Qualities of Light

by Clem Wehner

1. Brightness
2. Direction
3. Contrast
4. Diffusion
5. Specularity
6. Color

Qualities of Light
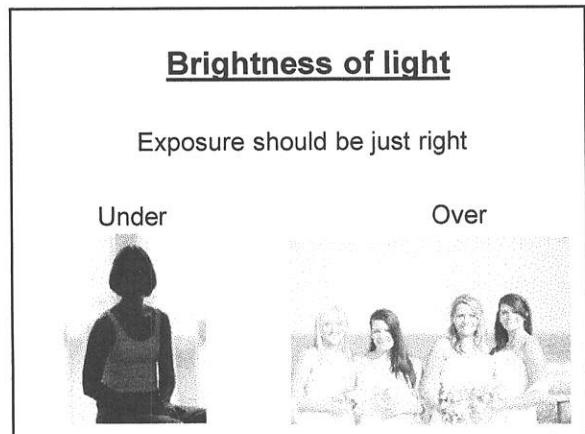
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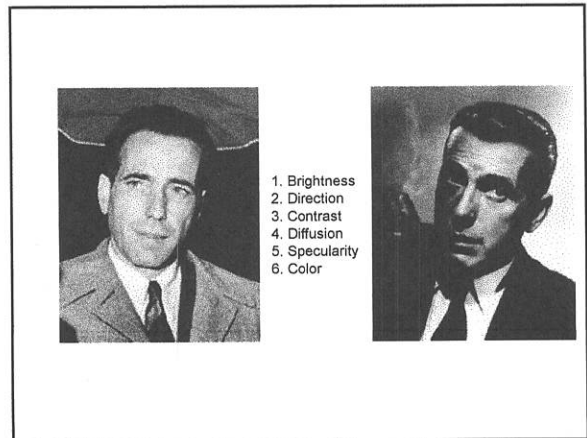
mood

emotion

feeling

creativity

impact

Brightness of light

Exposure should be just right

Under   Over

Tools to Control Brightness

- On-Camera:

  Exposure controls:
  - Aperture
  - Shutter speed
  - ISO

  Flash

- Off-Camera:

  Gobos & diffusers - to decrease light

  Reflectors- to increase light
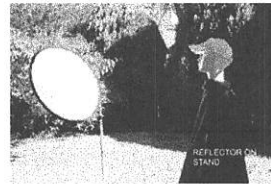
  Placement of the subject- changes light

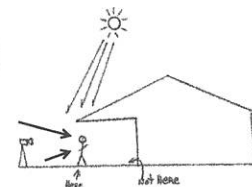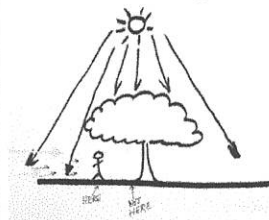**SUBJECT IN SHADE, TOO DARK**

The Sun can't be adjusted

Reflector used to increase light

Diffuser used to reduce brightness
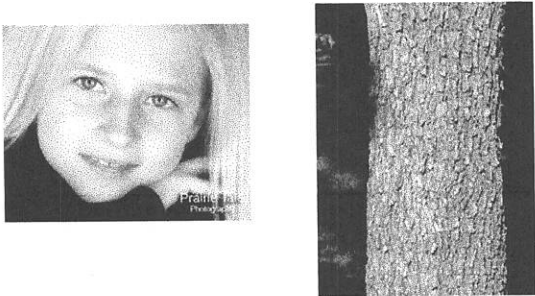

Using Natural Objects

The effect of light direction is

HUGE!

Effect of Lighting Angle

Flat

Three Main Directions of Light

- Front light
  - flat, less detail shows, less contrast

Side Light
  - more detail shows, more contrast
  - can be dramatic

Backlight
  - generally causes underexposure of subject
  - can be dramatic

Three Main Directions of Light

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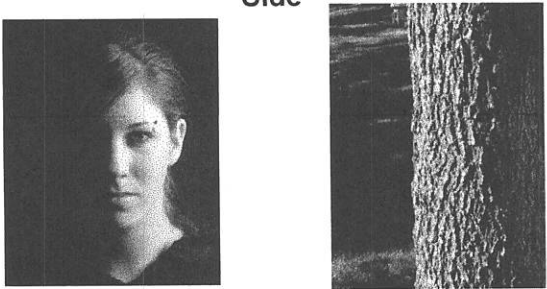 - can be dramatic

