

# Basic PhotoShop Functions & Concepts

Color • Layers • Form • Selection • Painting • Color Mode • DPI

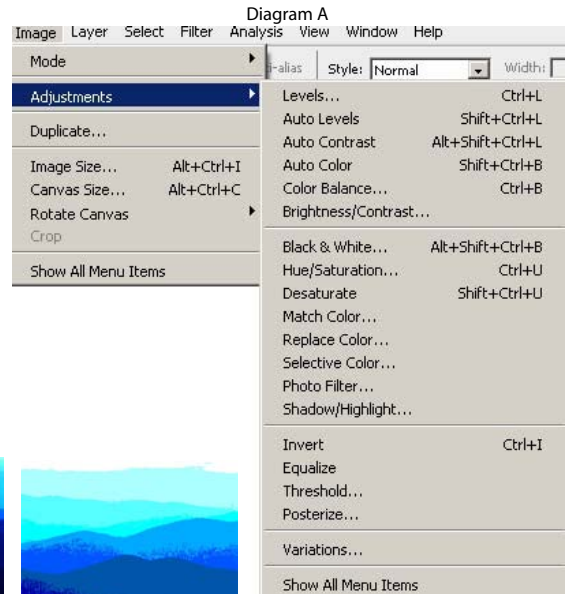
## Color Manipulation

Color Manipulation is the control of the three elements of color (Hue, Saturation and Value). PhotoShop manipulates these three elements in **two** primary ways: Adjustment and Blending

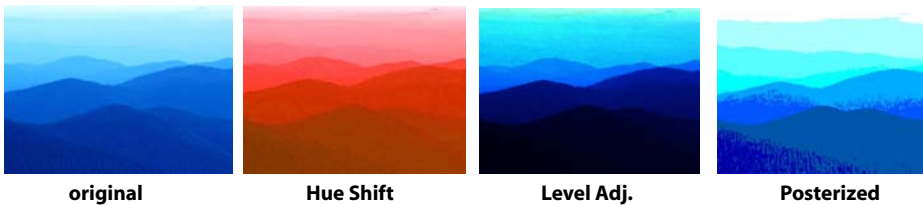
**1. Adjustment** - Adjusting colors is done using the various functions on the "Adjustment" sub-panel (see diagram "A").

The most frequent that I use are:

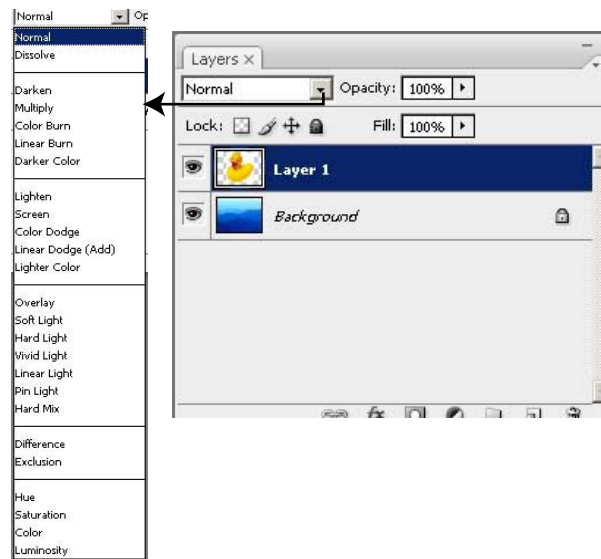
- Levels
- Color Balance
- Hue/Saturation/Value
- Posterize
- Invert



