Color, The Brain, And Monitor Calibration

## Plano Photography Club Snapshot
August 4, 2014

Dennis Fritsche

SO WHAT'S THE PROBLEM?

- Color is one of the most important design elements in our photography.

- We usually try to represent the colors in a realistic and consistent manner.

- Two things conspire to keep us from being successful.

- The first is an improperly calibrated monitor.

- The worst is our own brain.

- Good color management and coping strategies are essential to achieving repeatable results.

COLOR MANAGEMENT

- Your camera, monitor, and printer each interpret colors differently. And they each have a different range of colors they can represent.

- And then your brain comes along and confuses you.

- *Color Management* refers to calibrating (profiling) all your devices to know standards so that you have a better chance of getting the color you want.

- A good overview can be found here.
  http://www.xritephoto.com/ph_learning.aspx?action=browse

- Your camera is profiled by the software manufacturer such as Adobe (for RAW) and is generally acceptable. You can profile your camera with a device such as the *Color Checker Passport.*

- Your printer/paper combination is profiled by the paper manufacturer (.icc profile) and is generally very good. You can make custom profiles with the Color Munki Photo.

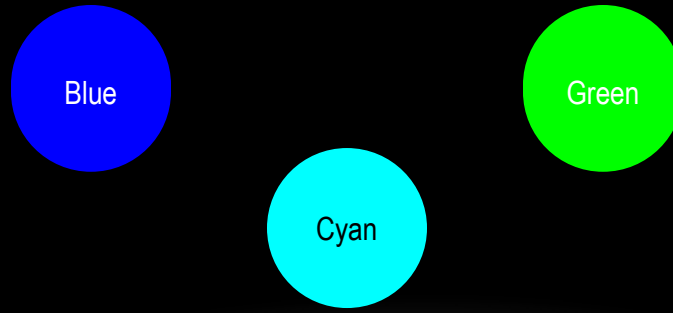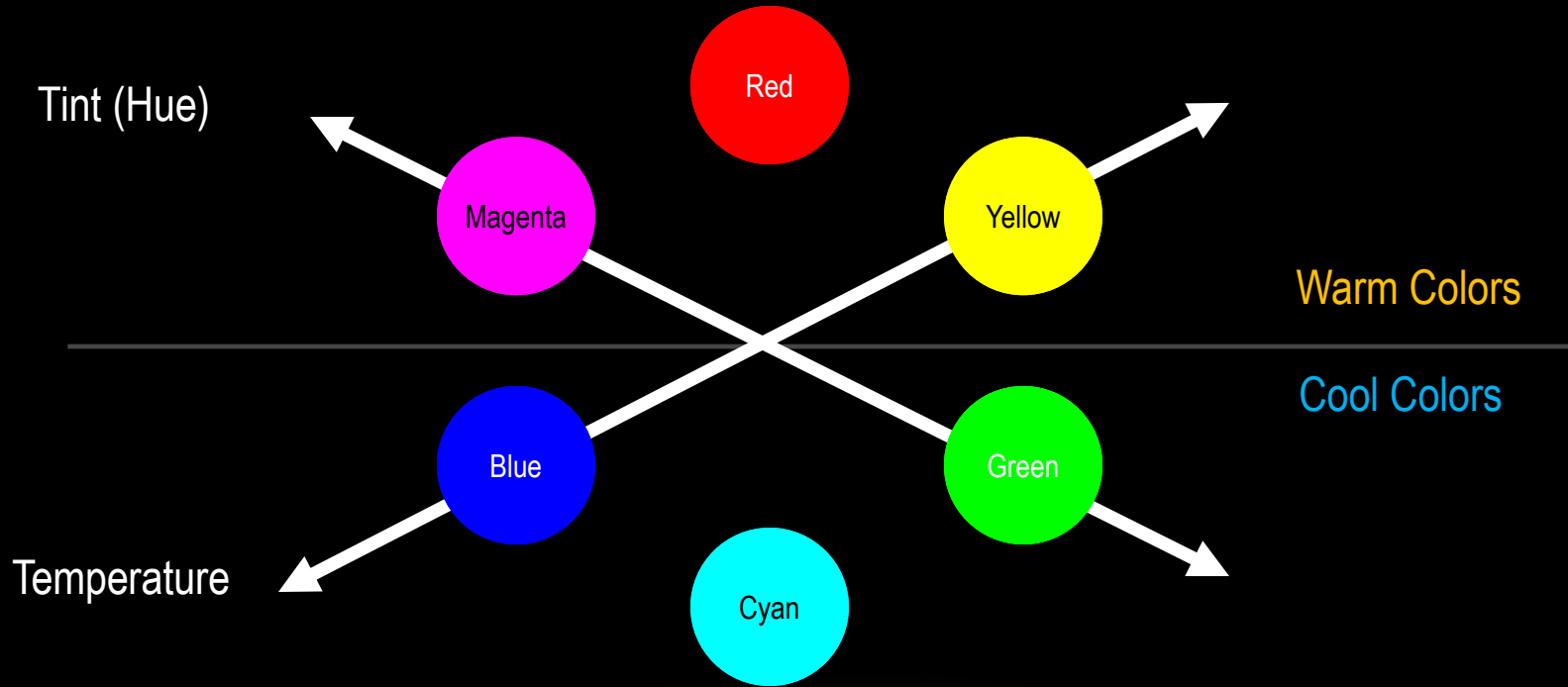- You must profile (calibrate) your monitor.
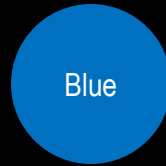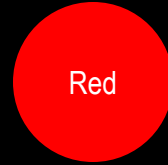
ADD THE SECONDARY COLORS

