Intermediate Photography

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Session 1

The intro class focused on two characteristics of light

these two:

Colour

Quantity

Quality

Direction

This class focuses on the other two.

these two:

Colour

Quantity

Quality

Direction

Current plan

all subject to change, naturally…

Session 1 :
Class project ideas. Review core concepts and fundamentals from intro classes. Manual Exposure.

Session 2 :
Looking at light; flash vs. continuous sources. Talk about how flash works with a focal plane shutter. How to show form with highlight and shadows.

Session 3 :
Low light photography lecture, talk tripods and cable releases, light painting. High ISO and low ISO situations at night.

Session 4 :
Night Photography session on location.

Session 5 :
Storytelling. Developing a creative vision. Review night photography images.

Session 6:
Mixed media workshop (part 1)

Session 7:
Mixed media workshop (part 2)

Session 8:
Sharing the final projects and review of materials covered.

Embrace the Shake!

Project ideas

Project ideas

Looking at Composition

Working in an area that's approximately 10'x10'x10' or 3mx3mx3m create 20 unique images.

Each image should have the correct exposure, white balance and focus.
Try to make each image in the series consecutively.
All 20 images will be shared on class 8

Project ideas

Looking at the colour of light

Create 10 images of objects that are lit with unique sources of light.

Set the camera to daylight white balance for all images regardless of the colour temperature of the source.

Avoid photographing just the light source, for example: use a candle to light an object rather than photographing a candle.

Project ideas

Looking at looking

Create 26 images of objects or shapes or forms that can be interpreted by the viewer as letters of the alphabet

Try to make 26 images of found subjects that can be composed and interpreted to represent the letters of the alphabet. Try to limit the images to existing structures rather than constructed structures.

Project ideas

Documenting a day

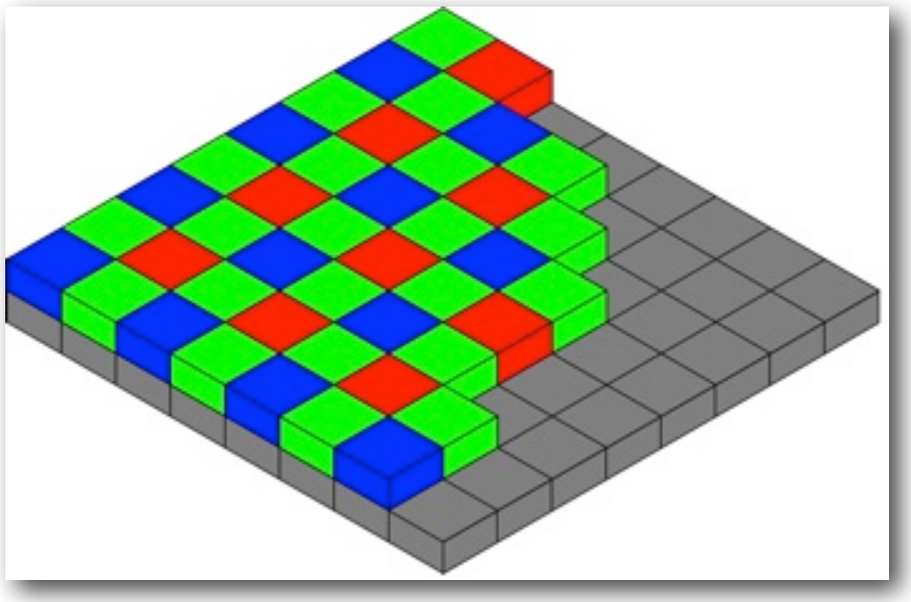
Form a story around a subject's day

Following a subject through a (24 hour period, or a bit less, don't need sleeping photos…) create a narrative photo essay of the individual and the activities. Edit the series to 20 photos that you will share with the class.

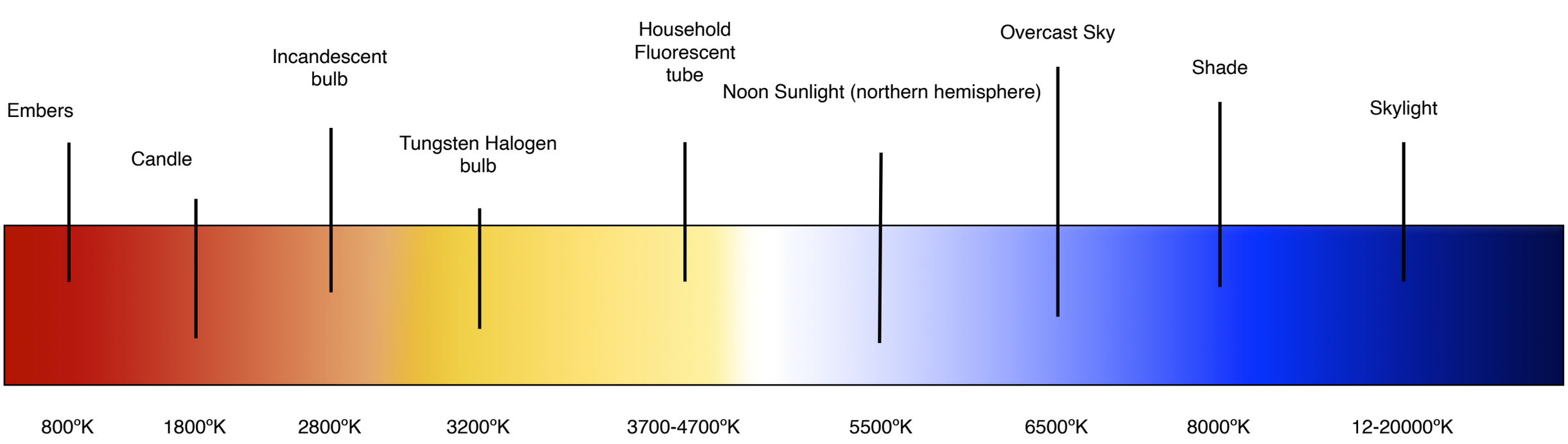
Consideration Checklist

What colour is the light?

