

# History of Photography

A Brief Overview.....

# Seven Elements of Photography

- 1. Dark Box
- 2. Light
- 3. Light Sensitive Material - Film
- 4. Shutter
- 5. Photographer
- 6. Subject
- 7. Hole

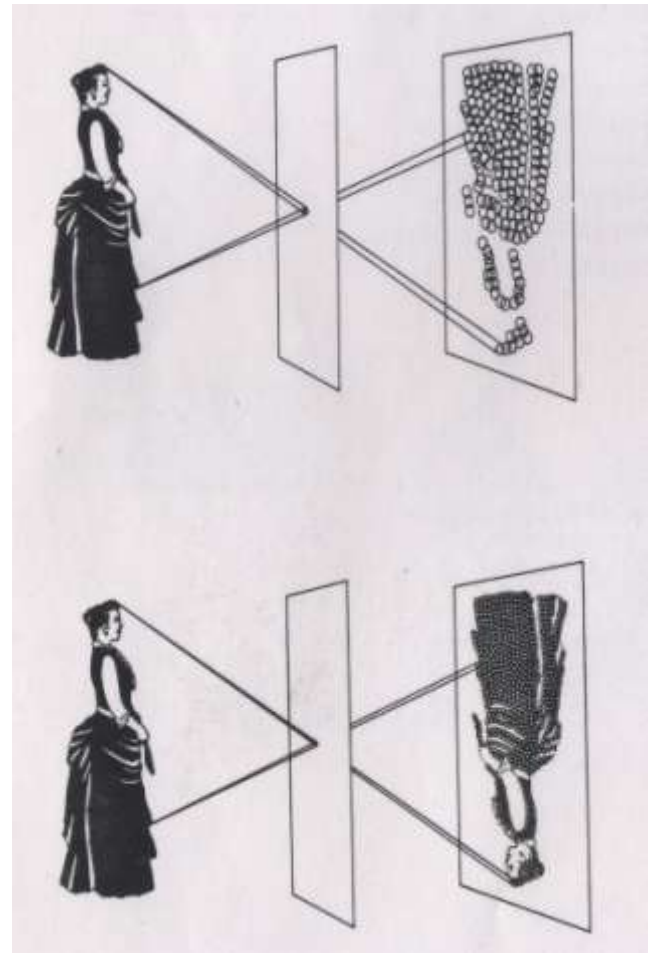


**mat board pinhole camera, circa 1972**

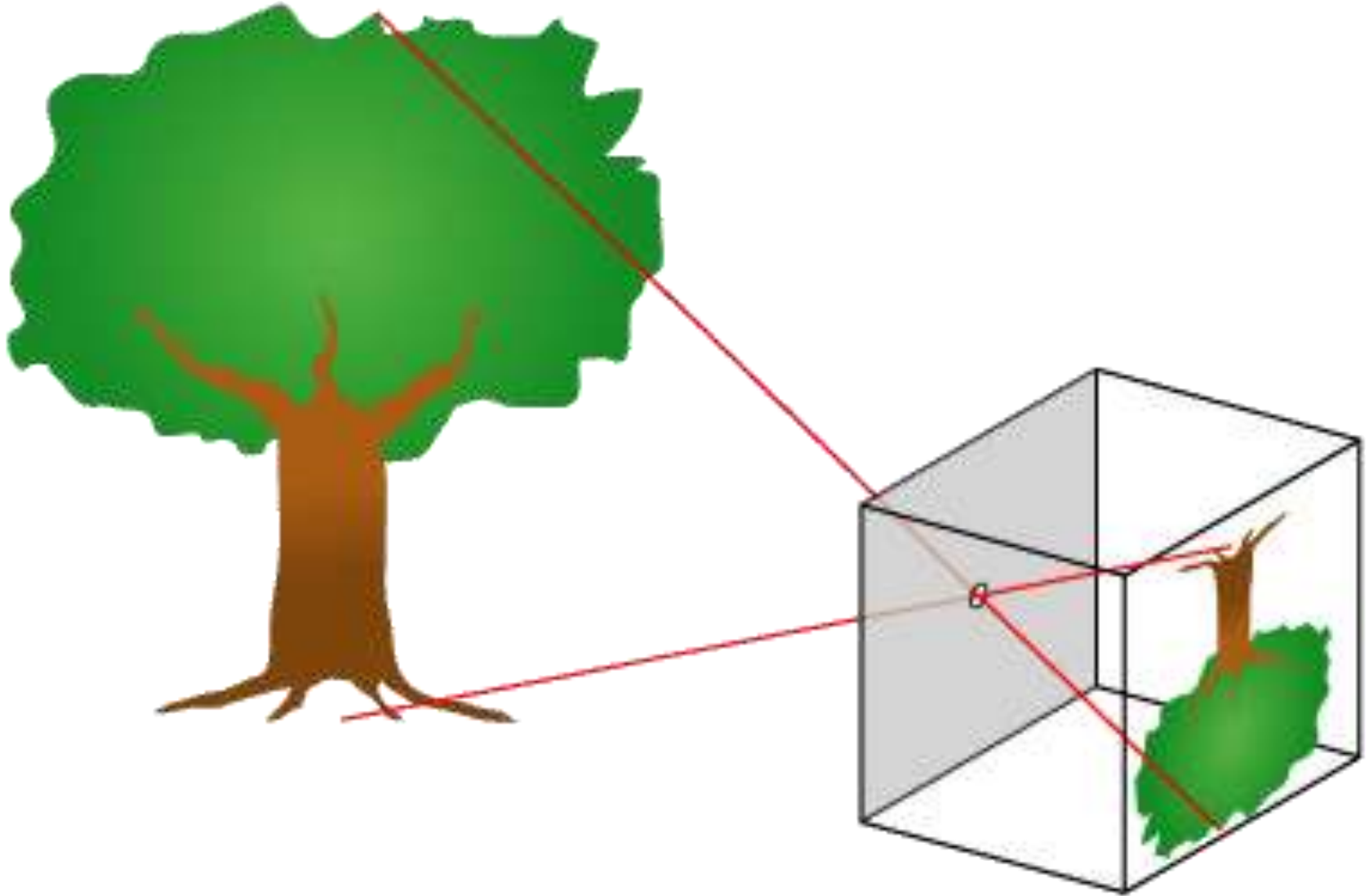


# The Beginnings

- **5th Century BC** In China Mo Ti recorded his observation of light rays and their ability to project a “duplicate” image
- He noticed that when light reflected off an object and passed through a pinhole onto a dark surface, an inverted image of the object was evident on the darker surface
- *This begins the story of light writing: Greek: phot = light & graphos = writing*



