Computer Science E-7
Exposing Digital Photography

Lecture 2: Software Tools & Light
September 14, 2009

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Image from http://www.dpreview.com/reviews/panasonicfz8/

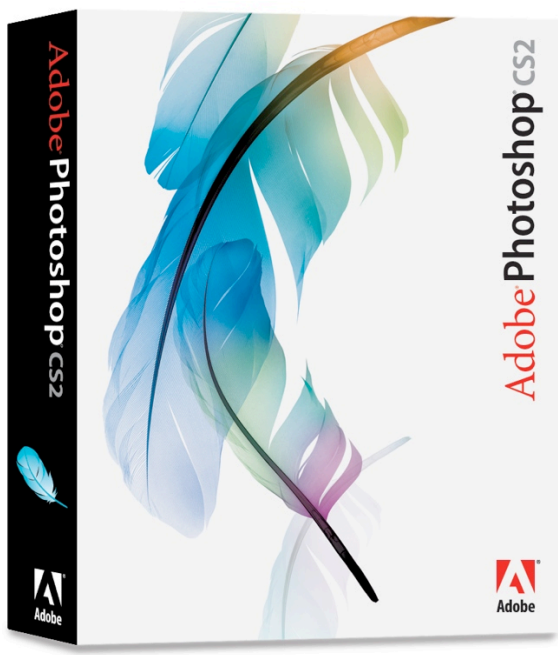
Computer Science E-7

Cameras

Day	Time	Location
Mondays	7:35 to 9:35	53 Church St. #104
Wednesdays	5:30 to 7:30	53 Church St. #104