### Examples



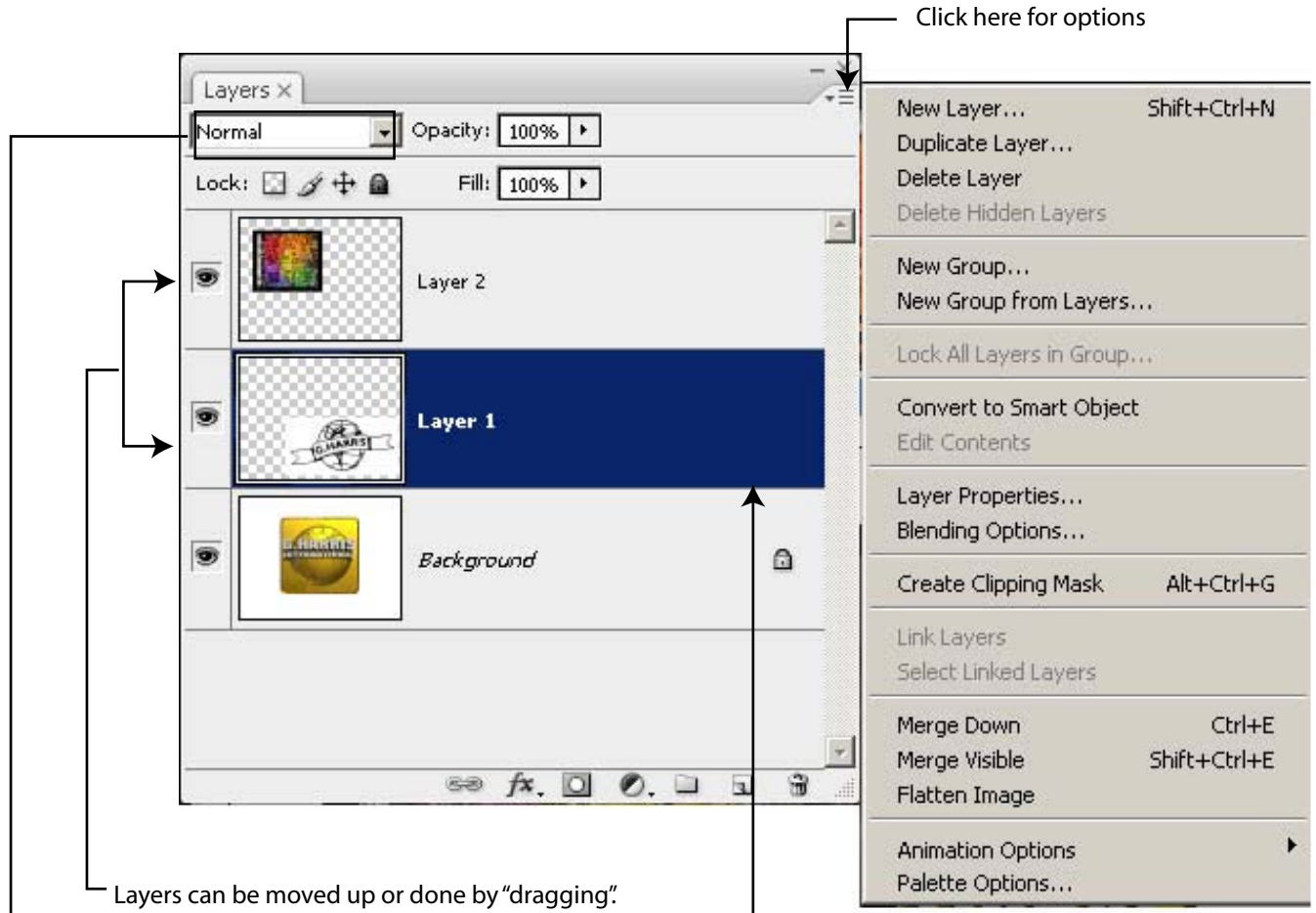
**2. Blending** - Blending requires two or more images in layers (see Diagram "B"). By varying the "Blending Mode", the layers will interact and create a new color effect.



# Layers

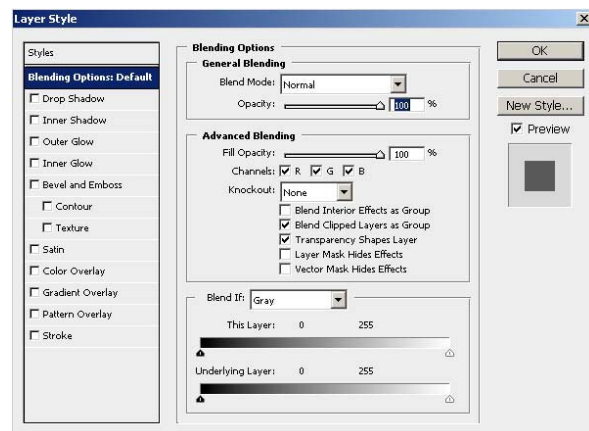
PhotoShop, similar to Illustrator, use "layers". Layers allow you to keep the various elements of your project (text, photos, painting effects ect.) seperated. This allows you work on any element without disturbing another element.

