## WORLD'S FIRST PHOTO



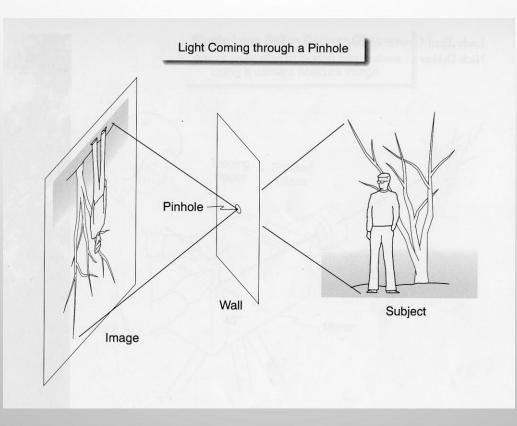
Joseph Nicephore Niepce, 1827

# OPTIC AND CHEMICAL HISTORY OF PHOTOGRAPHY

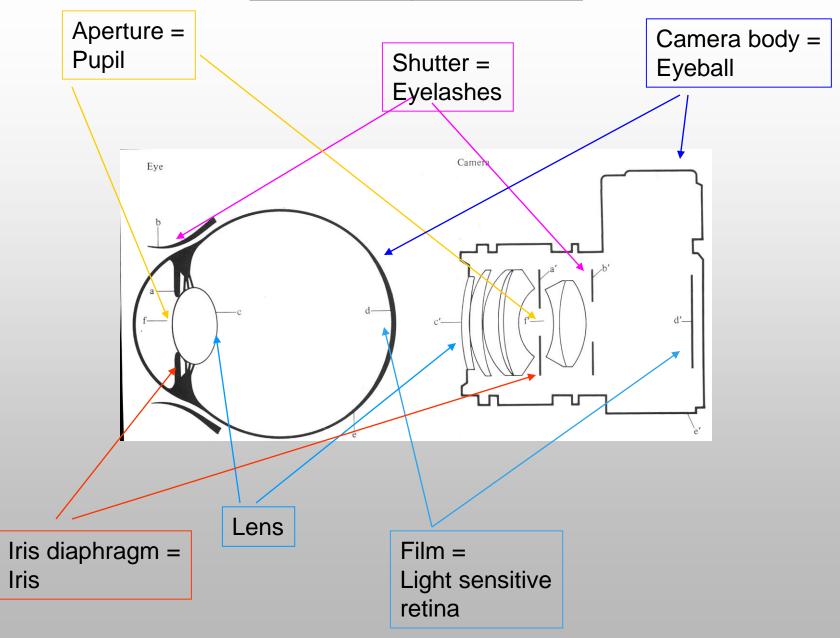
THE SHORT VERSION

### CAMERA OBSCURA

- CAMERA "ROOM"
- OBSCURA "DARK"
- INVERSE SQUARE LAW



#### The Camera/Eye Comparison



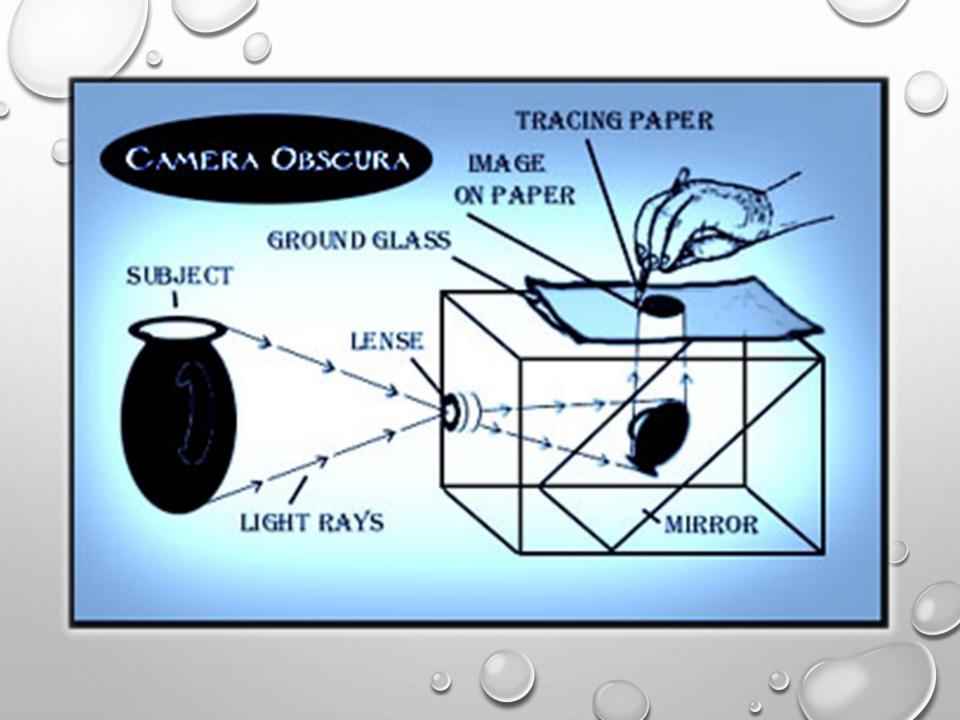


