Fine Art Reproduction: The Ultimate Color Challenge

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Planning and Preparation

- Good lights
- Good camera, lens, and a solid tripod
- Artwork stand or easel
- WhiBal card
- ColorChecker SG target
- Appropriate software (Photoshop, BasicColor Input)
- Measuring tools
Geometry and Lighting

- Light coverage
- Light positioning
- Camera positioning
T-slot wall mount
1/4 inch slots hold brackets to clamp artwork in place
2.5x

Artwork

Studio wall

Einstein

2x

Super Clamp with 6" stud

Canon EOS R
with 100mm macro
Artwork

Studio wall

Super Clamp with 6” stud

2.5x

2x

Einstein

Aiming laser

Super Clamp with 6” stud

Hasselblad mirror

Aiming laser

Canon EOS R with 100mm macro 67mm thread

Zig-align alignment mirror

SIDE
Exposure and White Balance

- Setting Custom White Balance in the camera
- Determining correct exposure
- Determining correct aperture for sharpness (and a little bit of depth-of-field)
- ISO setting is important to minimize digital noise
Camera Profiling

- Use the custom white balance established earlier
- Photographing the ColorChecker SG
- Using BasicColor Input to make a Digital Camera Profile
- Installing the DCP for Photoshop or Lightroom
Photography

- Positioning the artwork
- Alignment with parallel mirrors (alternative methods include corner marks)
- Focus (Live View is nice!)
  Determining the “sweet spot” of a lens
- Bracketing exposures to ensure that you get the shot
Artwork

Super Clamp with 6" stud

2.5x

2x

Hasselblad mirror

Aiming laser

Super Clamp with 6" stud

Einstein

Canon EOS R with 100mm macro

67mm thread

Zig-align alignment mirror

SIDE
Camera Raw processing

- Making a *Digital Camera Profile*
- Applying the *Digital Camera Profile*
- Adjusting the Point Curve settings
- Setting *Work Flow Options* (setting *Color Working Space* and bit depth)
- Please review my essay on using *ProPhoto RGB* as your Color Working Space for fine art reproduction
Photoshop processing

- Cropping and scaling to size
- Retouching, if needed
Making a printer profile

- Create targets; print targets; read targets; set destination lighting,
- Make profile; install profile
Printing

- Applying the ICC printer profile to make a PDF, or Printing through the ICC profile directly to the printer
- Working with PDF settings to ensure color management
- Analyzing the resulting print in a viewing booth or under the destination lighting
Problem-solving

- The color isn’t right
- The customer isn’t happy
- The process is flawed
- The technique is not being applied scientifically
- You have the un-reproducible image!
What to do with what you’ve learned

- Work to develop a reliable and repeatable reproduction photography set-up
- Invest in critical components; add as you learn
- Maintain scientific control over the process
- Practice
- All of this is within reach. It’s up to you to make it work.
Thank you for attending!

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