http://cse7.org/sections

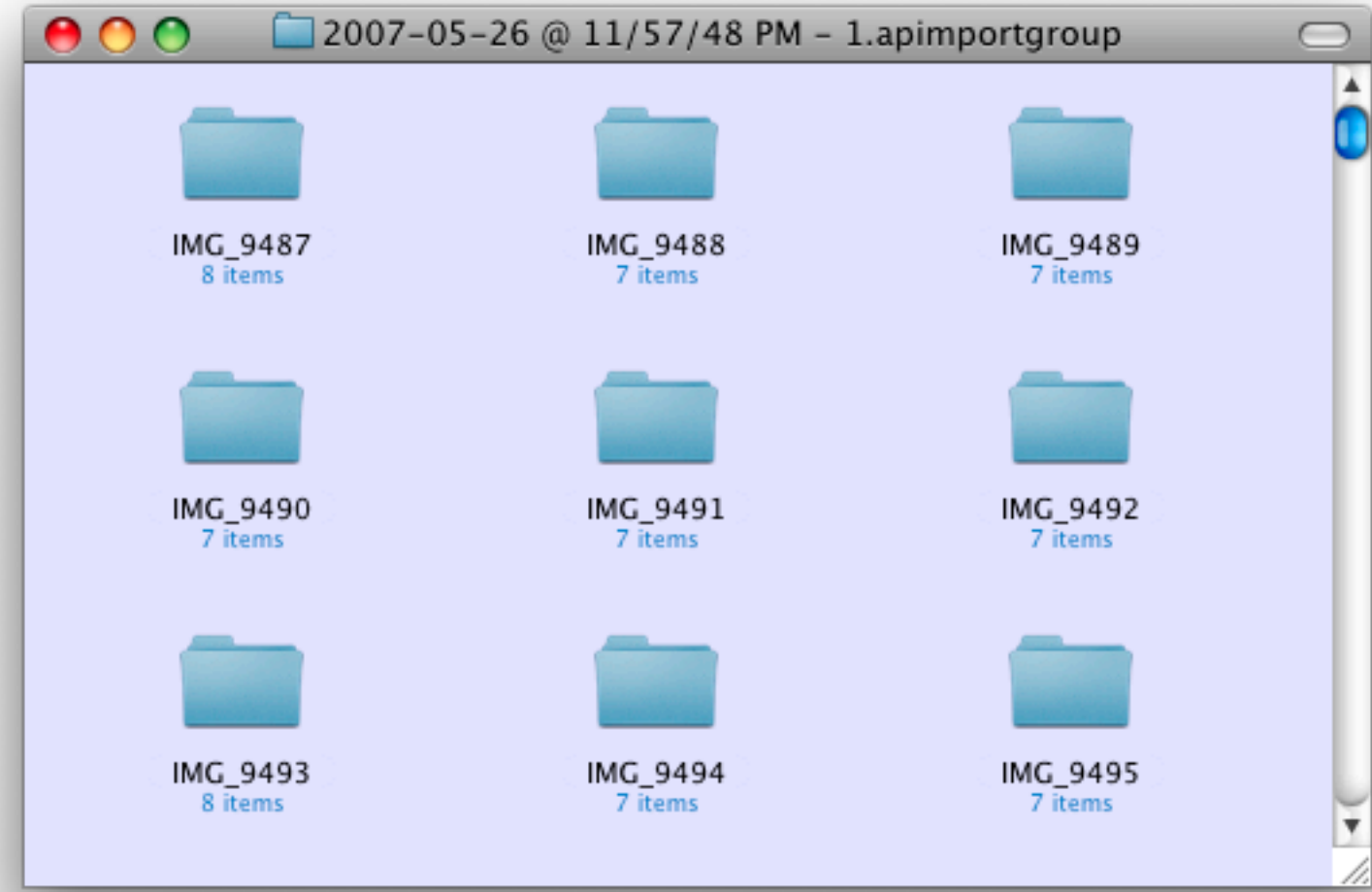
PHASEONE



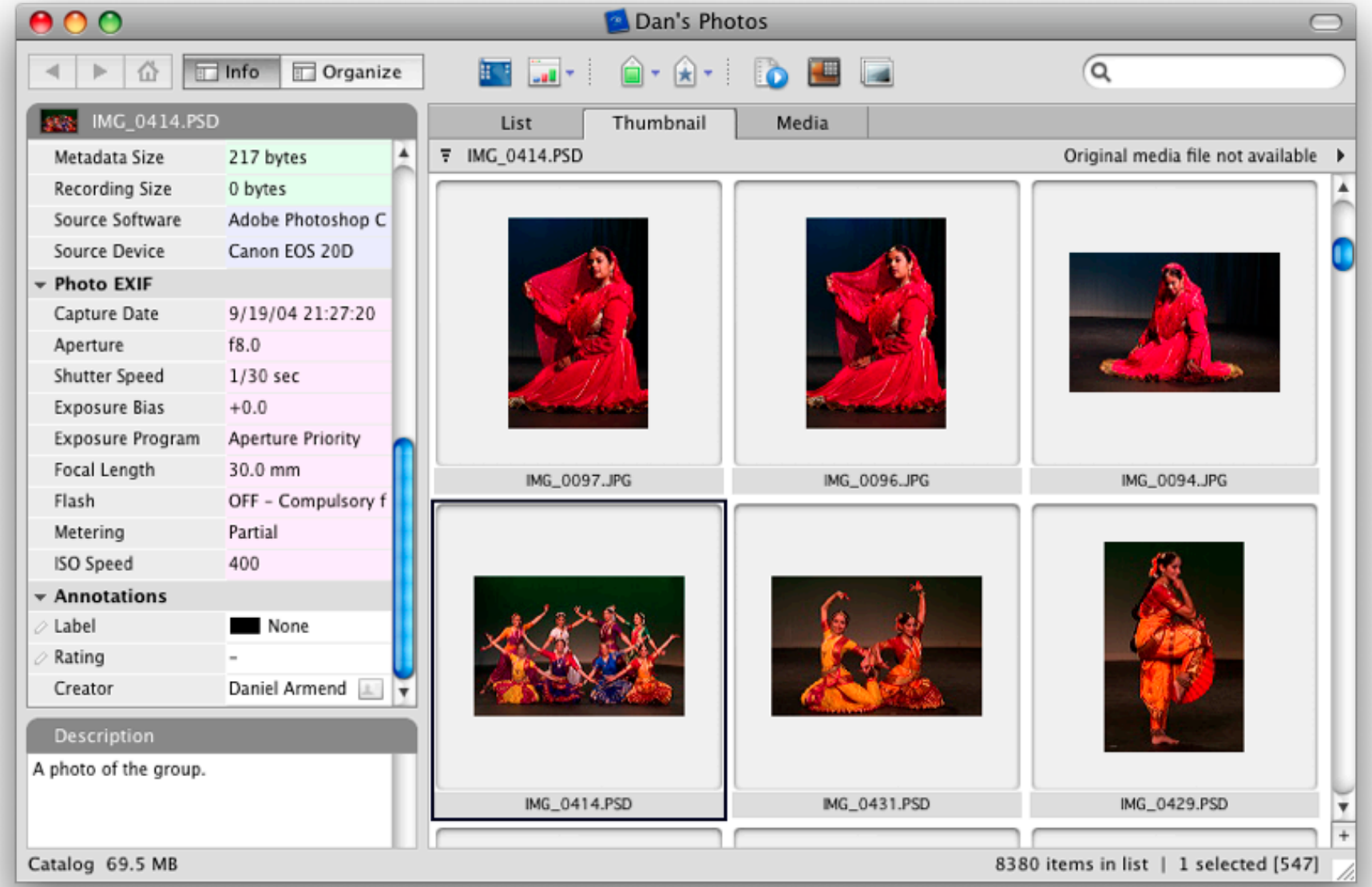
iView MediaPro

Software Tools

Available Tools



Software Tools | Photo Organization



Software Tools

Photo Organization

Software Tools

Photo Organization

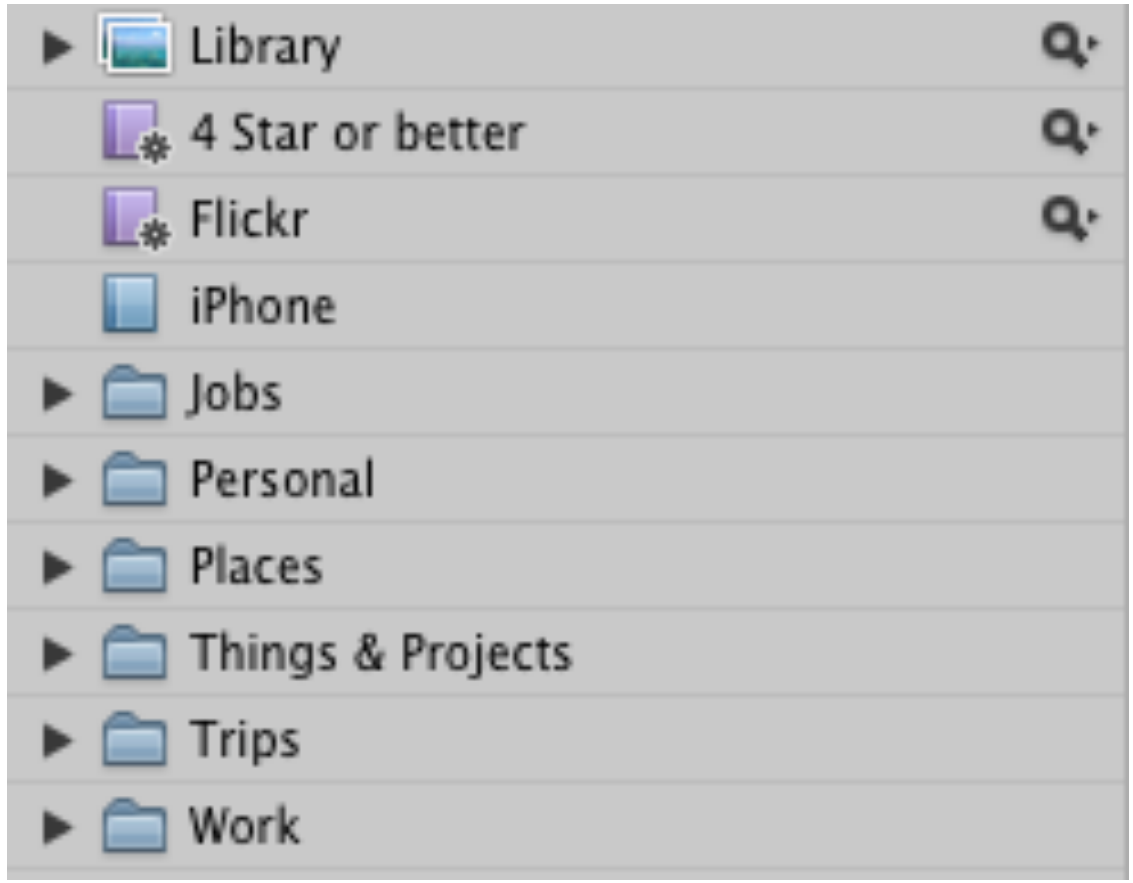


Photo Organization

Folders, Projects

Photo Organization

Ratings, “Stacks”

