UNDERSTANDING HISTOGRAMS

By Clem Wehner

2000 X 3000 = 6 MILLION PIXELS
OR A 6 MEGAPIXEL CAMERA
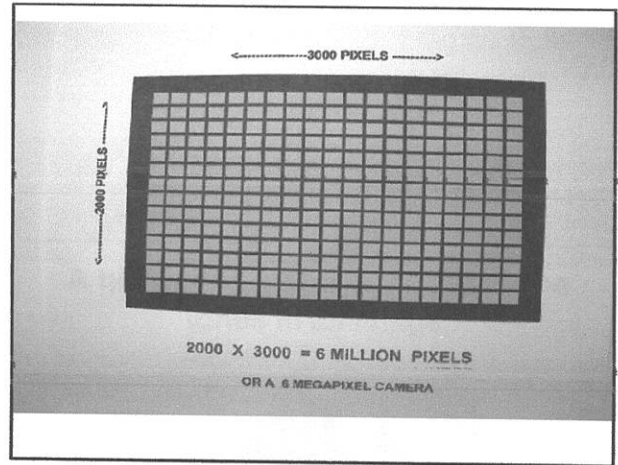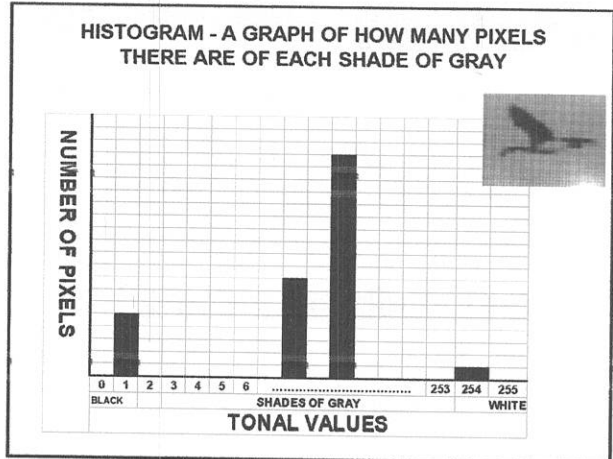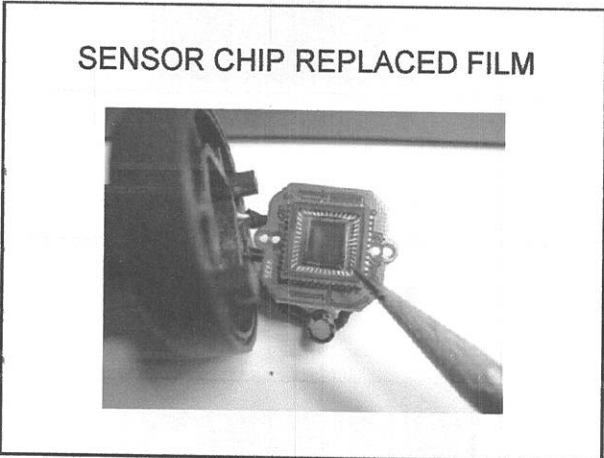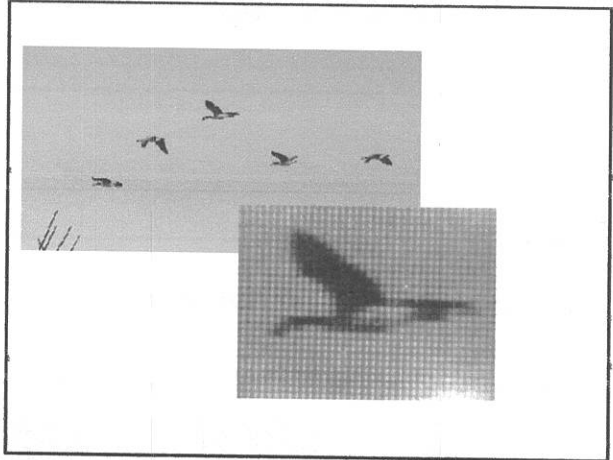
USES FOR YOUR CAMERA'S HISTOGRAM

1. Check the exposure of your images

2. Avoid over & under exposure

3. Determine correct f/stop without a light meter

4. Test your camera for exposure accuracy

SENSOR CHIP REPLACED FILM

HISTOGRAM - A GRAPH OF HOW MANY PIXELS THERE ARE OF EACH SHADE OF GRAY

NUMBER OF PIXELS

0 1 2 3 4 5 6 .... 253 254 255
BLACK   SHADES OF GRAY   WHITE
TONAL VALUES

The camera's screen may not be accurate
(too bright or too dark)
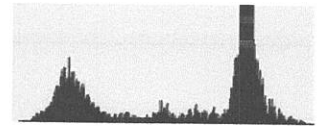

But, the histogram is correct!