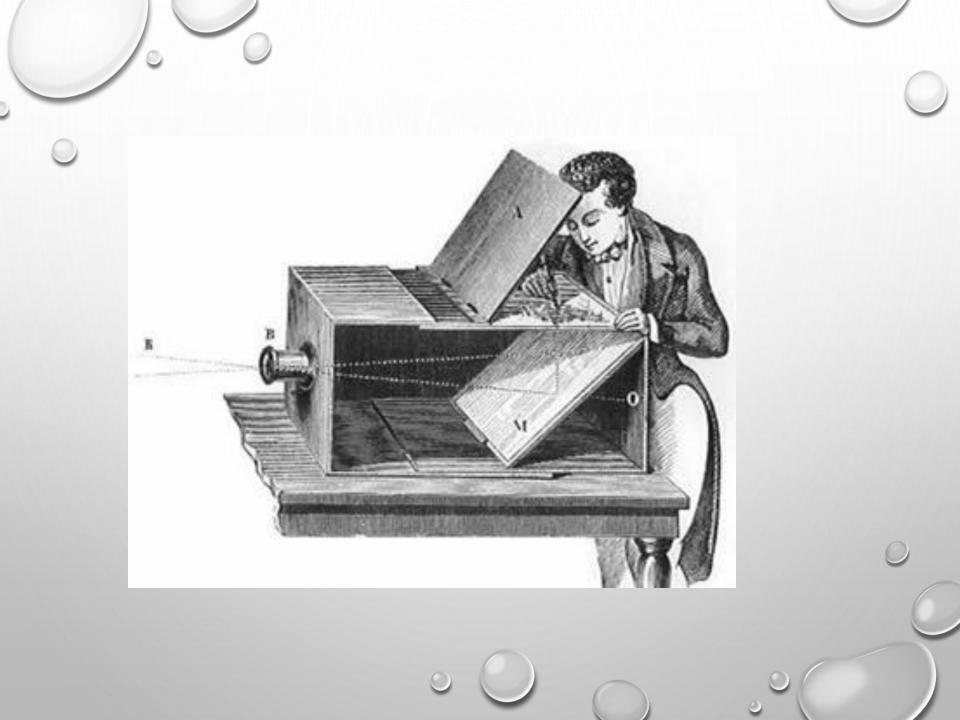
### FIRST DISCOVERIES

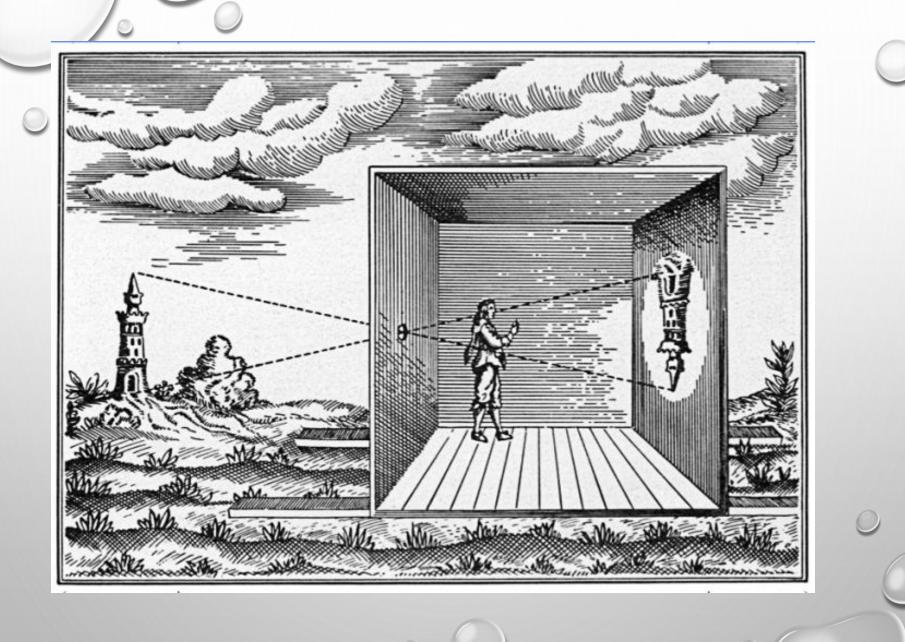
- MOZI, CHINESE PHILOSOPHER 5<sup>TH</sup> CENTURY BC
- ARISTOTLE 4<sup>TH</sup> CENTURY BC
- ALHAZEN AND CHINESE SCIENTIST SHEN KUO 11<sup>TH</sup> CENTURY AD FIRST TO PROJECT IMAGE ONTO A SURFACE
- GERMAN ASTRONOMER JOHANNES KEPLER CAME UP WITH THE TERM "CAMERA OBSCURA" 1604 AD