Photo Organization

Keywords

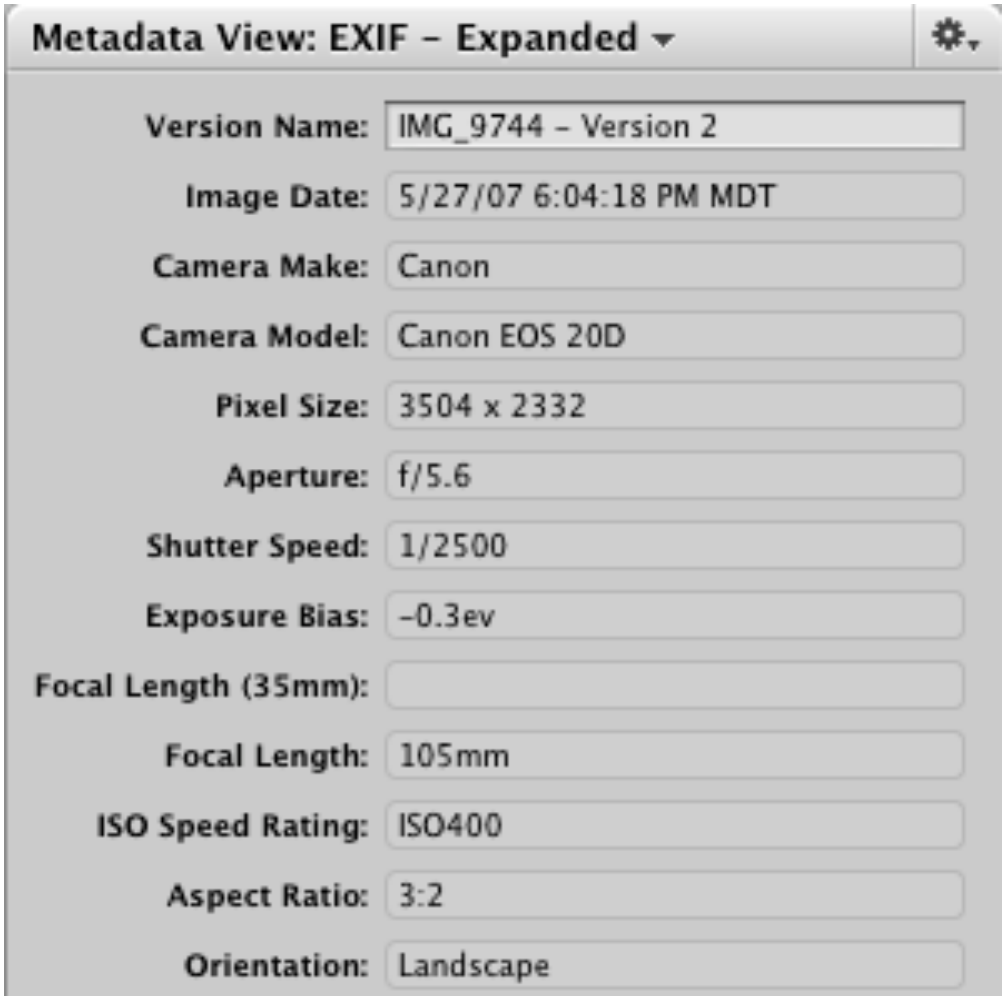


Photo Organization | Metadata

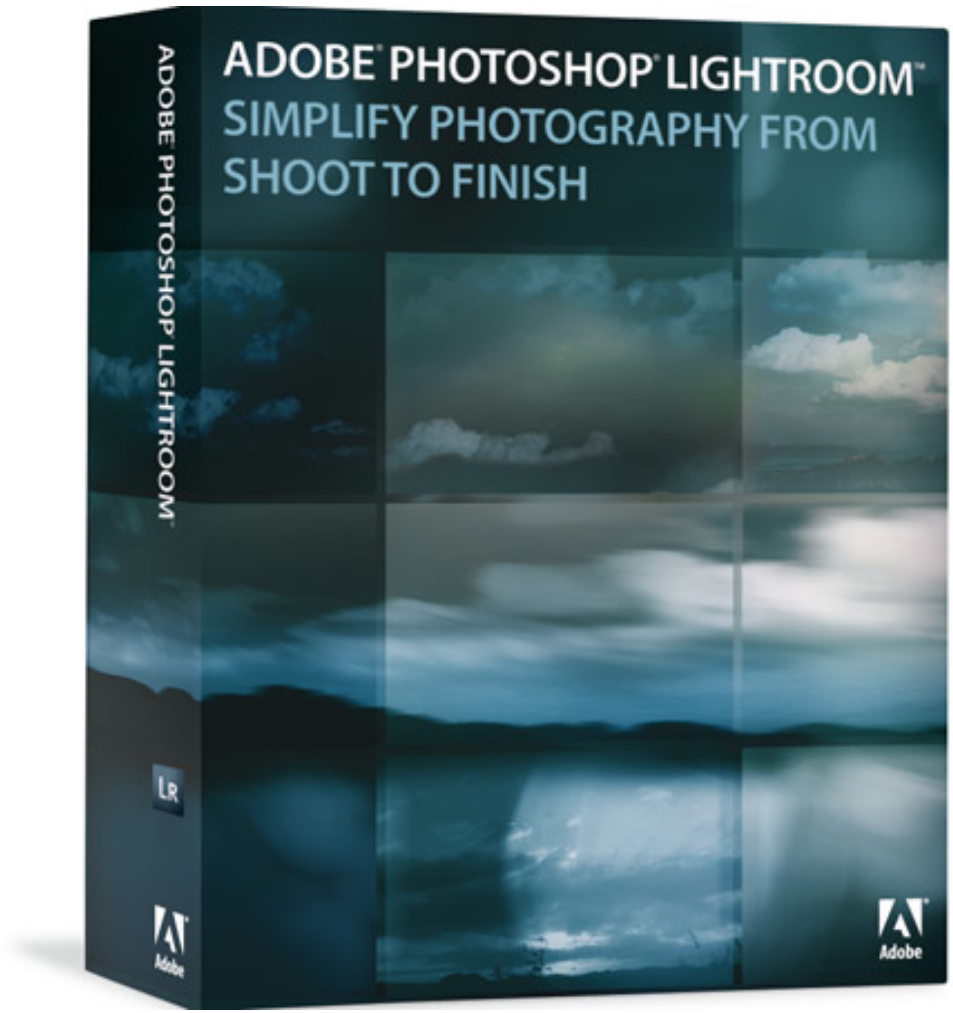
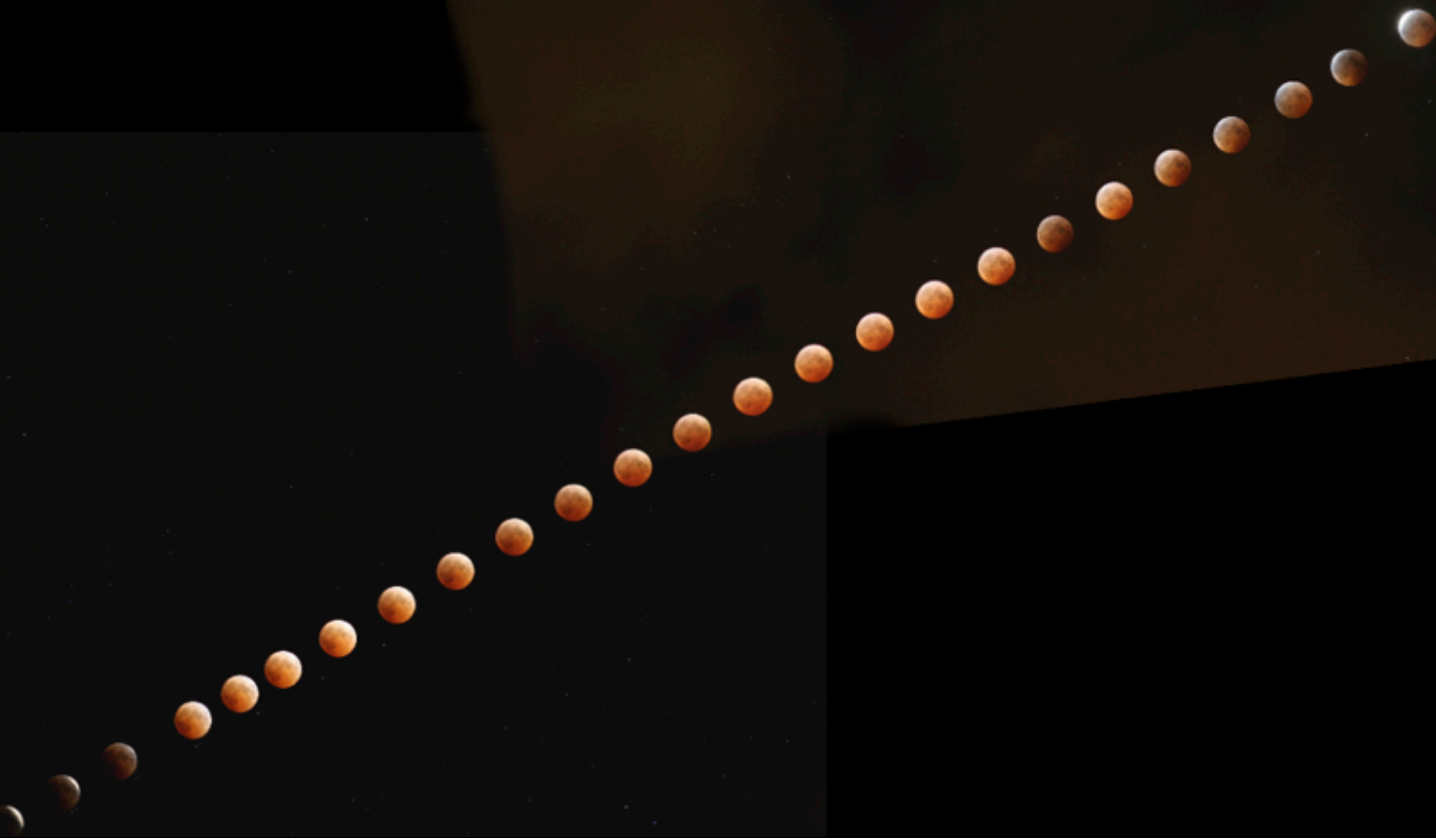


Photo Organization

My way or the highway!

