A Journey "Back" into Digital Black and White Photography

Agenda

- **On Fine Art..**
  - Thoughts on Art
  - What makes a good B&W
  - Controlling the Unconscious Eye
- **On Black and White….**
  - Ansel Adams' Zone System
  - RGB Black and White
  - What's different
- **A Few B&W Digital Workflows**
  - Desaturate
  - LAB
  - Photoshop Defaults
  - Silver Effects Pro (others?)
  - One Advanced Flow

Thoughts

- Life is like a good black and white photograph, there's black, there's white, and lots of shades in between."
-Karl Heiner

- Black and white photography is a perfect lie. We must not let colour destroy this image" –Patrick Summerfield

- One very important difference between color and monochromatic photography is this: in black and white you suggest; in color you state. Much can be implied by suggestion…"-Paul Outerbridge

On Fine Art Photography

- Wikipedia: **Fine art photography** refers to photographs that are created in accordance with the creative vision of the photographer as an artist. Fine art photography stands in contrast to photojournalism, which provides a visual account for news events, and commercial photography, the primary focus of which is to advertise products or services.

What Makes a Good B&W Image?

- Strip away the seductiveness of color and you're left with the raw image:
  - Therefore B&W will force you to pay attention to the other factors of an image that make it appealing, light, contrast, texture, shapes & patterns, control of the background.
  - Tonal curves and texture become more important in the ultimate composition.
- We need to learn to see in greyscale.
  - With the advent of digital we can now experiment to our hearts desire, see what works and what doesn't.

There are no rules for good photographs, there are only good photographs"

-Ansel Adams

A Few More Thoughts

- Great photographs are not taken, they're made" –Ansel Adams

- Stop taking pictures. Be taken by your pictures." -Ernst Haas

- Light thinks it travels faster than anything, but it is wrong. No matter how fast light travels, he finds that darkness has always arrived there 1st, and is waiting for it." -Sir Terry Pratchett

- The negative is everything. The print is all." -Ansel Adams

A Few "Vinny" isms

- The human eye is always in a seek mode, it tends to wander rather than look at any one thing for very long….

- One of your goals should be to create an image at which the human eye is compelled to linger..

- The longer the eye looks at your image, the more likely you are going to convey to the viewer the emotion you had when you captured it…

- … the more likely the viewer will transplant a cemetery of dead patriots from their wallet to yours. (or that a judge will pick your photograph ;o)

Controlling the Unconscious Eye

- The eye moves from patterns it recognizes first, from light to dark, from high contrast to low, high sharpness to low, in focus to blur, high saturation to low..

On Black and White

- In the very lowest of light we see only black and white so when your eye sees a B&W image in full light it knows it shouldn't and thus you capture the eye's attention.

Ansel Adams' Zone System

- Grossly over-simplified: Ansel Adams came up with an approach to exposing and processing B&W film images which has a lot of relevance in the digital world. It divides the dynamic range of the film and print into "ten" zones, with pure black being Zone 0, and pure white being Zone 10. And Middle grey is…Zone 5.

- Each Zone represents 1 stop of light difference.

- The real magic in the Zone System comes when you understand the relationships between the different zones when the image is actually shot.

Zone X

Zone I

Zone V

Zone VIII

RGB Black and White

- RGB isn't a color it's a formula to create color…. and Black is the queen of all colors"

Soooo... What's Different?

- A couple key things that we really need to understand.
  - Dynamic Range,
  - Color Sensitivity
  - Sensor Sensitivity (YES!!!)
  - RGB digital sensor versus film
    - Raw versus In Camera JPG
    - Bayer pattern versus film
- Inkjet Printers versus Silver Gelatin prints

Dynamic Range and Sensitivity

- The human eye is capable of resolving ~30 stops of light, film ~10 stops, latest CMOS sensors 12-14 stops, so we can now capture more dynamic range detail than with film. However with film if you overexpose the film gracefully degrades, digital is a brick wall. (read shoot to the right but use the blinkies) OBTW Prints are pushing ~8

- Film has a useful ISO rating of <500 before the grain becomes art, new sensors are achieving 6-25K, at the expense of dynamic range.