The "Layers" panel is found under the "Window" menu



Double clicking in the blue area of a selected layer brings up the "Layer Style" panel

The Layer Style panel has many effects that enhance the elements on a layer.



# Form Manipulation

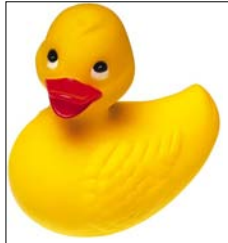
Form manipulation involves the resizing, reshaping, or distortion of an image. This is done by: Cropping, Transforming, and using various Filters.

**1. Cropping** - Cropping is the simple "cutting off" of the edges of an image  
The "Cropping" tool is on the tool box (see Diagram "C")

Diagram C



## Crop Examples



Before Cropping

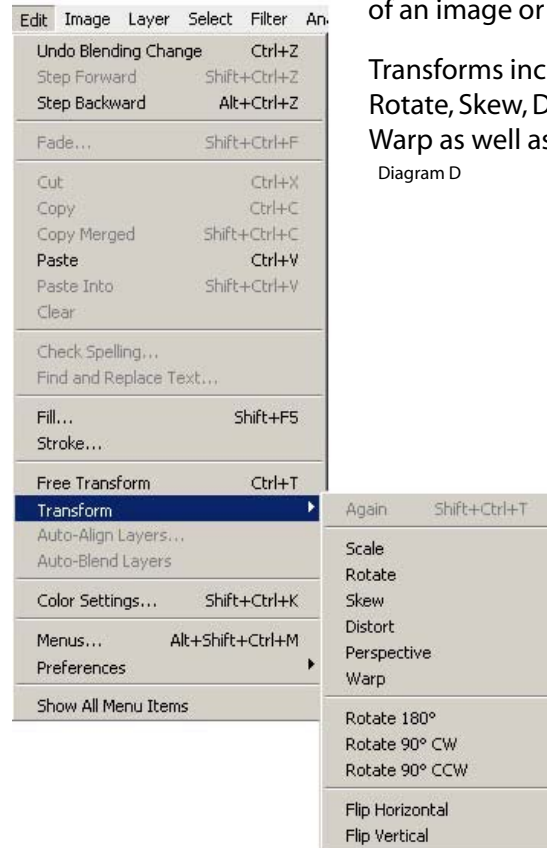


After Cropping

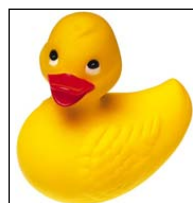
**2. Transforming** - Refers to changing the shape of an image or part of an image.

Transforms include: Scale, Rotate, Skew, Distort, Perspective, Warp as well as flipping.

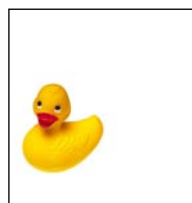
Diagram D



## Transform Examples



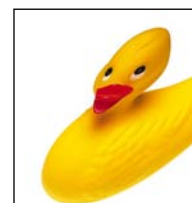
original



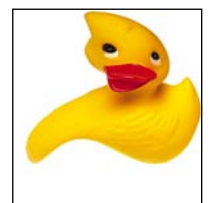
rescaled



rotated



skewed



warped

**3. Filters** - Photoshop has many filters, too many to cover here. But these are a few that I frequently use:

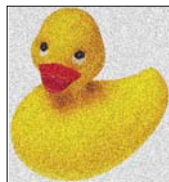
## Filter Examples



Gaussian



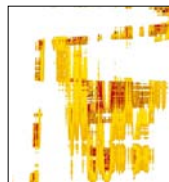
Mosaic



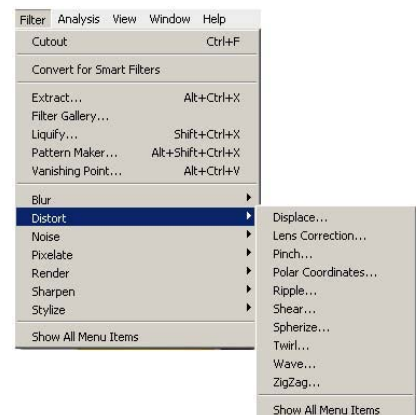
Noise



Twirl



Wave



# Selecting

Often, you may want to change the color or form of only part of an image. This requires you know how to “Select”. There are many ways to select. They include using the “Marque”, Lasso, Magic Wand tools as well as the Pen tool

The “Marque” tools allow you select rectangular and circular areas.