Photo Organization

Backing up

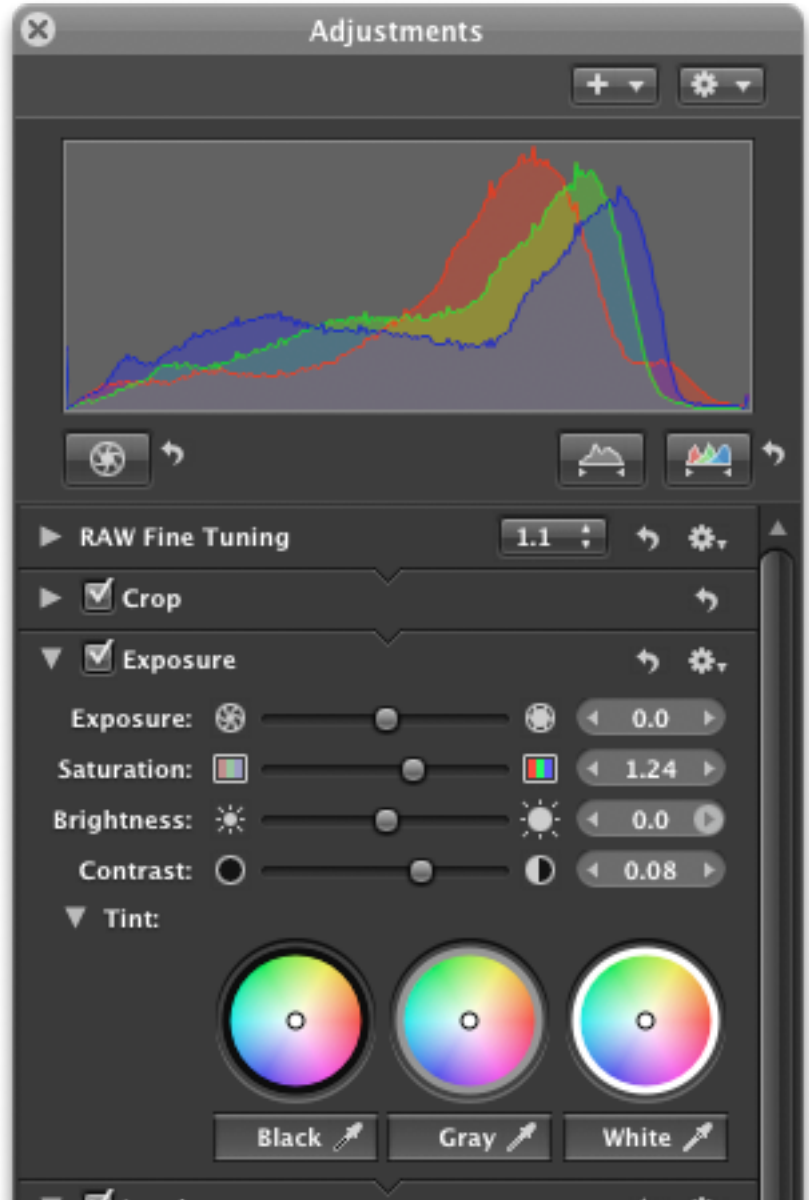


Around f/5.6, 1/20s, ISO 400

Photo sequence by Dan Armendariz, 2004

Software Tools

Interacting with a camera



Software Tools

RAW Processing

Photo by Dan Armendariz, 2007

Software Tools

Resizing and Cropping

Software Tools

Photoshop!