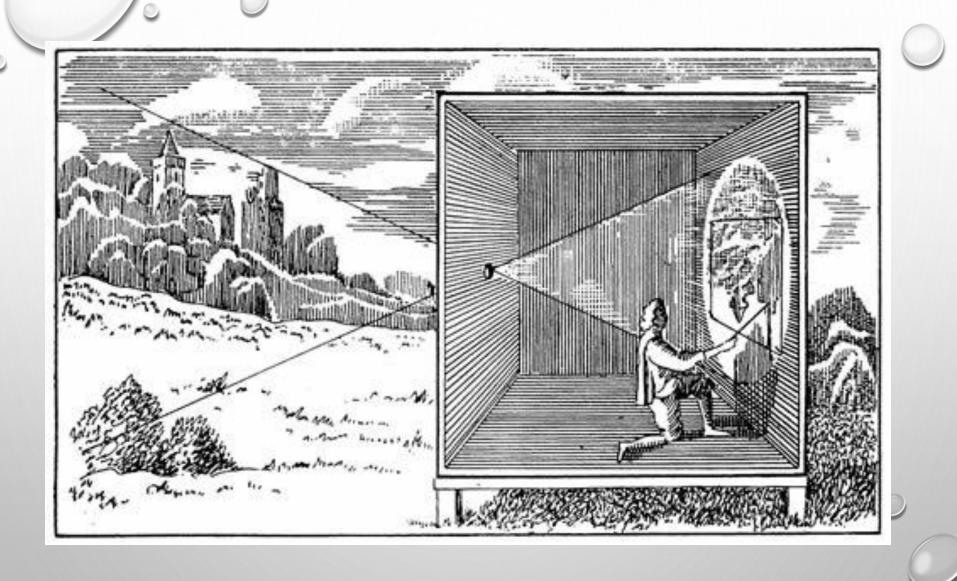


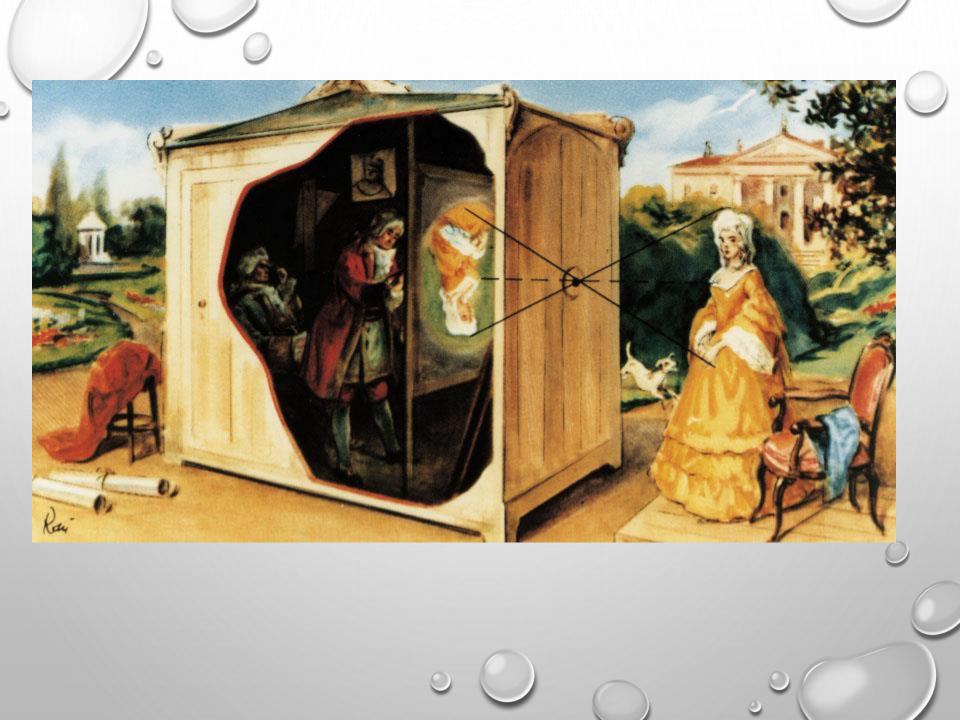






















These photographs show the process in more detail. At the top left you can see the projection on the paper as I make my initial marks, two stages of which you can see top right. After making the measurements, I take down the paper and complete the drawing from life (the finished portrait is opposite). The subject, who sits outside throughout, can see very little of what is