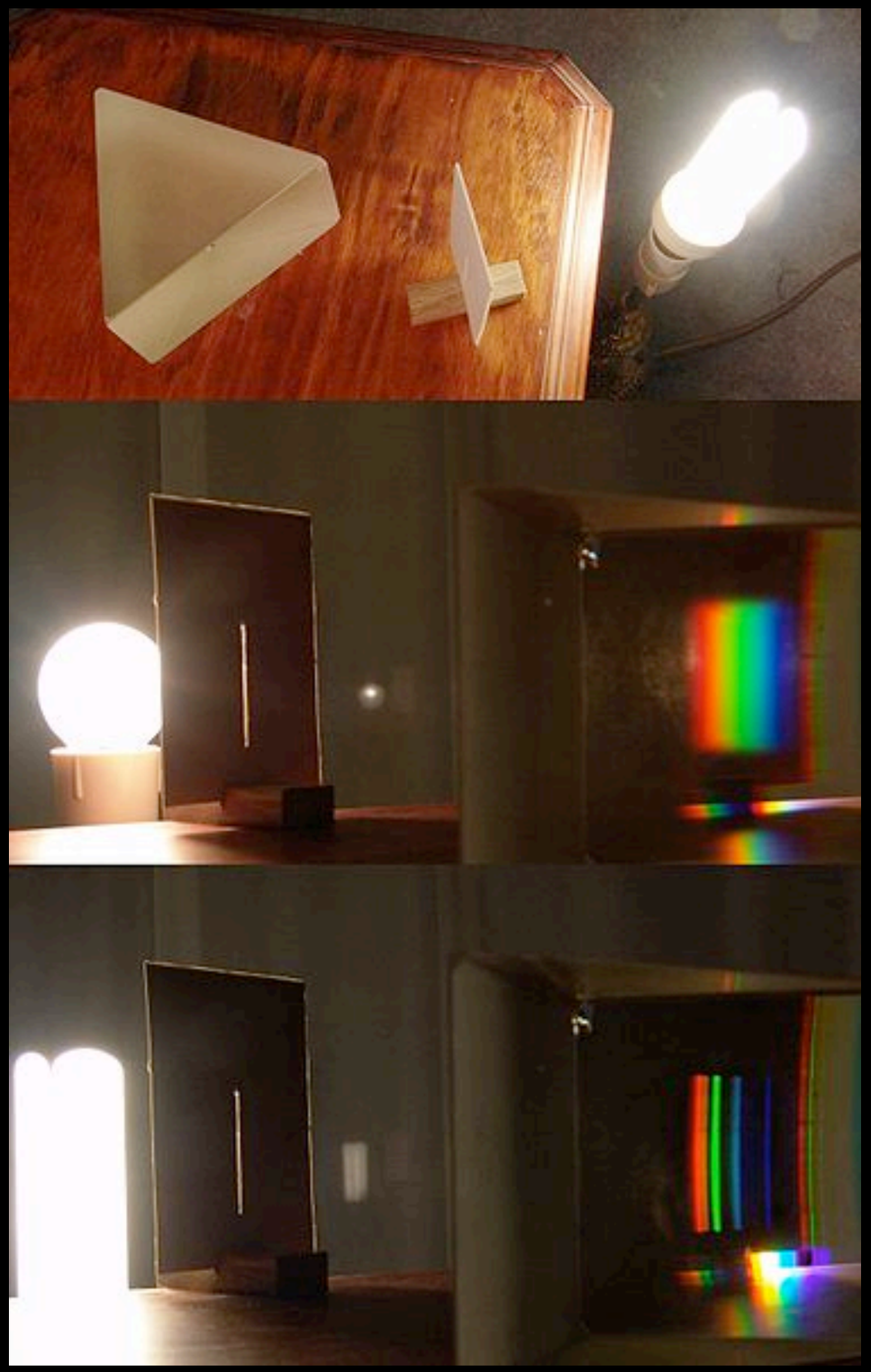
Recording Colour



Typical Bayer sensor array



A range of colour temperatures




~2700 K
60 W Incandescent
3500 K
13 W Fluorescent
5500 K
13 W Fluorescent

White Balance

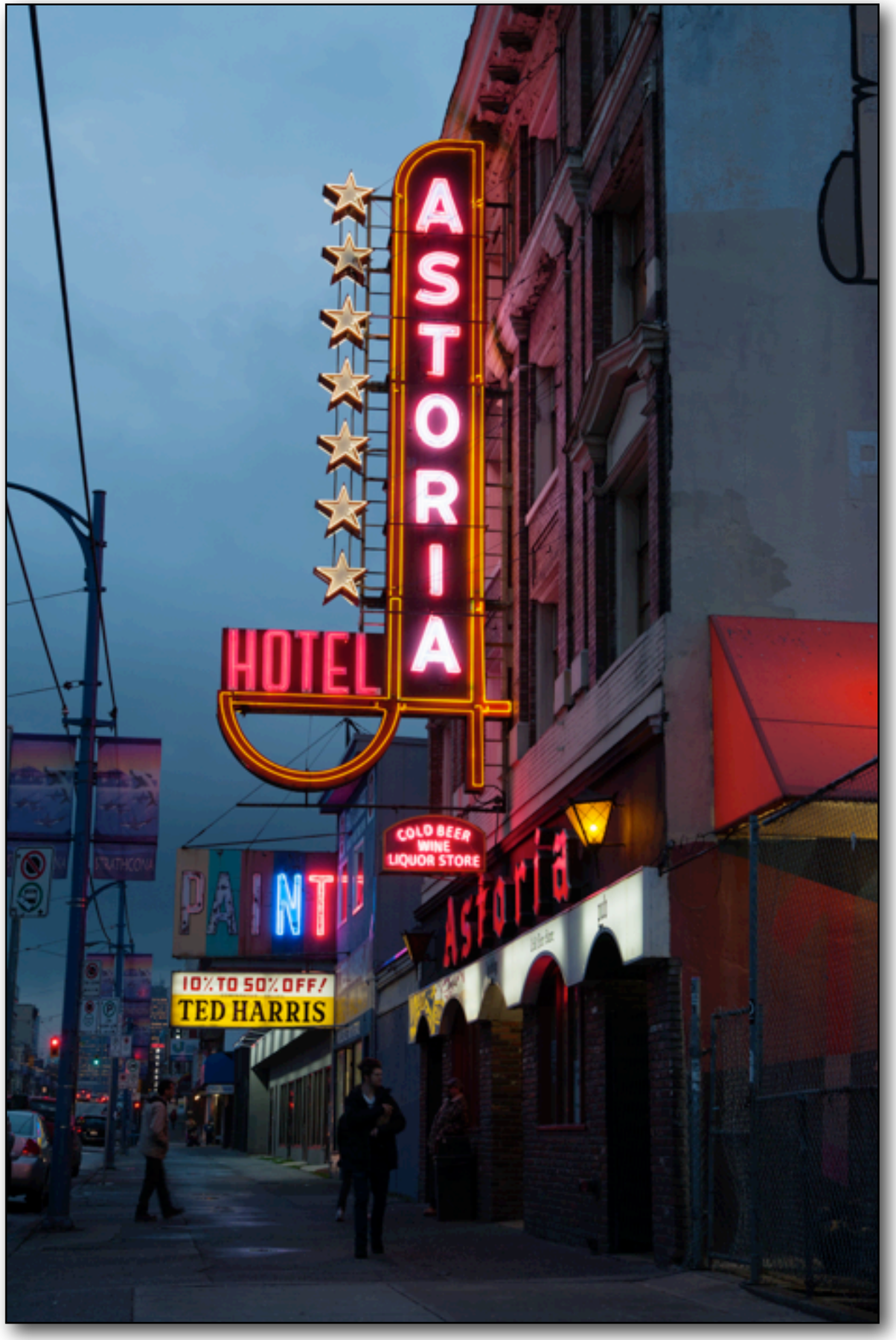
Daylight

Tungsten

Cloudy

Auto

How much light do I have?


ASTORIA
HOTEL
COLD BEER
WINE
LIQUOR STORE
Astoria
10% TO 50% OFF!
TED HARRIS

ISO

200 ISO

ISO

12800 ISO

What lens do I want to frame with?

SLR Camera Lenses

Fixed Lenses:
(also called 'prime lenses')

28mm Wide-angle
50mm Standard
85mm Portrait
200mm Telephoto

Zoom Lenses:

17-35mm Wide-angle
28-70mm Standard
70-200mm Telephoto
28-300mm Long Range

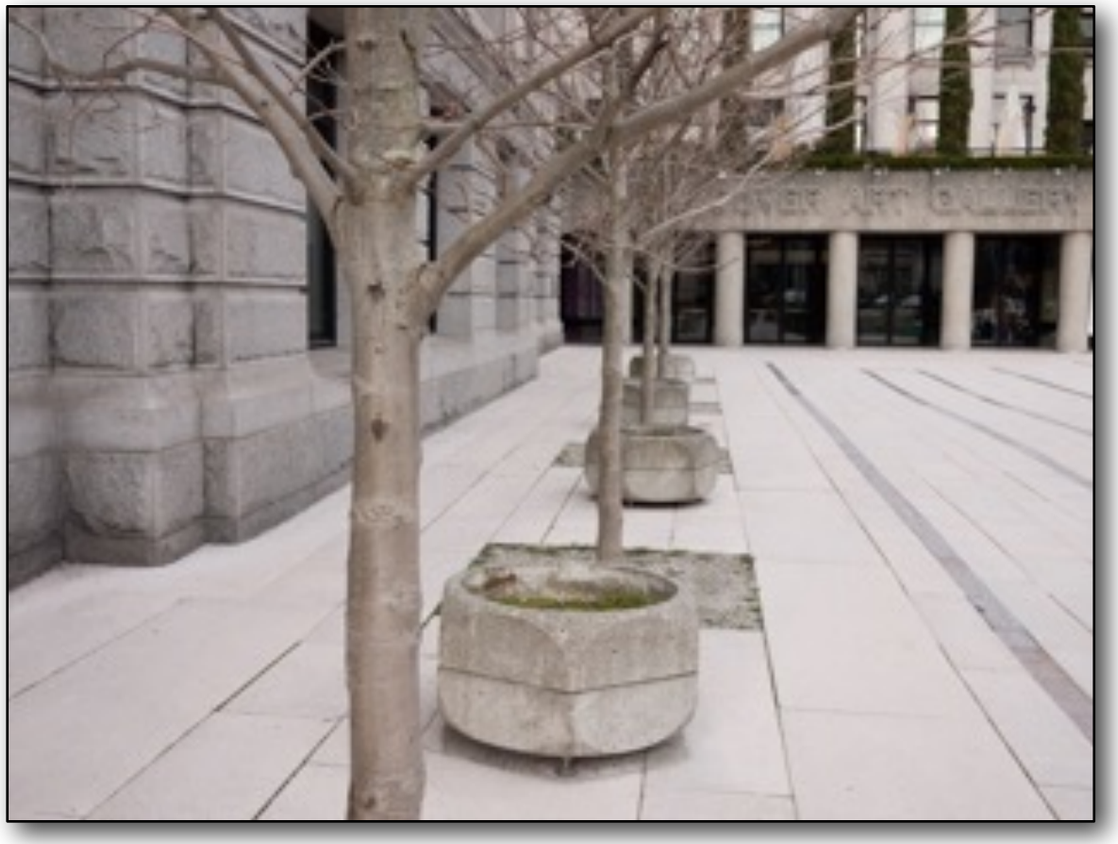
Specialty Lenses:

Tilt Shift Lenses
Macro Lenses
Fisheye Lenses
Ultra-Wide/ Long Lenses

All of the exposures were made at f5.6 from the same spot.
Angle of view changes, perspective does not.