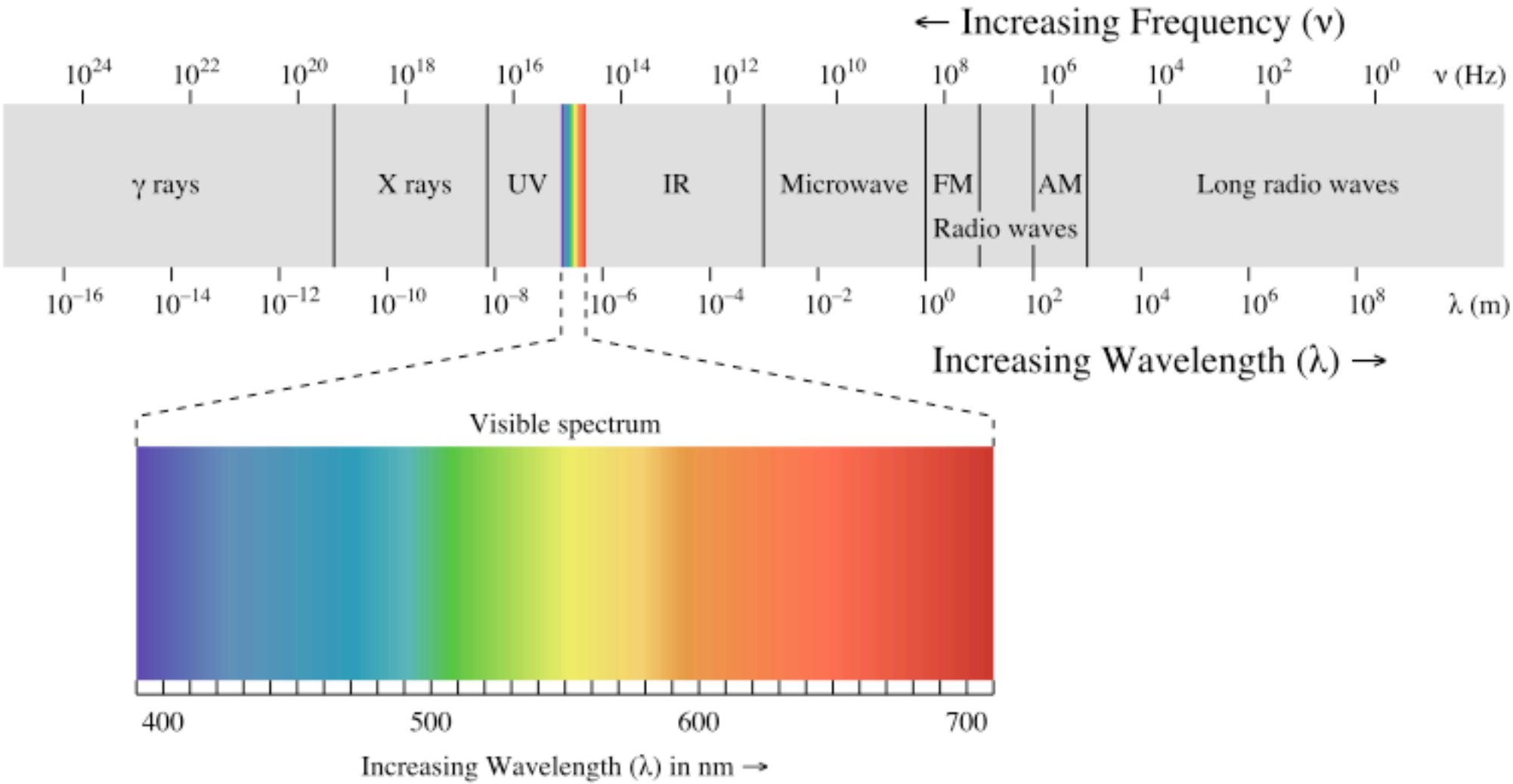


Image from http://en.wikipedia.org/wiki/Electromagnetic_radiation

Light

Properties of Waves & Particles

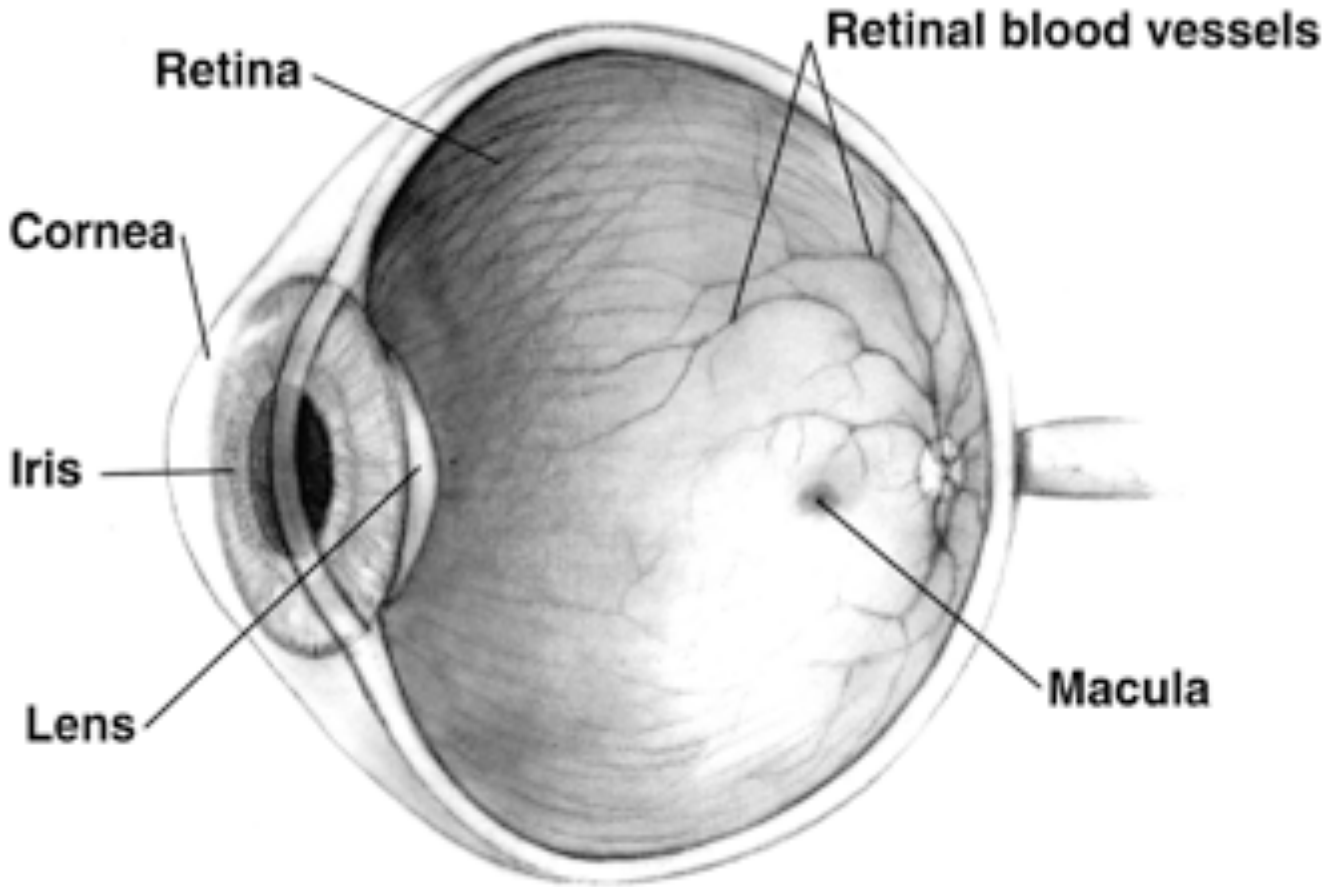


Image from http://en.wikipedia.org/wiki/Eye

The Eye

In a nutshell

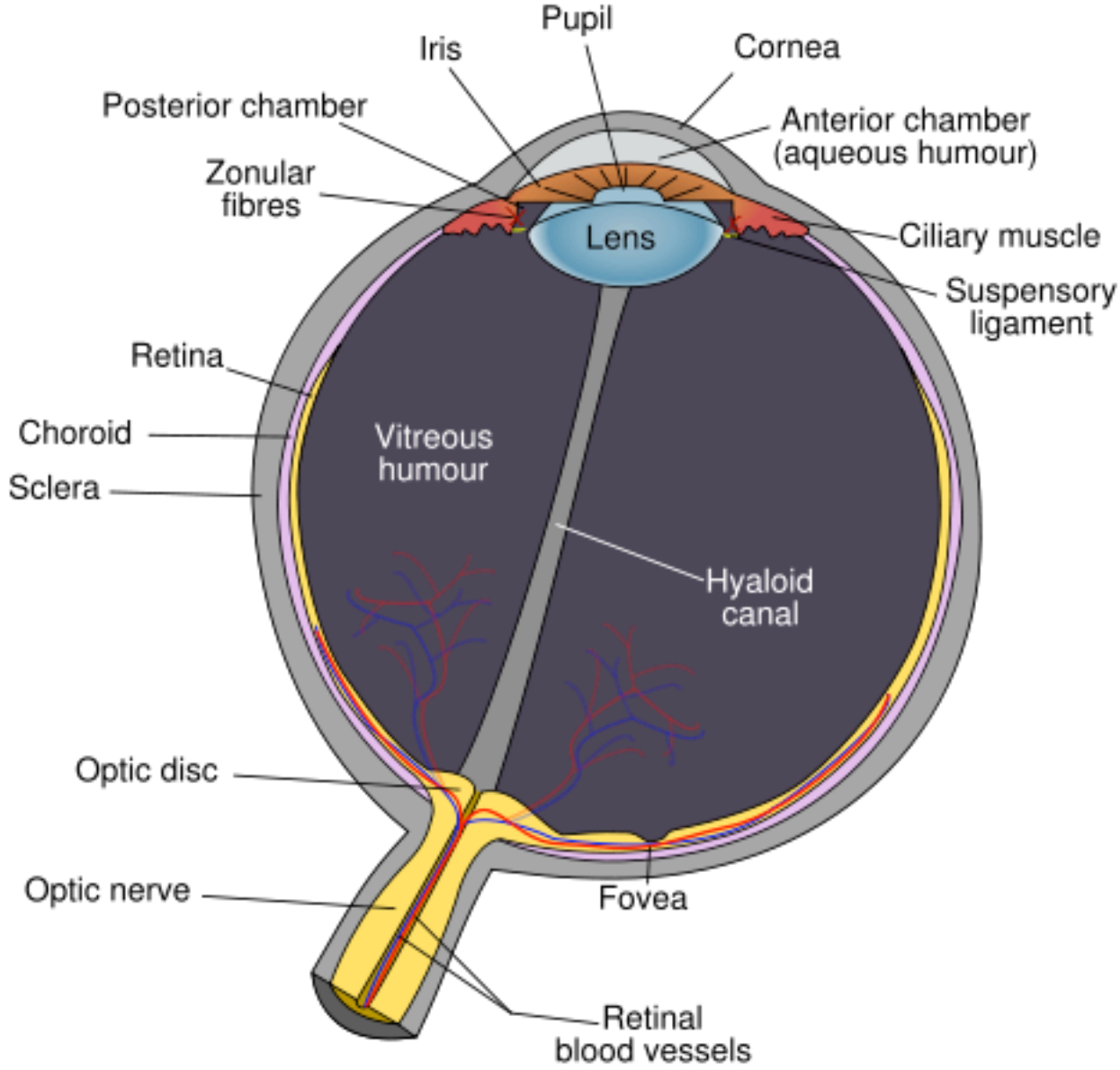


Image from http://en.wikipedia.org/wiki/Fovea

The Eye

Fovea

Rods	**Cones**
Night vision	Day vision
More sensitive to light	Less sensitive to light
Not in fovea	Concentrated in fovea
22 times as many rods than cones in retina	
Monochromatic stimulus	Trichromatic (color) stimulus
Preference to detect motion	Preference to detect detail