Selection options allow you to add, subtract, and intersect your selected area.

The “Magic Wand” selects by flooding out from a selected point. The amount of flood is determined by the “Tolerance” setting of the tool. Low settings are “intolerant” and the selection will flood only so far before it hits a change in color density and stops. High tolerance settings flood more freely and require a stronger color density to stop the flooding process.

The “Lasso Tools” require a steady hand to select an area.

The “Pen Tool” is the most difficult to master but the most controllable of all selecting tools. First the area to be selected is defined by the pen tool (be sure to click on “Paths”) and then the area is changed into a selection using the “Paths Panel) and the option of “Make Selection”.

NOTE: Selections also have the option of feathering. This means the area selected can be sharp or fuzzy. The higher the setting, the fuzzier the selection.

Feather set at “0”

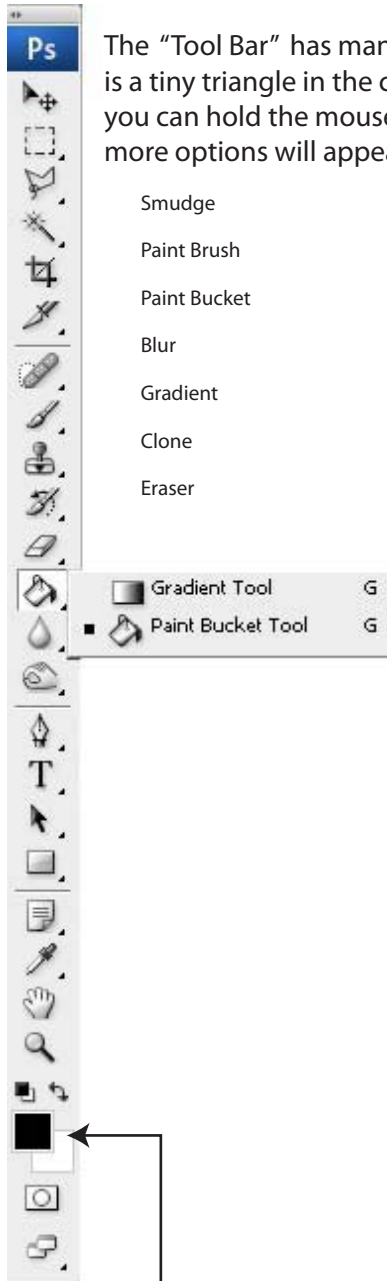
set at 20

set at 50

# Painting

PhotoShop can also be used as a painting program. It has a full selection of brushes, color palettes, and painting tools. You can paint onto photographs or create completely new art.

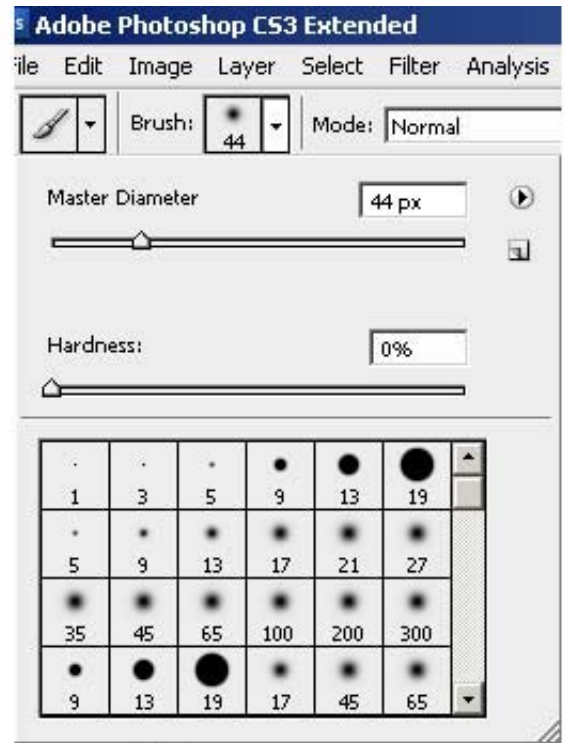

The "Tool Bar" has many paint tools. If there is a tiny triangle in the corner of the tool button, you can hold the mouse button down and more options will appear.