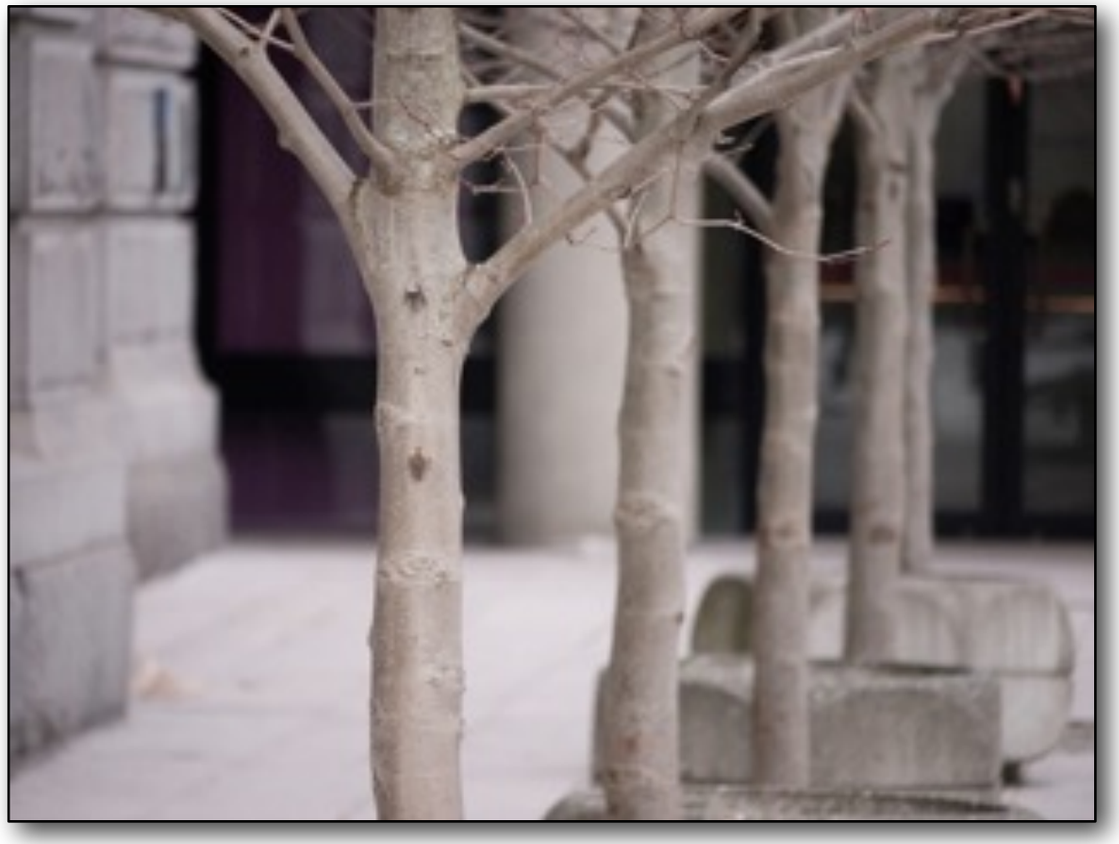
Lens Behaviour

Wide Angle



Expansion

Telephoto



Compression

expansion

compression

Is my subject moving or still?

Fast Shutter Speed
1/1000 second

Slow Shutter Speed
2 seconds

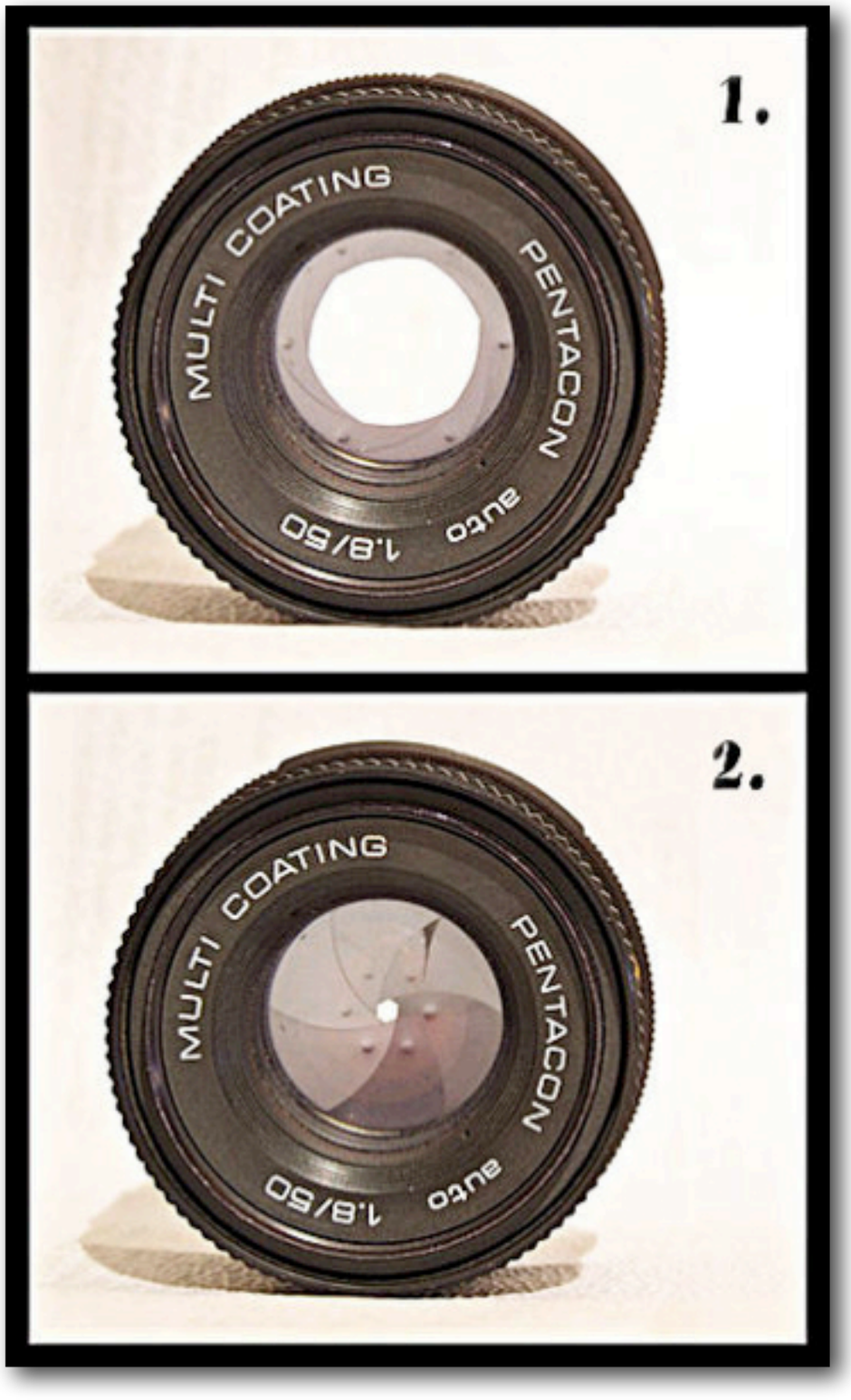
Perhaps Panning…

1/20 second f5.6 ISO 200

Subject isolation, or deep depth of field?