Does this histogram match the scene?
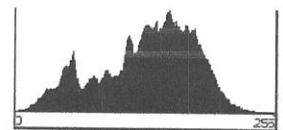

Learning to use histograms

- Train your eye to evaluate the scene for tones

- Compare what you see to the histogram
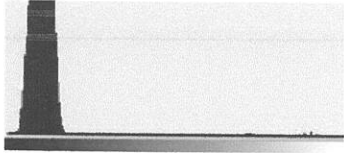

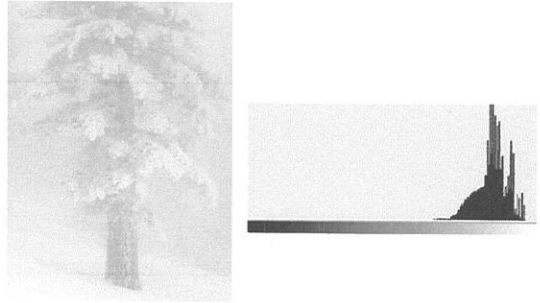Does this histogram match the scene?

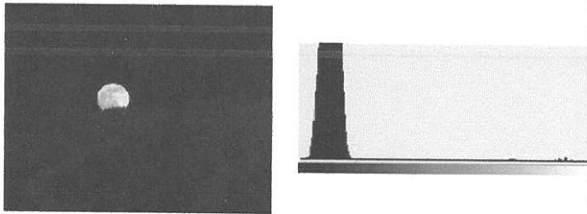# Let's practice

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Does this histogram match the scene?
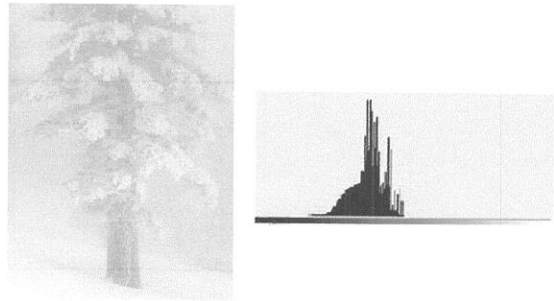
Does this indicate Over or Under Exposure?

Histogram MATCHES the scene-
Exposure is correct- Print will be good
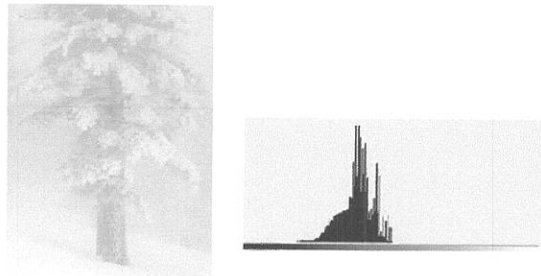

Histogram MATCHES the scene-
exposure is correct
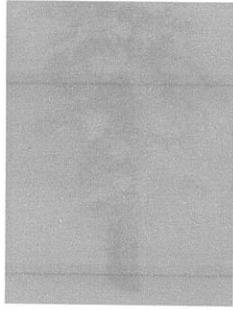

Is this OK?

What should the histogram look like?

Histogram does NOT match the scene

camera was set to underexpose

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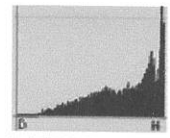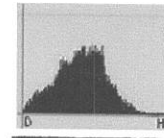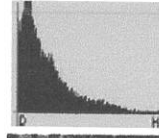## Image will be underexposed when printed

Warning!
Avoid the edges

Too dark   Just right   Too bright

What to do

- Evaluate the scene for tones.

- Take a picture.

- Check the histogram to see if it matches what your eyes saw.

QUESTIONS?

If histogram does not match the scene

1. Adjust the camera:
   Manual Exposure- adjust f/stop and shutter speed.
   Auto Exposure- adjust exposure compensation.

2. Take another picture, check the histogram.

3. Make more exposure adjustments if needed.

4. Repeat this until histogram matches the scene.

You'll get well–exposed prints

5