- Inkjet printers can now exceed silver/platinum prints for Dmax (darkest black)

RAW vs In Camera JPG

- As we will soon see post processing allows you MUCH more flexibility in the interpretation/conversion to B&W
 - RAW just provides that much more data to work with.

Bayer Sensors vs B&W Film

- Black and White film records the luminousity of a scene based on a predetermined color sensitivity curve, different films have slightly different curves, but ultimately you get analog B&W, with no understanding of the original color. You learned the response (how a film recorded color) through experience.

- With a bayer sensor you record digital luminosity in three different channels and then interpret them across the image to get an RGB representation of the scene, bayer sensors also have sensitivity curves, and we use raw converters to "best interpret" the sensor data.

Digital BW Workflows

- With a digital workflow we need to decide how much control we want over the mapping of different colors to black and white.

- We are ultimately trying to recreate that emotion that drove us to capture the image and the desire to convert it to B&W.

- What we need to understand is the effect we are having on the mapping from color to Black & White

- And NO the different techniques do not necessarily end up with the same result!

So Lets Look at Some "Data"

- We'll use this image to look at the impact of several different mapping techniques.

  - The left bayer pattern is typical of a CMOS sensor G, R, B; each cell is fully saturated eg 0,255, 0 for the green cell.

  - The right cell the cyan is 0,255,255 and the yellow is 255,255,0 and the green is 0,255,0
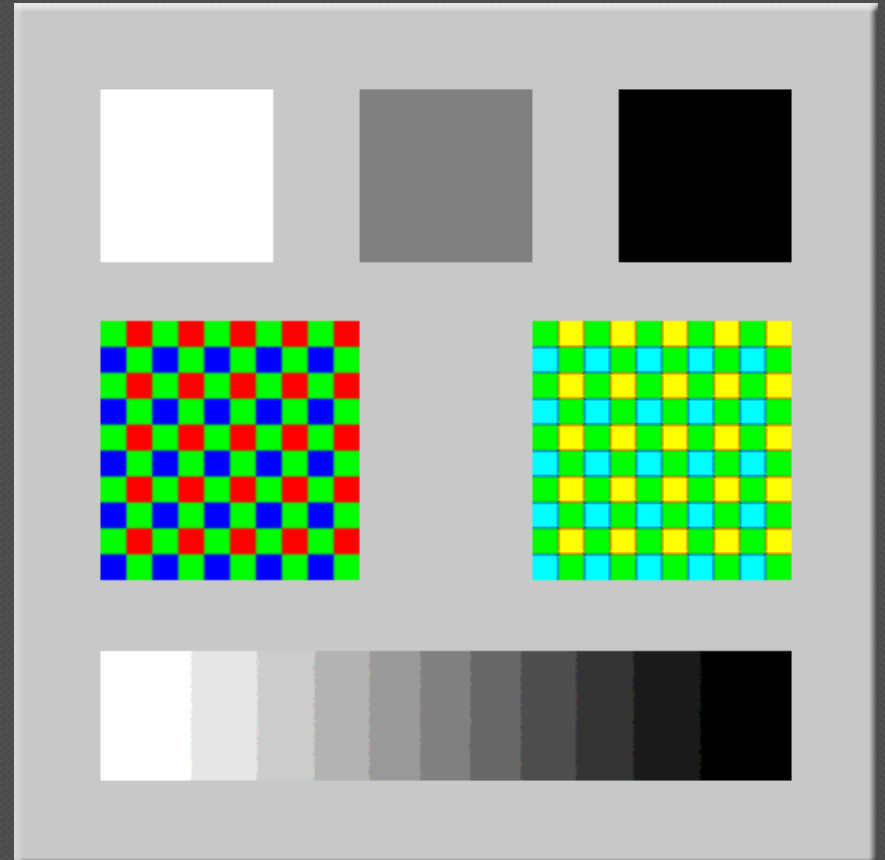
And This Picture

RGB   Red   Green   Blue

Desaturate / LAB

- We can simply remove the "color" from a picture and leave behind the recorded luminousity.