# How a pin hole camera works....



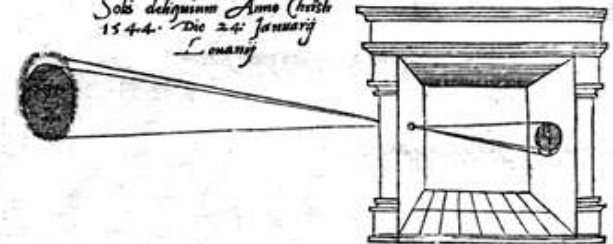
# CAMERA OBSCURA

## A room....

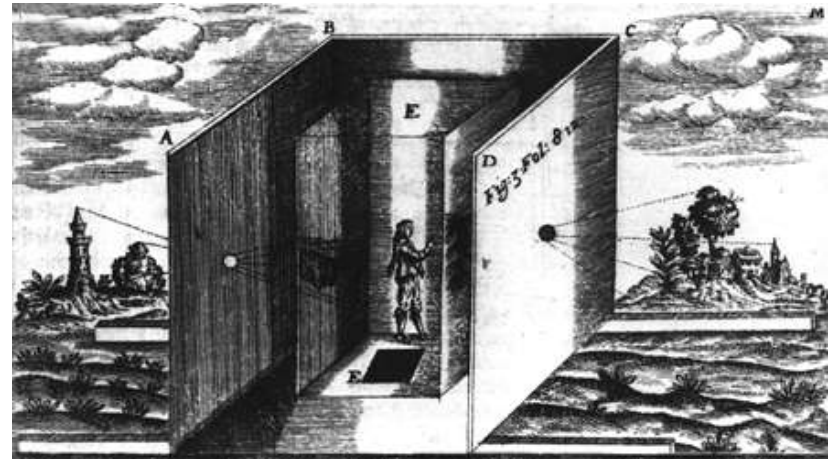
- Centuries later light writing is further defined with camera obscura (dark room)
- Used for:
  - View & record exterior scenes
  - Studies of heavens
  - Passage of the seasons
  - Architectural studies

illum in tabula per radios Solis, quam in caelo contingit: hoc est, si in caelo superior pars deliquiū patiatur, in radiis apparebit inferior deficere, vt ratio exigit optica.

*Solis deliquium Anno Christi  
1544. Die 24. Januarij  
Louanij*



Sic nos exactè Anno .1544. Louanij eclipsim Solis obseruauimus, inuenimusq; deficere paulò plus q̄ dex-



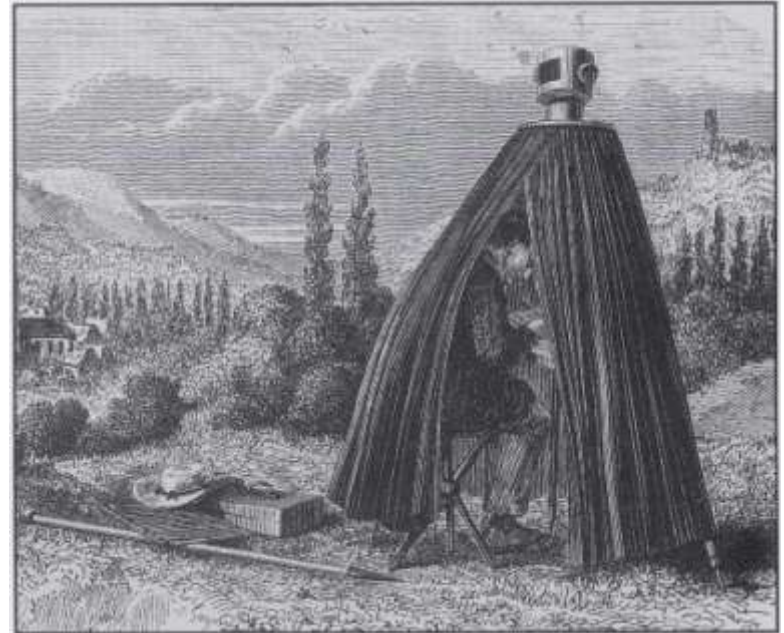
# Problems....

- Could not move room
- Not portable
- Always same image



# A tent.....

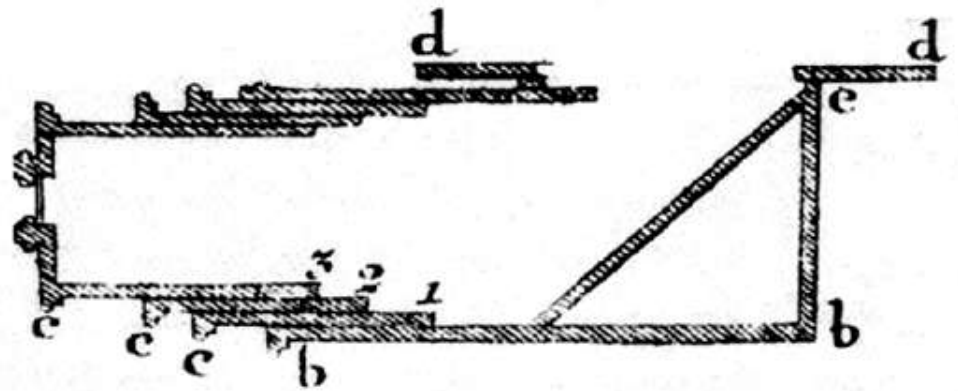
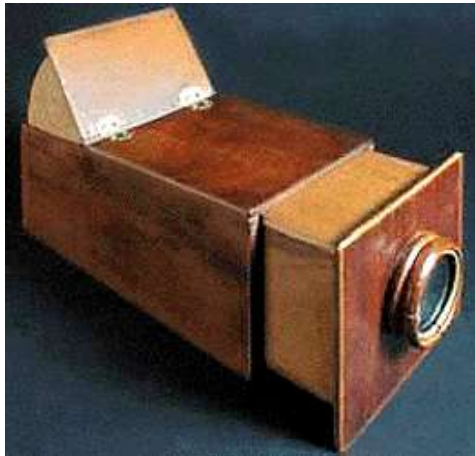
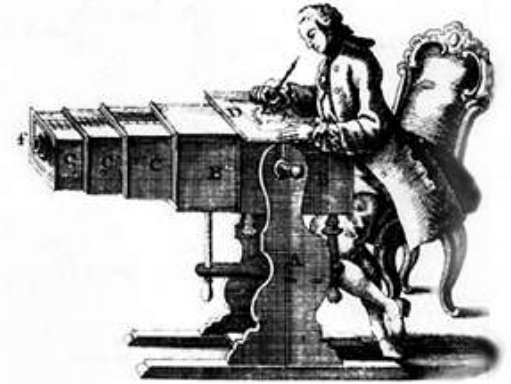
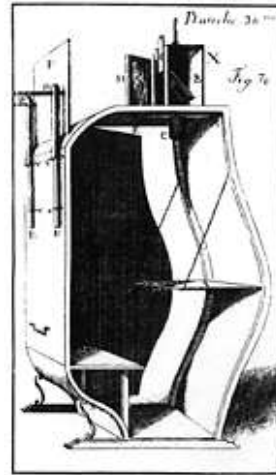
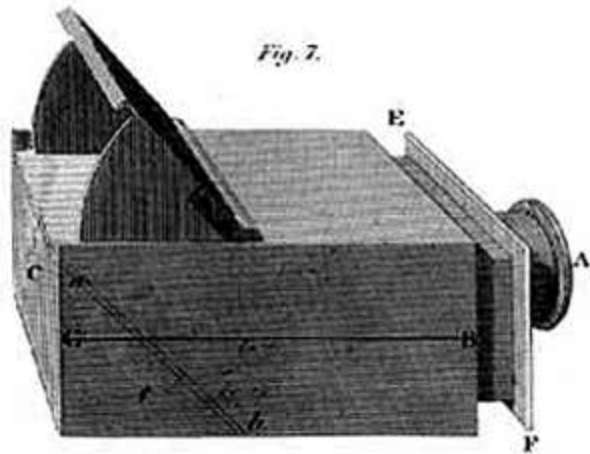
- **15 years later - 1560's** An Italian – Daniello Barbaro replaced the pinhole with lenses resulting in a further sharpening & brightening of the image
- Revisions of the original camera obscura concept continued into the late 17th century
- Constructed cumbersome tent like rooms in order to increase the camera obscura's portability

