

Getting Your Image On To Paper

What to do after it looks good on the screen

John Tabaczynski

NVPC

26 January 2011

Background

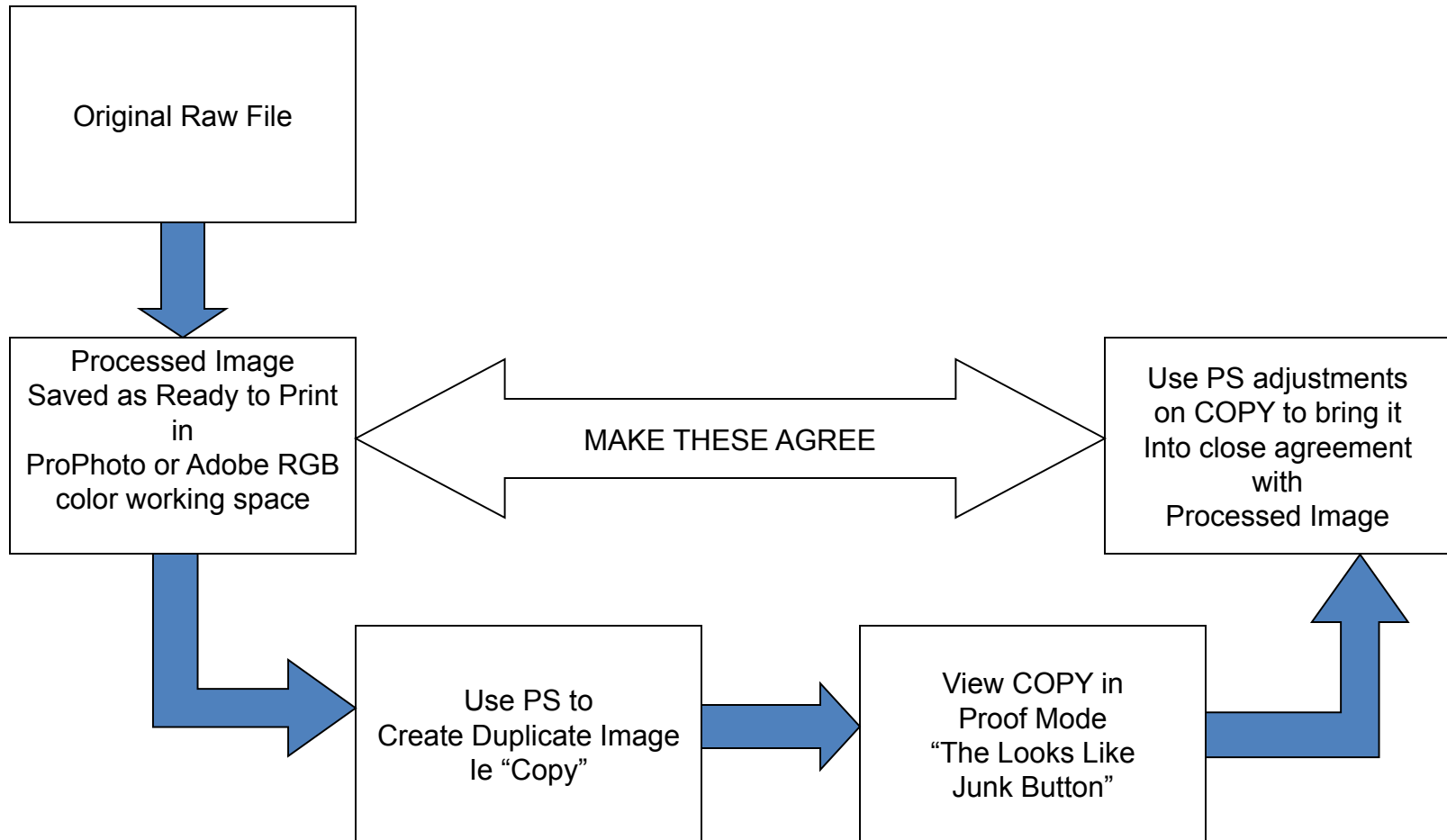
- Starting point: An image that has been fully adjusted and appears on screen as you would like to print it
 - + Did you soft proof it ??
- WYS is not necessarily WYG
 - Even in a fully color managed workflow
 - Systems in the barn appear reasonably well calibrated for some Epson papers
- Presentation will cover topics useful for at home workflow with some specifics for working at the Barn
 - Print setup
 - IQ checks

Soft-proofing

- The Soft-Proof allows you to see on the screen how the paper and inks will change the image before you print
- You can then make adjustments before printing so the image will print out the way you want it to
- Always develop your image first in a broad gamut color working space
 - + I use ProPhoto RGB (always 16 bit color), sometimes Adobe RGB, to minimize processing artifacts
 - + Image: Duplicate to make a copy, View: Proof Setup: Custom to setup the proofing parameters, ie printer and paper
 - + The copy will usually look drab, use PS tools to bring it back to match original, then print the copy
 - + Good articles on the web via Google. One I recommend is by Andrew Rodney, the digital dog

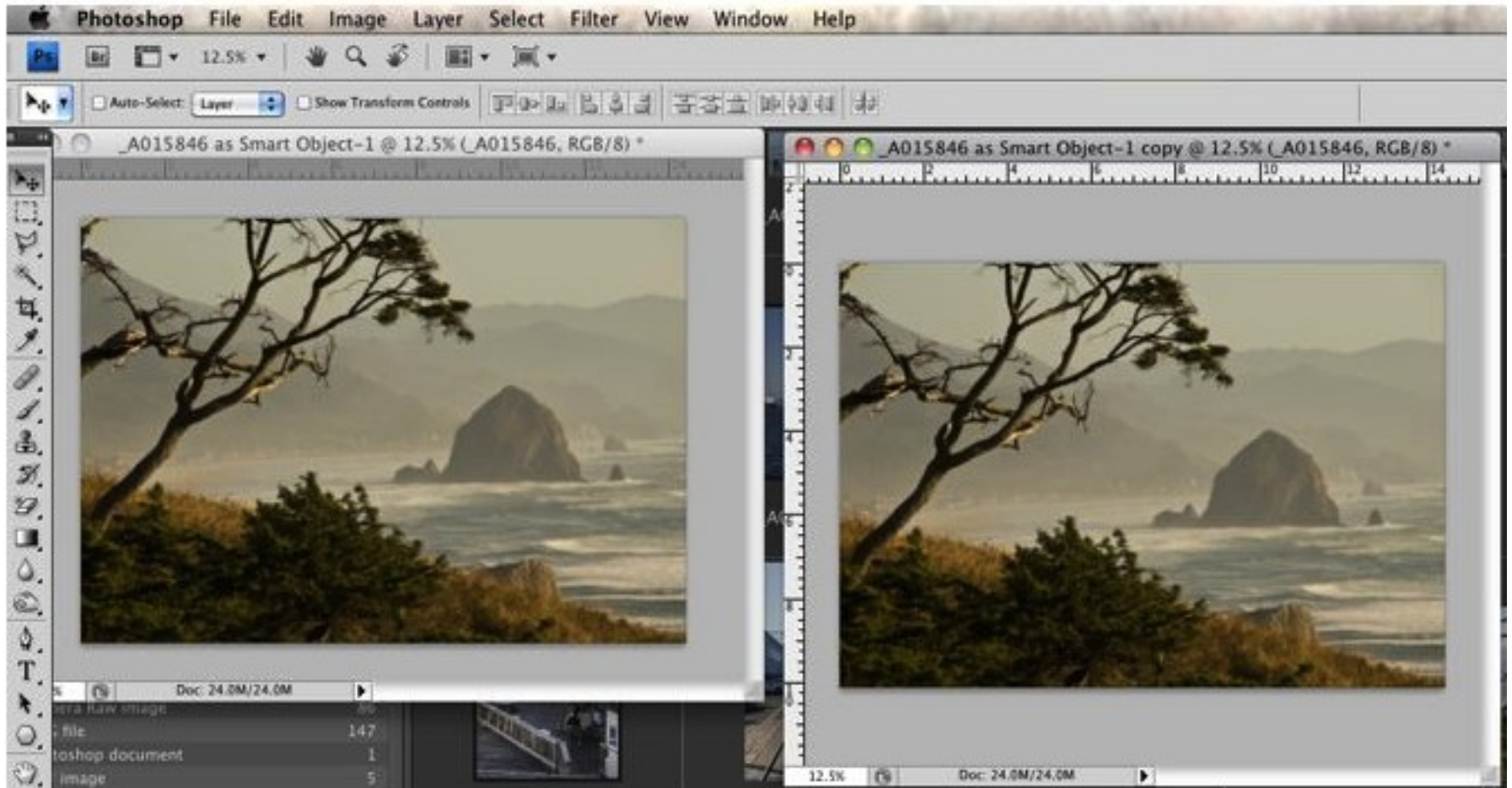
<http://thedigitaldog.com/files/Soft%20Proofing%20in%20Photoshop.pdf>