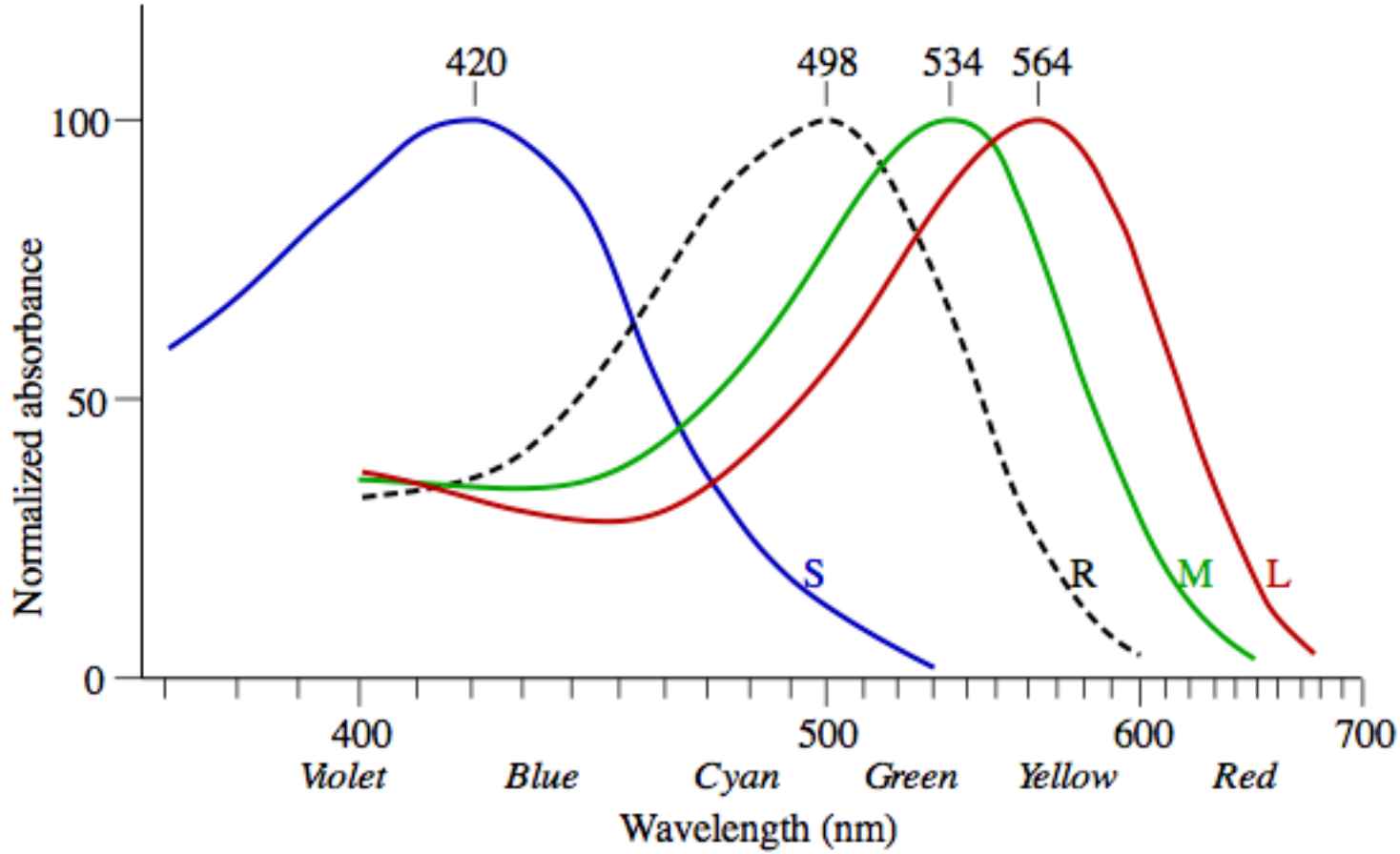
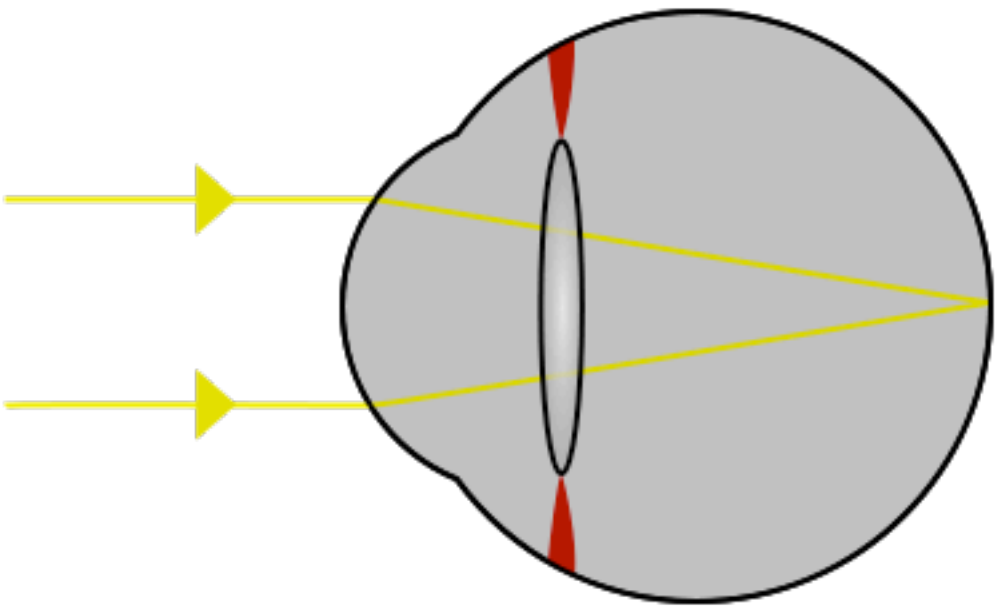
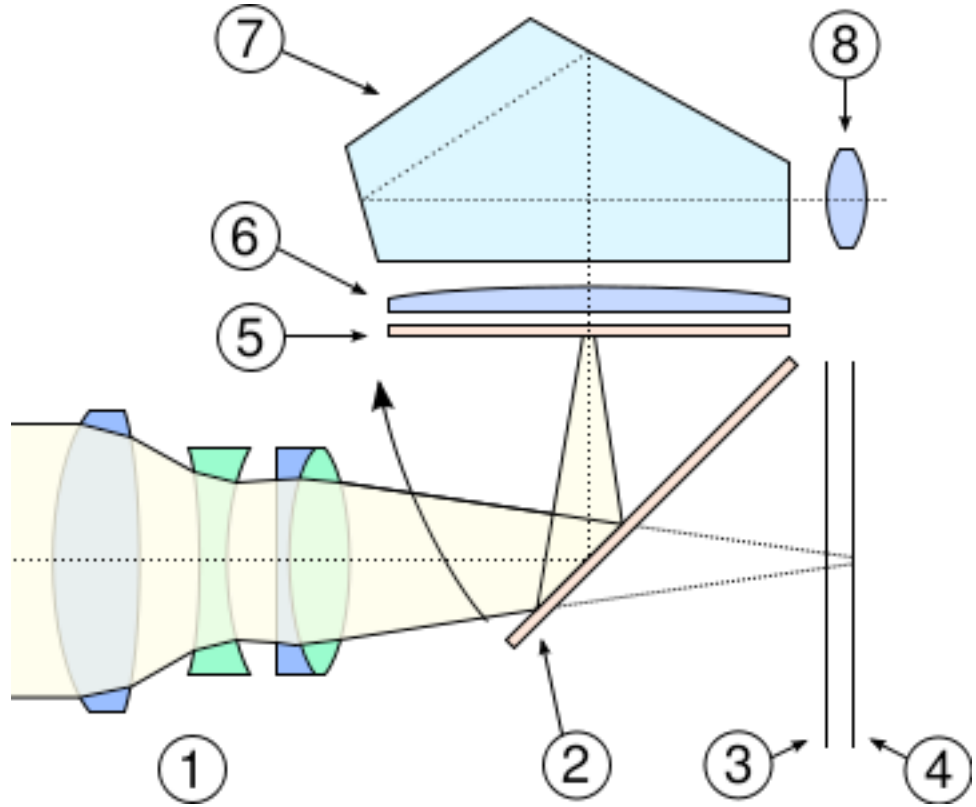


