PREPARING PHOTOS for PRINTING

GENERAL WORKFLOW

- Open a PSD file
  SAVE AS… a TIFF File
- Resize to Printer Resolution
  using **IMAGE SIZE**
- Sharpen with Layer Sharpen
- Add a Black Border
  using **CANVAS SIZE**
- Set the Printing Limits
  use a **CURVES** Adjustment Layer
- Check the Layer Stacking Order
- do a Final Save As…
- Make a Print using the Export Plug-in

OPEN a PICTURE FILE

Open a file that has been tweaked to perfection (or tweak it now, first)

open the **PSD** file

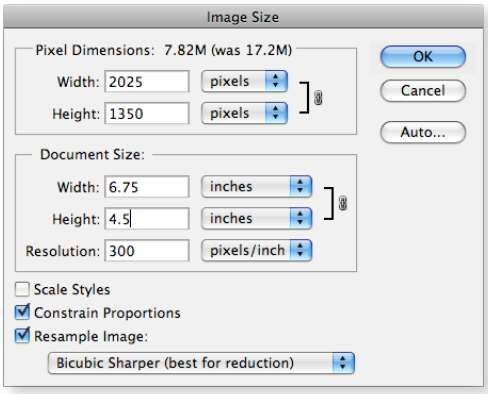
do not use a file that has been 'saved for web' or 'saved as jpeg' for Crit purposes
you need a full-size file at 300 ppi
make sure the file opens in the Adobe RGB (1998) Color Space
if not, use **EDIT> ASSIGN PROFILE…**
or Run Bridge and set the Color Settings for the entire Creative Suite

create a final 'printing file'.
immediately do a SAVE AS…
save the image as a new file using **FILE> SAVE AS…** **[CMD] [SHFT] S**
use the TIFF file format from the drop-down **FORMAT** menu
click on the **EMBED COLOR PROFILE: Adobe RGB (1998)**
save the file again after each step in this process!

RESIZE

Bring the image down to its final printing size and resolution.

open the **IMAGE SIZE** dialog box **IMAGE> IMAGE SIZE…** **[CMD] [OPT] I**
start at the bottom of the box and work upwards
turn on **RESAMPLE IMAGE**
use the **RESAMPLE** option: BICUBIC SHARPER (*best for reduction*) at the bottom
turn on **CONSTRAIN PROPORTIONS**
set the **RESOLUTION** to 300 ppi
set the **IMAGE SIZE** to an optimum of 4.5 x 6.75"
(or whatever the longer side works out to be)
or -
a maximum of 5 x 7.5 inches
on an 8.5 x 11" sheet,
or -
a smaller size, e.g. 2 x 3 inches



USING the RULER

show ruler **[CMD] R**
change units hold **[CTRL]**, click inside ruler

LAYER SHARPEN

Printers are inherently softer than computer screens. A Sharpening Adjustment Layer should be added to compensate. This recipe makes a Sharpening Layer that can be continuously fine tuned with the Opacity slider at any time.

Create the Sharpening Layer

select the Background layer

duplicate the Background **LAYER> DUPLICATE LAYER** **[CMD] J**

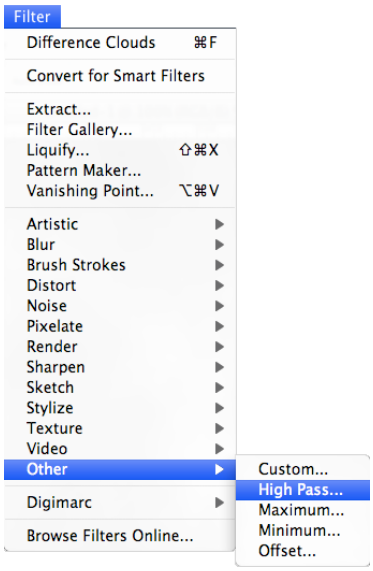
double-click on the layer name and

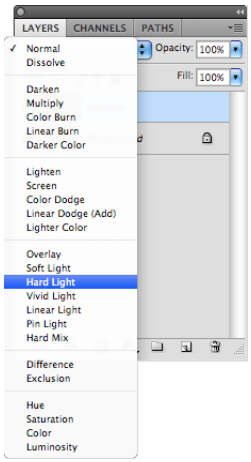
rename the Layer "sharpen"

run the High Pass Filter **FILTER> OTHER…> HIGH PASS**

set the Radius to

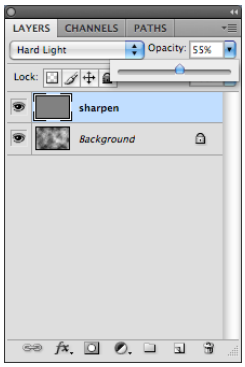
0.3 … 0.5





change the **LAYER BLENDING MODE** to 'Hard Light'
(use 'Soft Light' for portraits, etc.)

adjust the **OPACITY** slider
55% … 33%



The Opacity slider becomes the 'intensity control' for this layer and the sharpening that results.