Soft Proofing Workflow

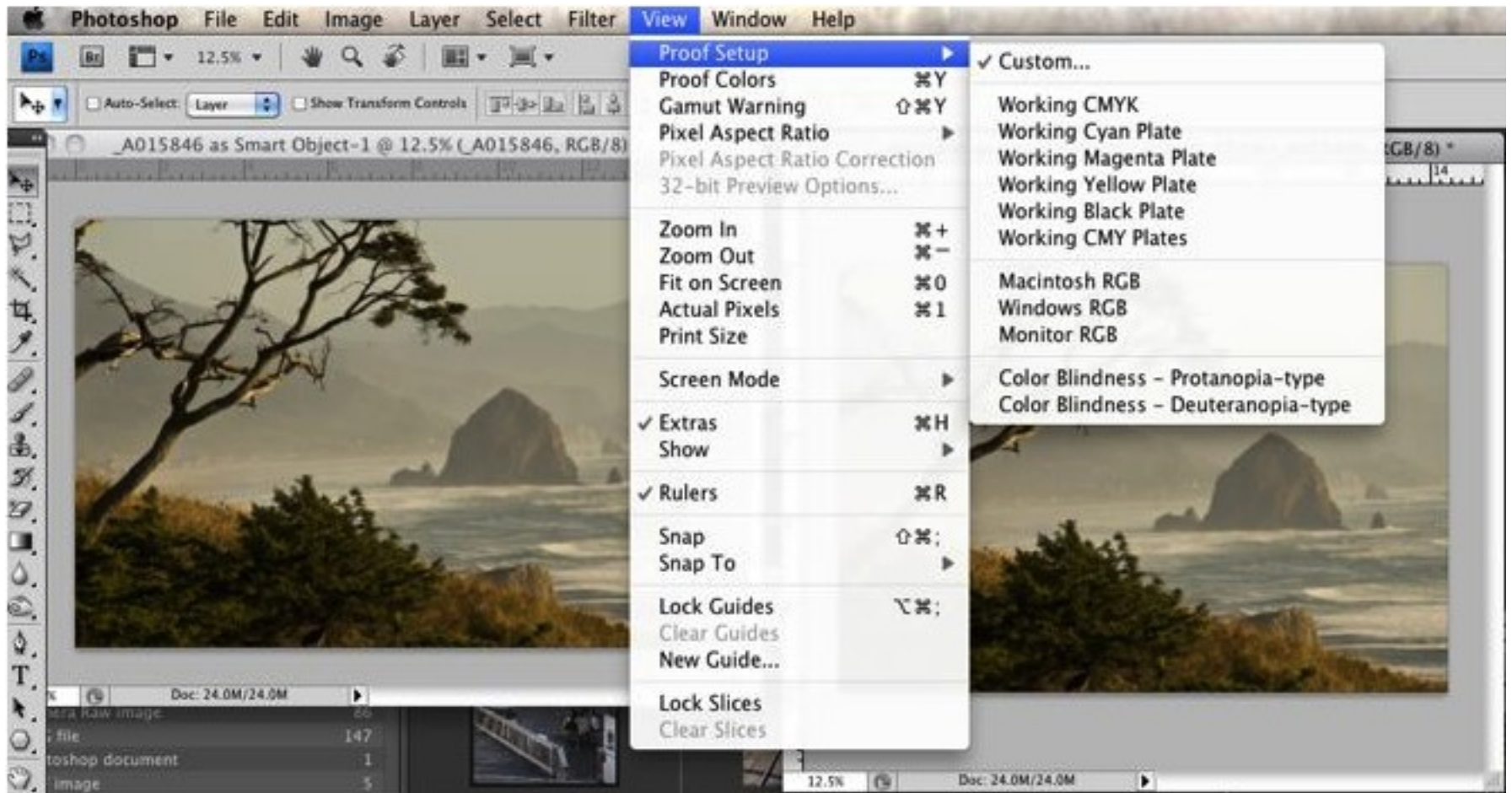


Soft Proof Demo

Under Image: Duplicate



Under View: Define a Custom Proof Setup



Now adjust the copy so it looks like the original

The screenshot displays two Photoshop windows side-by-side, both showing a landscape image of a coastline with a prominent rock formation. The left window is titled "_A015846 as Smart Object-1 @ 12.5% (_A015846, RGB/8) *". The right window is titled "_A015846 as Smart Object-1 copy @ 12.5% (_A015846, RGB/8/Pro...".

In the foreground, the "Customize Proof Condition" dialog box is open. It features the following settings:

- Custom Proof Condition: Custom
- Proof Conditions:
 - Device to Simulate: Pro4880 SWMP_PK
 - Preserve RGB Numbers
 - Rendering Intent: Relative Colorimetric
 - Black Point Compensation
- Display Options (On-Screen):
 - Simulate Paper Color
 - Simulate Black Ink

Buttons on the right include OK, Cancel, Load..., Save..., and a checked Preview checkbox.

A blue arrow points from a text box to the "Black Point Compensation" checkbox.

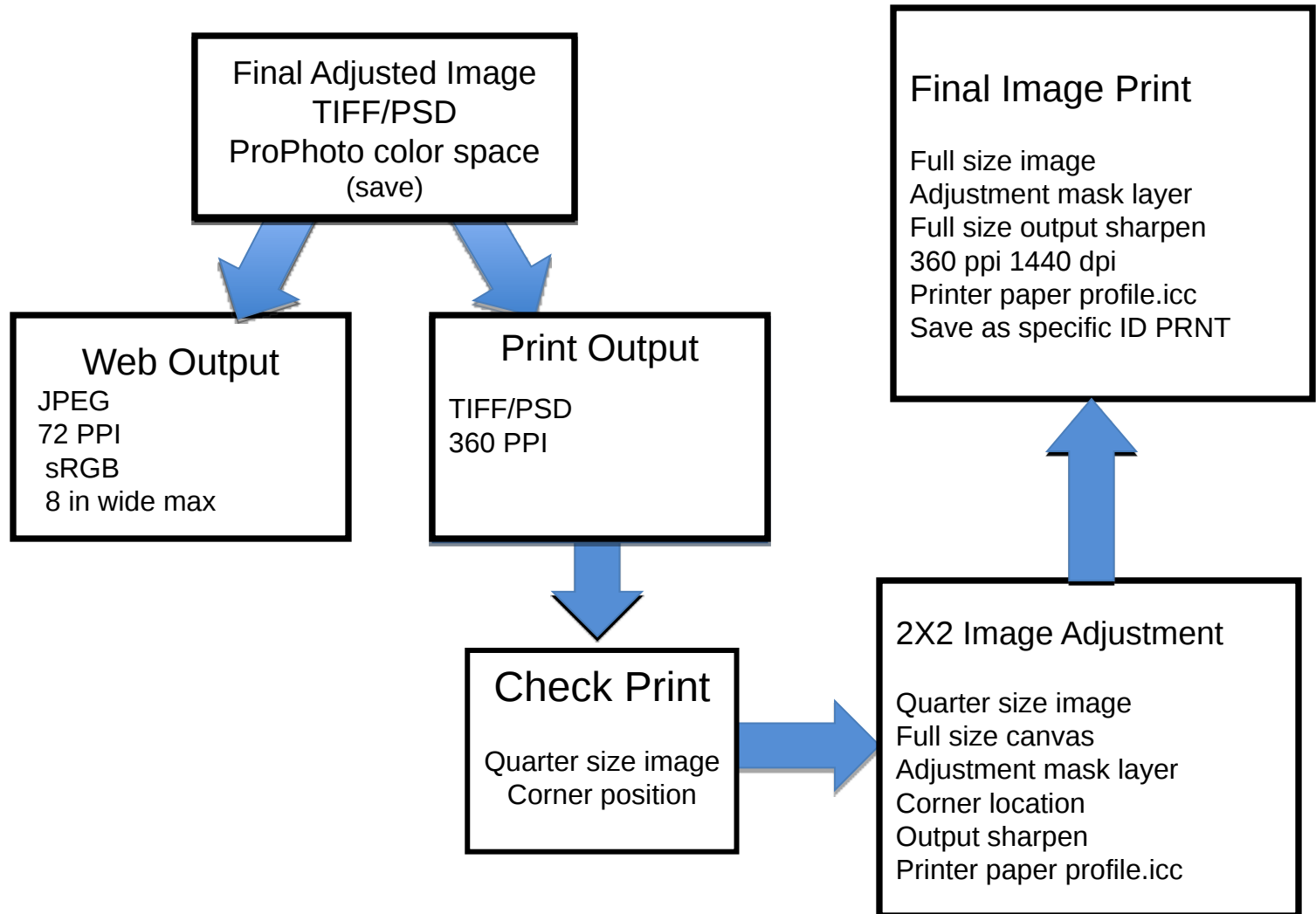
You can setup Custom Proofs for both Relative Color as well As Perceptual and then compare them by a single button click

The Facility at the Barn

(details subject to memory constraints)