- This can be done in a Raw converter

- Photoshop has a "Desaturate adjustment"

- This can also be done in LAB and select only the L channel

- Which of these processes are Destructive?

Desaturate / Hue-Sat Desaturate / Color Mode
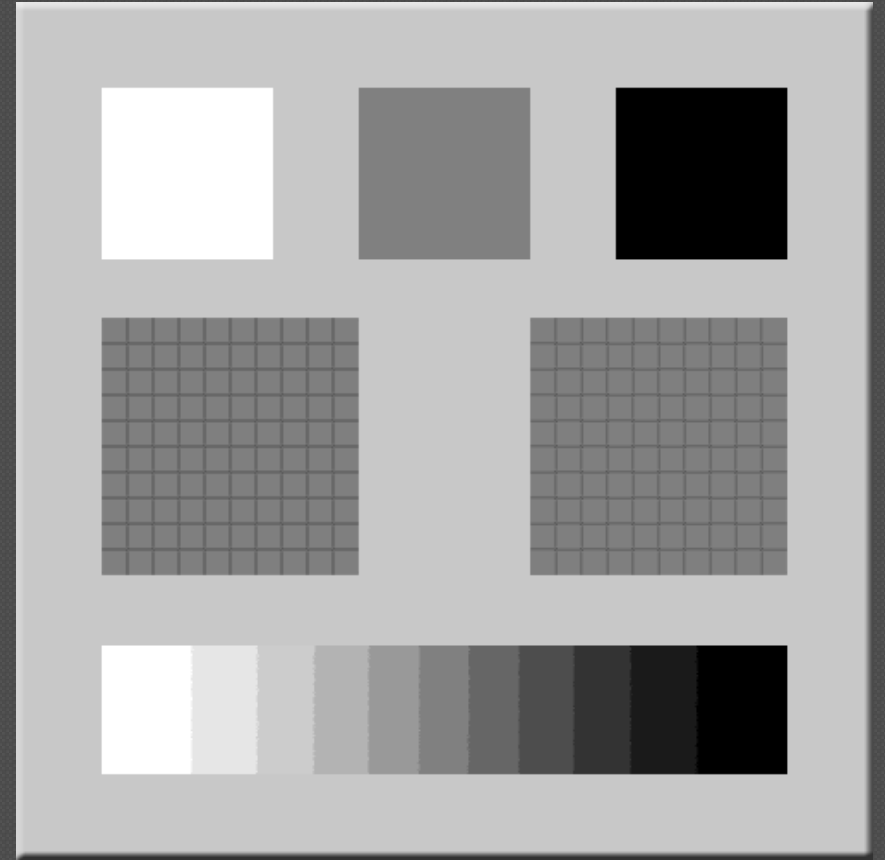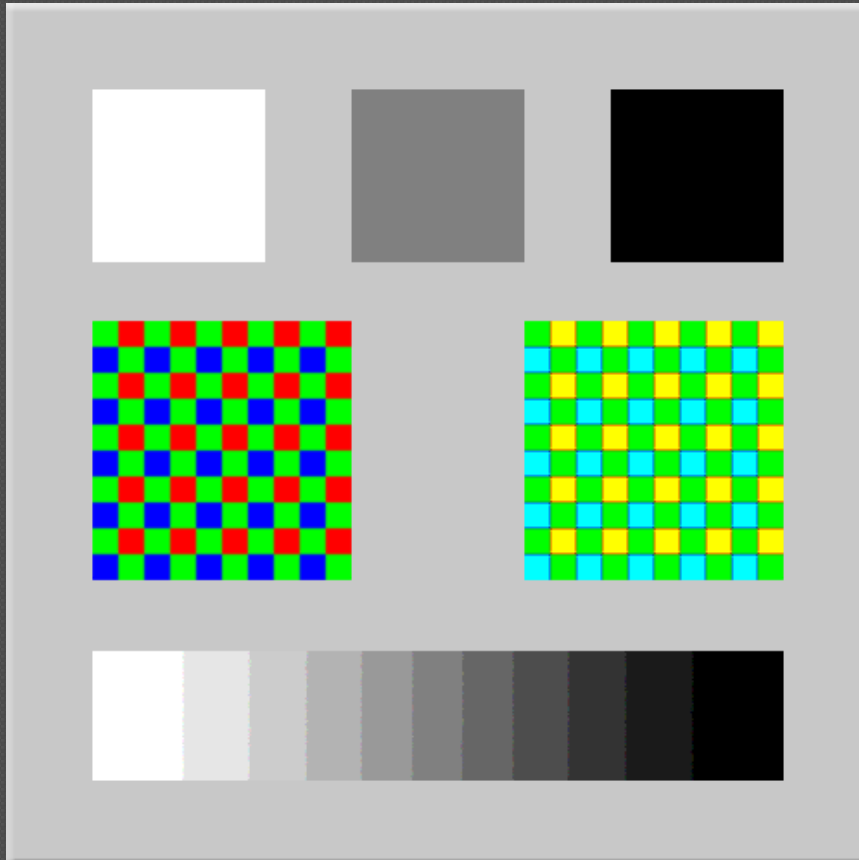
- ⊙ Desaturate
  - Image>Adjustments>Desaturate

