

# **Black & White Conversion**

Introduction to Photoshop

# Lecture outline

- Black and white conversion
- Duo/Tri/Quadtones
- Note: these recipes are from The Adobe Photoshop CS5 Book for Photographers by Scott Kelby

# Black & White Conversion



# Black & White Conversion

- Excluding ACR and third party plug-ins, there are 8 ways to convert an image from color to black & white in Photoshop
- Of the third party plug-ins, Nik Silver Effects Pro is considered to be the standard in converting color to black and white
  - Topaz Labs also makes a black and white plug-in, as does OnOne software.

# Black & White Conversion

- DO NOT DO in-camera monochrome conversion
  - only uses red channel, throws away 2/3 of your data (blue and green channels)
- True black & white is an interpretation on how all three channels (red, green, blue) interact with each other

# Black & White Conversion

- Destructive
  - Convert to grayscale
  - Gradient map
  - Desaturation
- Non-Destructive
  - Copy Lightness channel\*
  - Gradient map adj. layer
  - Hue/Saturation adj. layer
  - Channel mixer adj. layer
  - Black & white adj. layer

# Black & White Conversion

- Destructive
  - Grayscale conversion
  - Menu:
    - Image → Mode → Grayscale
  - Throws away all color data
  - May give you an OK black & white image, most of the time though it results in a flat (low contrast) image



# Black & White Conversion

- Destructive
  - Gradient map
  - Menu:
    - Image → Adjustments → Gradient map
    - Select black to white gradient
  - Maps black to shadows, white to highlights
  - Does a fairly good quick black & white conversion, but is destructive





# Black & White Conversion

- Destructive
  - Desaturate
  - Menu:
    - Image → Adjustments → Desaturate
    - [shift] + [cmd/ctrl] + u
  - Removes colors
  - Destructive, slightly flat (low contrast) image



# Black & White Conversion

- Non-destructive\*
  - Lightness channel (Lab)
  - Menu:
    - Image → Mode → Lab color
    - Copy Lightness channel
  - Throws away all color data
  - Gives a better black & white than grayscale (not as flat), still throwing away color data



# Black & White Conversion

- Non-destructive
  - Gradient map adj. layer
  - Menu:
    - Layer → New Adjustment Layer → Gradient Map
    - Select black & white gradient
  - Adjustment layer: non-destructive, has layer mask
  - Identical to Gradient Map



# Black & White Conversion

- Non-destructive
  - Hue/Saturation adj. layer
  - Menu:
    - Layer → New Adjustment Layer → Hue/Saturation
    - Take saturation slider to -100
  - Adjustment layer: non-destructive, has layer mask
  - Able to adjust individual channels for saturation & lightness



# Black & White Conversion

- Non-destructive
  - Channel mixer adj. layer
  - Menu:
    - Layer → New Adjustment Layer → Channel Mixer
  - Adjustment layer: non-destructive, has layer mask
  - Able to adjust red, green blue channels for amount in each (sum  $\neq$  100)
  - Click Monochrome to get black & white



# Black & White Conversion

- Non-destructive
  - Black & white adj. layer
  - Menu:
    - Layer → New Adjustment Layer → Black & White
  - Adjustment layer: non-destructive, has layer mask
  - Able to adjust 6 channels (red, blue, green, yellow, cyan, magenta) from -200 to +300



# Duo/Tri/Quadtones

- Richer black and whites are available by doing duo / tri / quadtone images
- Convert image to black & white using the Gradient map method
- Convert to Grayscale (have to go to grayscale to get to duotones)
  - Menu: Image → Mode → Grayscale
  - Flatten any layers, discard color info

# Duo/Tri/Quadtones

- Convert to Duotones
  - Menu: Image → Mode → Duotone
- Defaults to monochrome (Black)
- From drop-down menu pick combinations:
  - Bl 541 514 5773 (Quadtone)
  - 478 Brown (100%) bl 4 (Duotone)
  - Bl WmGray 7 Wm Gray2 (Tritone)
  - WmGray 11 bl 2 (Duotone)



# Duo/Tri/Quadtones

- What you get really depends upon the image; different images will look different with the same mix. Experiment.
- When done, change back to RGB color
  - Menu: Image → Mode → RGB Color