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Front (Flat) lighting
- flat, less detail shows, less contrast
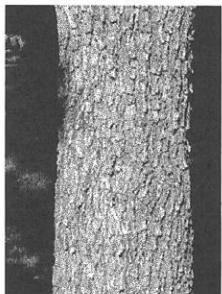

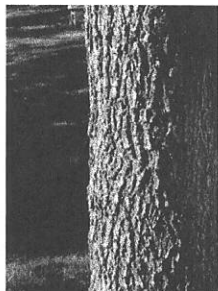## Effect of Lighting Angle
- more detail shows, more contrast

Side

Effect of Lighting Angle

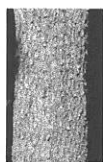**Flat**   **Side**

Light straight on

Light at 45 degrees

Can't move Light
Can't move subject

Then, move the camera!

Three Main Directions of Light

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Perfect Portrait Lighting

(Light source about 45 degrees to the side)

Backlight

generally causes underexposure of subject

Backlight
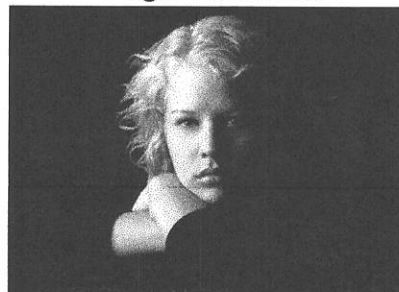can be dramatic

High contrast

Evaluate how light direction affects image
before pressing shutter

If not good, change:

- Light source
- Direction of light (use reflector)
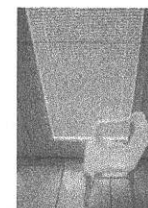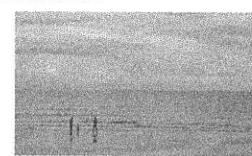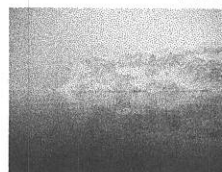- Position of subject
- Position of camera

High contrast

Contrast

The difference in value
between
highlight and shadow

Low contrast

Low contrast

Changing the contrast

The closer the light is to the subject the greater the contrast

Soft Edge   Hard Edge
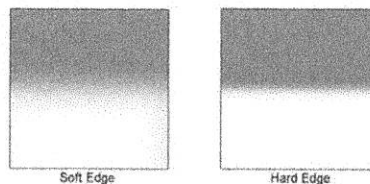
Diffusion

(Reducing the contrast)

To make a smaller difference between highlights and shadow

(called "softening" the light)
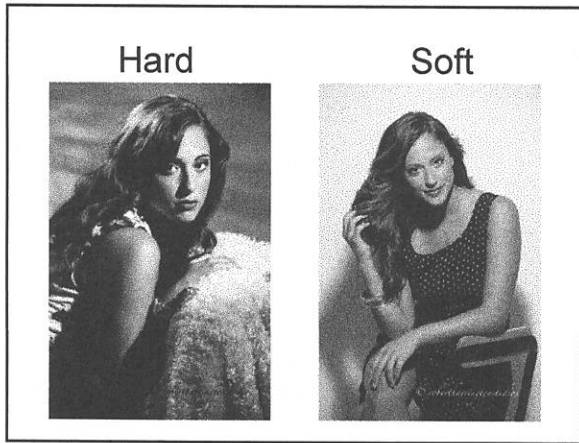
Flash Diffusion