- ⊙ Hue-Saturation Desaturate
  - Open new Hue-Saturation Adjustment Layer
  - Master
  - Saturation: 0

- ⊙ Color Mode
  - New Layer
  - Blend Mode: Color
  - Fill layer with Grey

Desaturate Results

Desaturate / Hue-Sat Desautrate / Color Mode

RGB

Desaturate

Hue-Sat
Desaturate

Color
Mode

Classic/Neo Lab Conversion

- Classic Lab
  - Image>Mode>Lab Color
  - Open Channels
  - Discard A & B channels
  - Image>Mode>Greyscale
  - Image>Mode>RGB

- Neo LAB
  - Image>Mode>Lab Color
  - Image>Mode>Greyscale
  - Popup discard color data "Yes"
  - Image>Mode>RGB

Classic LAB / Neo LAB

RGB

Classic LAB

Neo LAB
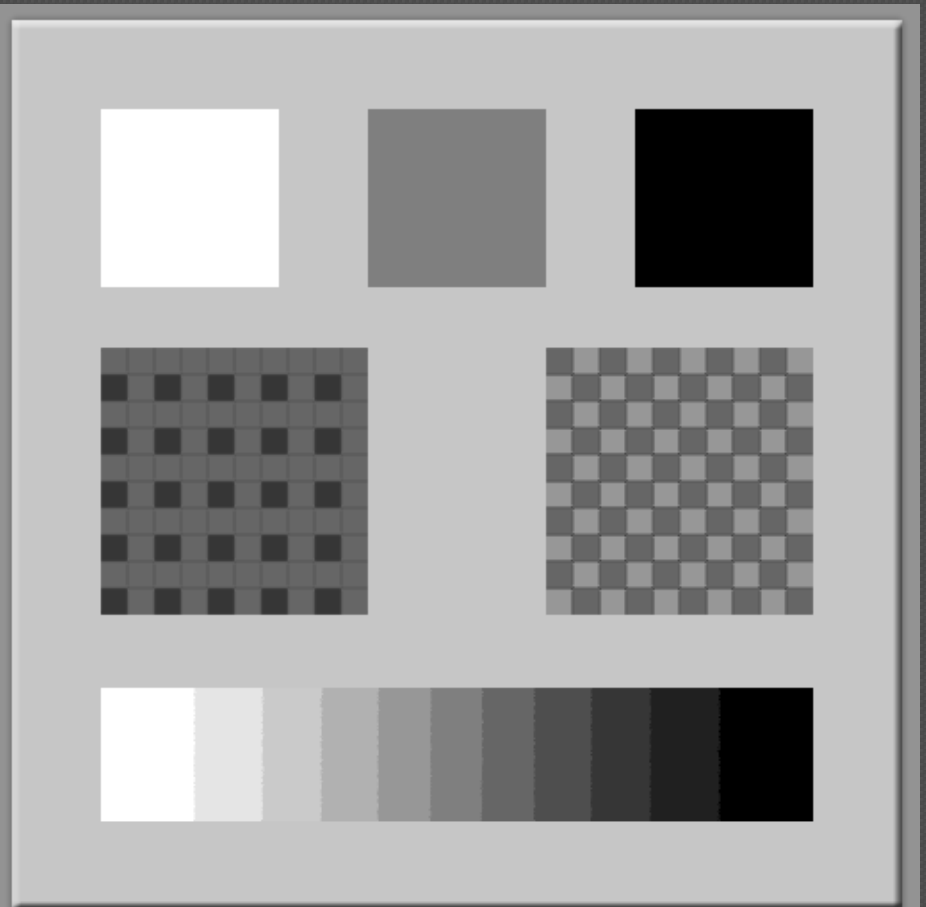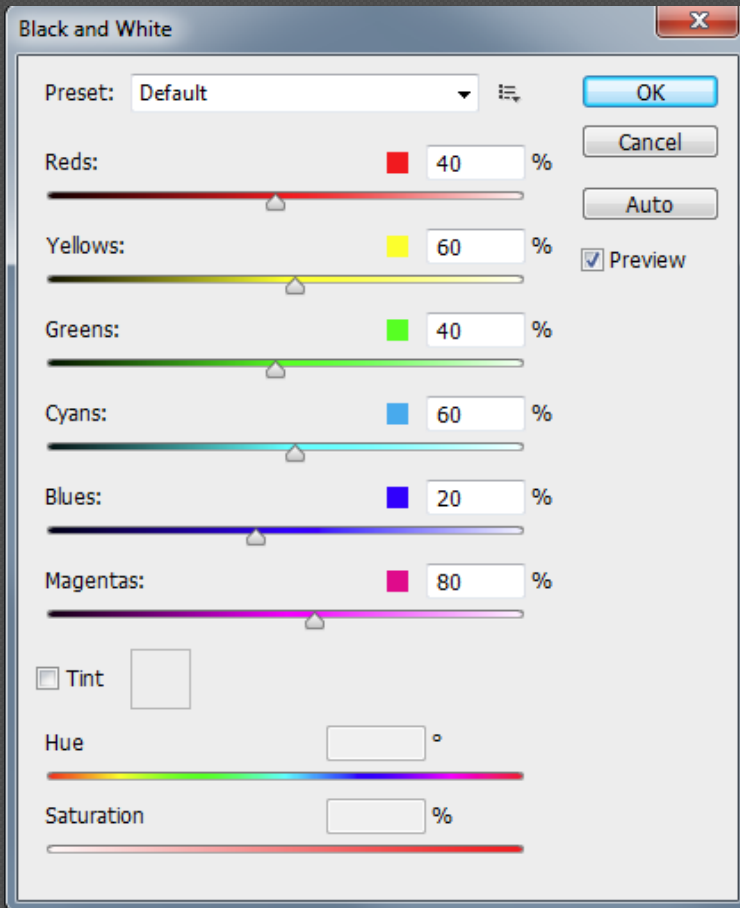
Gradient Map

