PHOTOGRAPHING FINE ART

Book Cover: "Second Thoughts" *Sarah Dunnigan*

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What is your use for the image?

1. **Documentation**
   A quick reference for the database, hard copy for reports.
   Nothing fancy, just a “snap” for the records

2. **Access**
   Images for the website, reproduction in publications, prints
   More than just a “snap”
   Good image clarity and color fidelity.
   Resolution suitable for books, posters and research.

3. **Preservation**
   Insurance value, condition assessment
   Best image clarity showing minute details in areas of concern
   Different light sources and specialized equipment may be needed.

What are your standards?
- Access -

Standards should be established for each use

Lookout Post, USS Napa
Sgt. Theodore Hios, USMC
National Museum of the Marine Corps

- Resolution
- Color and Density
- File Type

How Much Resolution Do You Need ?

Banner

Designed to scale 1 ft. = 1 in. 150 ppi

High Quality Table Top Book

Actual printed dimension by
600 - 300 ppi

Magazine Publication

Actual Printed dimension by
300 ppi

Fine Art Reproduction

Actual Printed dimension by
200 – 150 ppi

Web / Reports

Actual display / printed dimension by
150 ppi Reports Monitors are 72 ppi

Banner Design by Sarah Dunnigan
54 ft x 24 ft 6600 x 3000 pixels = 6.428 mb jpg

There isn't one perfect set up for all artwork

You need a "toolbox" approach to photography.

Let's talk about filling that "toolbox"

- **Camera**
- **Lights**
- **Other Stuff**

To consistently capture sharp and accurate images, you will need the right tools.

- Digital SLR with the ability to check alignment, cropping and reflections

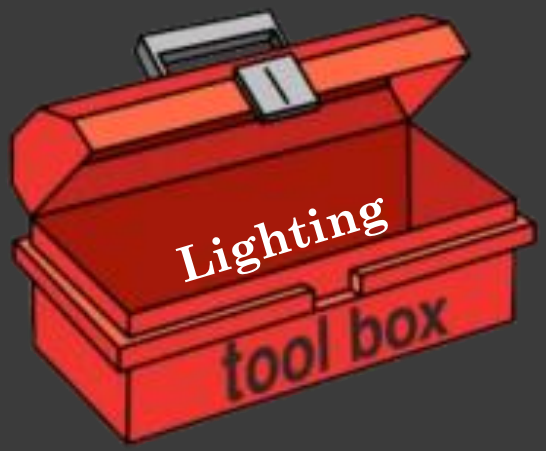
  Macro Lens

  Manual mode with the option to turn off “all” automatic functions

  Ability to shoot raw or a high quality jpg and manual white balance

  A 24 mp camera shoots a 4000 x 6000 pixel image – that’s 13” x 20” at 300 ppi

The quality of light has a dramatic effect on the quality of the image.



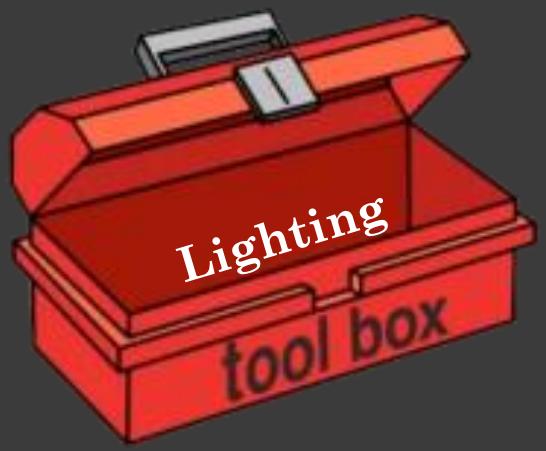
Available light – outdoor bright sun or shade

Photographic environment - Ambient light from windows, lights, backgrounds and reflective surfaces. Note that the color of the room and environment will affect the quality of the light.

Conventional Lighting – florescent tubes and LEDs. These should be rated at 5000k and CRI 90+

The better you control the light, the better the resulting image.

Professional Lighting Options



LEDs (5000k) & Hot lights (3200k) provide a consistent light source with the added ability to use light modifiers (soft box, reflectors, diffusers, filters, polarizers)

Electronic Flash
provides most consistent and versatile lighting which can overpower ambient light. Min 500 w/s and consistent color output and the ability to use light modifiers

Other Stuff
You really should have.