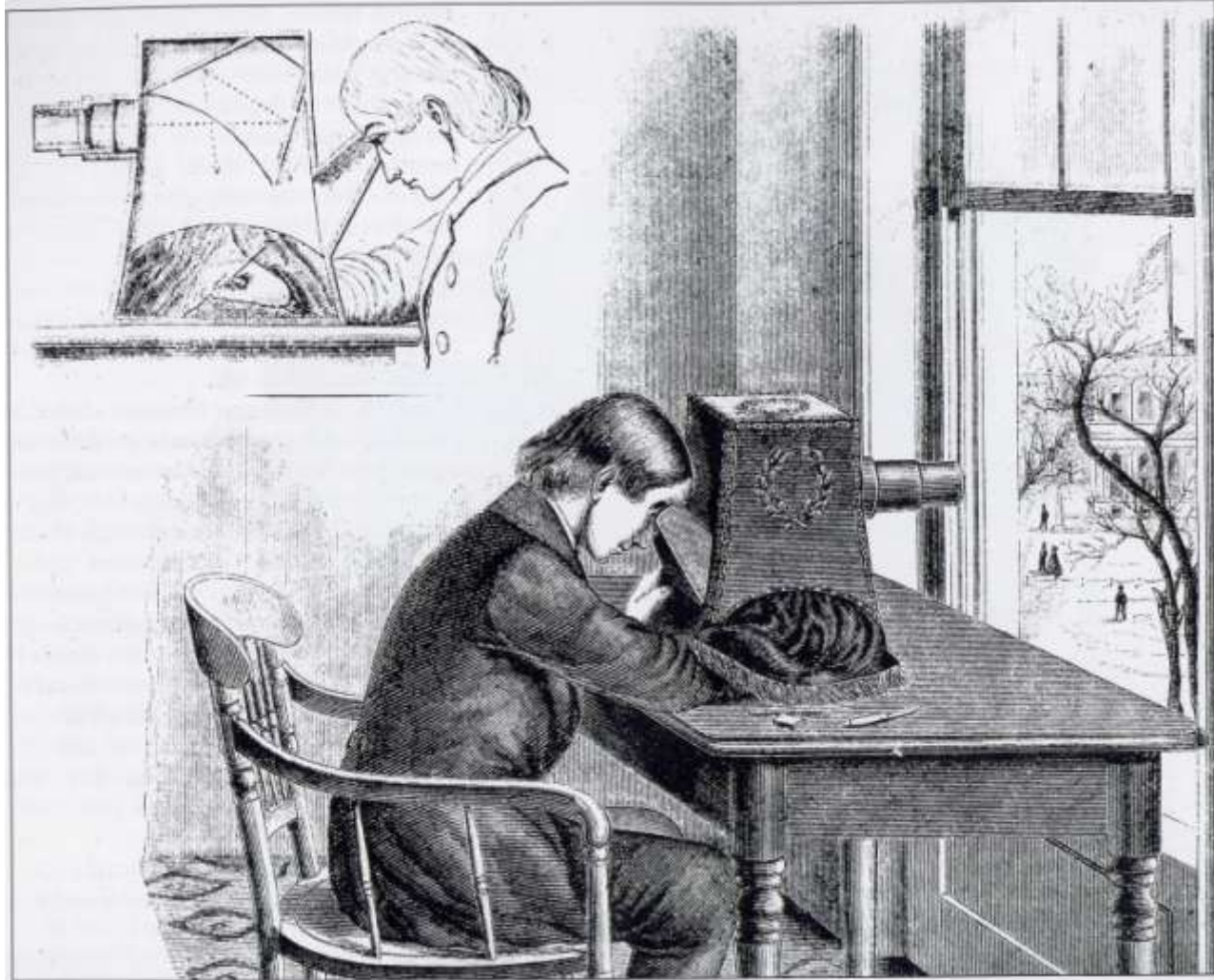


# Problems...

- Not as dark – light got through
- Unstable....wind shook
- Photographers had to carry around a lot of equipment.

# A box.....



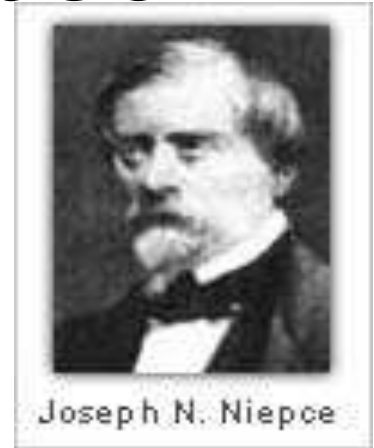


# Photography? Not Yet.

- Up to this time **LIGHT** was not creating a permanent record
- No method discovered yet could collect light and etch the reflection permanently onto an object or surface

# Joseph Nicephore Niepce

- First Photograph



# FLAWS

- Low sensitivity of the Bituman of Judea emulsion, some take as long as three days.
- Hazy due to the time of length exposed.
- Uneven, blotchy, appearance.

# WILLIAM HENRY FOX TALBOT



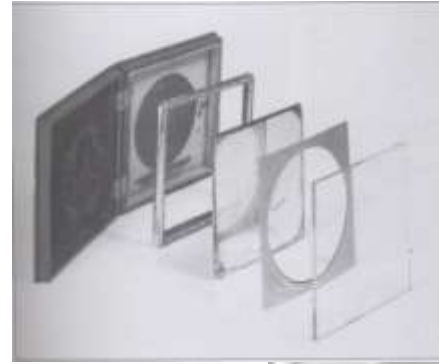


# Louis Jacques Mande' Daguerre



# DAGUERRETYPE

- A Startling Invention
- **1839**- Daguerre gives his first demo: it was complex and required copper sheet plated with silver & exposed the sheet to iodine vapors = this produced light sensitive emulsion (SILVER IODIDE) > exposed the plate in a camera obscura > “developed” it in mercury vapors and “fixed” it in a bath of hyposulfite of soda
- Compared to Niepce –  
Daguerreotypes had shorter exposure times and resulted in a crisper image



# Daguerreotype





# Darkroom Wagon

- Fredrick Scott Archer
- Invents darkroom wagon for wet plate developing. Need a darkroom at hand



# Tintype – hand tinted



# Ferrotypes / Tintypes



# Carte de Viste

ARTIST  
Photographers.  
Mathewson & Co.  
BRISBANE.

A life sized enlargement may  
be had of this Picture at a  
very low price.  
Orders by Post receive our best attention.