PREPARING PHOTOS for PRINTING, cont'd.

ADD a BORDER

Most professional photographers make their prints with borders. This emulates the look of Darkroom prints made with a filed-out negative carrier that proves the image is a full-frame image and has not been cropped. This visual device also serves to keep the viewer's eye contained within the picture space.

open the **CANVAS SIZE** dialog box

IMAGE> CANVAS SIZE **[CMD] [OPT] C**

set the **CANVAS EXTENSION COLOR** to **BLACK**

from the drop-down menu

click on the **RELATIVE** button

so the dimensions specified will be added to or subtracted from the image

set the Width and Height

[note: the dialog always defaults to inches]

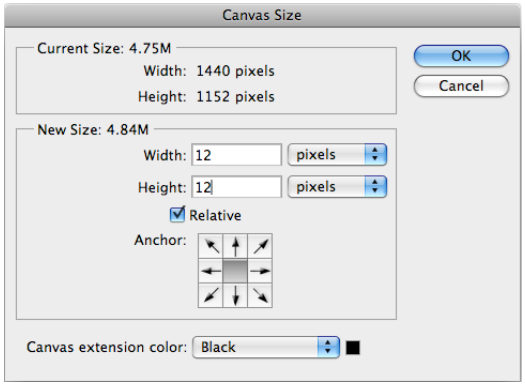
generally use 6 ~ 24 pixels or more for an even heavier border

use 10 pixels = 1/32nd inch hairline, or -

use 18 pixels = 1/16th inch

always use even numbers

because this is being added to both sides



note: if the background color cannot be selected,

the background has probably been converted into a 'regular' layer.

correct with *Layer> New> Background from Layer…*

COMPENSATION CURVES for PROFILE CORRECTION

FULL RANGE PRINTING

There should always be some small amount of black ink in the brightest highlights and some very small amount of white in the darkest shadows. If there is no detail, then there is no information and therefore no photograph, a.k.a. the photograph is poorly if not incorrectly printed. The exceptions are spectral highlights and shadows at night. The printer color profiles are supposed to cover this but in fact they do not.

FIND the PRINTING LIMITS

It is important to know the actual maximum black and minimum white your paper will produce. Print a greyscale test print to find these values and to see how off the middle grey tone is. There is a book of sample prints of numerous types of paper in the lab. Find your paper and write down the numbers for the black, white and middle grey tones.

If your paper is not there:

open the greyscale test print picture file

Art Folder> Maintenance Folder > blackWhiteGrey_test_x535.tif

or open the same file from the berk-edu.com site

make a print using the appropriate paper profile

visually find the max and min values and circle them

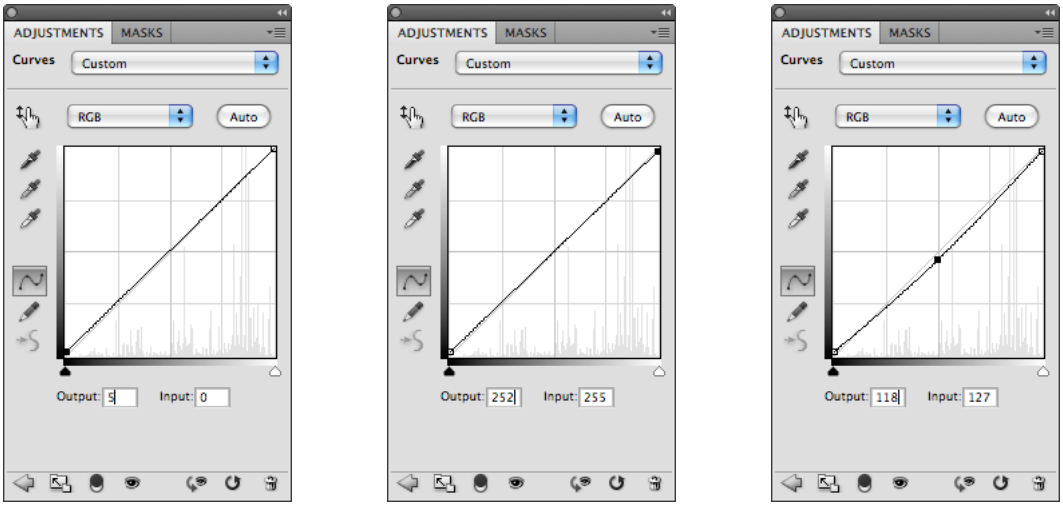
find the tone that comes the closest to middle grey by comparing to a grey card

