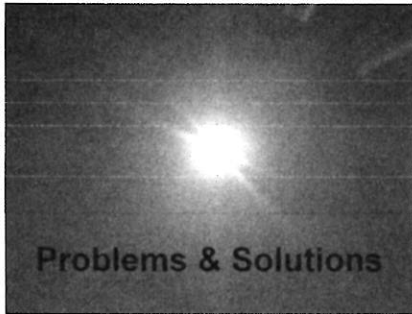


OUTDOOR LIGHTING

Photography using sunlight



By Clem Wehner

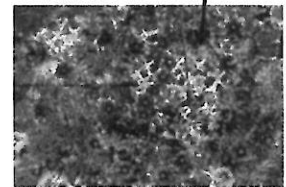
RACCOON EYES



OUTDOOR LIGHTING

1. PROBLEMS WITH USING SUNLIGHT
2. SOLUTIONS
3. TOOLS & TECHNIQUES

Sunspots



DARK SUBJECT, BRIGHT BACKGROUND



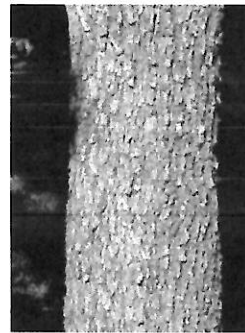
HARSH LIGHT- HARD SHADOWS



FLAT LIGHT



SUN ANGLE WRONG



COLOR OF THE LIGHT



DARK AREAS OF IMAGE



SQUINTING



LENS FLARE



UNWANTED REFLECTIONS



GOBO

- Goes between the light and the subject.
- Opaque- blocks all light
 - Solid Reflector
 - Cardboard
 - Fabric
 - Body
 - Tree

TOO MUCH RANGE OF CONTRAST



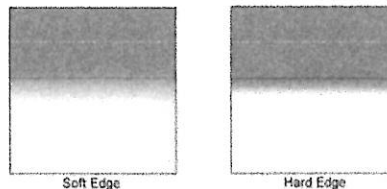
Diffuser

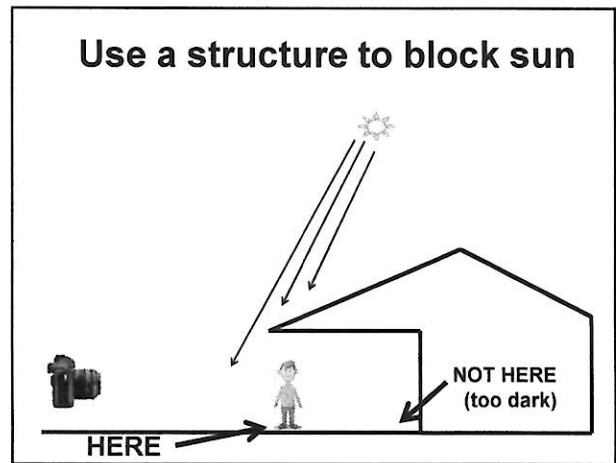
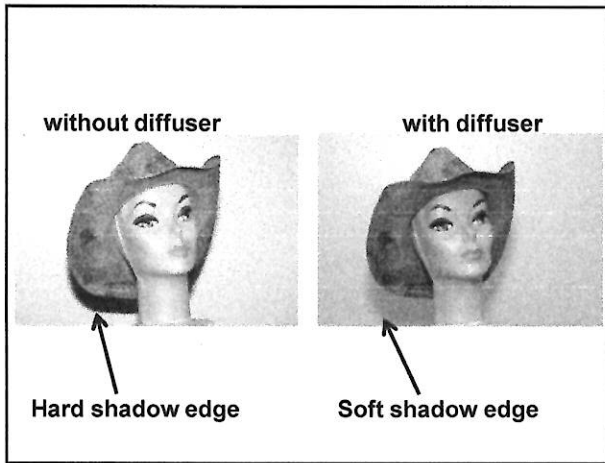
- Goes between the light and subject
- Translucent material- lets some light through
 - Anything that lets some light through
 - Thin fabric
 - Paper
 - Sheets of white foam