# Carbon Prints

- 1840-1858
- Gelatin, carbon black pigment and potassium dichromate



# Hand Held Cameras

- 1888 George Eastman founded a Rochester NY company and specialized in manufacturing gelatin dry plates. The Eastman Dry Plate Company – Eastman Company

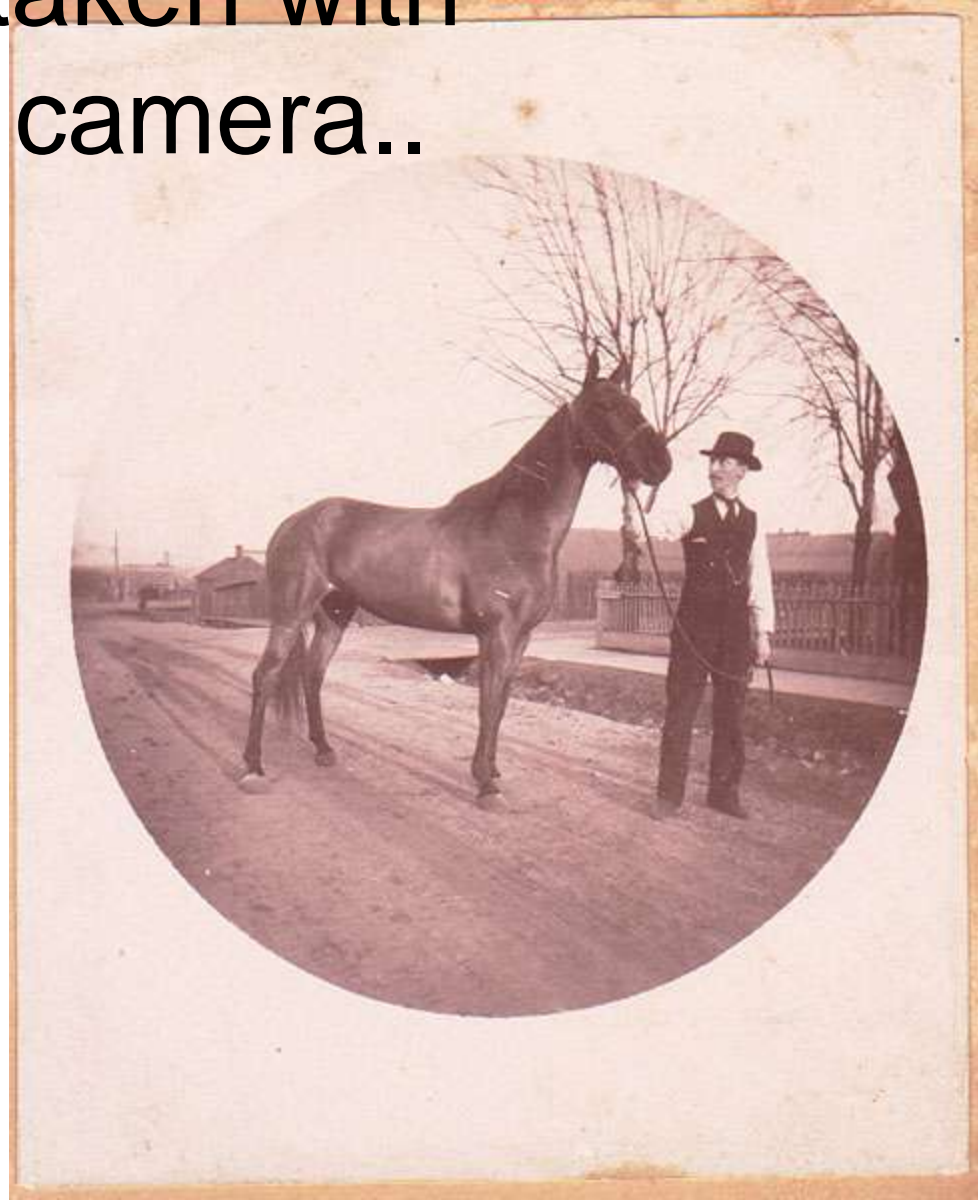
# Kodak

- Pre-loaded camera:  
Kodak #1
- $3 \frac{1}{4} \times 3 \frac{1}{4} \times 6 \frac{1}{2}$   
inches
- Used with “American  
Film” – actually paper





# Photos taken with Kodak camera..



# Kodak Brownie



# Photo taken with Brownie



BROWNIE

# Kodak Video Test....

Please watch the following video  
and answer the questions.....



# Photogram

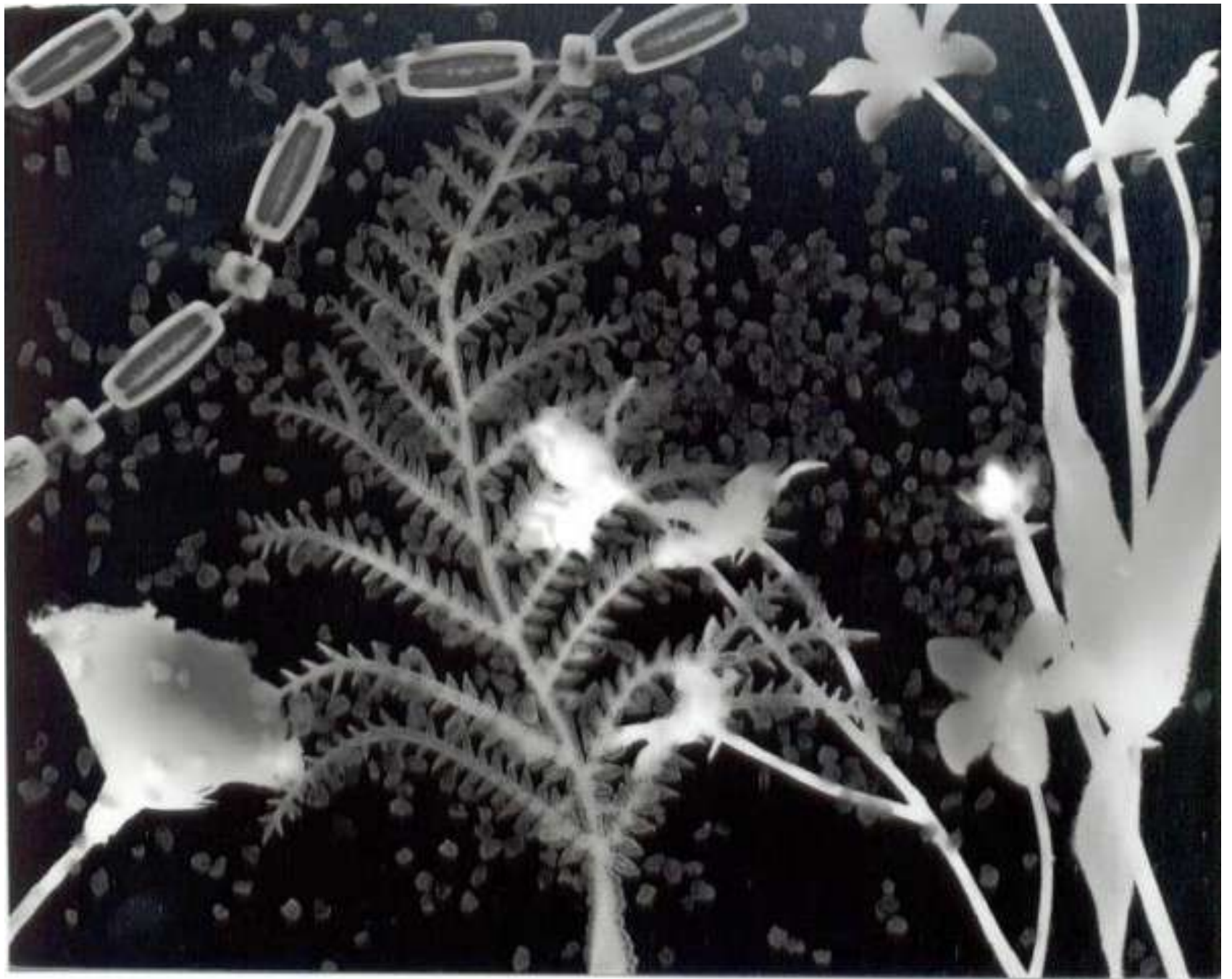


# PHOTOGRAM

- Photographic image made (without a camera) by placing objects directly onto the surface of a photosensitive material such as photographic paper and then exposing it to light.
- The result is a silhouetted image varying in darkness based on the transparency of the objects used, with areas of the paper that have not received any light appearing light and those that have appearing dark, according to the laws of photosensitivity. The image obtained is often quite similar to an X-Ray. This method of imaging is perhaps most prominently attributed to Man Ray (RAYOGRAPHS)