without diffuser   with diffuser

**Glaring light
Hard shadow edge**

**Gentle light
Soft shadow edge**
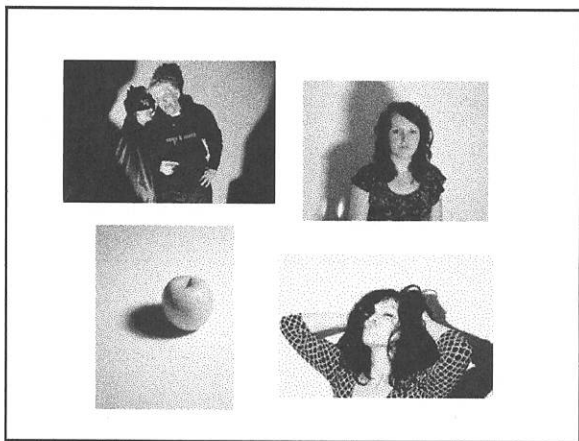
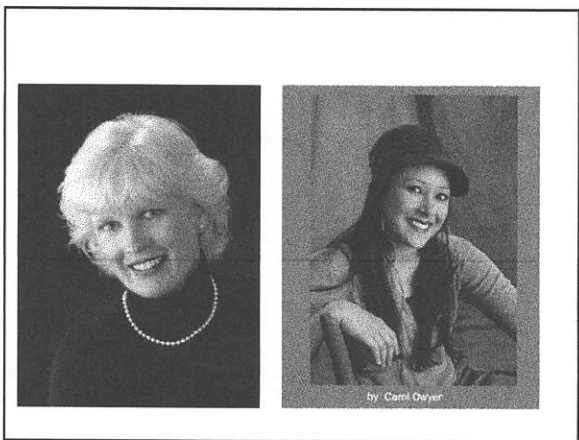Hard   Soft

Softness of light

Determined by:

- Distance of light to subject – (closer is softer)

- Size of light source - (bigger is softer)

Softness of light

Determined by:

- Distance of light to subject – (closer is softer)
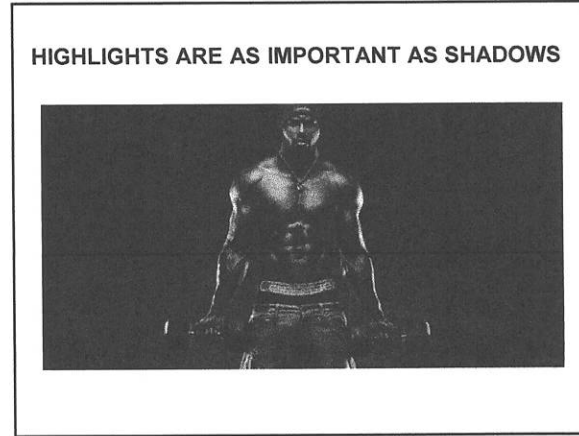
- Size of light source - (bigger is softer)

by Carol Dwyer

Tools to soften light

- Soft boxes

- Umbrellas

- Diffusers

Diffusers

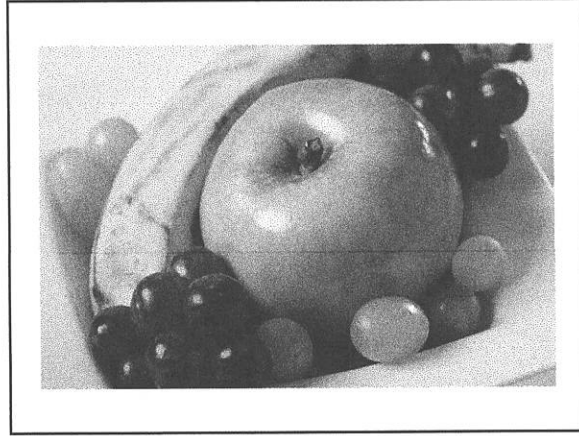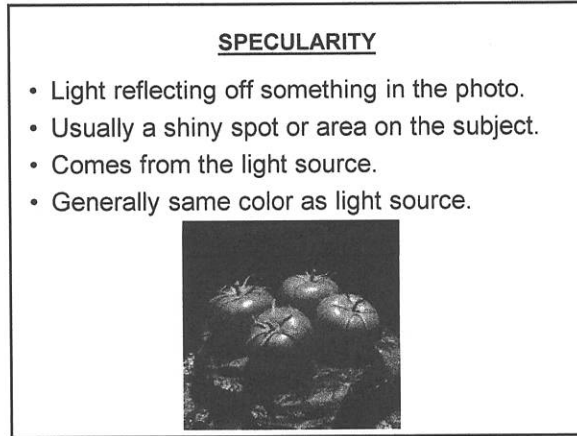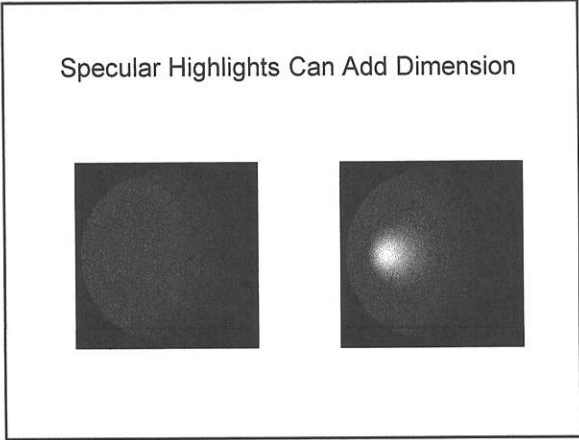## Specular Highlights Can Add Dimension