TOOLS TO SOLVE LIGHT PROBLEMS

- REFLECTOR
- DIFFUSER
- GOBO
- FLASH
- LENS HOOD
- POLARIZING FILTER
- MIRROR
- NATURAL OBJECTS

DIFFUSION CHANGES SHADOW EDGES





PROBLEM: Mid-day sun may cause Raccoon Eyes

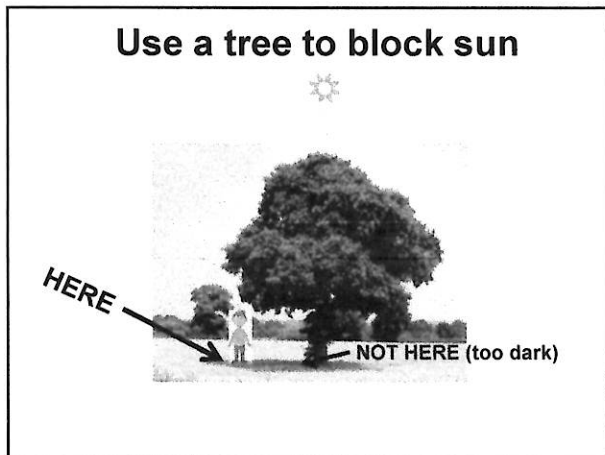
Solutions:

1. Reposition the subject
2. Use GOBO to block the sun
3. Use DIFFUSER
4. Use tree or structure to block sun

PROBLEM: Sun may unevenly light subject

Solution:

1. Reposition the subject
2. Use GOBO to block the sun
3. Use a diffuser

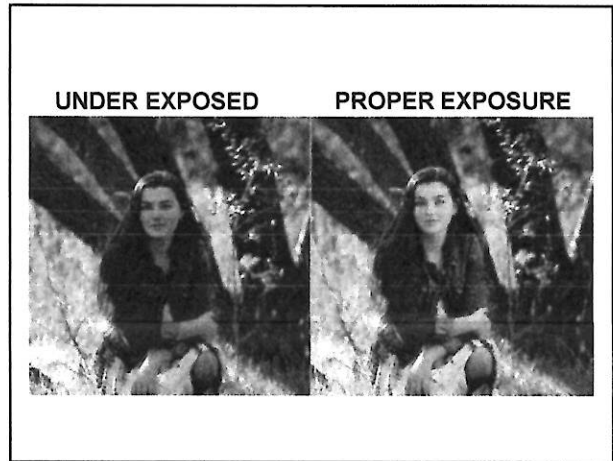


Another solution:

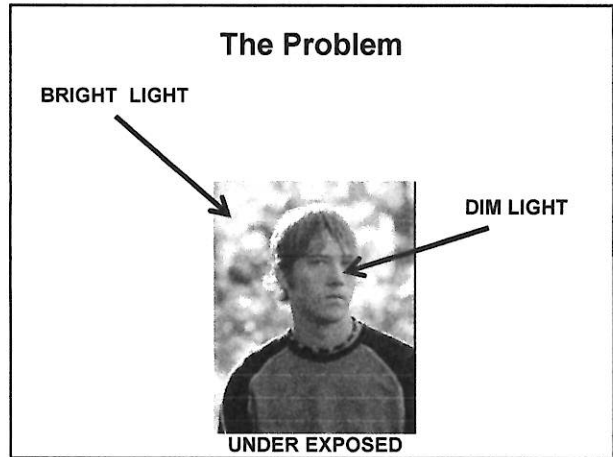
USE REFLECTOR FOR "FILL" LIGHT

Problem: Bright sun looks HARSH

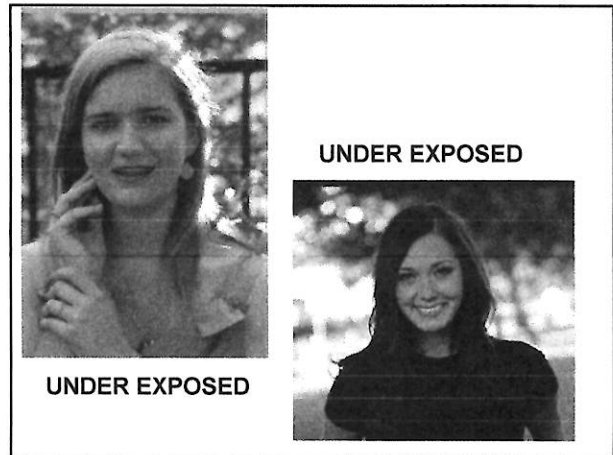
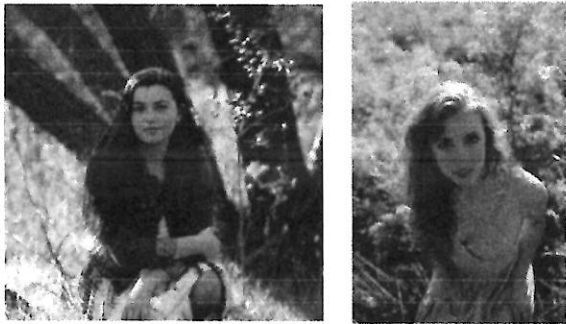
- Solutions:** 1. Reposition the subject
2. Use GOBO to block the sun
3. Use diffuser



Umbrella as a diffuser



PROBLEM:
Bright Background & Dark Subject



Solution:

Balance the lighting of the subject and the background



UNDER EXPOSED

- 1. Expose for the background
- 2. Use reflector (or flash) to brighten the subject

BUT, DON'T USE TOO MUCH FILL

Don't make subject **BRIGHTER** than background



(will cause subject to look overexposed)

Use reflector to brighten subject to the same brightness as the background

UNDER EXPOSED



PROPER EXPOSURE



reflector

PROBLEM: Direct sun causes FLAT LIGHTING



RESULT:
properly exposed background & properly exposed subject



PROPER EXPOSURE

PROBLEM: Direct sun causes FLAT LIGHTING
SOLUTION: Change subject's orientation



Then use diffusion



SOLUTION: Use diffuser



Light straight on- FLAT with LITTLE DETAIL



Light at 45 degrees- DETAIL



Diffused light



**PROBLEM:
HARSH LIGHT- HARD SHADOWS**



**Use diffuser
to "soften" light and reduce glare**



PROBLEM: how to “warm” an image

SILVER REFLECTOR



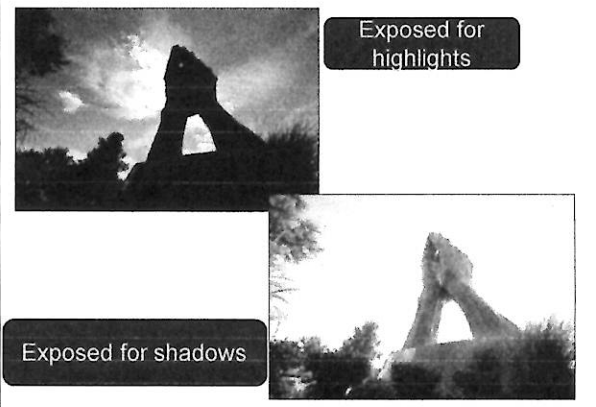
GOLD REFLECTOR



**PROBLEM:
Bright highlights and deep shadows**



**Best light (“warm”)
first and last 2 hours of the day**



Evening light is warmer than morning light

MORNING AIR: Less dust
less scattering of blue light

EVENING AIR: More dust
more scattering of blue light

**SOLUTION:
Expose for a medium tone (brightness)**



This is about the best you can do with one shot.

SOME BETTER SOLUTIONS

1. Add some light to the dark areas. (fill flash, reflectors, etc).
2. Take several shots at different exposures to merge later into final image.