have your instructor place the print in the sample book for everyone else to use

SET the PRINTING LIMITS with a CURVES ADJUSTMENT LAYER

add a **CURVES** adjustment layer at very the top of your **LAYERS** palette

double-click on the name and rename it 'Print'



set the minimum black shadow level

to the highest amount of ink the paper can hold and still show detail

[Output level is typically around 16 ~ 22 for Input level = 0]

set the maximum white highlight level

to the smallest amount of ink that still shows detail

[Output level is typically around 248 ~ 252 for Input level = 255]

set the 'gamma' midtone level to middle grey

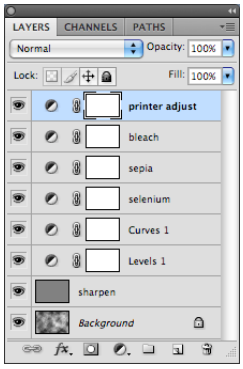
if you can determine which ink level is indeed closest to middle grey

[Output levels varies widely for Input level = 127]

PREPARING PHOTOS for PRINTING, cont'd.

LAYER STACKING

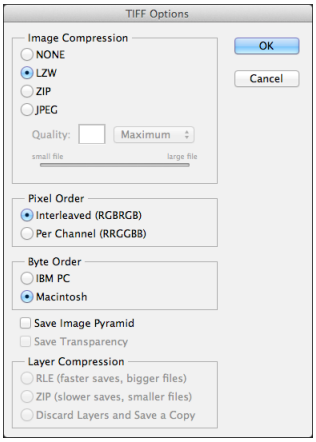
Make sure the Adjustment Layers are stacked in the proper order.
Higher Layers affect all the layers below
the order is important
for all the desired effects to happen.



SAVE AS…

Create a final 'printing file'.

save the final image once again **FILE> SAVE AS…** **[CMD] [SHFT] S**
use the TIFF file format from the drop-down **FORMAT** menu
click on the **EMBED COLOR PROFILE**: **Adobe RGB (1998)**
if **sRGB** comes up you have been working in the wrong color space
this should have set this as soon as the file was open
setting the color profile now will flatten the image
and delete all of the adjustment layers – be careful
a **TIFF OPTIONS** dialog box will open
click on **LZW** under image compression
this will make the file smaller, and easier to transfer to the Art Folder
this is NOT a lossy file format, so the quality of the photo will remain



TEST PRINT TECHNIQUES for DIGITAL PRINTING

- Multiple Prints on a Single Sheet of Paper, Done on Multiple Prints

Make your first test print by setting up levels curves and other adjustments as needed.
Set up to print and reduce the size of the print in the printing window to about 2.25 x 3.375".
Move that print to the upper left-hand corner of the sheet.
Exact placement is not critical.

Make the print and evaluate the results.
If another test is required, make the adjustments in Photoshop.
And then, when setting up to print, move the new 2.25 x 3.375" print into the upper right-hand corner and print.

This process can be repeated until you a fill the sheet of paper with 6 to 8 different prints.

Realize that each time you print PaperCut will charge you by the paper sheet size. So you must keep track of how many test print you make and give that page to your professor. They can then refund you for the multiple prints because you've only used enough ink to cover one sheet of paper, which is equivalent to making one print.

- Multiple Tests Slices on a Single Sheet of Paper, Done on one Print

Divide the photograph into a number of segments using guides or a layer of lines.
For a 5 x 7.5″ print that would be 8 rectangles at 1.875 x 2.5″

Make a selection of one of those segments.
Make a series of adjustments.
Those adjustments will only apply to the area that was selected at the time.

Make another selection of a different segment of the photograph.
Make a slightly different set of adjustments
Those will apply to only that slice.

Continue this process until you have made a series of numerous adjustments on various test slices across the surface of a single photographic image.

Make to print as usual and evaluate the test slices to see which one gives the best results.
Then use those adjustments for the entire photographic image by eliminating the Layer Mask.