Red

Magenta

Yellow
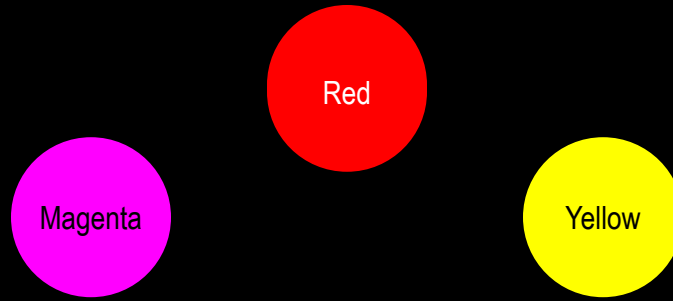
Warm Colors

Cool Colors

Blue

Green

Cyan

# WHITE BALANCE CONTROLS

© Dennis Fritsche

YOUR BRAIN AND ITS GAMES

- Your brain is very flexible and will change reality to make you more comfortable.

- For instance, a white object in sunlight and incandescent light both look "white" although they are not the same.

- If you stare a photograph on your monitor and keep making small changes to the colors, the image may look reasonable, but you can quickly get out of bounds and have a mess.
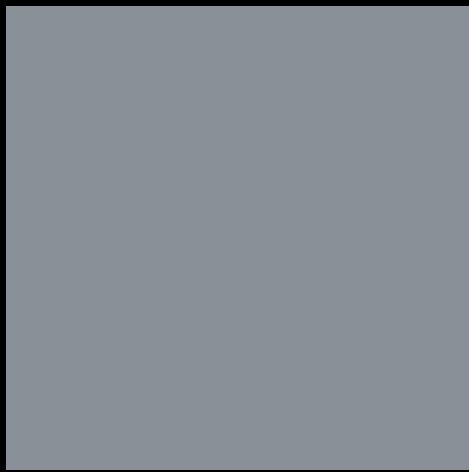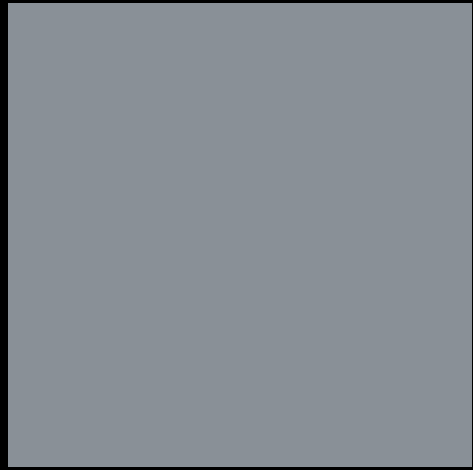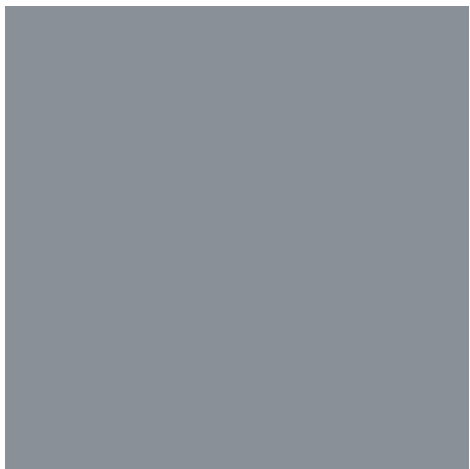
COPING

- To cope with your problem brain – keep it off balance

  - Take breaks and look at the real world.

  - Look away from the screen and back again for a brief glance.

  - Flip your photograph upside down.

  - Look at several images at the same time.

- Set Up you viewing environment

  - Minimal lights but not dark with no glare on the screen. Avoid colored walls.

  - Set the screen brightness low.

  - Use white surrounds for your image editing background.

CALIBRATE YOUR MONITOR

- Rent the Club's *Color Munki Photo f*or $20.

- Load the latest software for Windows or Mac here

- http://xritephoto.com/ph_product_overview.aspx?action=support&id=1115

- Start the software before plugging the device into a USB port. Follow the directions.

- My recommended settings are

  - Advanced

  - Set luminance to 100

  - Target White Point D65

DENNIS' PRACTICES

- Shoot in RAW format for greatest quality and flexibility.

- Set camera white balance (WB) to *daylight* for all outdoor photography or use *custom white balance. Auto* WB works pretty well but can get confused. Try to use the indoor settings for indoor situations.

- In post processing

    - Use the largest color space available – *proPhoto RGB*

    - Calibrated monitor

    - In programs such as Lightroom or ACR, experiment with the different camera profiles.

    - For printing use *.icc* profiles for my paper and printer.

ITS ONLY TRYING TO HELP
BUT
DON'T LET YOUR BRAIN WIN!