SOLUTIONS:

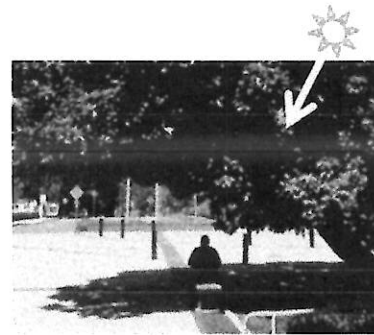
1. MOVE SUBJECT (if possible)
2. REDUCE LIGHT ON SUBJECT
 - a. NATURAL OBJECT
 - b. GOBO OR DIFFUSER
3. HAVE SUBJECT CLOSE EYES, THEN OPEN JUST BEFORE THE SHOT

PROBLEM: SQUINTING



Sunlight too bright

PROBLEM: DARK AREAS IN SCENE



SOLUTIONS:

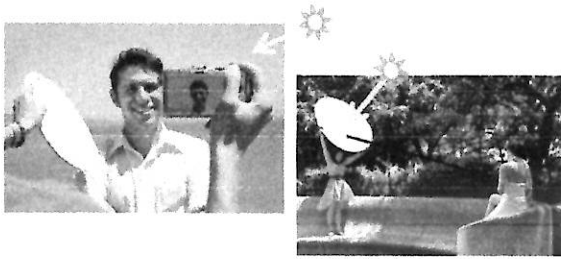
1. MOVE SUBJECT (if possible)
2. REDUCE LIGHT ON SUBJECT
 - a. NATURAL OBJECT
 - b. GOBO OR DIFFUSER



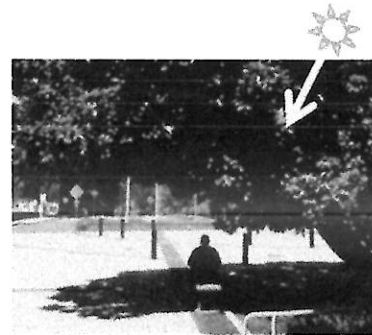
Use reflector to fill in shadows



To fill in dark areas



PROBLEM: Detail hidden in shadows

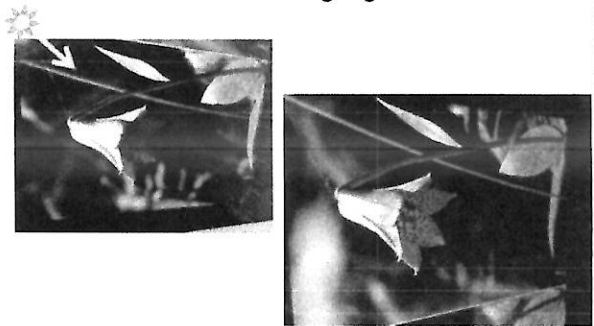


A building as a reflector



SOLUTION: USE REFLECTOR

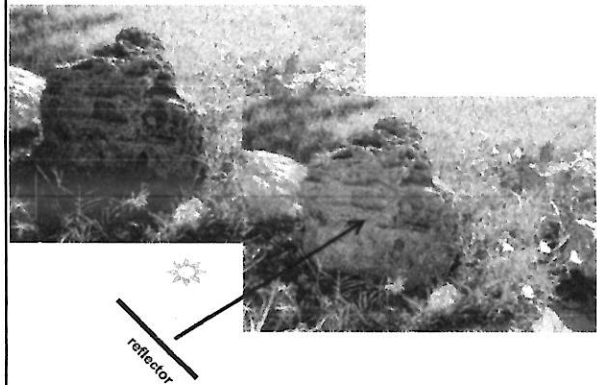
As a **FILL LIGHT**- to highlight detail