- Solid tripod
- Sensitive light meter
- Calibrated Grey Scale
- Reflectors
- Polarizers
- A little bit of luck

Getting to work

Turn off the camera's automatic image controls. Keep the camera from second guessing you. Do no use auto color balance and exposure. Also, check for auto sharpening and picture modes.

Set color balance to match your light source –
calibrate a custom setting based on your lighting set up.

Consider the ambient lighting. It needs to be at least 5 stops less than your exposure to have no effect on the photograph.

Determine your exposure and don't depend on the camera preview. Check the histogram and bracket the exposure in 1/2 or 1/3 stop increments. Carefully check that the white and black points are within range.

Save images as Camera Raw files and/or Jpeg at the highest quality level.

Basic Set-up for Flat Art

Artwork on adjustable easel

Even illumination on artwork within
0.1 f-Stop

Electronic Flash
With Polarizer

Polarize - Vertical or Horizontal

Electronic Flash
With Polarizer

Polarize - Vertical or Horizontal

Camera with Polarizer
on tripod

Polarizer Set to extinction

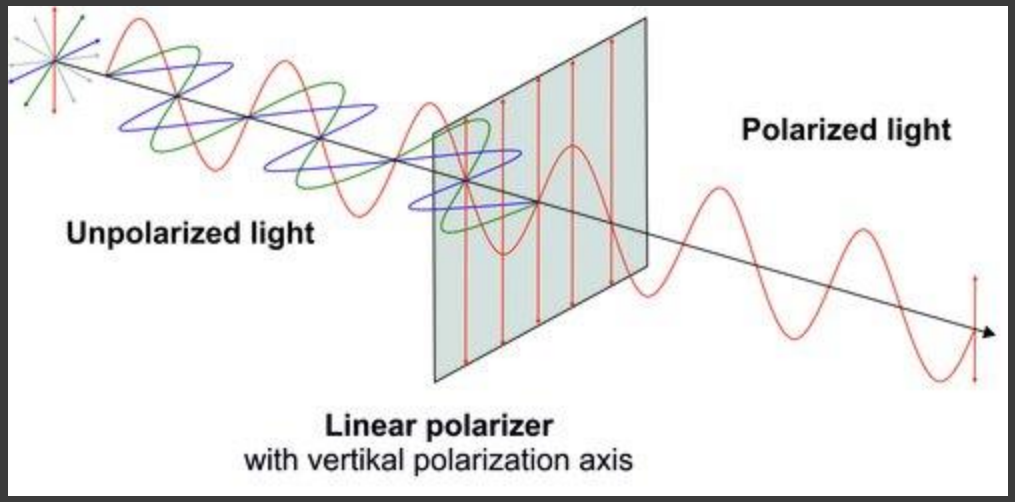
Checklist

- ✓ Camera color balance
- ✓ File size / quality / type
- ✓ Polarizers Set
- ✓ Exposure mid-range
- ✓ Squared / Focused
- ✓ Reflections
- ✓ Ambient Light

Always Bracket Exposures

Polarized Light – Setting your filters

A Polarizer will drop the light by about 2 f stops
Polarizer on the lights and Polarizer on the lens
is about a 4 stop loss