- Select
  - Gradient Map Adjustment Layer
- Set
  - Midpoint and endpoint as greys
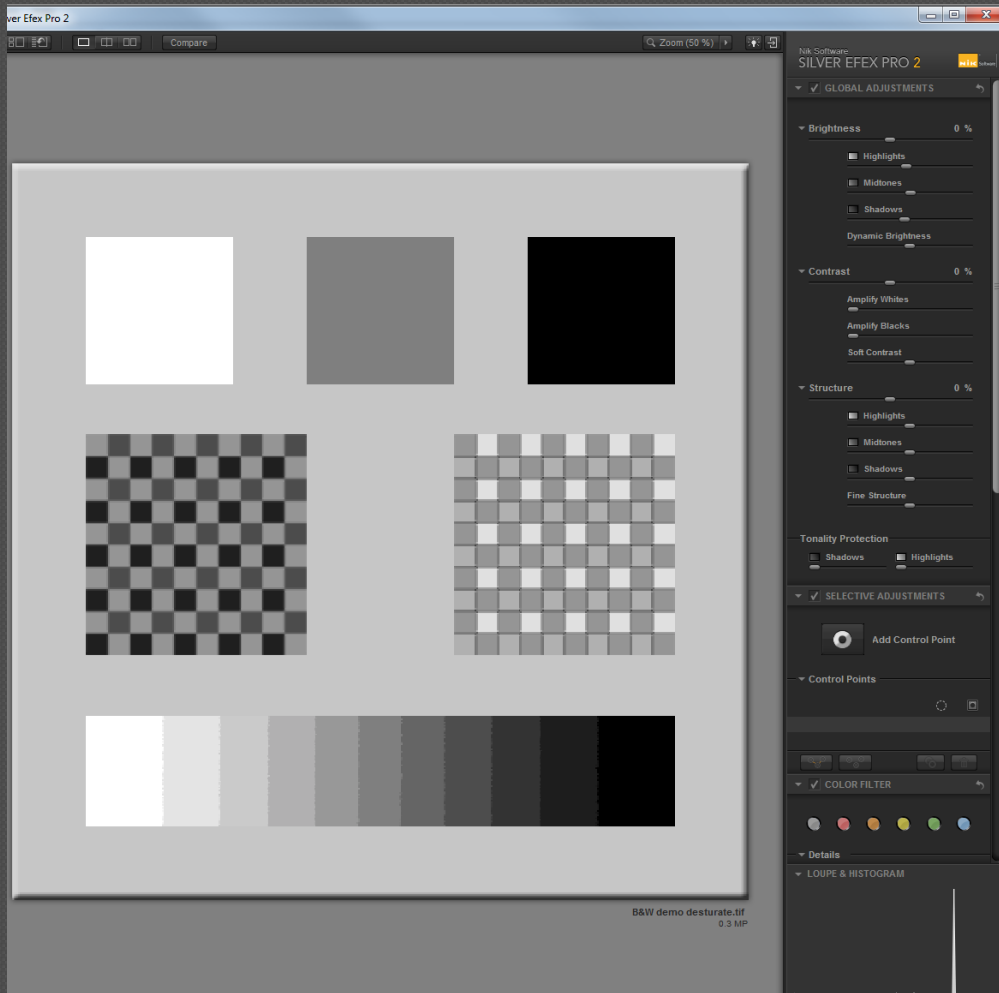- Adjust as desired.

Photoshop Default Conversion

Photoshop Default B&W

Default Silver Efex Pro 2

- This is the default conversion we'll look at the three basic adjustments
  - Brightness/Contrast
  - Filter/Strength
  - By Color

Silver Efex Pro 2

RGB   Neutral   Pan X   30 sec adjustment

A Closing Thought

- ''With regards to digital black and white photography, I feel certain the more you understand about the middle part –the post processing part – of your photographic journey, the more successful you'll be in making decisions at the point of capture, where all of your decisions about a photograph's ultimate fate should be made. Every choice you make along the way is in service of the print, and the print is always in service of your artistic voice.'' -Vincent Versace, From Oz to Kansas

I have discovered photography. Now I can kill myself. I have nothing else to learn."