going on in the room. He is not even aware that the mirror is there (*above and left*).

I have been told by some art historians that there are written accounts of similar set-ups in the fifteenth and sixteenth centuries, but as yet I have not located them.



#### David Hockney

# JOHANN H. SCHULZE AND CARL WILHELM SCHEELE



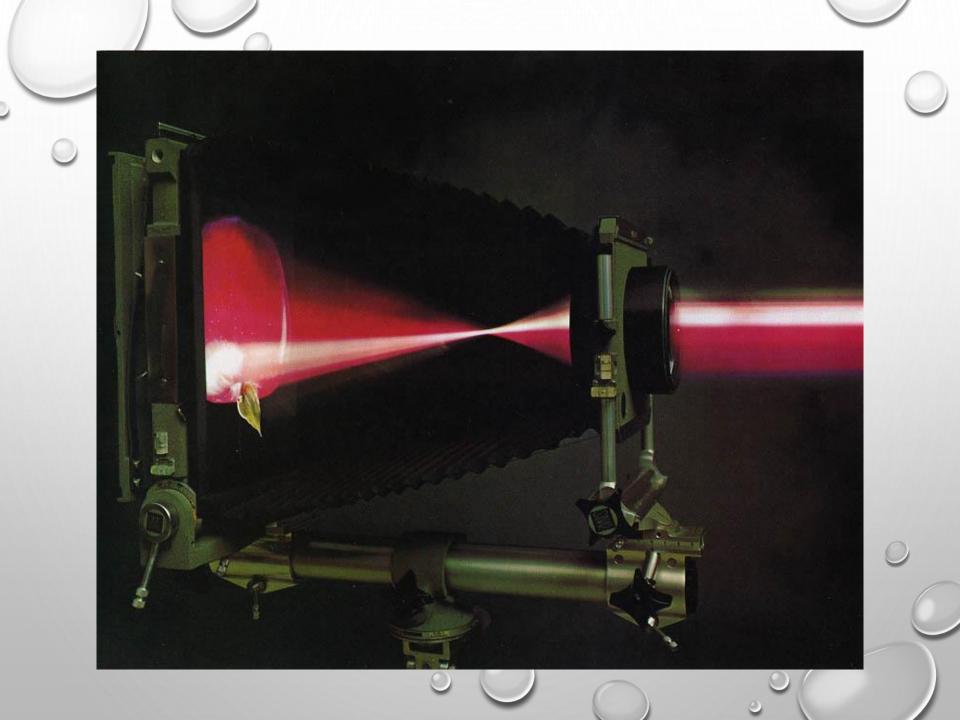
Library of Congress

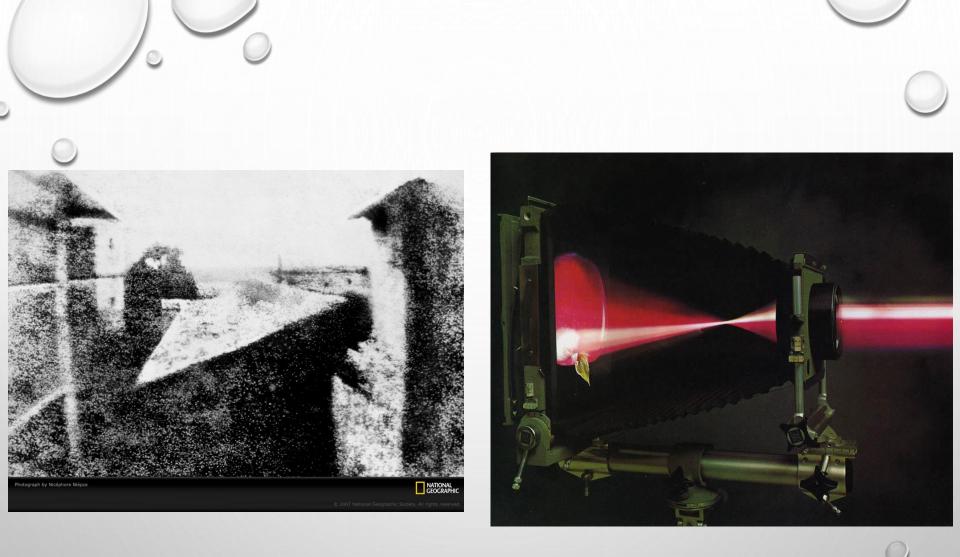
FOUND OUT THAT SILVER TURNED BLACK WITH LIGHT EXPOSURE