Aperture and the circles of confusion

Aperture



f:4.0

f:22

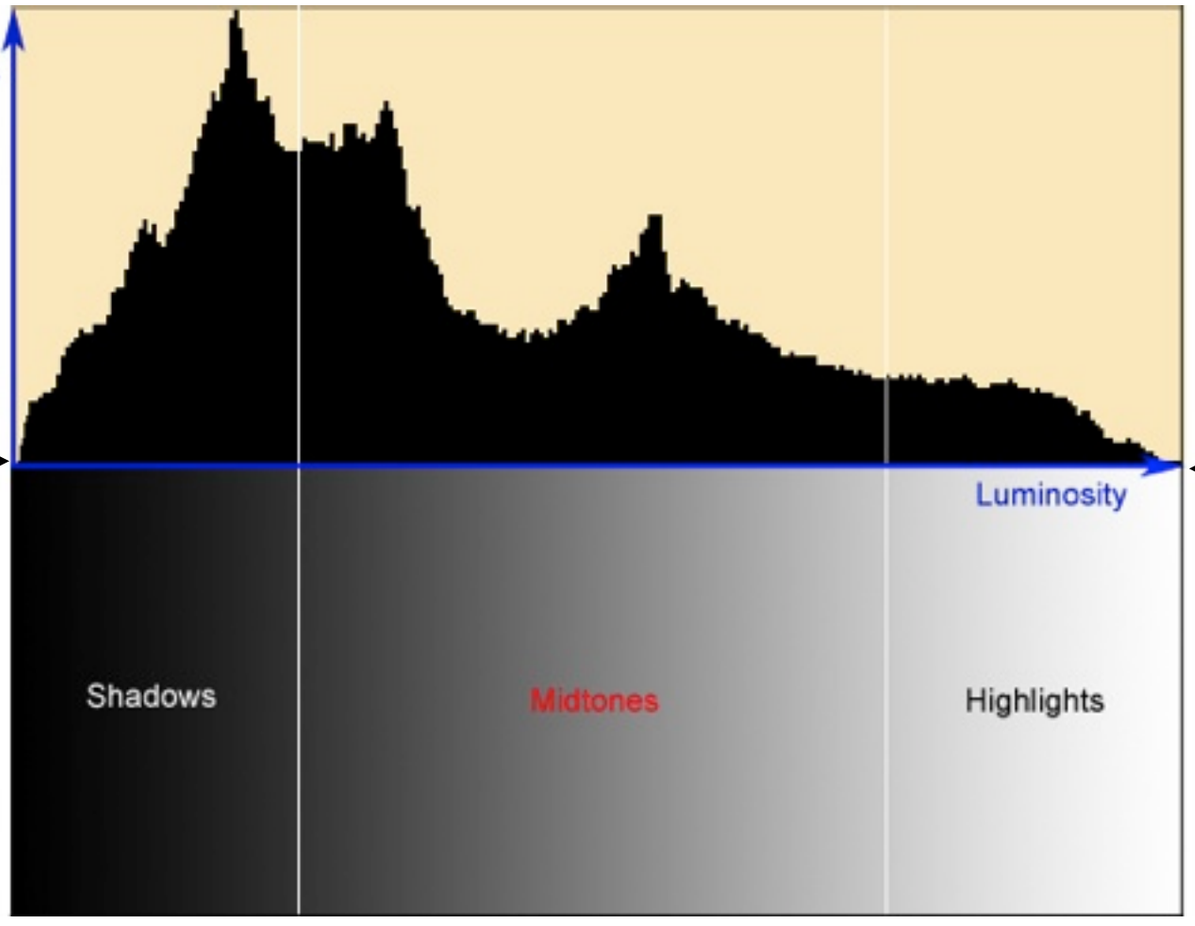
Aperture f:2.0

Aperture f:16

Confirming the Exposure

Exposure and the Histogram

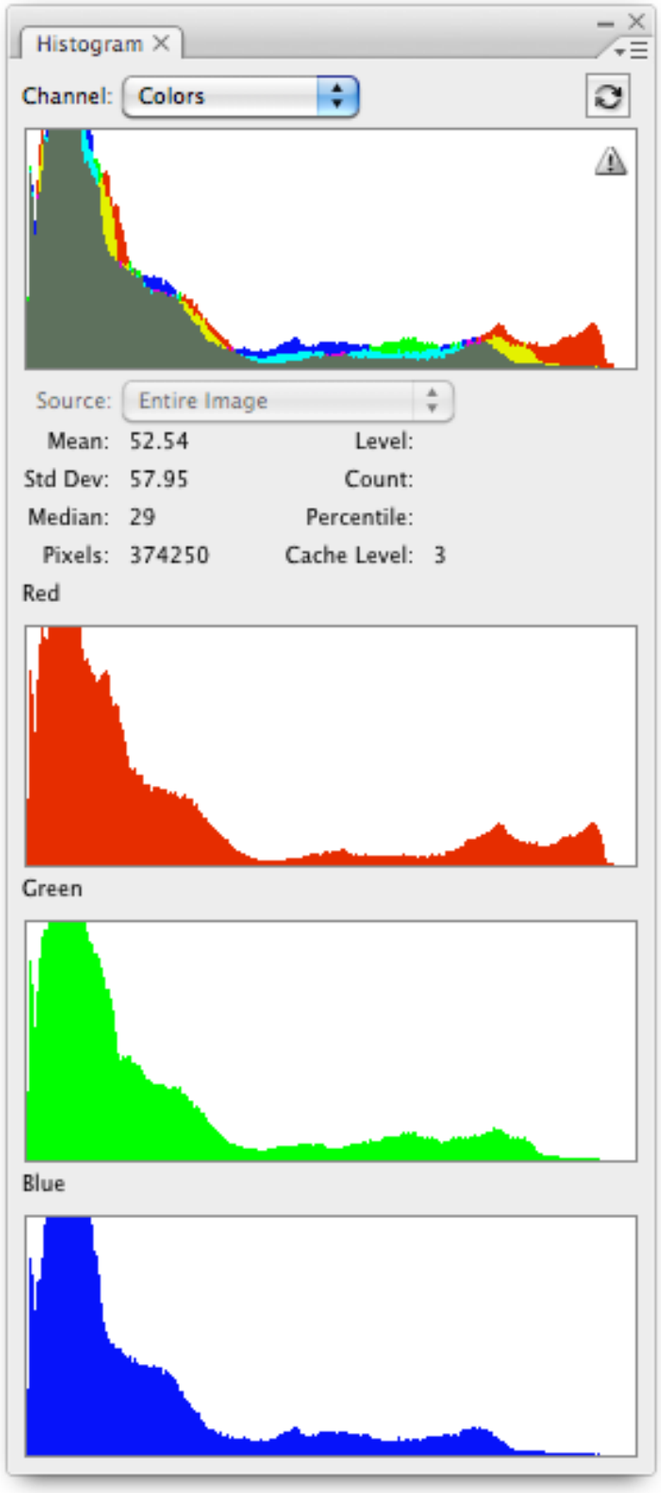
Zero detail
Black Point

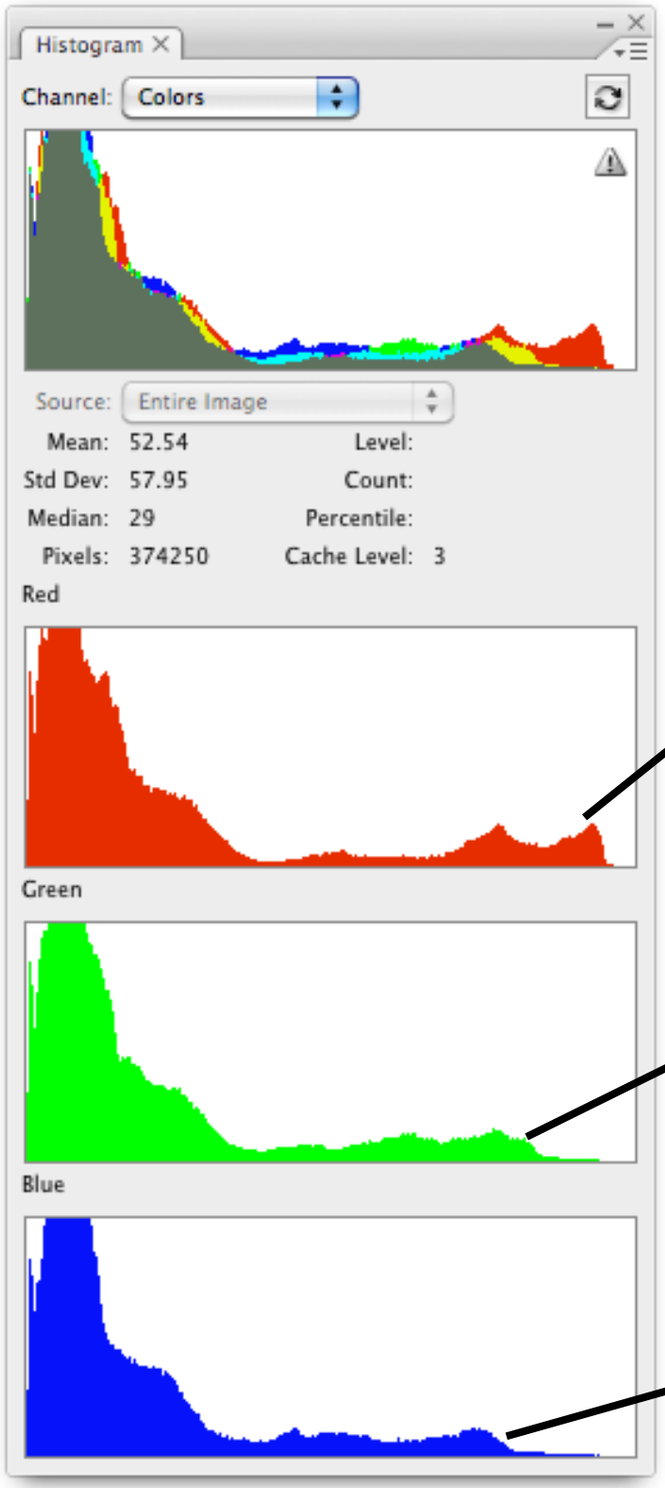


Zero detail
White Point

The histogram can be used as a visual indication of correct exposure when viewed in concert with the scene being photographed.

No such thing as an ideal histogram for all situations.


Histogram
Channel: Colors
Source: Entire Image
Mean: 52.54
Level:
Std Dev: 57.95
Count:
Median: 29
Percentile:
Pixels: 374250
Cache Level: 3
Red
Green
Blue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Count:
Median: 29
Percentile:
Pixels: 374250
Cache Level: 3
Red
Green
Blue