Polarized Light

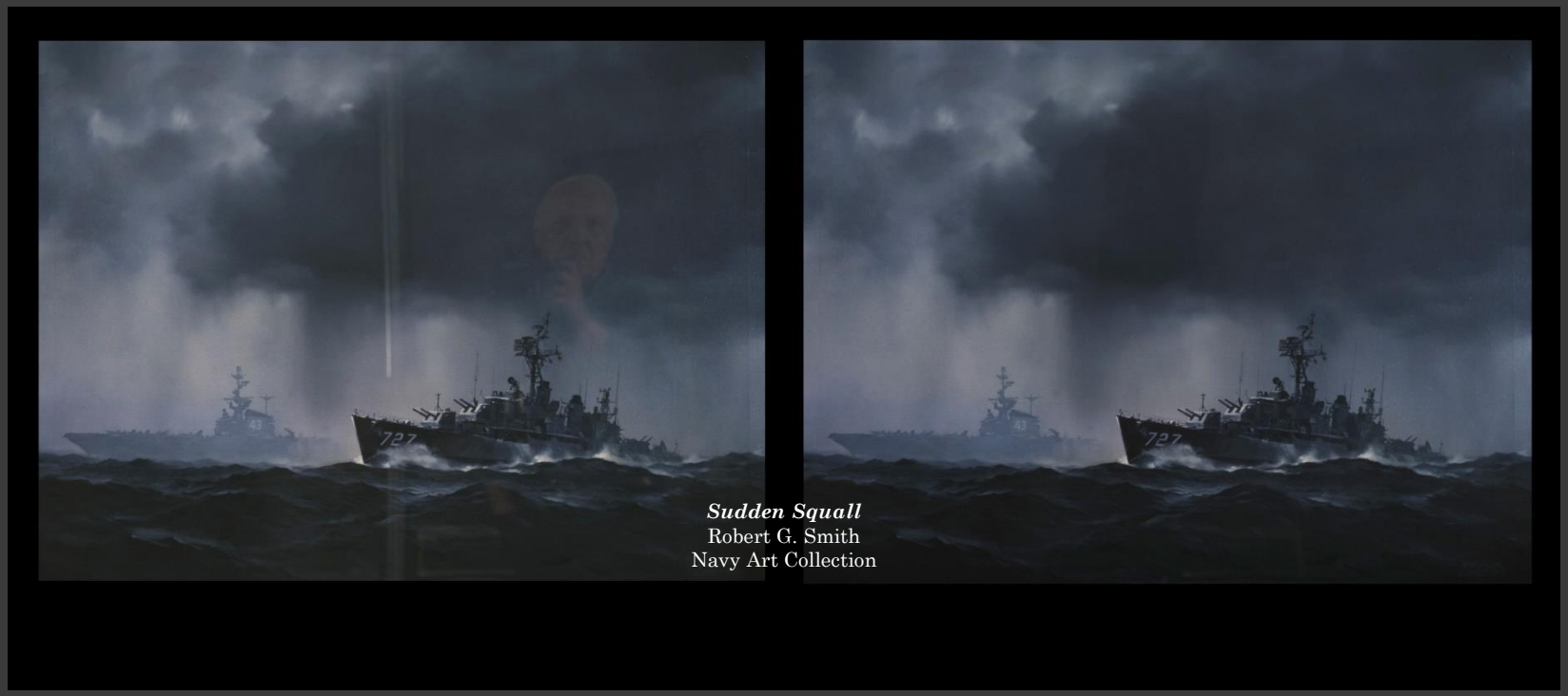
Wine Tasting - Don Wright

Polarized Light

Portrait of Lt. Charles Rumsey Broom
Artist Unknown
National Museum of the Marine Corps

Under Glass

This may require a modified set-up



Sudden Squall
Robert G. Smith
Navy Art Collection

Diffused lights

ADM Claude V Ricketts
Hannibal DeBellis
Navy Art Collection

Dimensional Artworks require different light modifiers

Bust of John Paul Jones
Jean-Antoine Hudon
Navy Art Collection

How's That Color Looking?

Am I the only person
who has walked outside and discovered
the black pants I put on were actually blue?

To see a "true" color we need to view it under a "true" light source.
To accurately match colors we need to view them under the same light source.
Daylight is the accepted norm, to be more specific, a light with a color temperature of 5000k and CRI of 90+. "Natural Light'.

When you need exact color matches, you need to control the light – from the light you use for photography to the light you view the artwork and print.

All cameras, monitors and printers have a color bias and not all colors will reproduce accurately. You may have to compromise.

Color Behaving Badly

Guardian Angels Gunship
LtCol. A. Michael Leahy, USMCR

The grey scale is "perfect"…

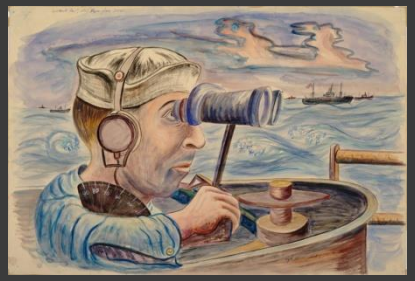
The artwork actually looks like this.

Finishing Touches

Never erase the camera card before you have at least 2 backups.

