.

Demonstrate the same as above only with the digital camera approach. Double click photo you wish to select after you took a picture with the camera. Saveas a file format you can work with .jpg or .gif. Do not save as a .bmp.
Follow all of the above steps.