- For our use
 - One PC and one Mac w Photoshop
 - One Epson 4000 & one Epson 6000? series printers
 - A large mat cutter
- We pay for our own use of materials
- There are additional computers and printers, but they are for special projects only
- Currently the Mac is at OS 10.3 and only drives the Ep 6000
 - + I had trouble installing the 4000 driver, would like to go to OS 10.4 (It is a PPC G4)
- Printers are set for roll feed and sheet feed
 - + 4000 has a cassette, 6000 is manual sheet feed only
- The screens seem reasonably well calibrated
 - + If you print at the Barn you will have to soft-proof at the Barn
 - Unless you download the appropriate printer/paper profile
 - + Or else, instead of WYSIWYG, it will be YGWIGY

Tab's Output Workflow



Print Area Constraints (inches)

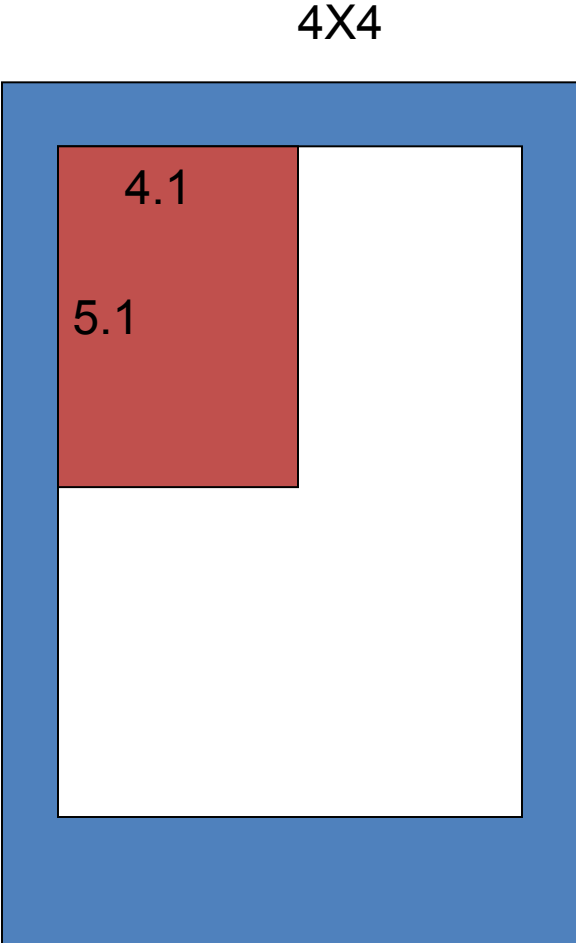
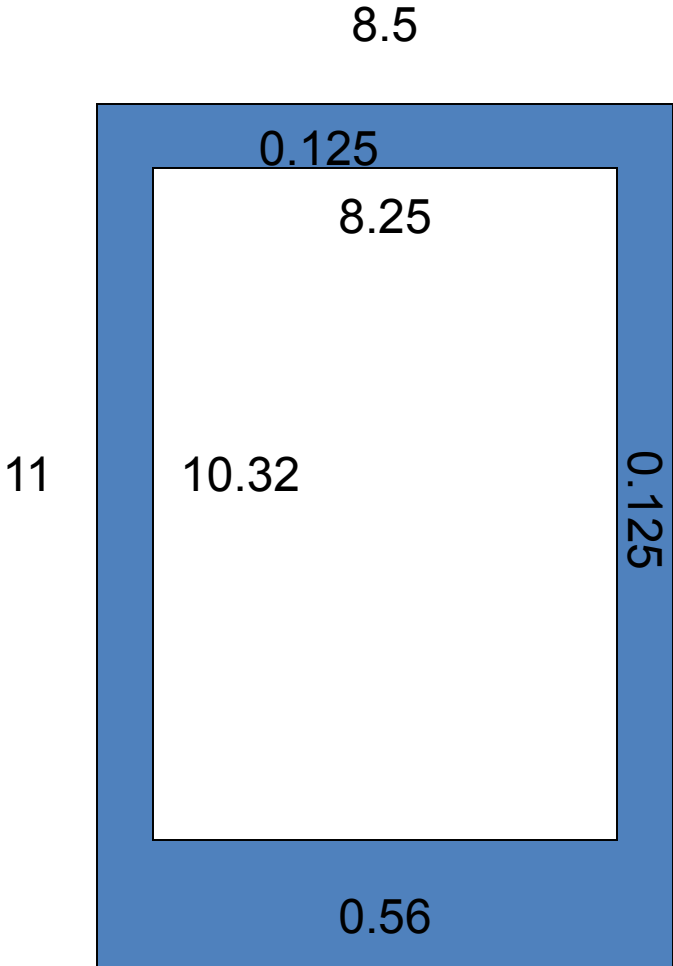
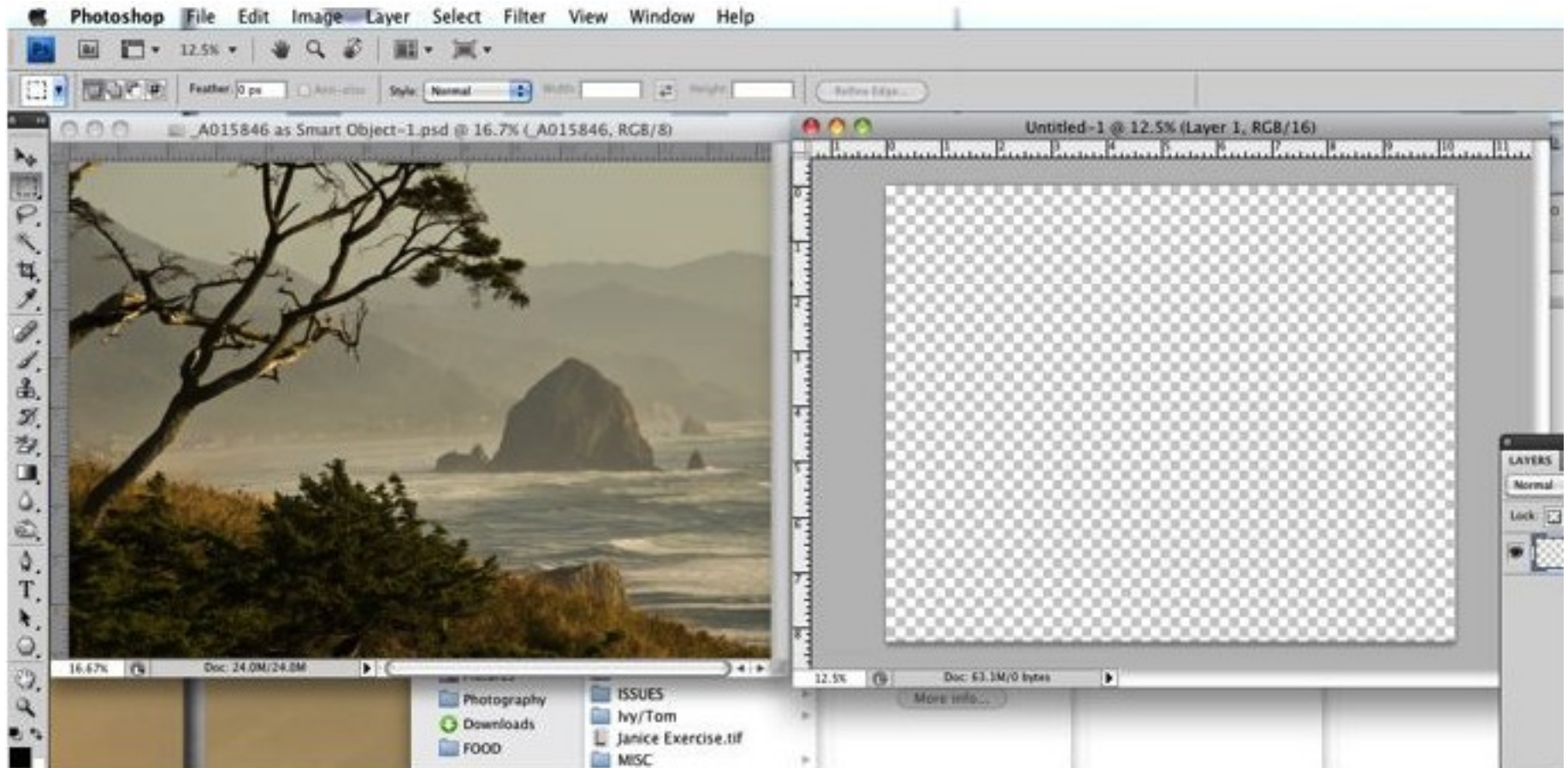
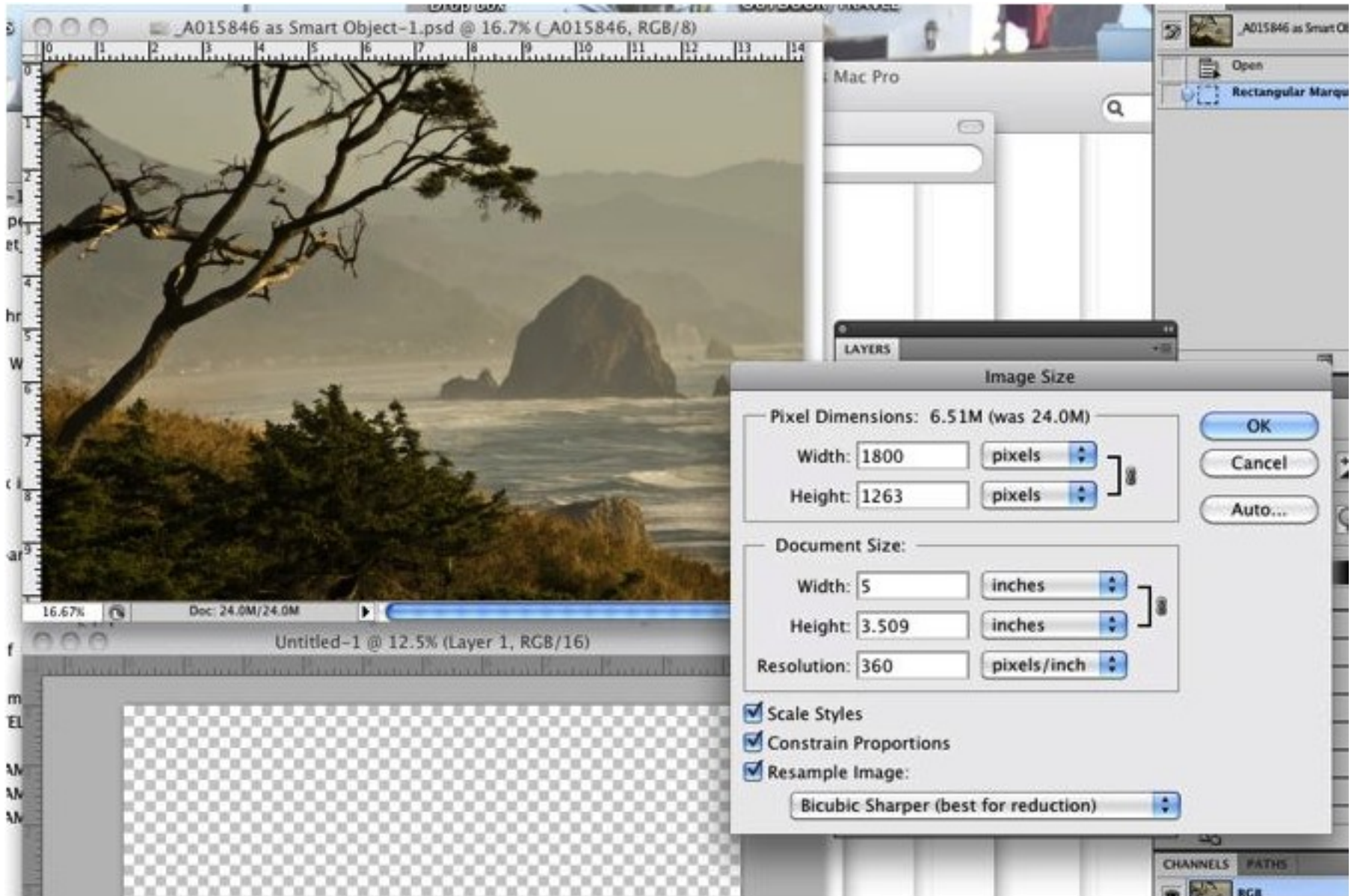