# Photogram



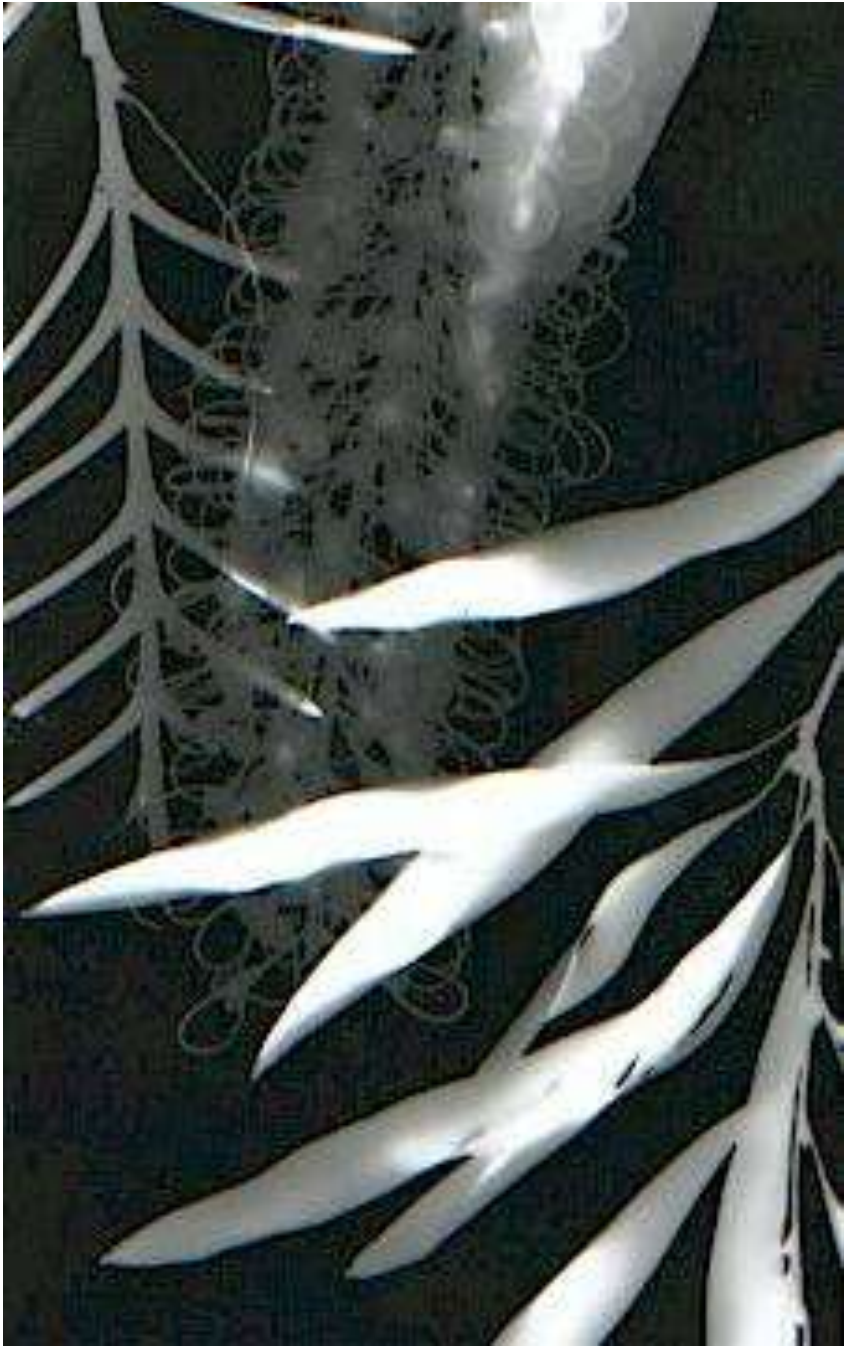




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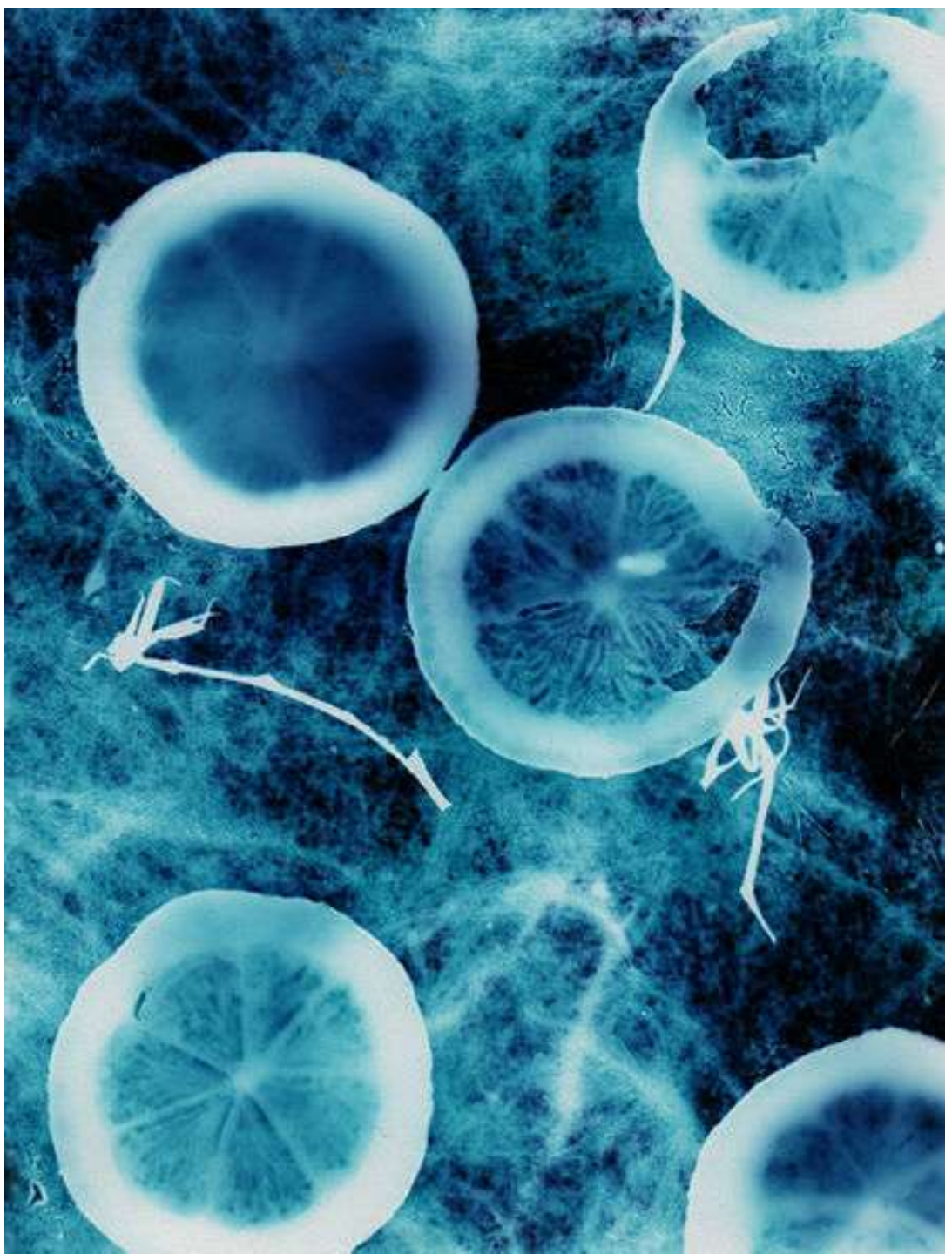
My Obsessions