SPECULARITY

- Light reflecting off something in the photo.
- Usually a shiny spot or area on the subject.
- Comes from the light source.
- Generally same color as light source.

Specular Highlights

HIGHLIGHTS ARE AS IMPORTANT AS SHADOWS
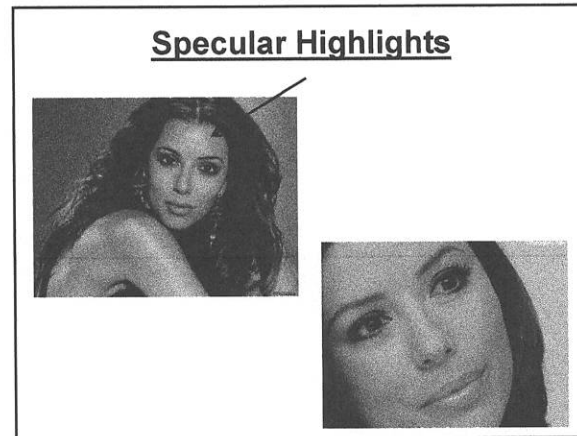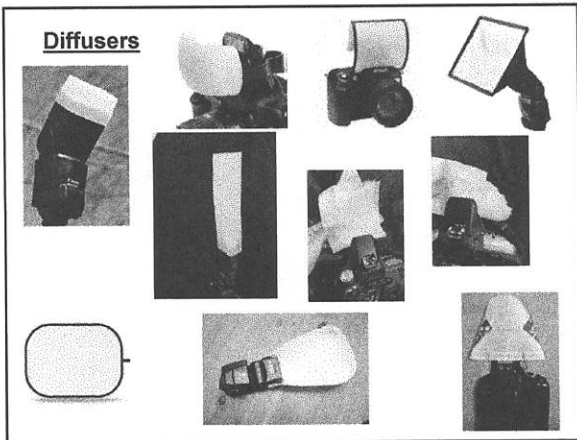
Specular highlights help define the image

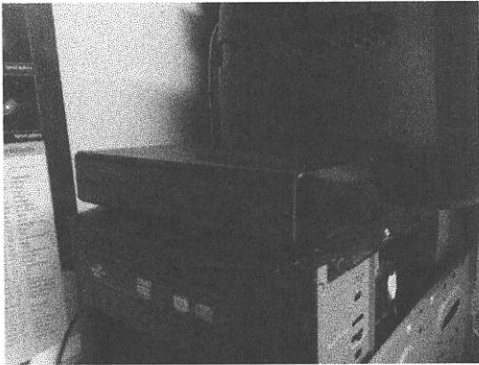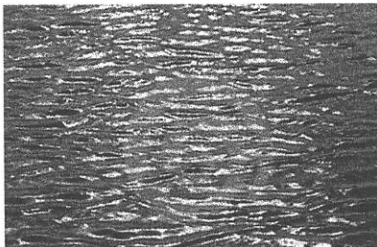**Ideal position of catchlights**

10 o'clock

2 o'clock
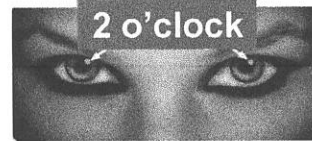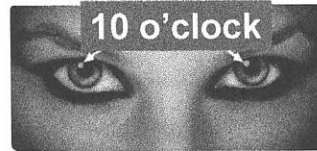
Specular highlights can add beauty, pop, excitement, dimension, etc.