## WORLD'S FIRST PHOTO



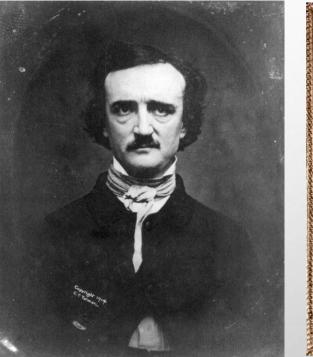
Joseph Nicephore Niepce, 1827





# LOUIS DAGUERRE (FRENCH) DAGUERREOTYPE CAMERA

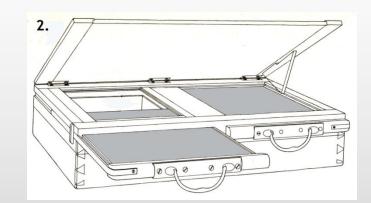
- ON METAL PLATES
- GREAT CLARITY
- ONLY ONE COPY
  SINCE THERE IS NO NEGATIVE
- TOXIC
- INVENTOR: LOUIS DAGUERRE



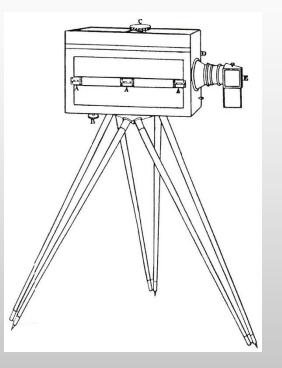


#### teps in Making a Daguerreotype



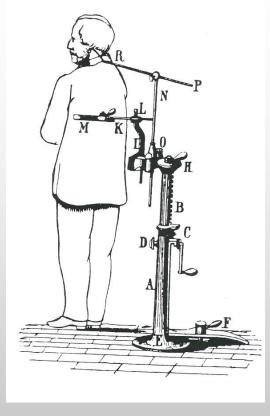


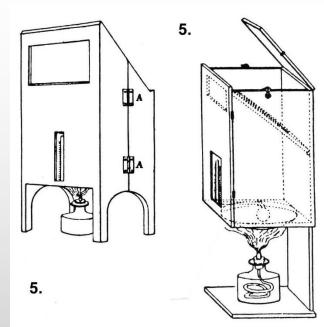
Sensitizing the Photographic Plate The polished plate is sensitized by exposing it to iodine and bromine fumes



The sensitized plate is inserted into a light-proof holder with a protective slide placed inside the camera

Polishing & Buffing the Photographic Plate





5. Developing the Image The image is "brought out" by suspending the photographic plate over a dish of mercury inside a fuming box. 5. Fixing the Image

The photographic image is made permanent by bathing the photographic plate in hyposulphate of soda

4. Taking the likeness The subject is place in front of the camera





# HENRY FOX TALBOT (BRITISH) CALOTYPE CAMERA



- DEVELOPS THE USE OF THE NEGATIVE CAN MAKE UNLIMITED COPIES OF IMAGE BECAUSE IT USES A NEGATIVE
- TALBOT IS CONSIDER THE FATHER OF MODERN PHOTOGRAPHY DUE TO NEGATIVE INVENTION
- SIR JOHN HERSHEL DEVELOPS FIXER TO MAKE IMAGE STAY