- Lemons



# Sun prints

English chemist...

- **Thomas Wedgwood**, son of British potter was the first man able to use light to describe an object
- The English chemist was investigating the use of light sensitive substances to fix images produced by the camera obscura for decorating plates and pottery in his father's company

Transcribe the sketches onto various surfaces using nitrates and light

The images were weak but he invented the photogram

A method of reproducing an image from contact copy, without a camera

He does in fact produce an image that was a direct result of the sunrays

- **SUNPRINTS** were not permanent, silver salts were not permanent





# Let's make sun prints!

- Next class...
- Bring your coat

# Process...

- Set up composition on computer paper
- Choose objects with various transparencies
- Can choose a theme
- Objects on top
- Shine light – start with ten seconds

# Now...

- Meet with your teams
- Decide on a theme for your sunprints
- Who will bring in what?
- One person take responsibility to text everyone else a reminder

# Homework

- 1. Bring in objects
- 2. Look up three artist from the following list – follow handout instructions.

# List of main photographers who used the technique

- [Susan Derges](#)
- [Max Ernst](#)
- [Garry Fabian Miller](#)
- [Adam Fuss](#)
- [Raoul Hausmann](#)
- [El Lissitzky](#)
- [Denton McCabe](#)
- [Laszlo Moholy-Nagy](#)
- [Pablo Picasso](#)
- [Sigmar Polke](#)
- [Robert Rauschenberg](#)
- [Man Ray](#)
- [Alexander Rodchenko](#)
- [Dieter Roth](#)
- [Christian Schad](#)
- [Kurt Schwitters](#)
- [Raoul Ubac](#)
- [Piet Zwart](#)
- [Gilbert and George](#)
  
- <http://en.wikipedia.org/wiki/Photogram#Procedure>



Some cool photos....