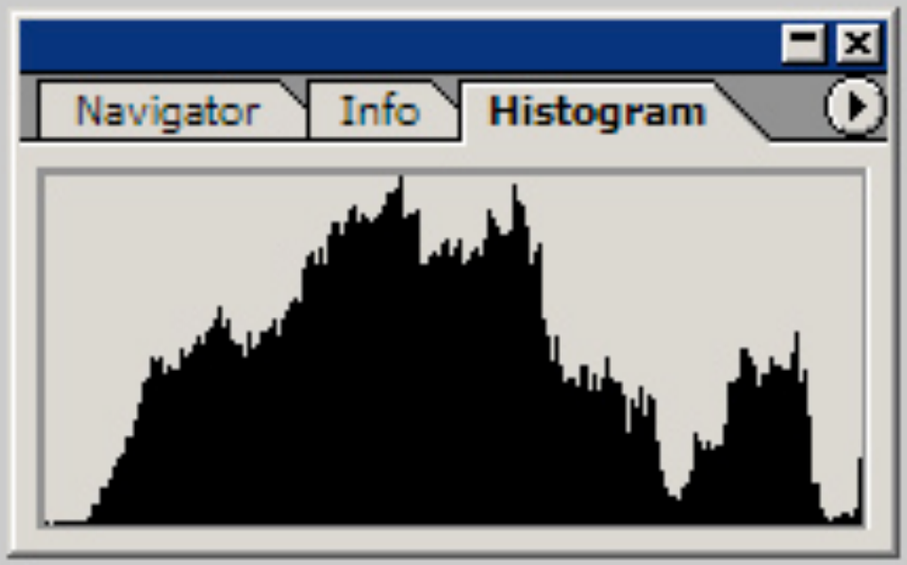

red channel


green channel


blue channel

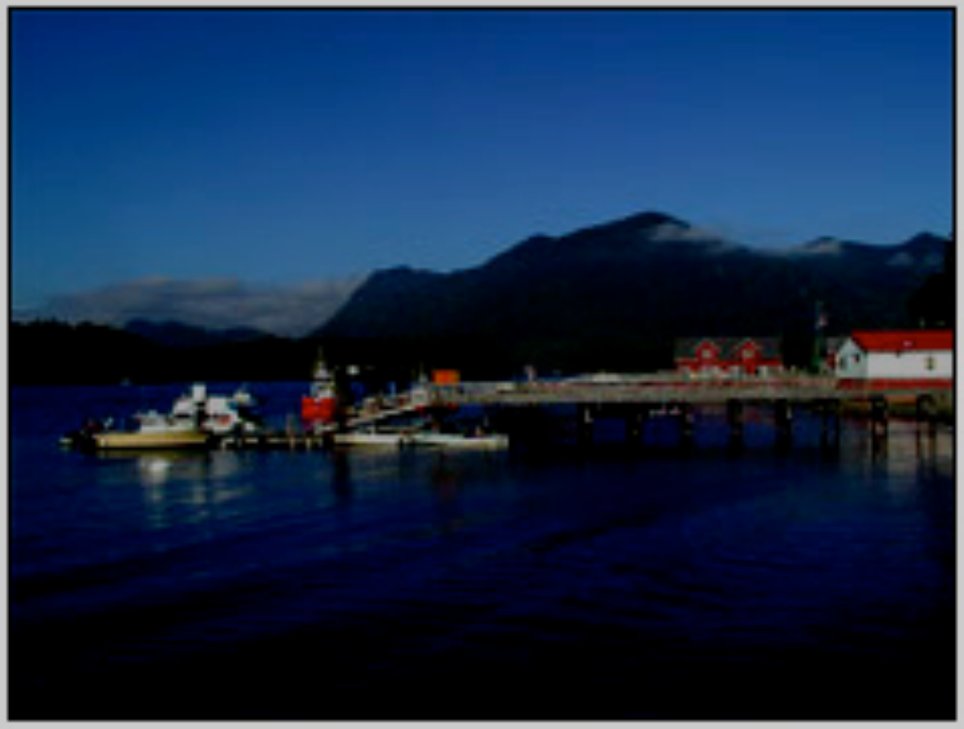
Reading a Histogram

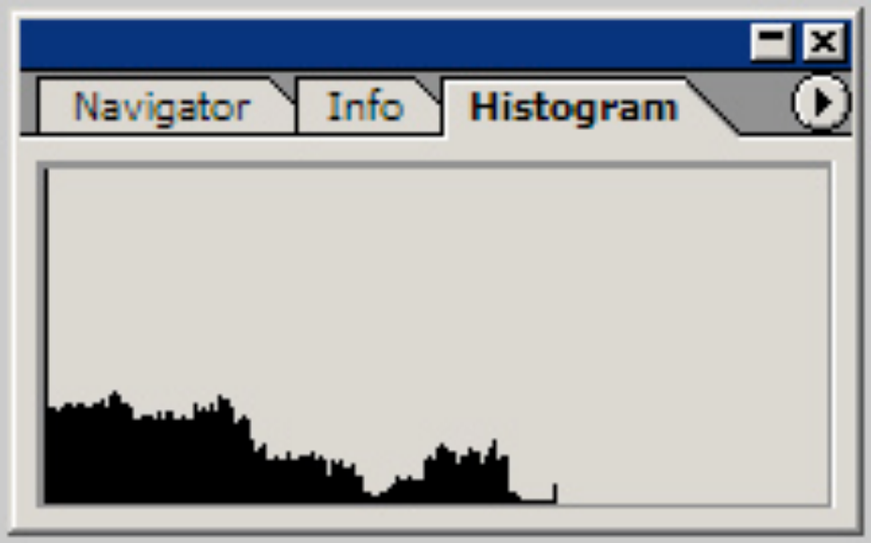
Normal Exposure



Reading a Histogram

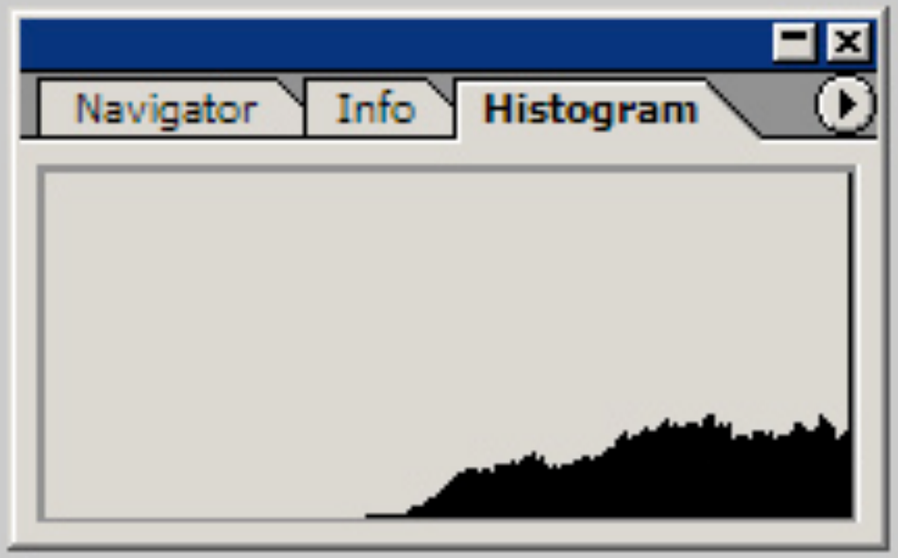
Under Exposure





Reading a Histogram

Over Exposure

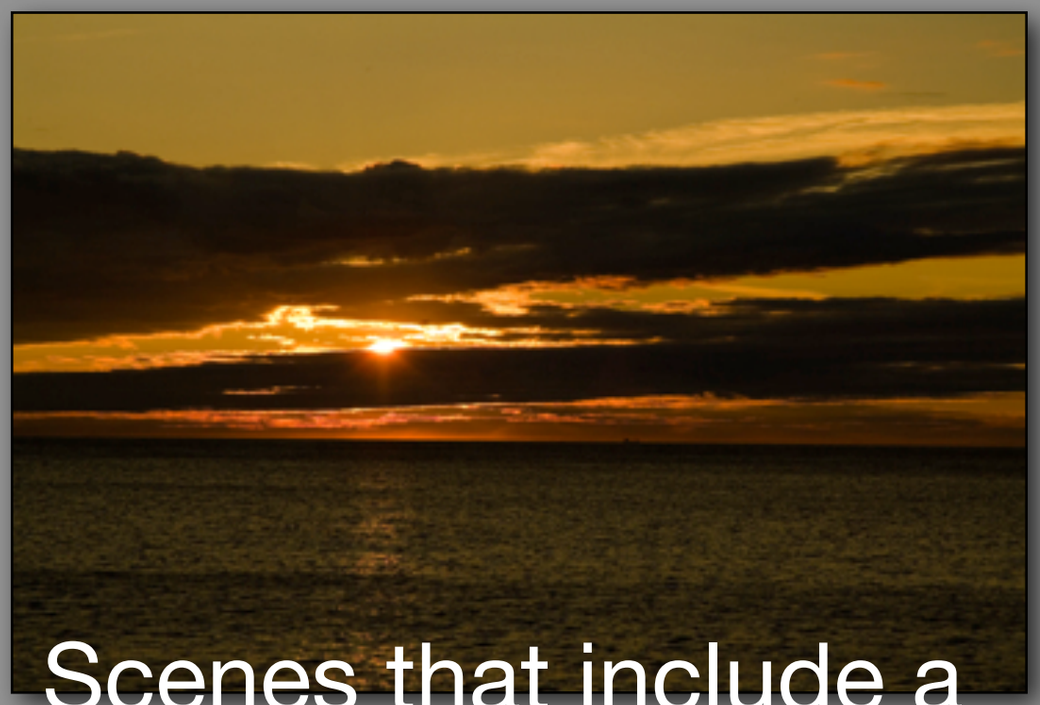


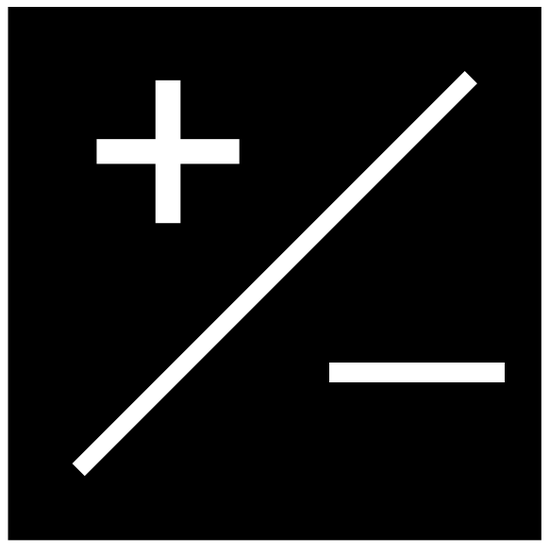
Exposure Compensation for lighter or darker than average scenes