Image And A New Full Size Canvas

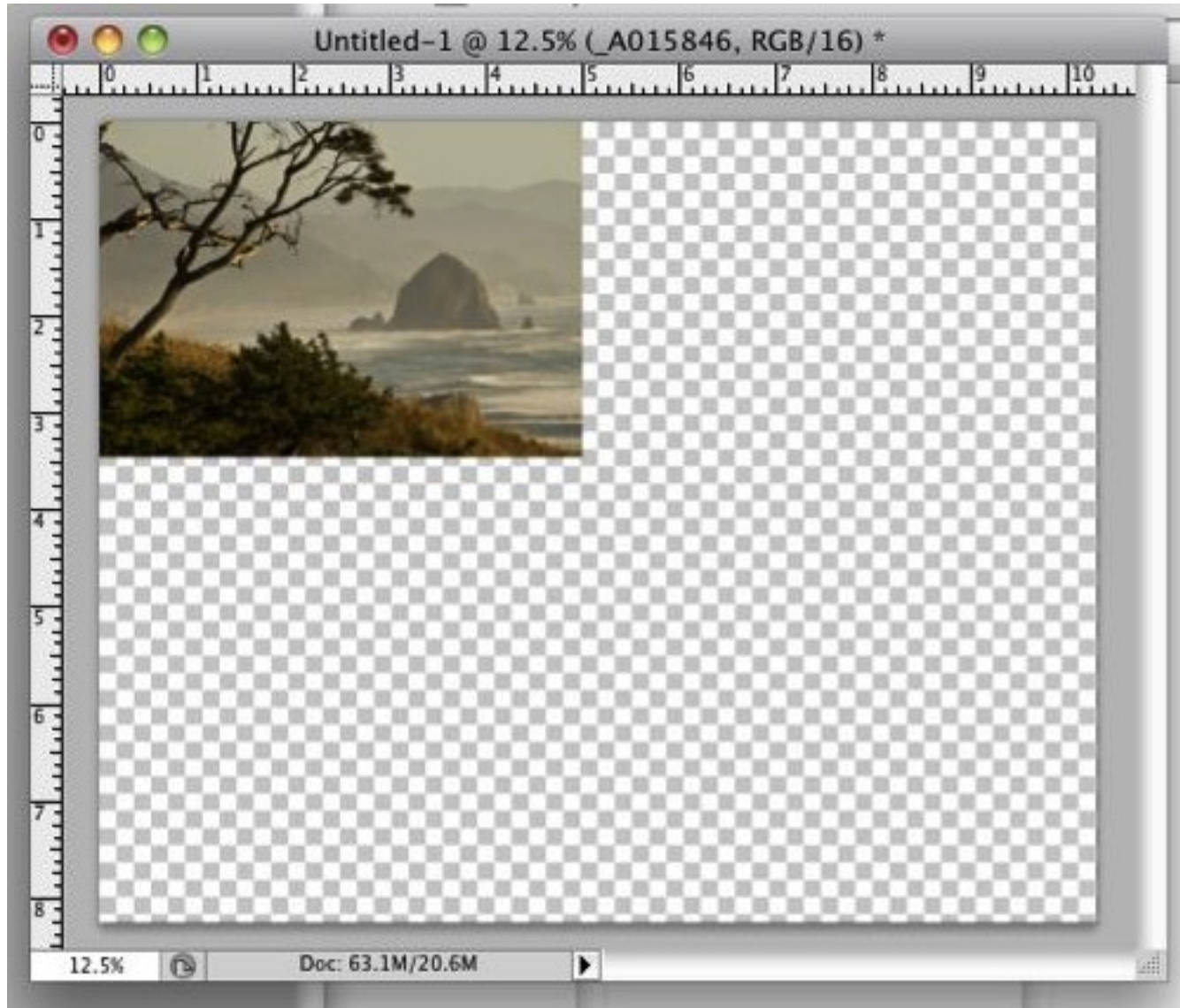
- Resize image to fit 1/4 of the full canvas