Shallow  
Depth of  
Field



Deep DOF



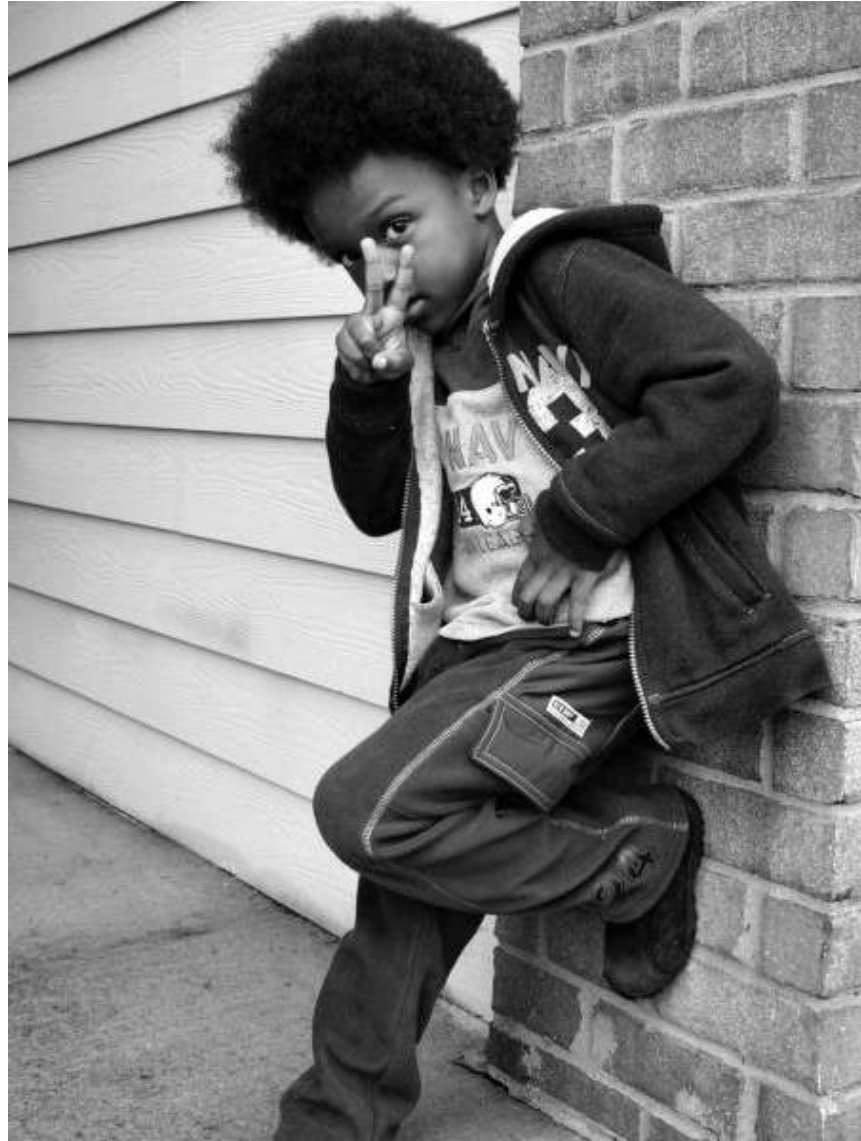
# Deep ODF



Deep  
DOF



- Deep DOF



# Movement – Stop Motion



Stop Motion  
Fast Shutter





Movement  
Slow ShutterSpeed  
Blur



# Slow Shutter Speed



# Slow Shutter Speed – Light Effects





# Lighting - Aperture



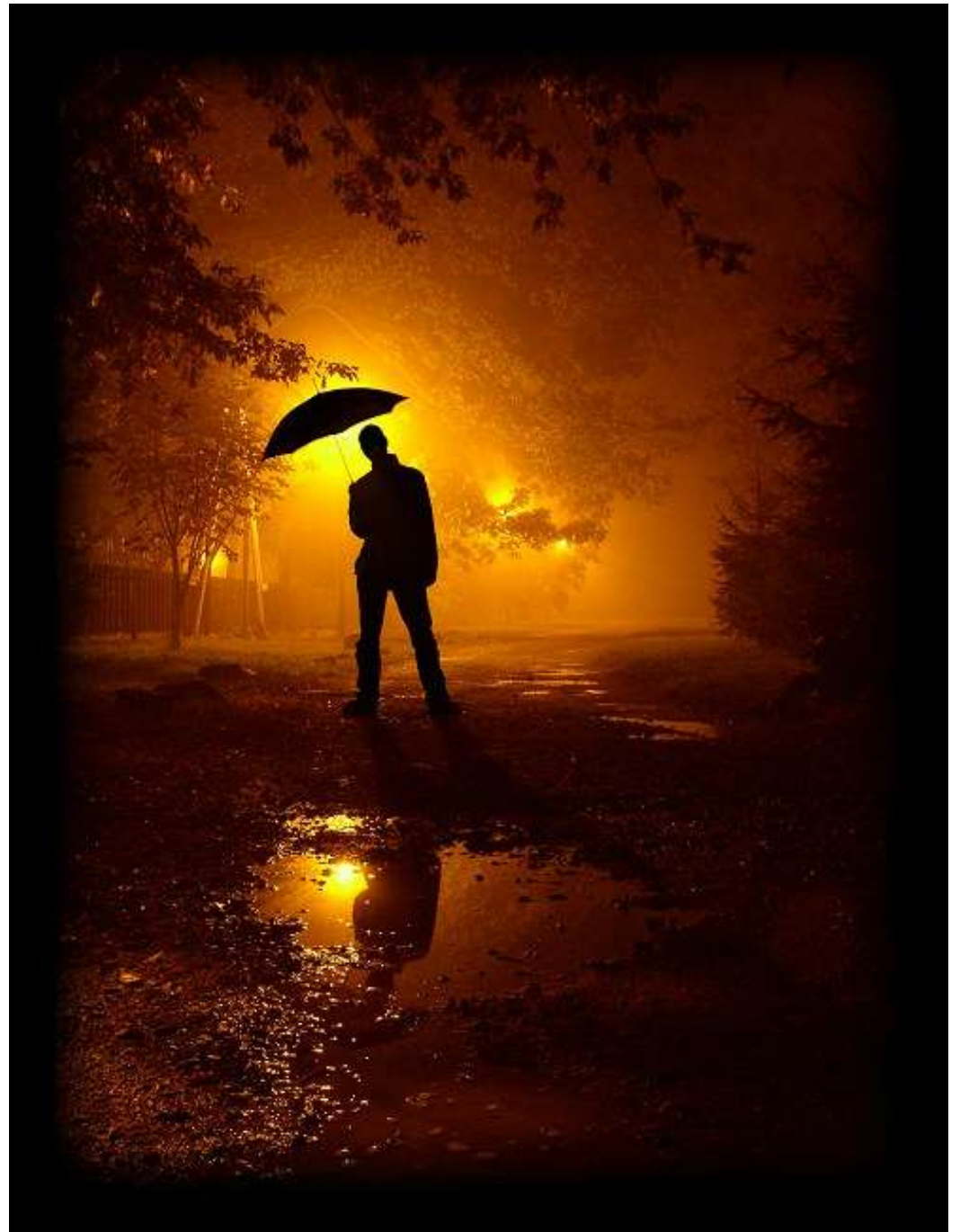
# Lighting / Aperture/Shutter/Flash



# Light Effects



# Light effects





# Interchangeable Lenses



# Interchangeable Flash



# Lenses

# Normal Lens



# Normal Lens



# Telephoto Lens



# Telephoto Lens



# Telephoto Lens

\* Note – Zoom lens  
have multiple focal  
lengths on one  
lens.





# Fish Eye Lens



# Fish Eye



Fisheye photo © 2006 Jarle Aasland  
Nikkor 6mm mounted on Nikon F3 body © 2006 Kazuo Koga



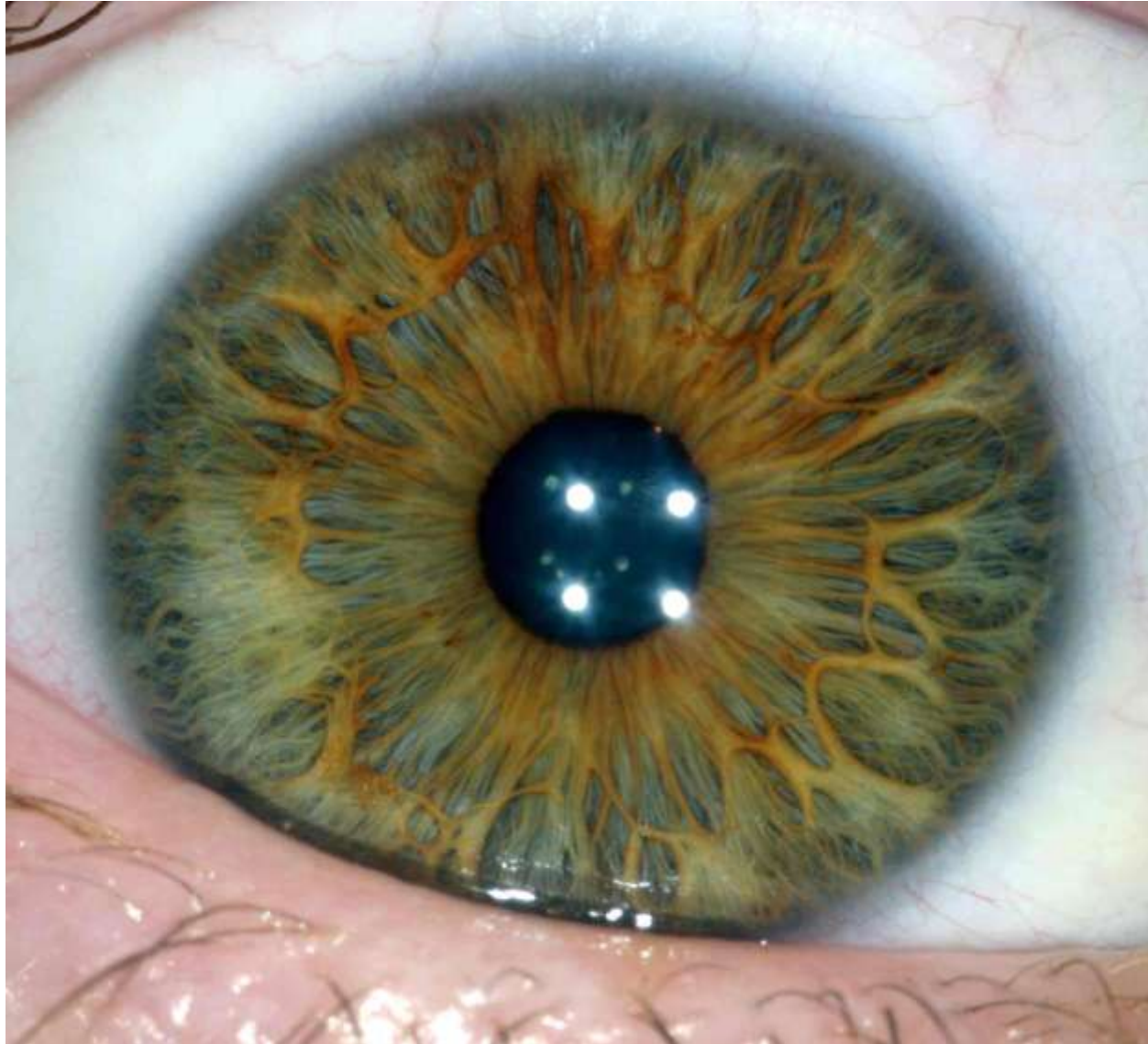
# Wide Angle Lens



# Wide Angle Lens



# Macro Lens



# Macro



# Homework

- Find an image of Shallow Depth of Field
- Find an image of Deep depth of Field
- Find an image of Stop Motion
- Find an image of Blur
- Find an image of creative lighting
- Find an image of dark lighting
- Find an image of bright lighting
- Find an image taken with a fish eye lens
- Find an image taken with a telephoto lens
- Find an image taken with a wide angle lens
- Find an image taken with a macro lens
- Print and label all images