spotlit scenes


objects on a black field


scenes with shadows

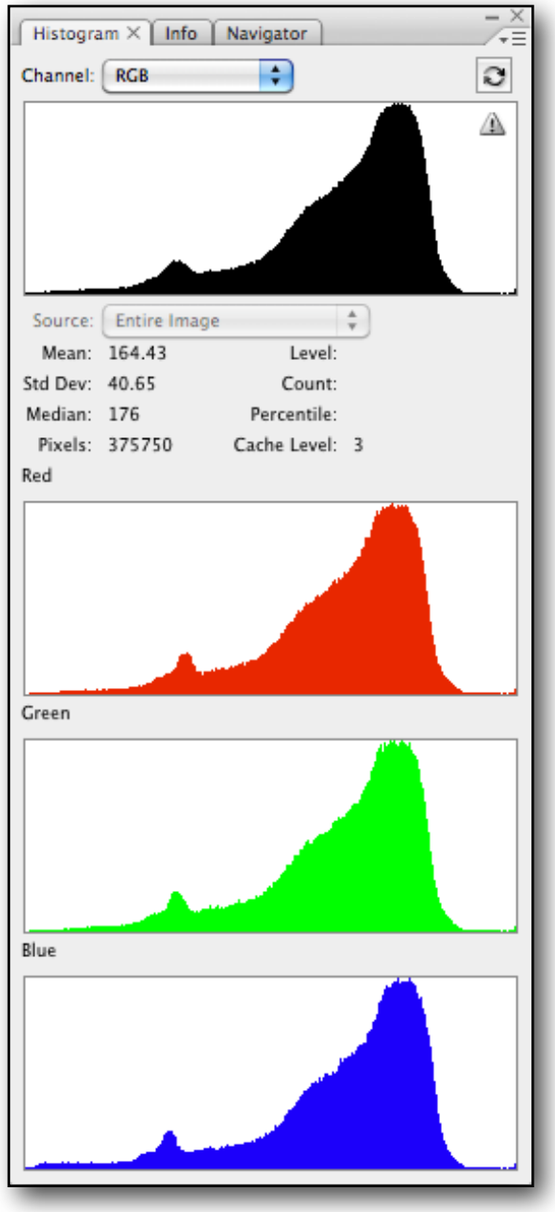

Scenes that include a bright light



Exposure Compensation Settings

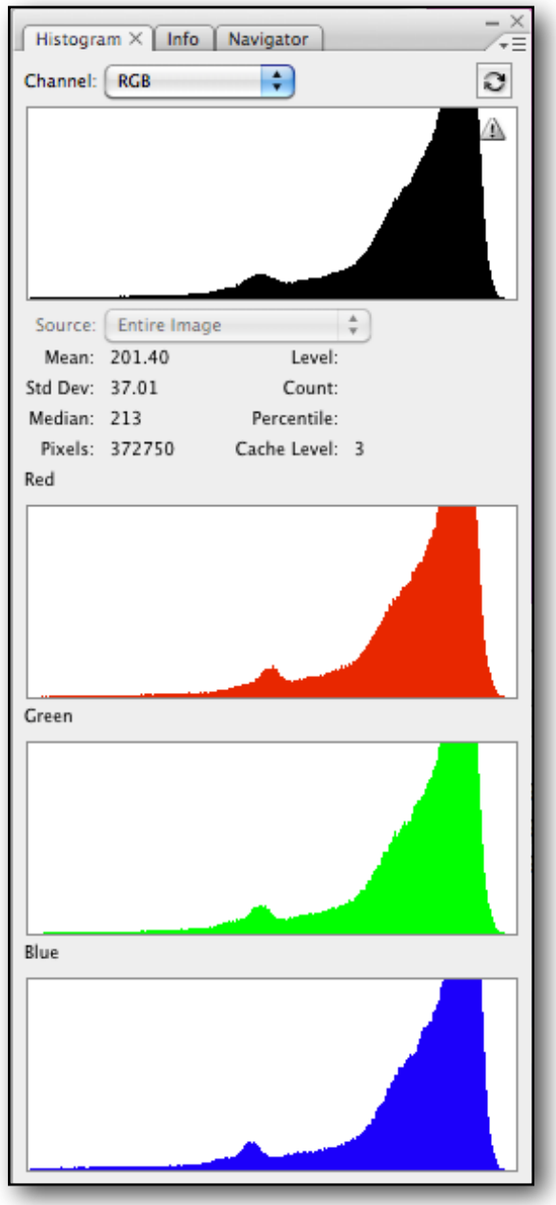
The exposure compensation adjustment usually indicated by a +/- symbol on the camera is a method of increasing or decreasing the amount of exposure in the program or semi automatic exposure modes. It’s used in scenes that would be problematic for the metering system to achieve the correct exposure; backlit or spotlit scenes, or scenes where the tones are predominately lighter or darker than 18% grey.

When the meter gets it wrong.



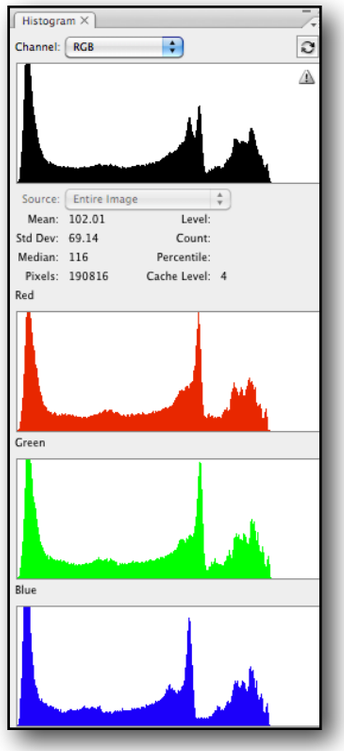
This white wall reflects more light than 18%. The meter will give an exposure that is too dark.

When the meter gets it wrong.



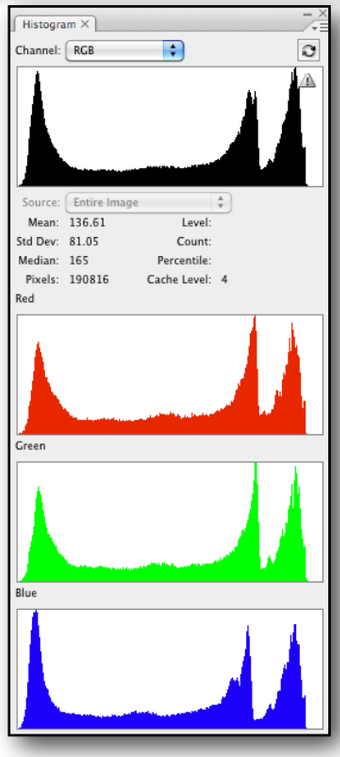
+1 stop exposure compensation makes the wall look brighter.

When the meter gets it wrong.

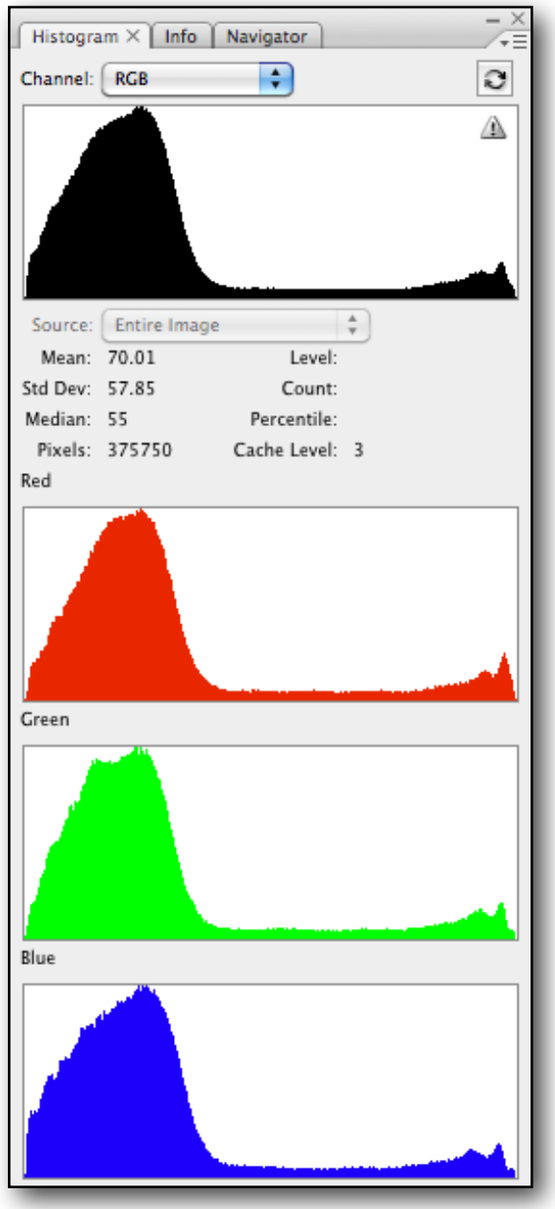


As metered in the camera.

Increasing the exposure corrects the tones.