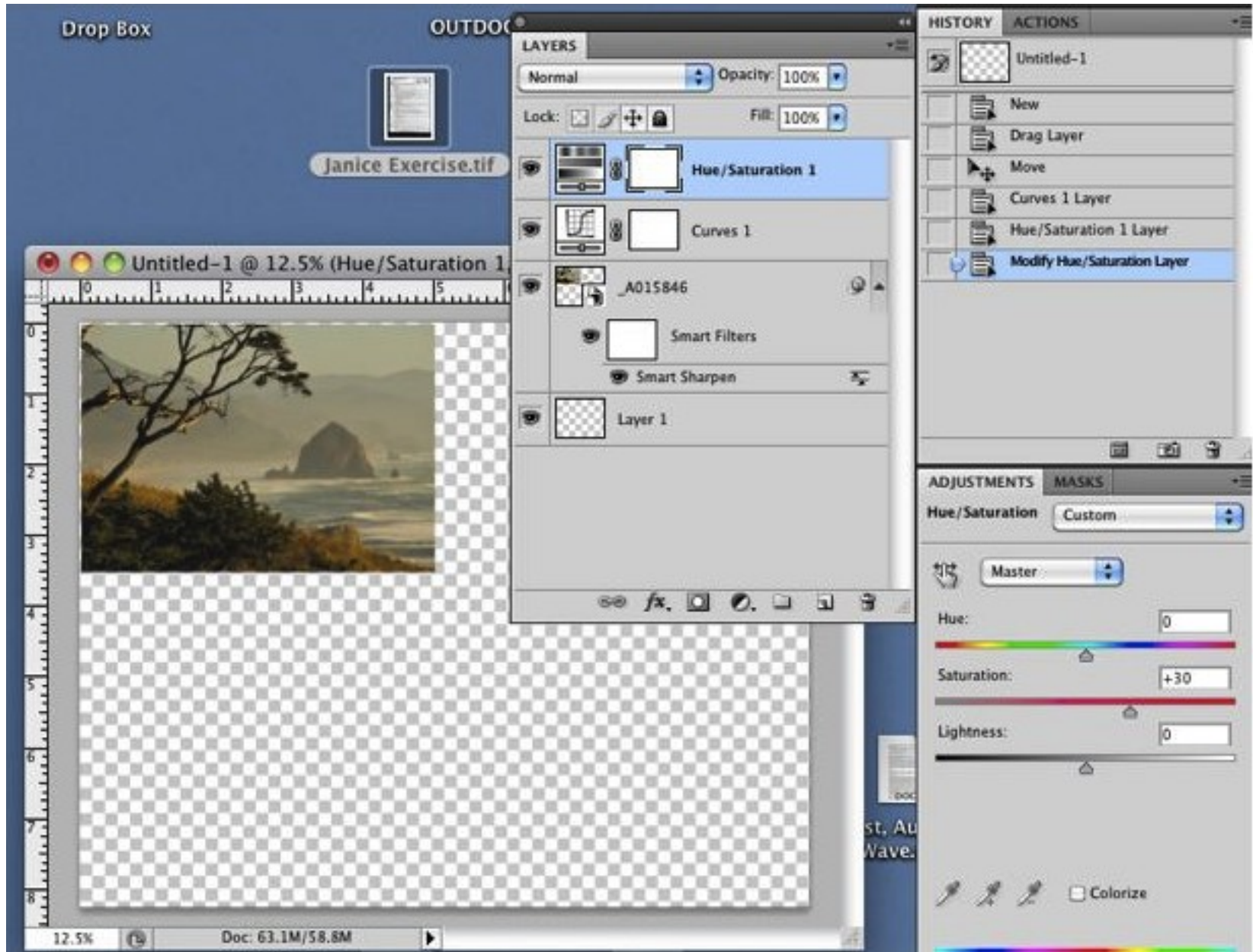
Downsizing to Fit 1/4



Do a Check Print WYS May not Be WYG



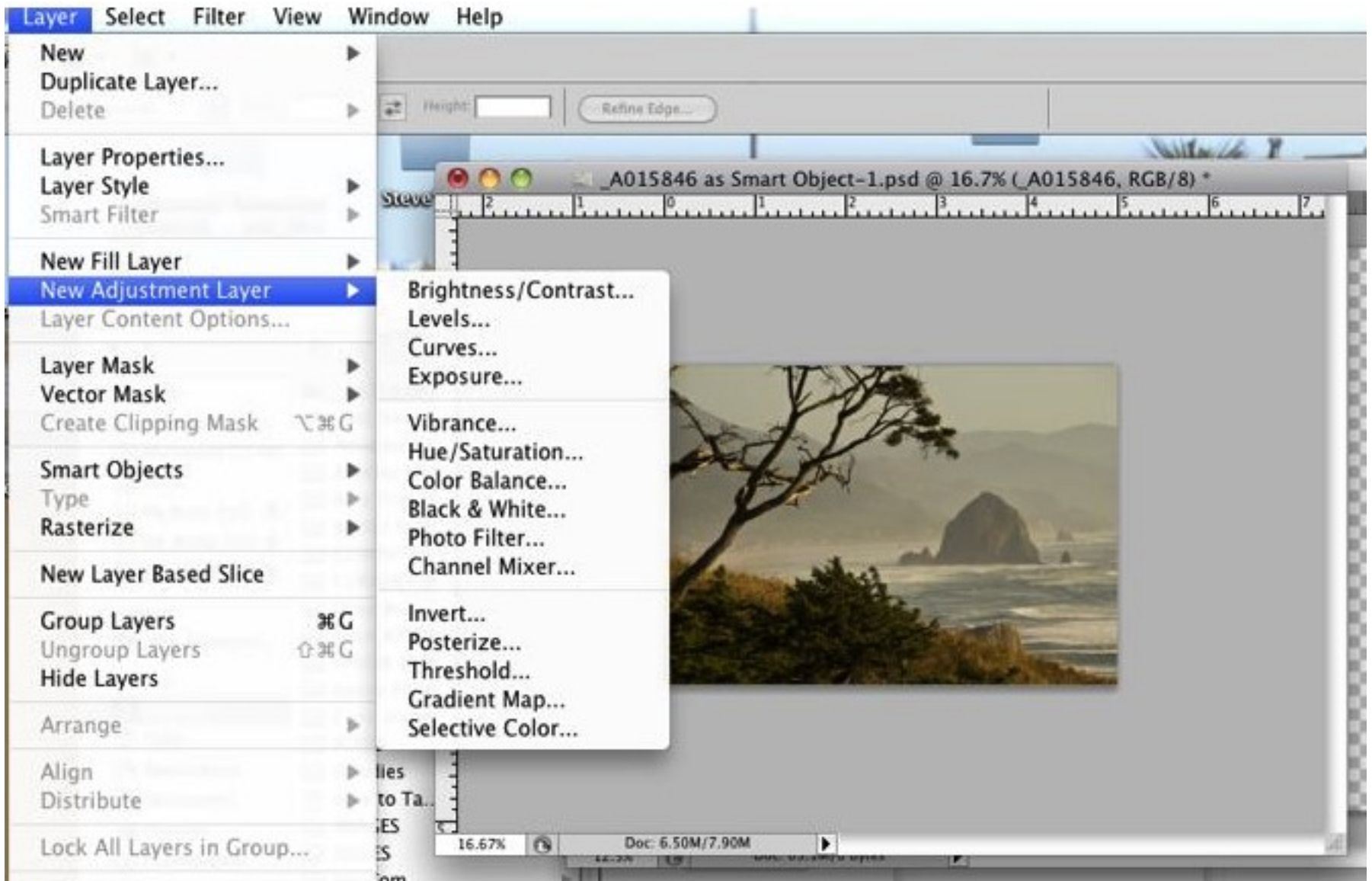
If Soft Proof Print Indicated a Need for More Saturation



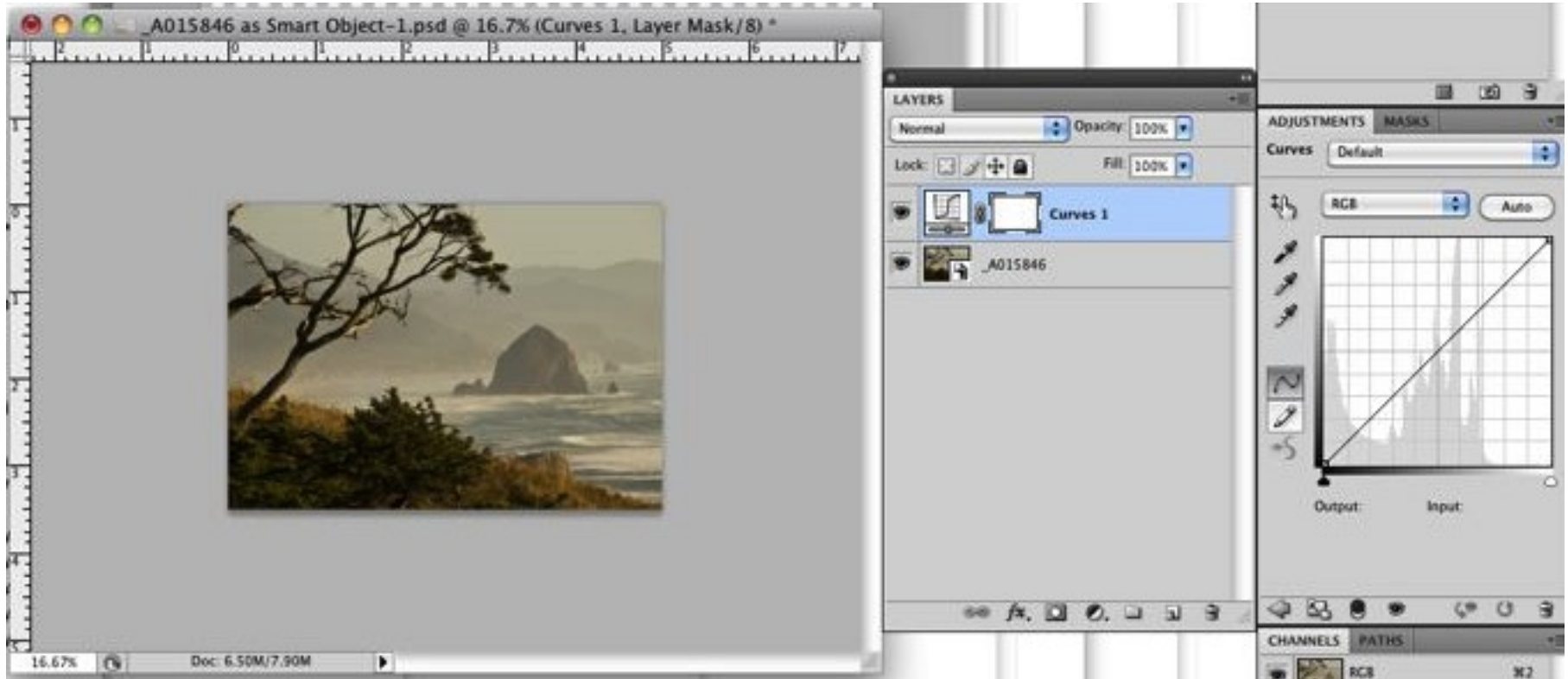
To Adjust & Compare Appearance

- Complete a 2X2 print
 - Use a canvas full size
 - Set original image to 1/4 size
 - Move 1/4 image into one corner of the canvas
- +