- Smudge
- Paint Brush
- Paint Bucket
- Blur
- Gradient
- Clone
- Eraser

Gradient Tool G

Paint Bucket Tool G



Adobe Photoshop CS3 Extended

File Edit Image Layer Select Filter Analysis

Brush: 44 Mode: Normal

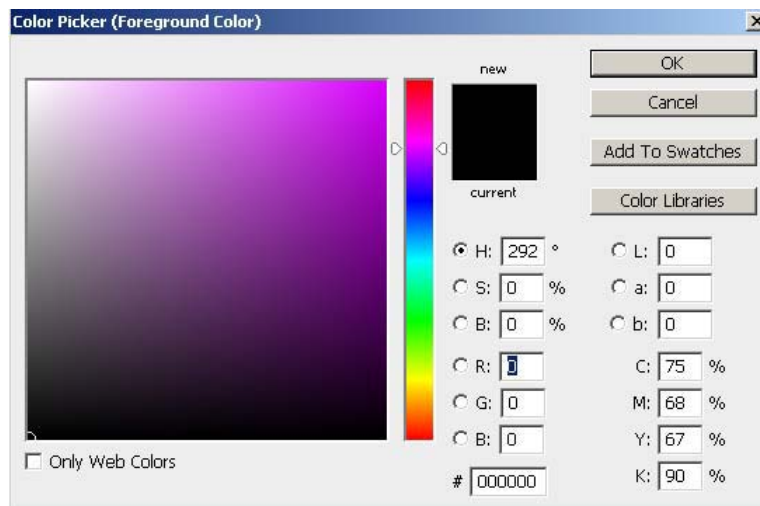
Master Diameter: 44 px

Hardness: 0%

1	3	5	9	13	19
5	9	13	17	21	27
35	45	65	100	200	300
9	13	19	17	45	65

You can set the paint tools to a variety of sizes and qualities.

Click on the color chips at the bottom of the Tool Bar and the "Color Picker" will appear. You can choose your colors from here.



Color Picker (Foreground Color)

new

OK

Cancel

Add To Swatches

Color Libraries

current

H: 292 ° L: 0

S: 0 % a: 0

B: 0 % b: 0

R: 0 C: 75 %

G: 0 M: 68 %

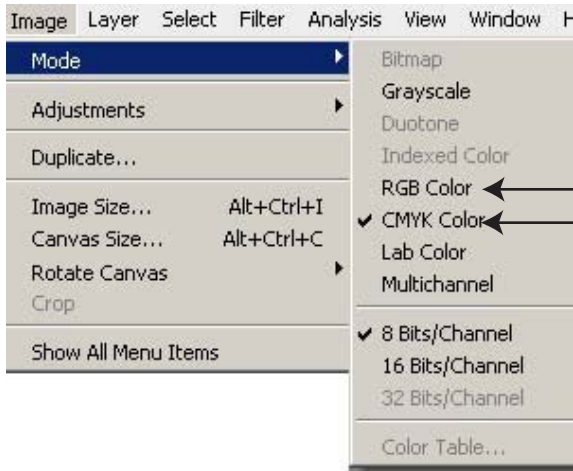
B: 0 Y: 67 %

# 000000 K: 90 %

Only Web Colors

# Color Mode

Images in PhotoShop are assigned a "Color Mode". The mode chosen depends on what you are going to use the image for, among other things. RGB and CMYK are the two we're usually concerned with in this class.



Images that will be used on the internet.

Images that will be color separated and printed.

In general, RGB color mode images are brighter. The greens and blues are particularly vibrant compared to their CMYK counterparts.



RGB



CMYK

# DPI (Dots Per Inch)

Digital images are composed of rows of tiny squares called pixels (dots). The more dots an image has, the sharper the image. Printing requires that an image have 300 dots per inch. To be seen clearly on the web (a computer monitor) the image only needs have 72.



High Res - 300 DPI



Low Res - 40 DPI