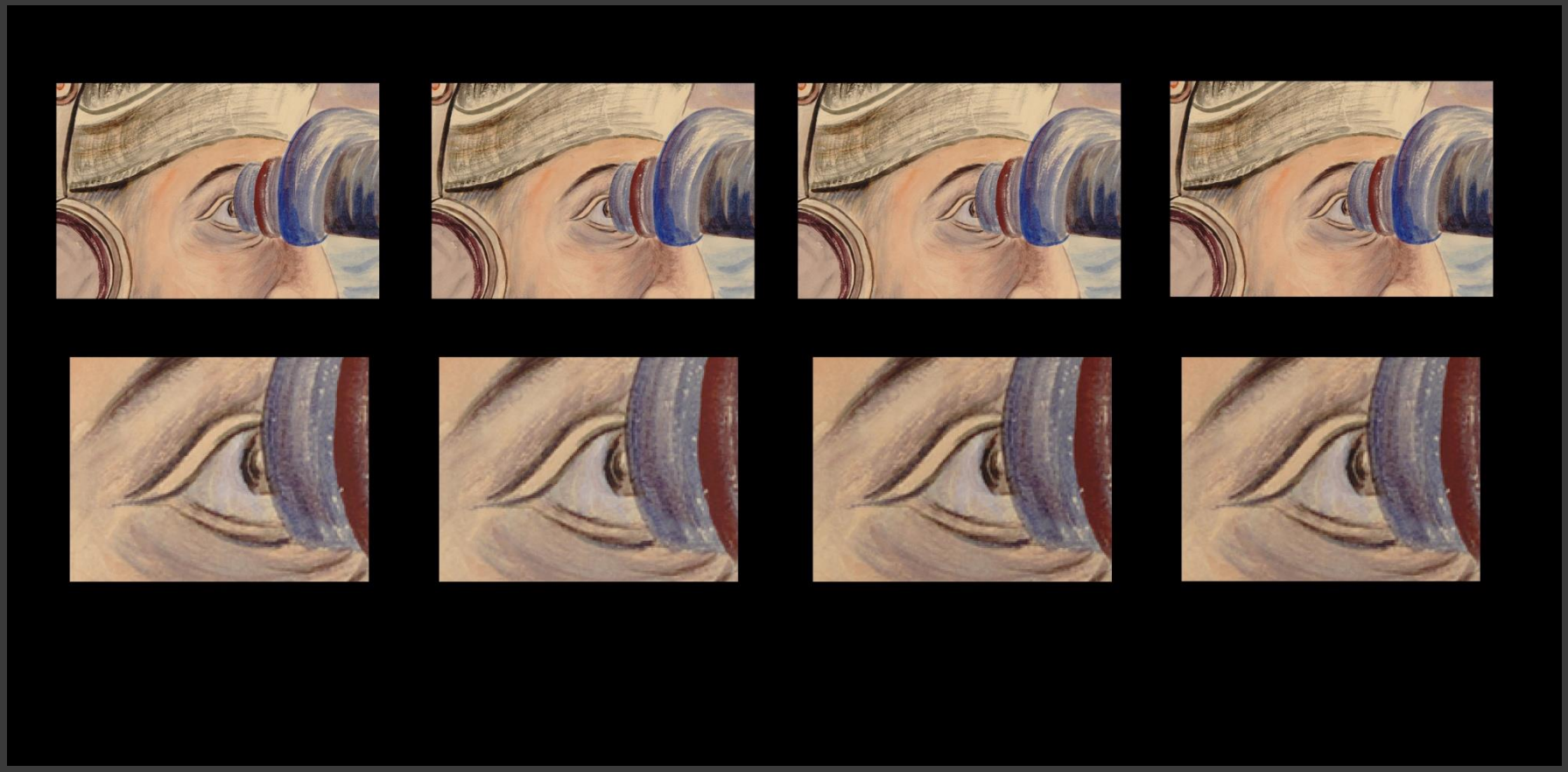
All the original unedited camera files

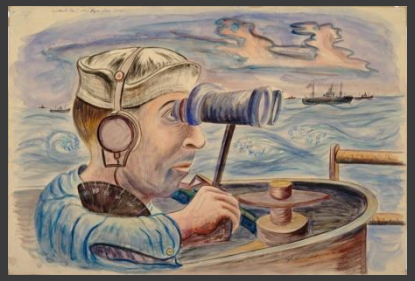
Selected files
Named and saved in TIF format
Balanced and cropped
These are your Archive Masters.



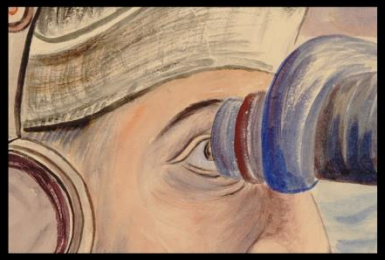
File Resolution

Here's a selection of images in different file formats. Actual pixels are shown on top and then enlarged on the bottom





There are many ways to show the same image

16 bit TIF	8 bit PNG	8 bit TIF	8 bit JPG
			
			
7264 x 5440 Pixels 226 mb file	7264 x 5440 Pixels 51.9 mb file	7264 x 5440 Pixels 113 mb file	7264 x 5440 Pixels 30.7 mb file

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