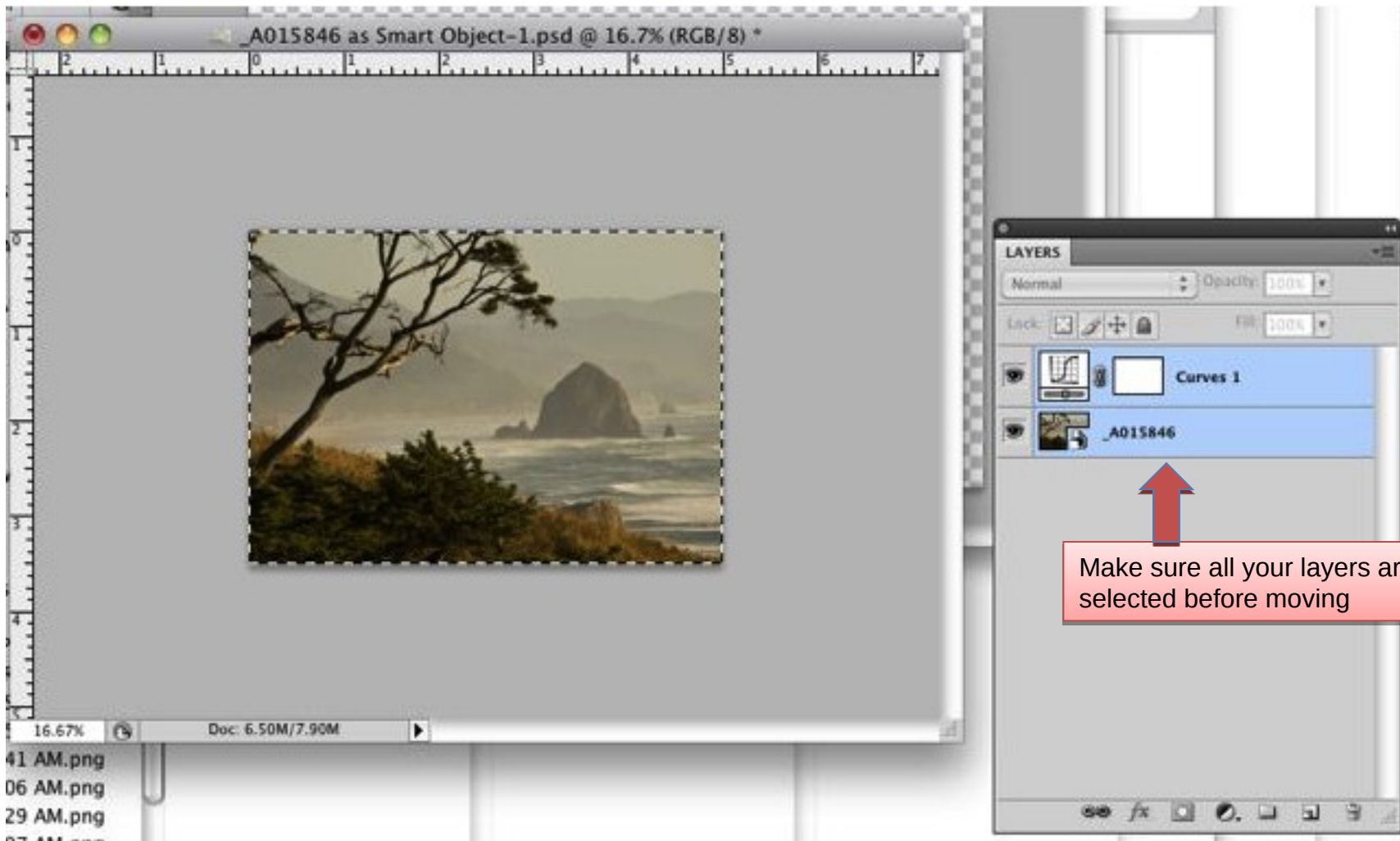
Preparing to Adjust the Image



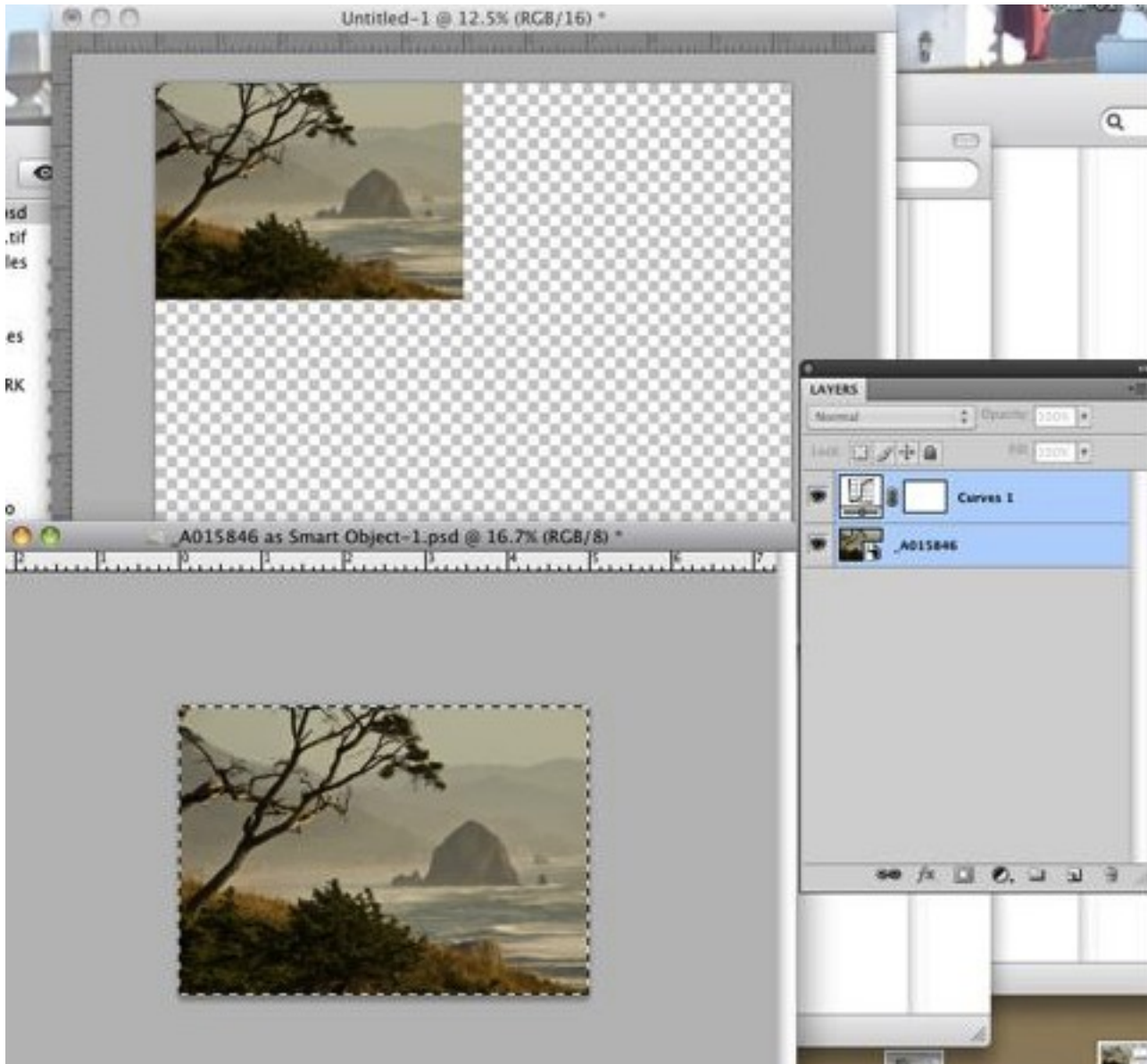
The Smaller Image and its Adjustment Layer