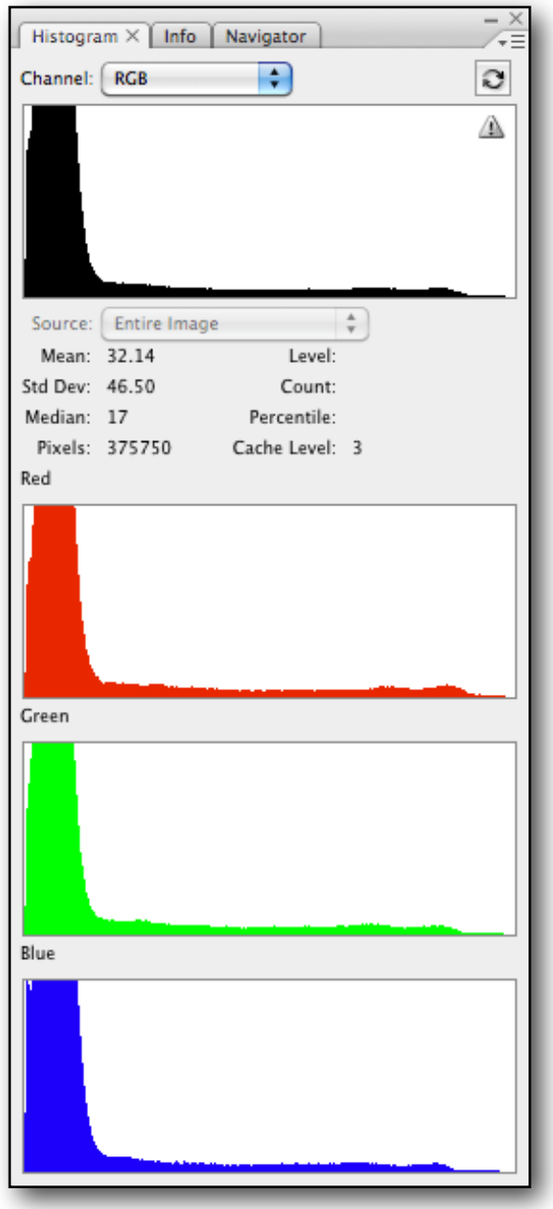


When the meter gets it wrong.

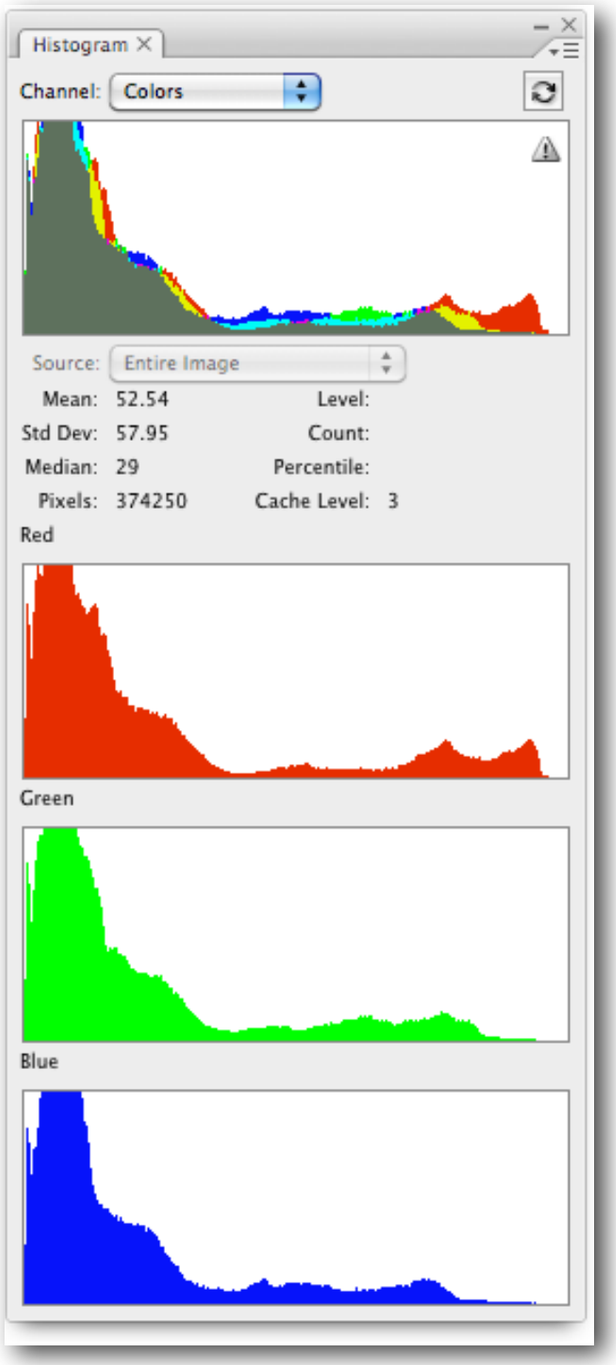


The dog is grey and tan the tones in this shadow should appear darker than 18% grey. The highlights are washed out. The meter gave an exposure that is too light.

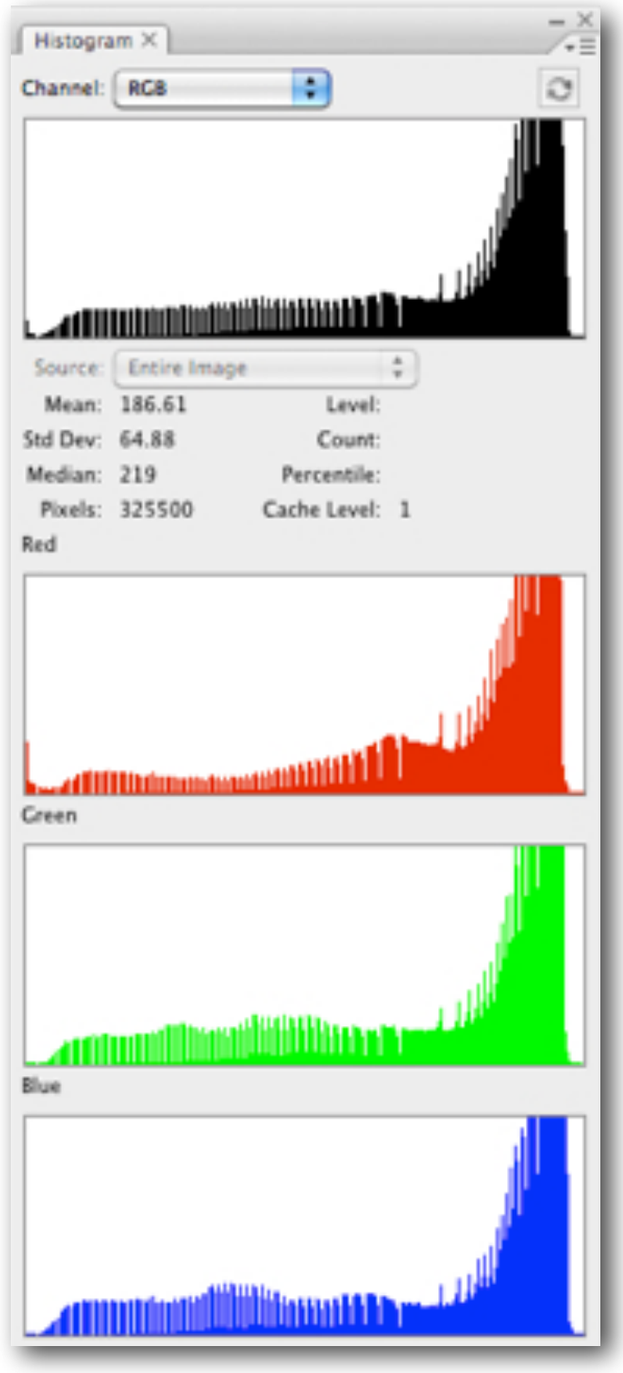
When the meter gets it wrong.



-1 1/3 stop exposure compensation makes the scene look darker and the dog less washed out.



Histogram of a primarily dark scene



Histogram of a primarily light scene

Metering Patterns

Metering

Your meter sees everything as 18% or middle grey.

matrix, evaluative or multi segment

Manual Exposure

Exposure

When we talk about “light meters” or “metering a scene”, we are looking at this symbol (circled in red) in the view finder.

When the camera is set to “Manual Mode” this symbol will change as the camera is pointed at brighter of darker scenes or with changing reflectance of the subject.

In “A or Av”, “S or Tv”, or “Program” modes, the symbol won’t change; the shutter speed, aperture, and / or both settings will change instead.

Exposure

Exposure is the process of exposing the sensor to light

- determined by taking a measurement using a light meter
- is relative to a specific ISO
- is a combination of aperture and shutter speed to yield total quantity of light

Over exposure

- means that too much light has reached the sensor
- image will appear washed out or too light possible information loss in the highlight areas (often called “blown out” highlights).