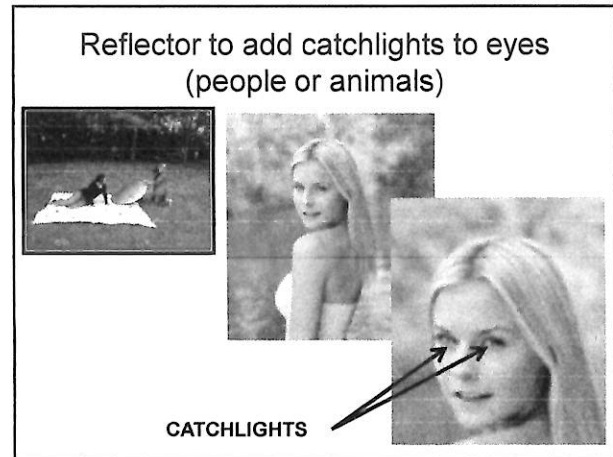
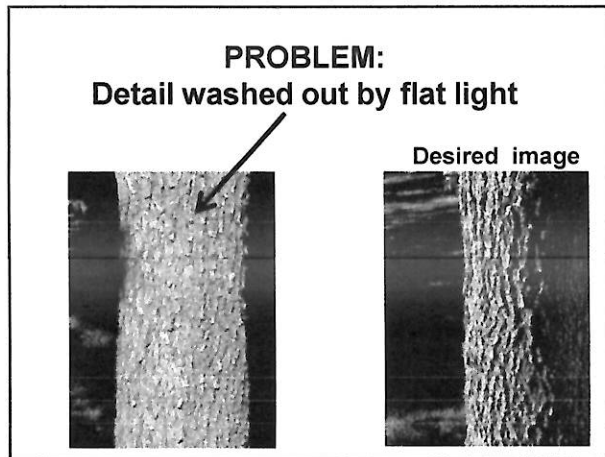
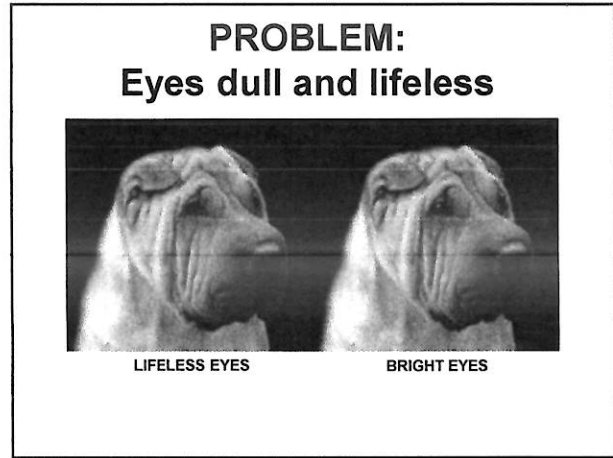
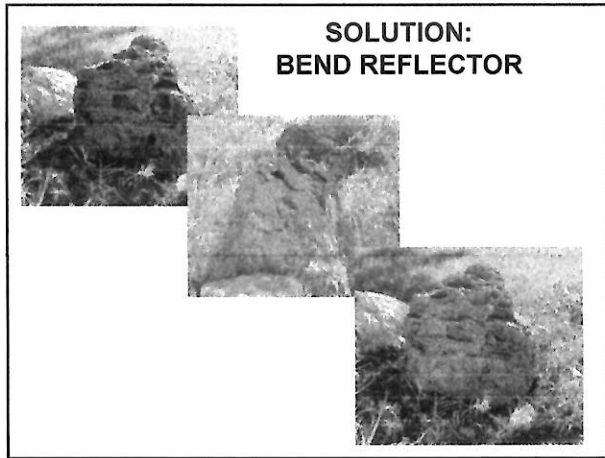
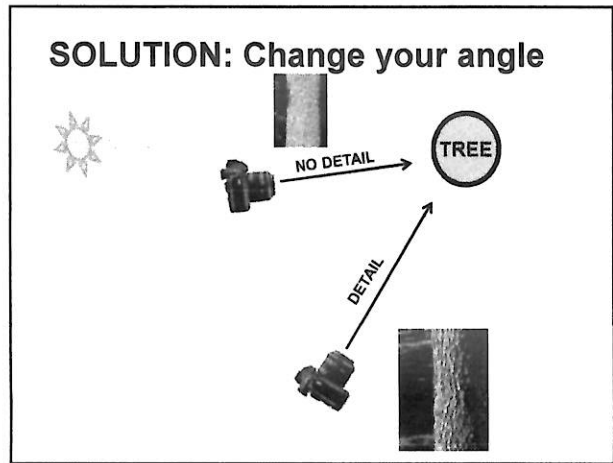
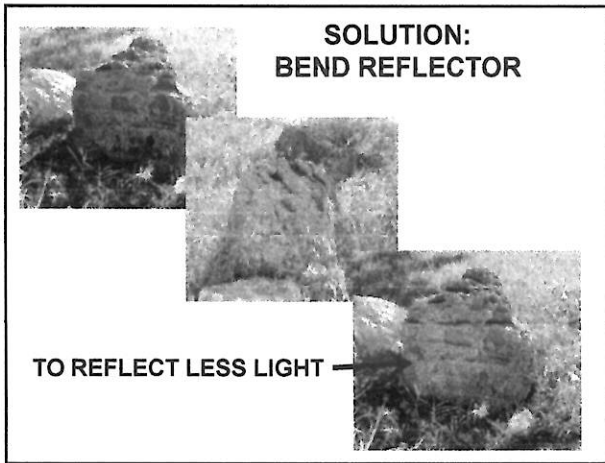