Selecting the Image AND Adjustment Prior to Moving



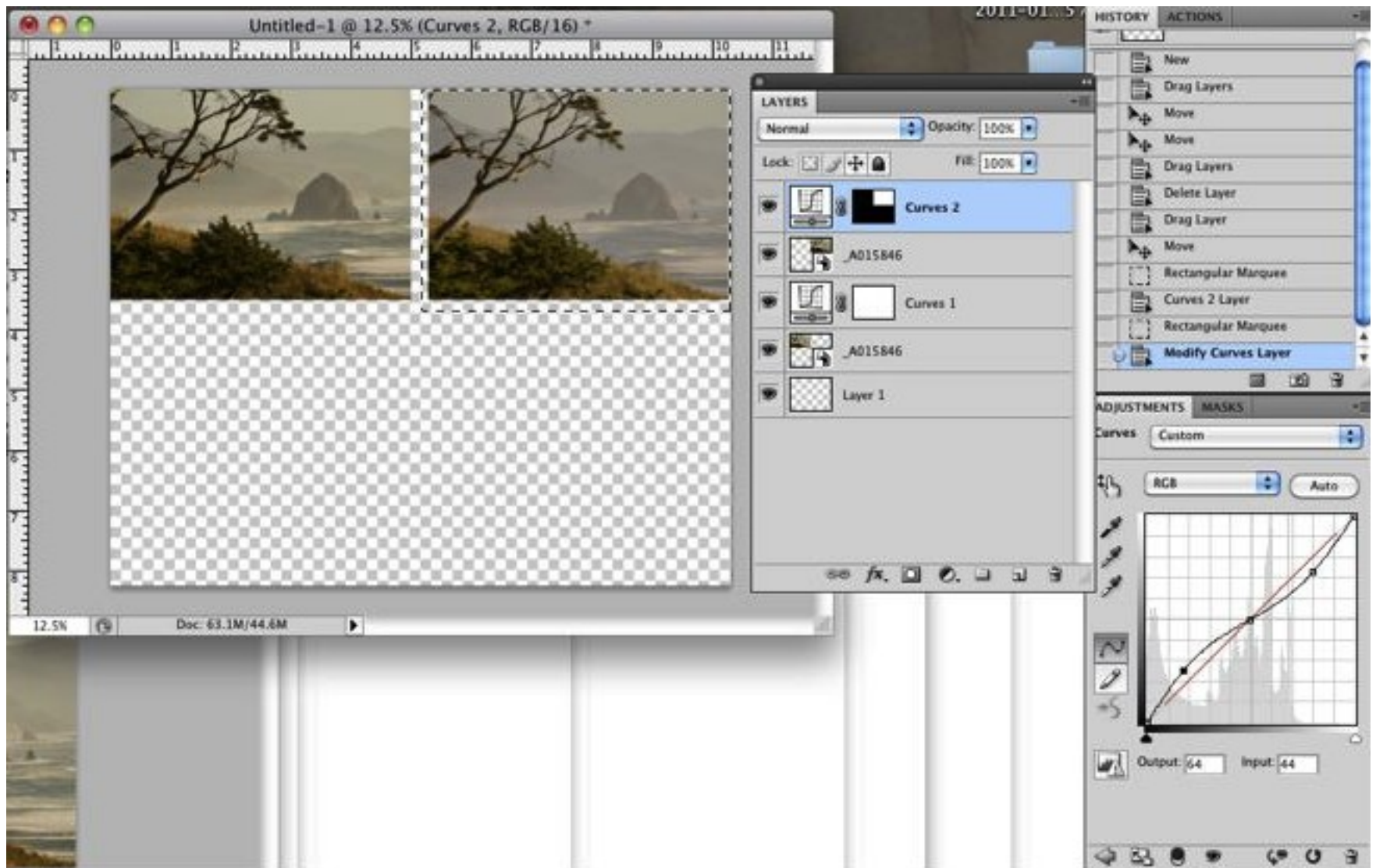
Before and After Moving



Select New Adjustment Layer After Move To Set up a Mask Automatically



Mask Restricts Adjustment to Single Panel



Fine Adjustments via Layers



Final Pre Print Steps

- Go back to original image
 - Drag over the “good adjustment layers”
 - Save this with a new ID as the new basic image
 - for PAPER X w PRINTER Y
 - Keep your original image pristine
 - I DON'T SAVE all the intermediate sizing and adjustment steps
- Final Output
 - “Image Size” for resolution and media
 - Output sharpen
- Open PS print Options under “File”
 - Printer setup
 - Media profile
 - Hit Print button to open Printer Driver Control Panel
- Printer Driver Control
 - Select Appropriate Printer Settings
 - Hit Print and Pray

Final Image Size Adjusts

- Check image size at the printer native resolution
- Image size 360 ppi (for Epson printers)
- Use PS Interpolation schemes (under Image Size)
 - + Bicubic ---- for smooth gradients
 - + Bicubic Smoother ---- enlargement
 - + Bicubic Sharper ---- reduction

Printing Parameters

- For optimum print quality image file should have resolution that is a fraction/multiple of the printer's native resolution
- Epson native resolution is 720/360 ppi
 - + Canon & HP are 600 ppi
- My d200 delivers a 7.2 X 10.75 inch image at 720 ppi resolution
 - + At 360 it is 14.4 X 21.5 (Claim that 300 ppi is good enough for humans)
- Photoshop has better interpolation and extrapolation engines than the printers (claimed, but backed by user experiments)
 - Still subject of debate in the blogs
- **So I recommend print at 360 ppi and use PS to resize**

Final Output Image Sizing






PS Print Control Panel (Mac)



Epson Printer Control Panel (Mac)


Print

Printer:  

Presets: 


Copies: Collated


Pages: All
 From: to:





Basic Advanced Color Settings


Page Setup: Sheet





Media Type: 

Print Mode:  16 Bit Output

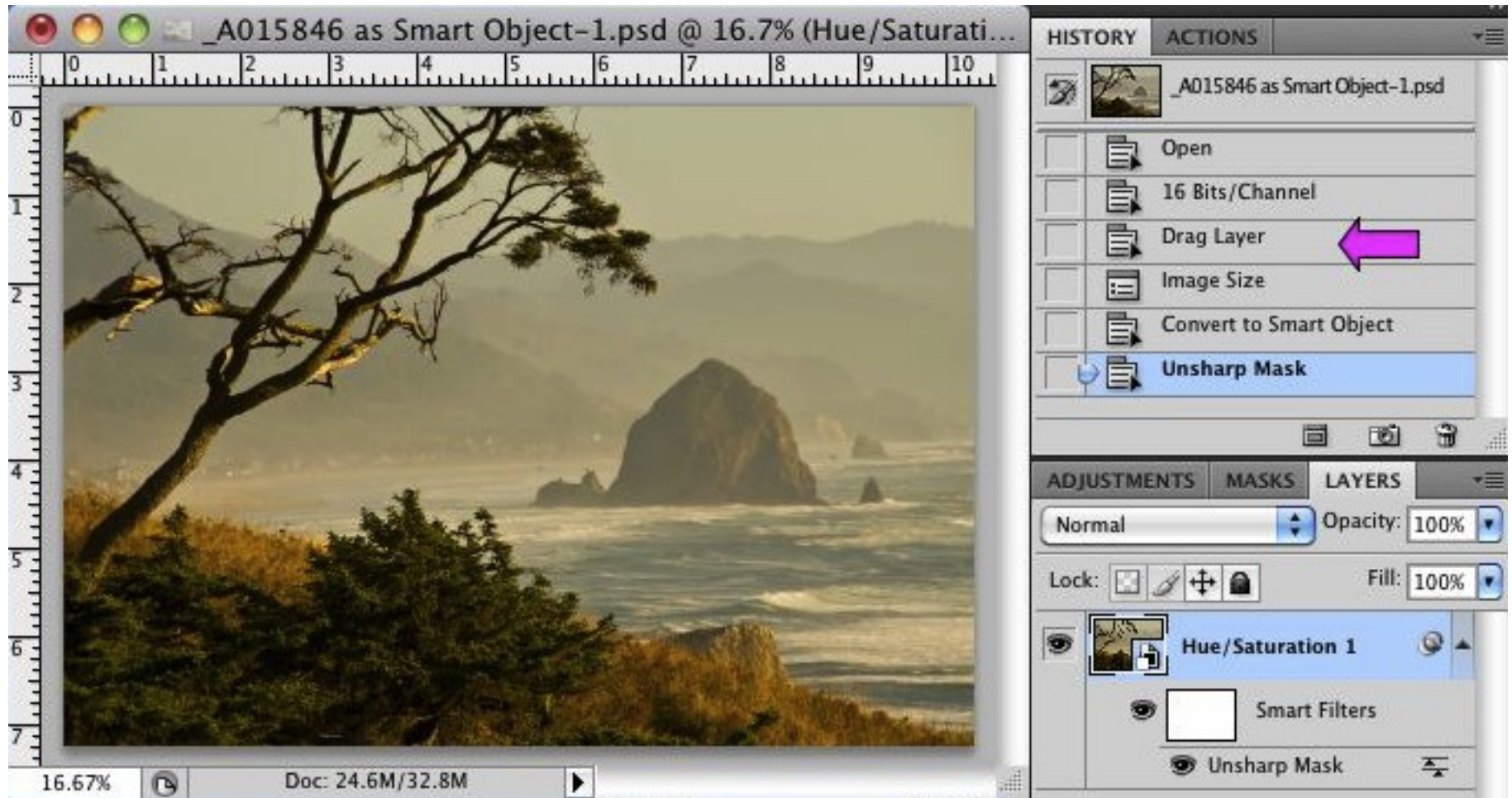
Color Mode: 