Adding Catchlights

- Face subject toward light source

 - if in shade, face toward bright open sky

- Use a reflector
- Use a flash (off camera is best)

Specular highlights as "catchlights" in eyes.

Understand the color of the light source

- Sunlight
 - Early or late in day- yellow, orange, red
 - Very late in day or dusty air- red
 - Noon day- bluish

- Artificial light
 - Incandescent- yellow
 - Flourescent- green
 - Halogen- close to natural daylight

Light Color changes with time of day

Best light ("Warm")
First and last 2 hours of the day

Incandescent (tungsten) light

Naturally colored light

Flourescent lighting

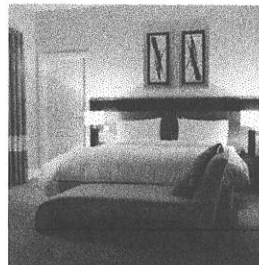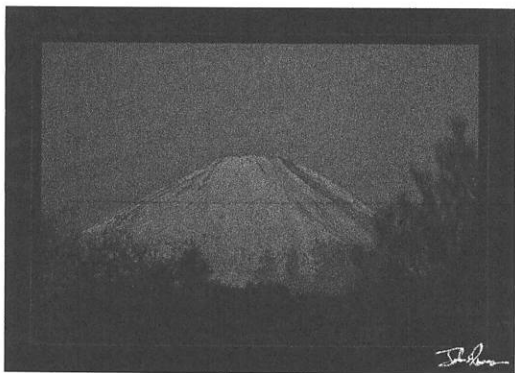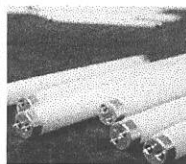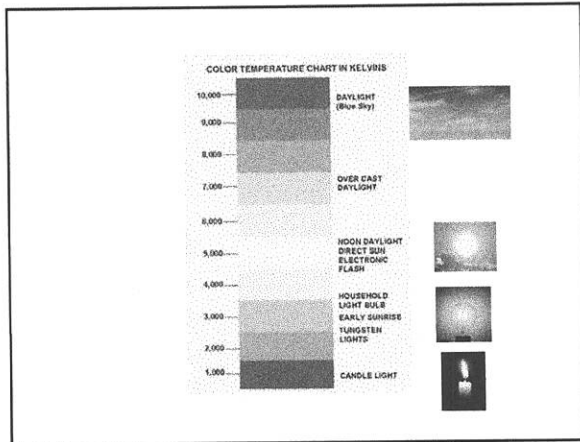### Understand the color of the light source

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- Artificial light
  - Incandescent- yellow
  - Flourescent- green (or as printed on bulb)
  - Halogen- close to natural daylight

Color Temperature Uses

Reflected light

Light takes on the color of the object it's

bounced off of
or
passes through.

Tools to adjust for light color

- In-camera:
  - White balance
  - Kelvin settings

- Off-camera:
  - Filters
  - Colored reflectors

Two things needed to be a great photographer

1. A good sense of composition
(Comes naturally to some artistic people)

2. An understanding of lighting
(Does not come naturally to anyone-
must be learned)

CHANGING THE LIGHT'S COLOR

SILVER REFLECTOR   GOLD REFLECTOR
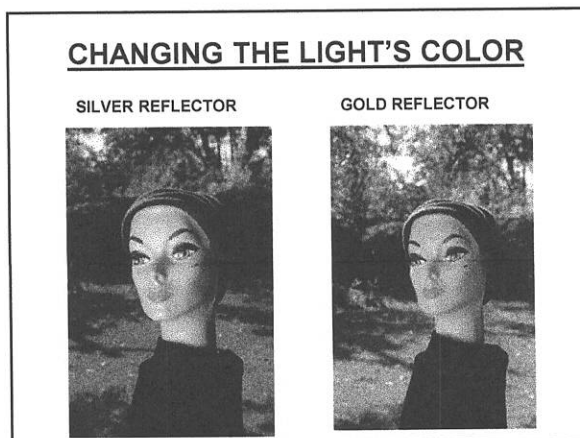
To improve your photography

**Learn to control
the Qualities of Light**

1. Brightness
2. Direction
3. Contrast
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5. Specularity
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