# Cameras

Point  
&  
Shoot

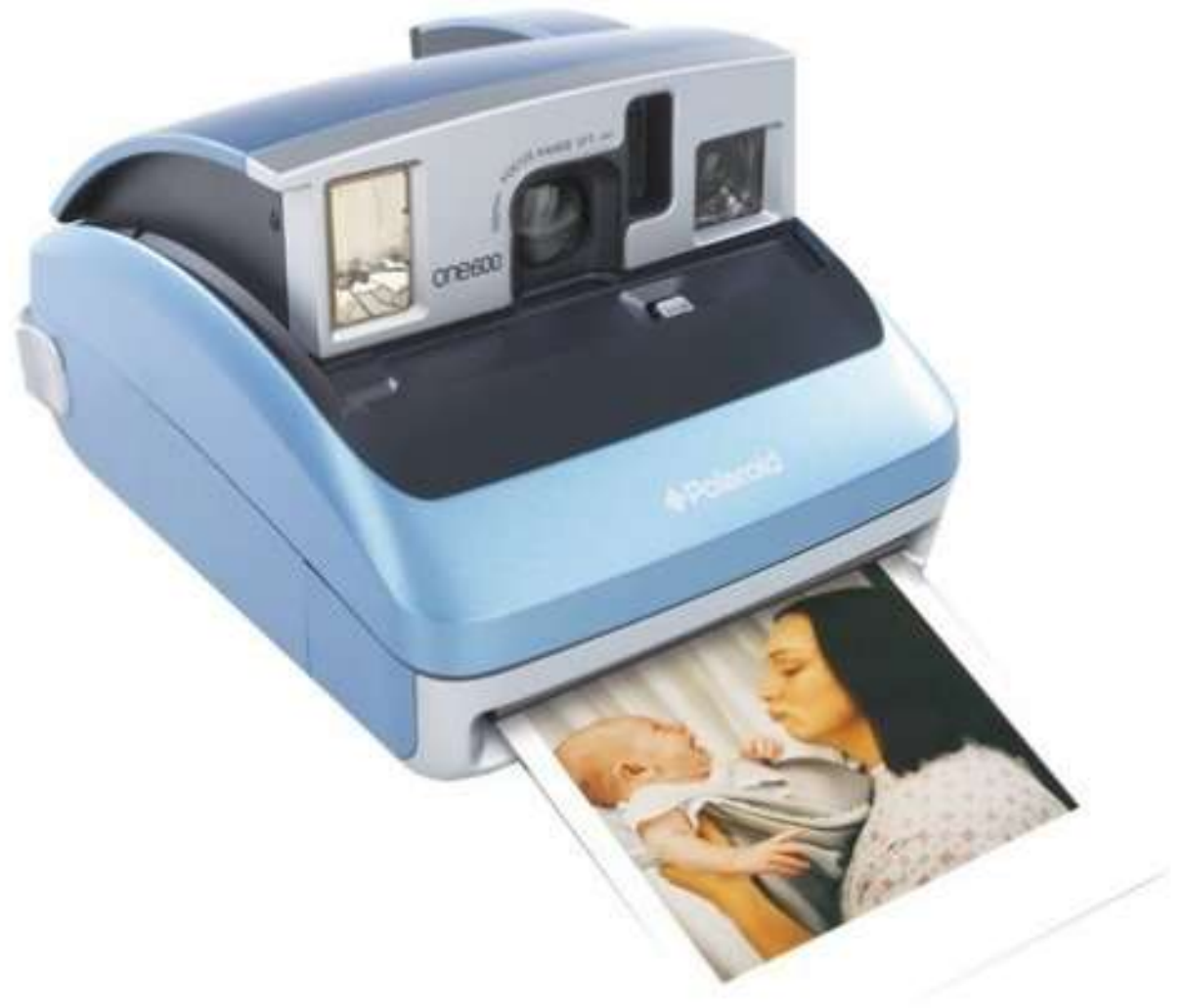




# SLR



- Polaroid



Disposable



Digital









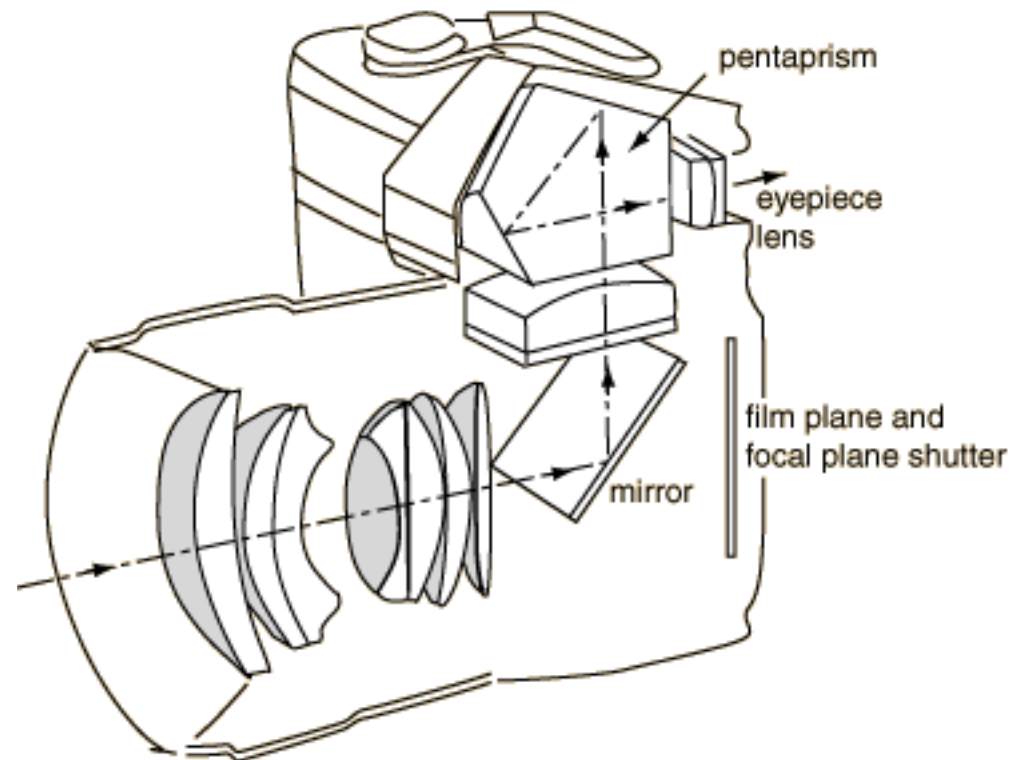


# Digital SLR



# Digital SLR

- A digital *single-lens reflex* camera (digital SLR or DSLR) is a digital camera that uses an automatic mirror system
- For viewing purposes, the mirror reflects the light coming through the attached lens upwards at an approximately 90 degree angle. It is then reflected by the pentaprism to the photographer's eye. During exposure the mirror swings upward, allowing the lens to project light onto the image sensor.



# Digital SLR