Pablo Picasso

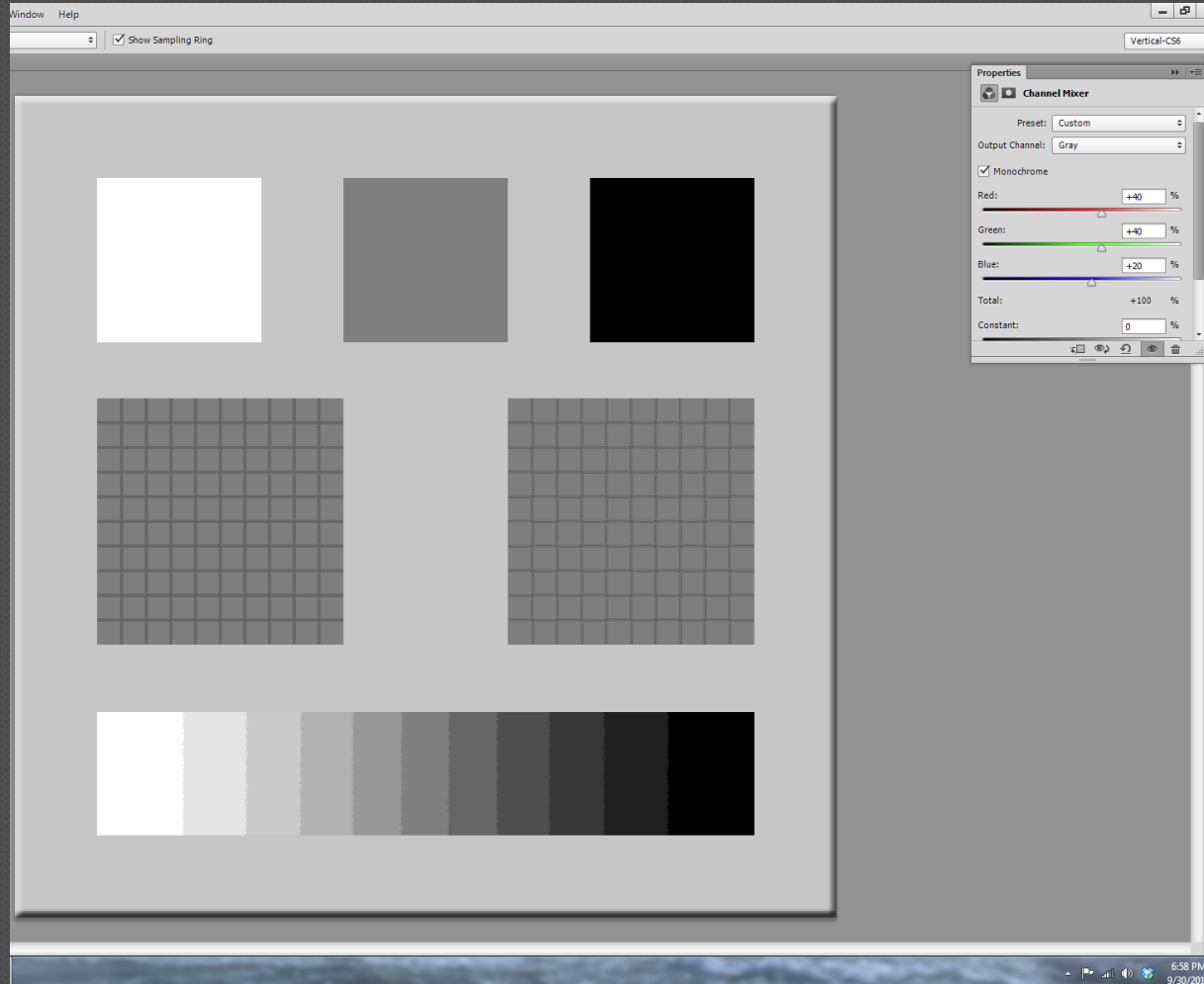# References

- From Oz to Kansas (Almost every Black and White Transition known to Man) Vincent Versace, 2012

- B&W Mastery (DVD) John Paul Capinigro 2008

- Silver Efex Pro   Nik Software

- http://www.canonrumors.com/tech-articles/learning-to-see-in-black-and-white/

- http://photofocus.com/2010/09/23/seven-elements-that-help-make-a-great-black-white-photograph/

Backups

Channel Mixer

A couple other test patterns