Image from http://en.wikipedia.org/wiki/Trichromacy

The Eye

Rods & Cones

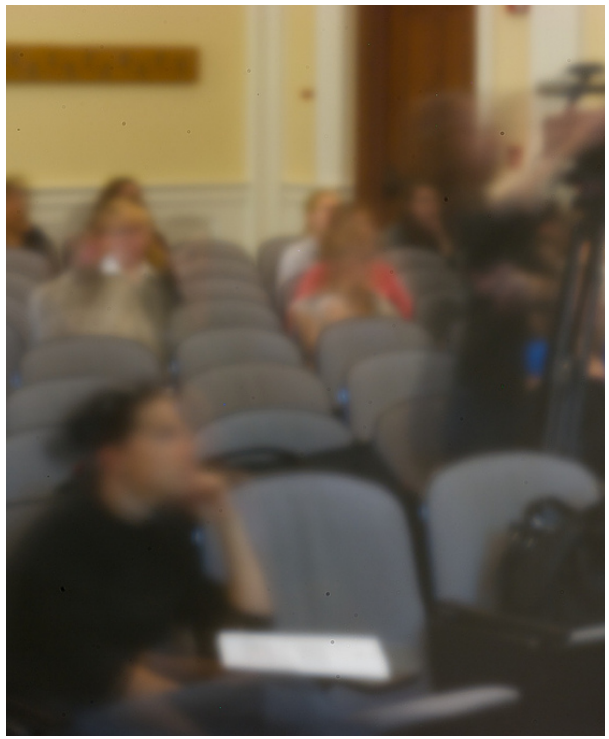




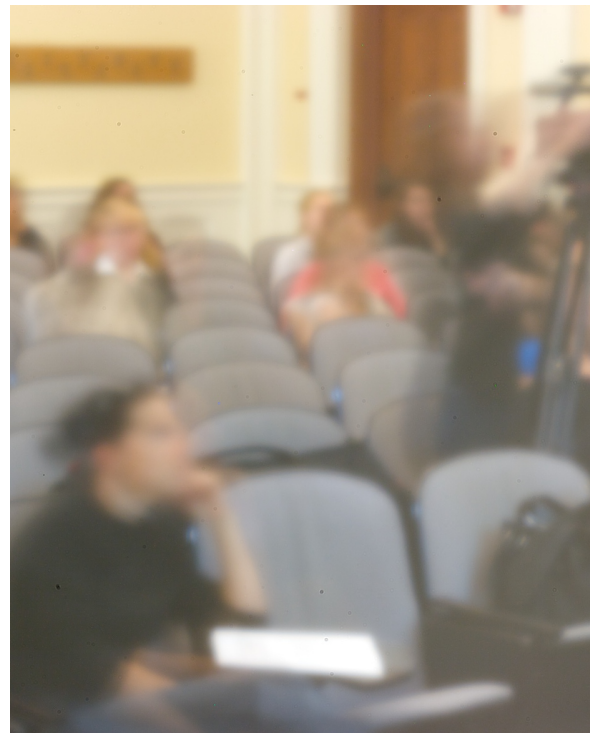
Images from http://en.wikipedia.org/wiki/Eye and http://en.wikipedia.org/wiki/Single-lens_reflex_camera

Cameras

Similarity to the Eye



+0 EV



+1 EV

+2 EV

Exposure

Stops & Exposure Value (EV)

662s, ISO 100

Photo by Dan Armendariz, 2009

Exposure

Shutter Speed

10.0s, ISO 100, f/8

Photo by Dan Armendariz, 2007

Shutter Speed

Effects

2s, ISO 100, f/13

Photo by Dan Armendariz, 2007

Shutter Speed

Effects

Shutter Speed

Stopping motion

Photo by Dan Armendariz, 2004
1/1250s, ISO 200, f/2.8

1/320s, ISO 100, f/9.0

Photo by Dan Armendariz, 2009

Shutter Speed

Mixing motion with still

2.5s, ISO 400, f/5

Photo by Dan Armendariz, 2006

Shutter Speed

Mixing motion with still

1/1000s, ISO 400, f/5.6

Photo by Dan Armendariz, 2007

Shutter Speed

Stopping motion

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