Output Resolution: 

Super MicroWeave
 High Speed
 Flip Horizontal
 Finest Detail

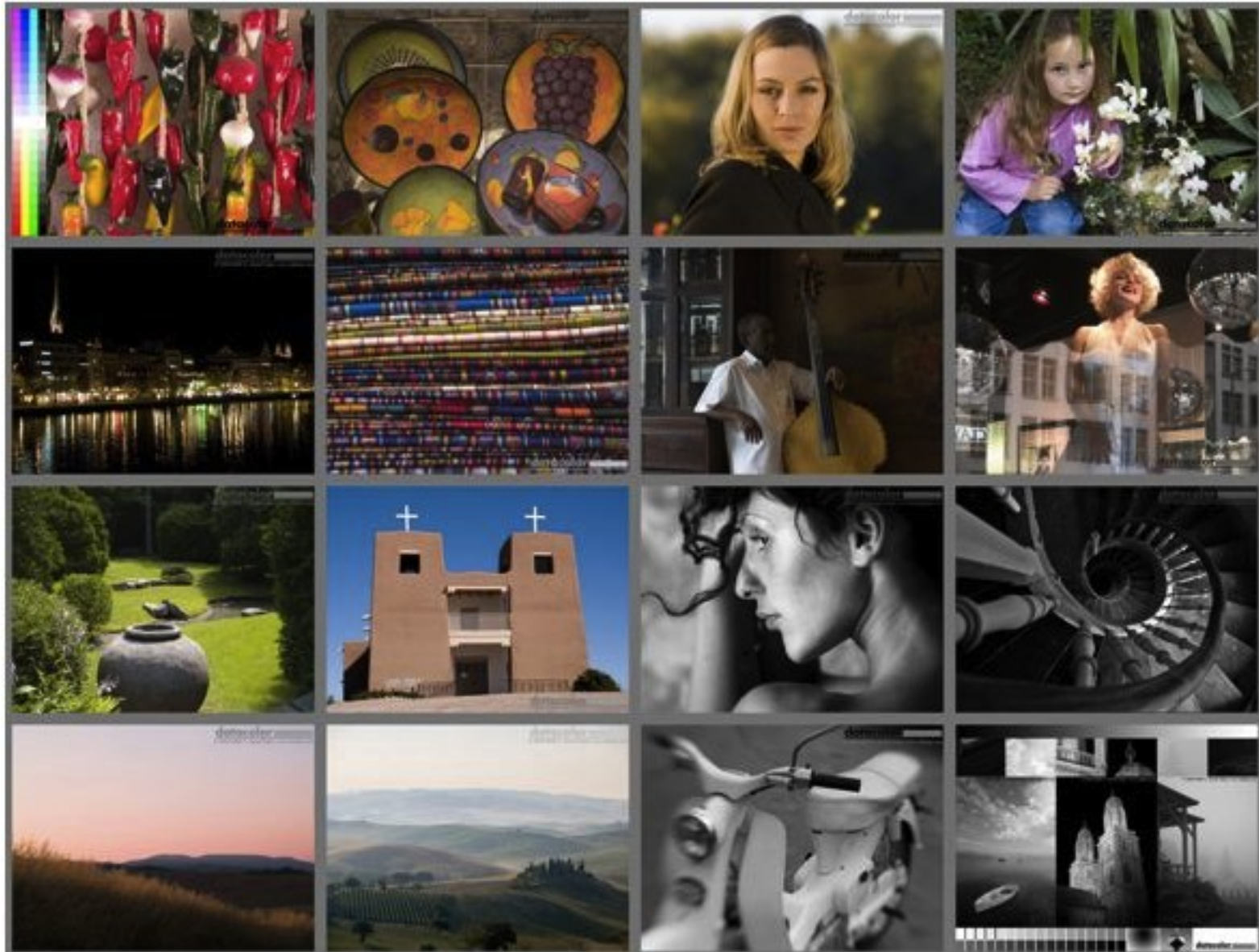
Saving PRNT Image I will Go Back to Before Sizing
That is where I brought the best adjustments back
to the Original Image



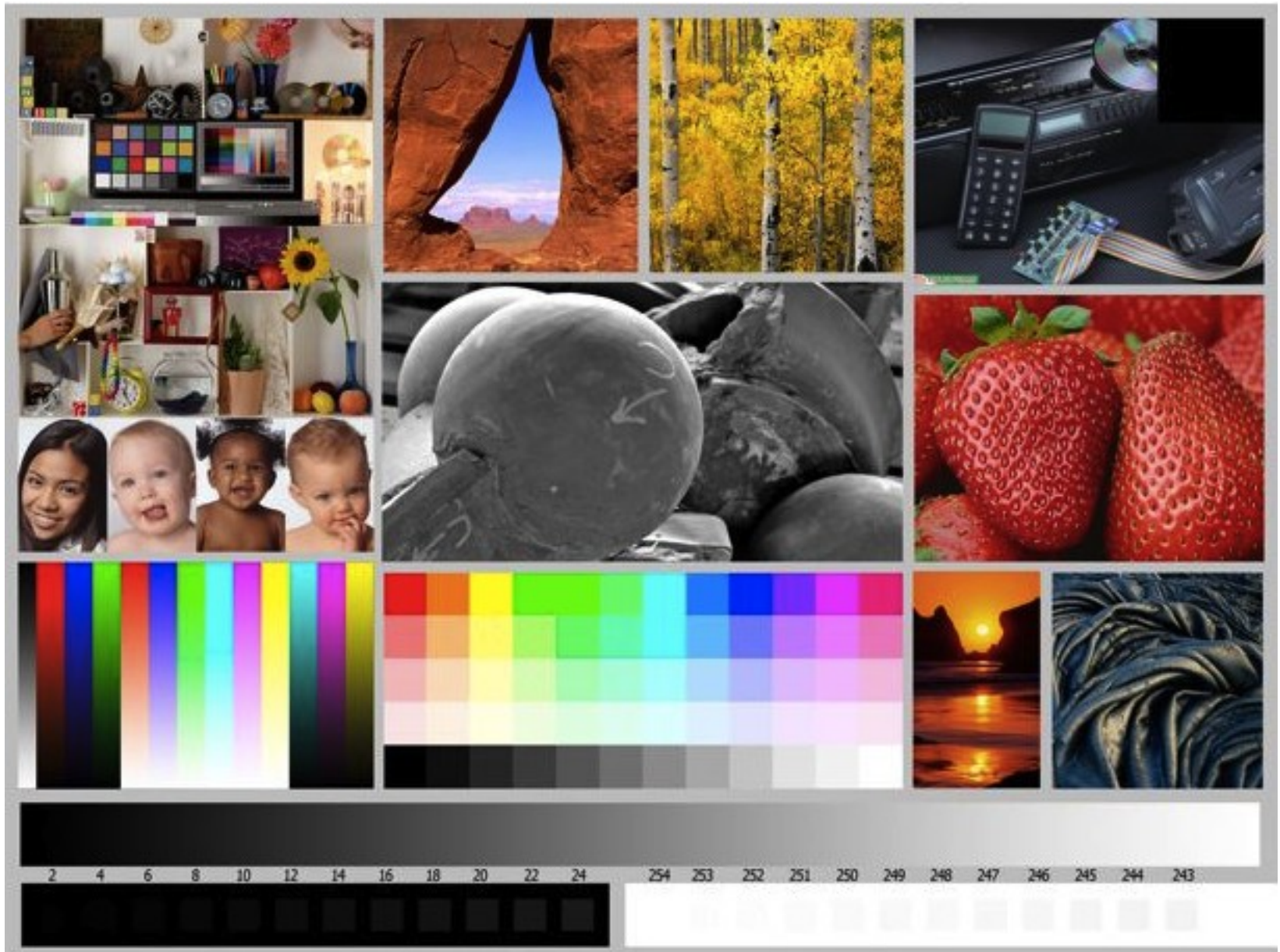
How to Determine If Your Printer & Paper Profile Are Serving You Well

- Print out a calibration image or two without adjusting them on your screen
 - + If they look bad on your screen
 - Your screen is out of calibration
 - You assigned an improper working space to the digital file
Convert is OK
- Two Calibration images I rely on are shown in the next two charts
 - + They are available through the site
http://www.northlight-images.co.uk/article_pages/test_images.html
 - + The site contains some excellent articles

Large Matrix 4X4 Cal Print



Printer Evaluation Image



The Result



Backups

PS Image Sizing Panel



The Original and a New Canvas