ALTERNATIVE MATERIALS

- **FOAM BOARD- white and black**
- **FABRIC- white and black**
- **ALUMINUM FOIL**
- **AUTO WINDOW SHADES**
- **4 X 8 FOOT FOAM SHEETS**
- **MIRRORS**
- **NATURAL OBJECTS**
- **OTHER EQUIPMENT**

As a FILL LIGHT- to highlight detail

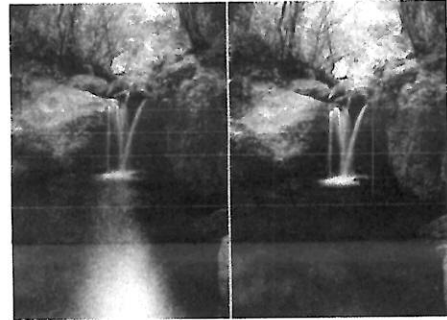




PROBLEM:
Glare and reflections in image



POLARIZING FILTER



WITHOUT

WITH

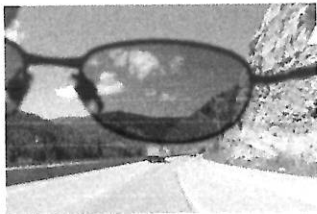
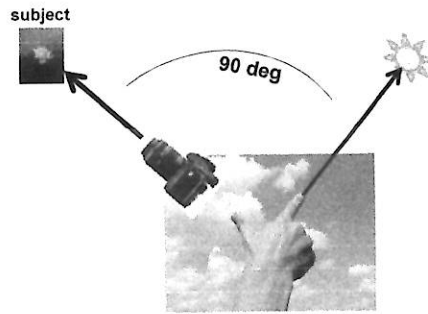
SOLUTION: POLARIZING FILTER



WITHOUT

WITH

POLARIZERS WORKS BEST AT 90 DEGREES TO THE SUN



ROTATING FRAME

PROBLEM: LENS FLARE



SOLUTIONS:

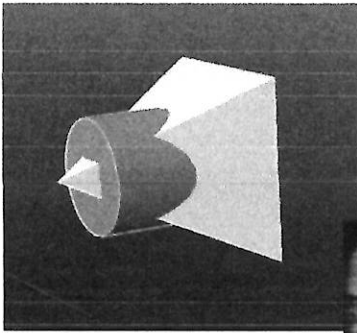
1. AVOID SUN SHINING INTO LENS
2. USE SOMETHING TO BLOCK SUN
3. USE LENS HOOD TO BLOCK SUN



**SOLUTION:
USE A MIRROR AS A REFLECTOR**



LENS HOOD PETALS



To avoid vignetting



**PROBLEM:
LIGHTING A DISTANT OBJECT**



PROBLEM: ESTIMATING EXPOSURE



SOLUTION: USE SUNNY 16 RULE

Set shutter speed to the reciprocal of the ISO setting. Then f/stop will be:

- f/16 BRIGHT SUN
- f/11 SLIGHT OVERCAST
- f/8 OVERCAST
- f/5.6 HEAVY OVERCAST
- f/4 OPEN SHADE / SUNSET

“ That’s all folks ”

Porty Pig