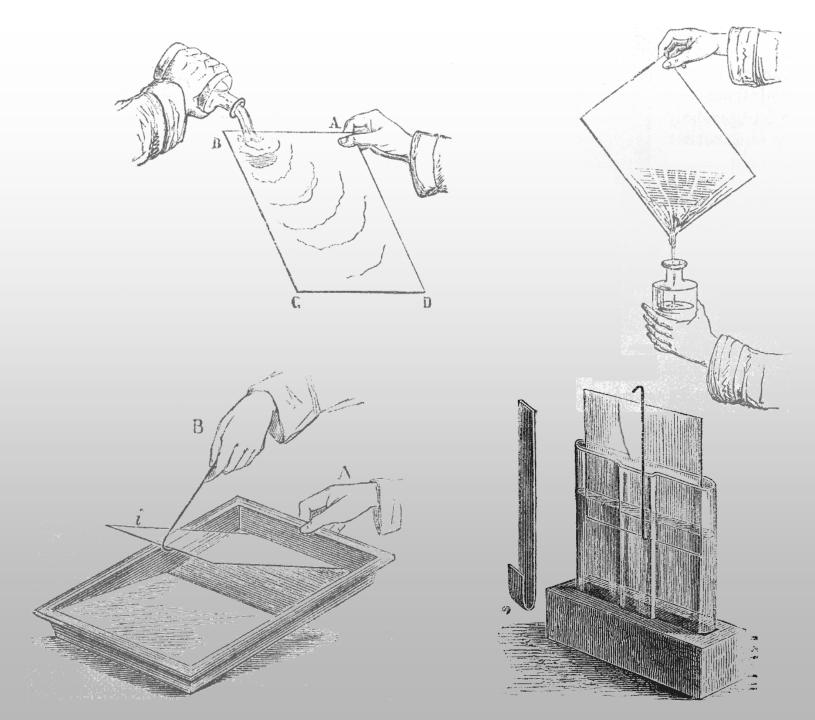
# FREDERICK SCOTT ARCHER (AMERICAN) WET PLATE CAMERA

#### **Glass Plate Negatives**

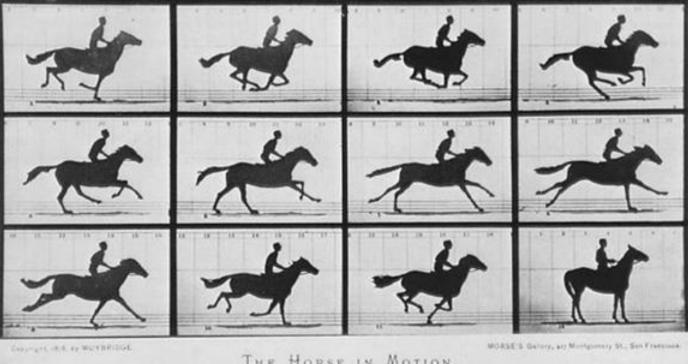


Much more refined images because negative are on glass





# EADWEARD MUYBRIDGE (AMERICAN)



#### The Horse in Motion.

MUYDHIDGE

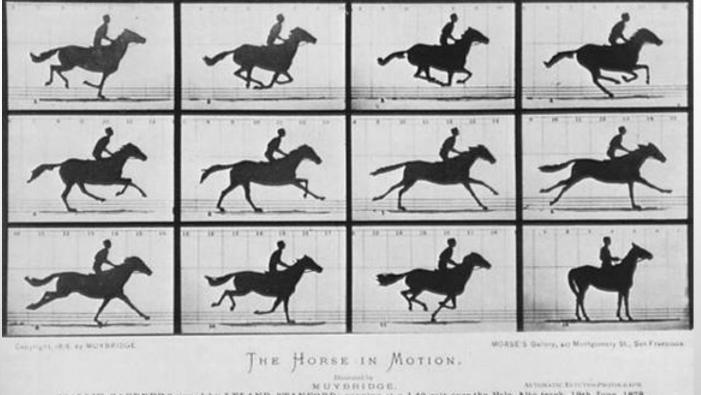
AS TERRATOR, BELLY YOU PROFILE ALLOW

"HALLIE GARDNER," owned by LELAND BTANFORD; running at a 140 gais over the Pale Alto track, 10th June, 1878. The second second diversity of the second se

Eadweard Muybridge

**Thomas Edison** 

# EADWEARD MUYBRIDGE (AMERICAN)



"SALLIE OARDNER," owned by LELAND STANFORD; running at a 140 gais over the Palo Alto track, 19th June, 1878. The section of the track of the state of the stat

Links photography to science and the beginning of motion pictures

### ROLL FILM AND GEORGE EASTMAN



Made photography accessible to the general public – no need to be a professional to shoot photos







## WORLD'S FIRST DIGITAL PHOTO

- MADE BY RUSSELL KIRSCH
- 1957
- IT IS A SCANNED PHOTO OF
  HIS SON