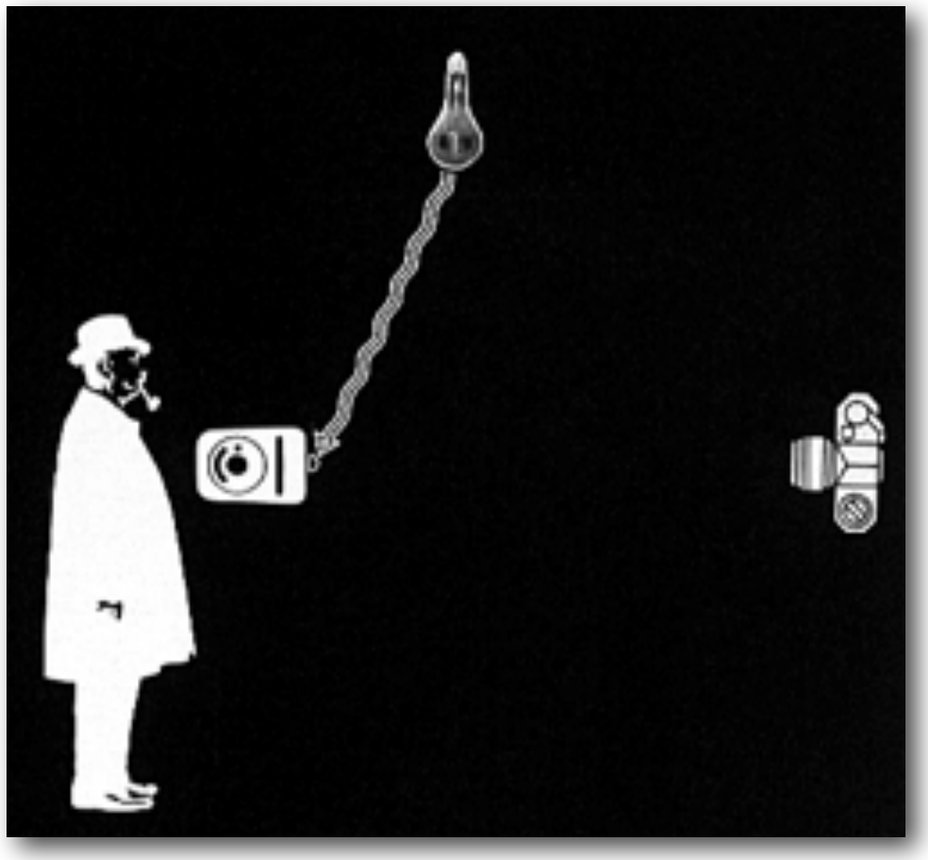
Under exposure

- means that not enough light has reached the sensor
- image will appear muddy or too dark
- shadow details might be lost (often called “blocked up” shadows)

Exposure

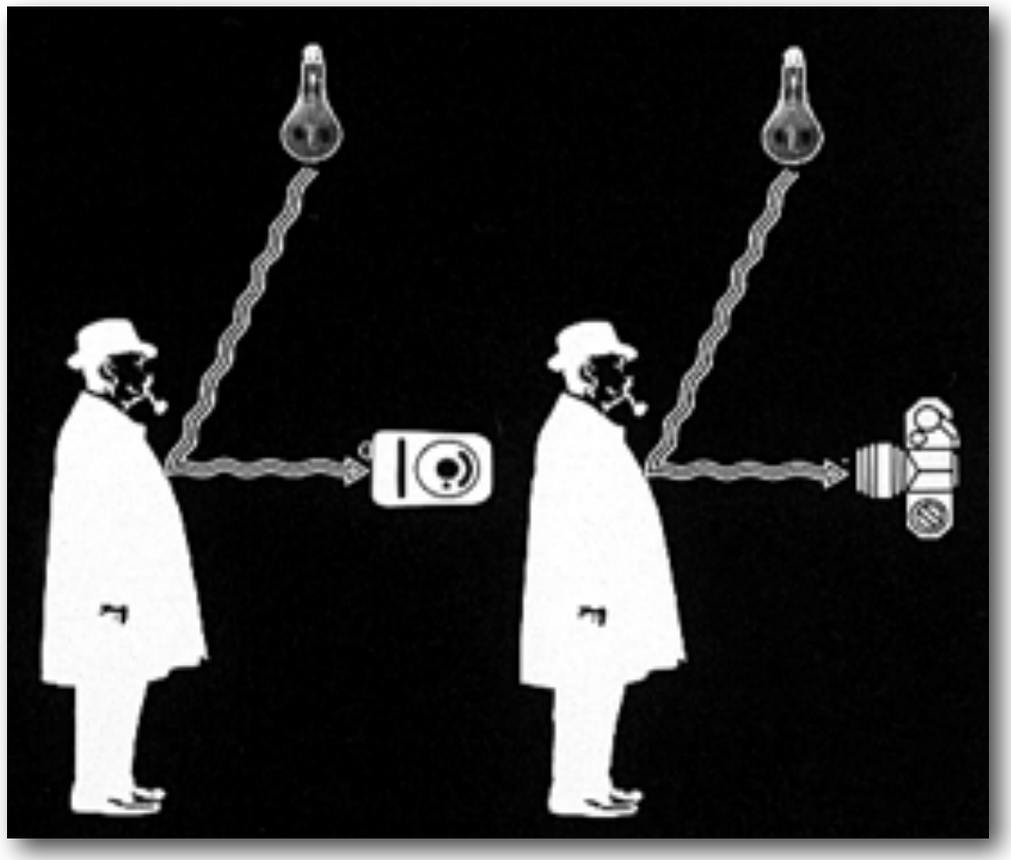
Light meters or exposure meters, measure the quantity of light and translate that into a combination of f/stop and shutter speed to give the correct exposure based on the ISO (sensitivity).

Exposure



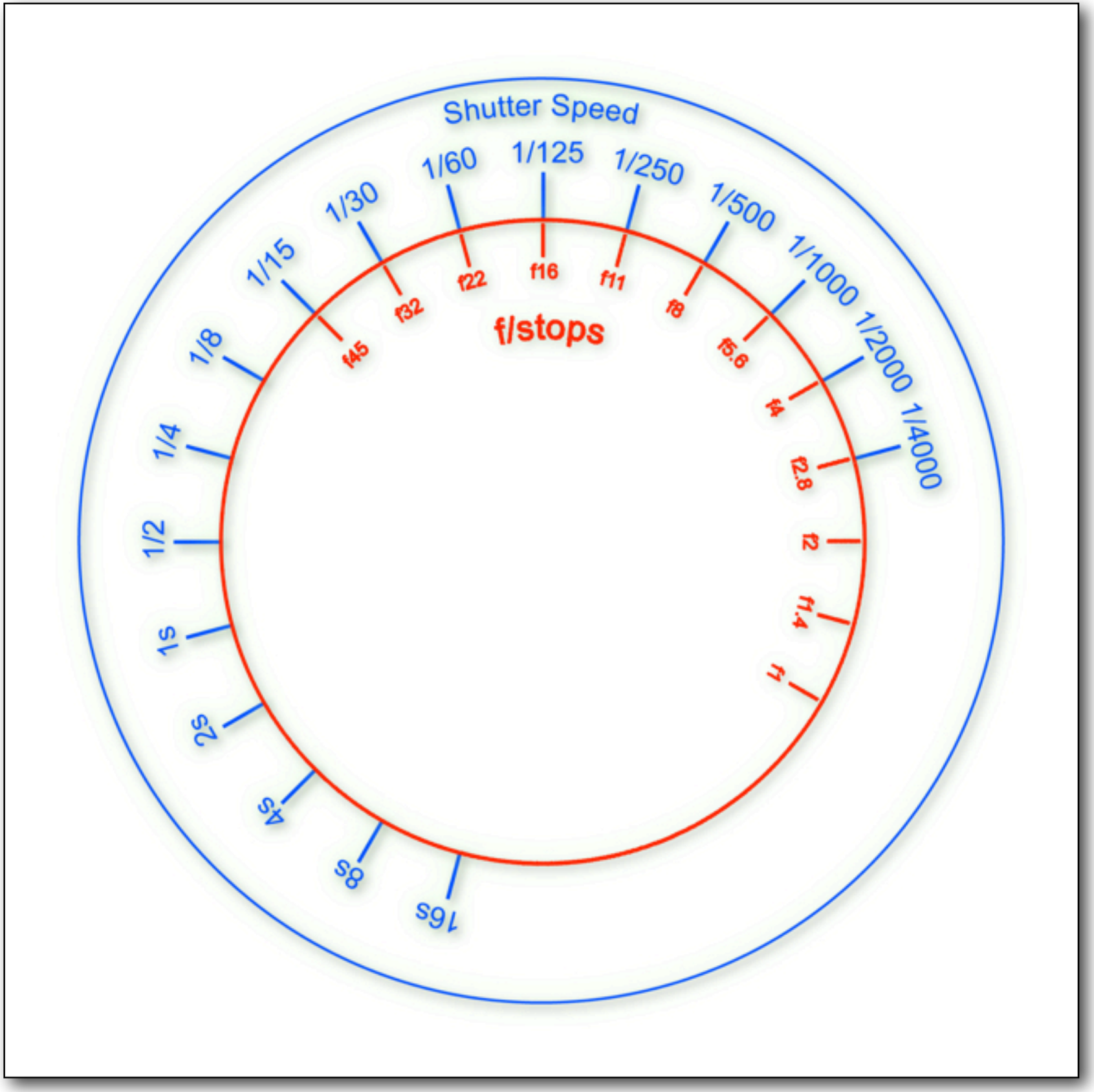
Incident Meters measures the light FALLING ON your subject. The measurements are NOT influenced by a subjects colour and reflectivity!

Exposure



Reflective Meters measures the light REFLECTED from your subject.

Measurements **are influenced by a subjects colour and reflectivity**, which will result in changed readings even if the relative amount of light falling on the subject does NOT change.



This dial shows the exposure combinations for the sunny 16 rule at 100 ISO

Shutter and Aperture Relationship