

part 1:

where did photography come from?

photography -

photography - light

photography - light +

photography - light + writing

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"drawing with light"

camera -

<u>Camera</u> - room, or chamber - an enclosed space

- <u>Camera</u> room, or chamber an enclosed space
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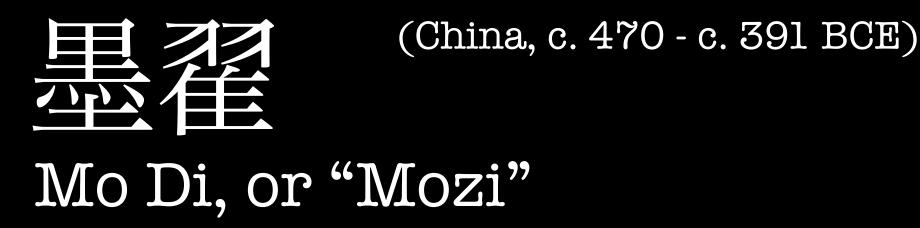
aperture -

<u>Camera</u> - room, or chamber - an enclosed space

<u>camera obscura</u> an enclosed space that is dark

aperture - hole or opening

(China, c. 470 - c. 391 BCE) Mo Di, or "Mozi"



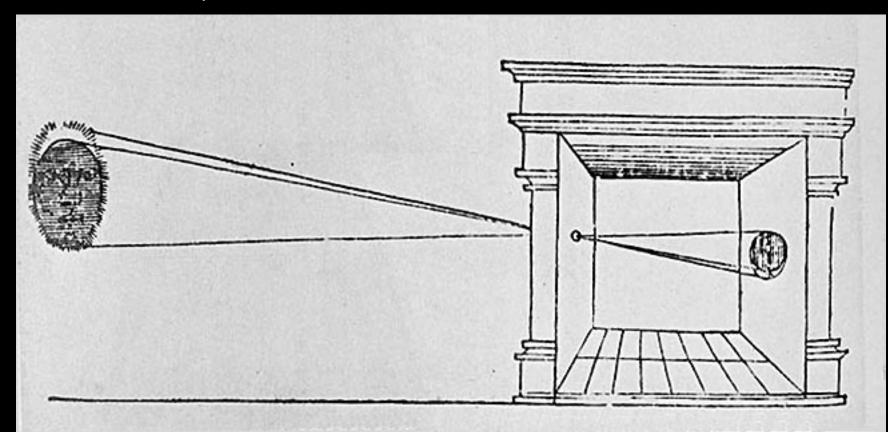
earliest known mention of basic photography concepts:

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earliest known mention of basic photography concepts:

Mozi discovered that while in a darkened room, a tiny opening in one wall projected an upside-down image of the scene outside onto the opposite wall. He referred to this as "locked treasure room."

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Aristotle

(Greece, 384 - 322 BCE)

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a solar eclipse is when the moon passes between the Sun and the Earth - so that from the Earth, the moon looks like it's "covering up" the sun

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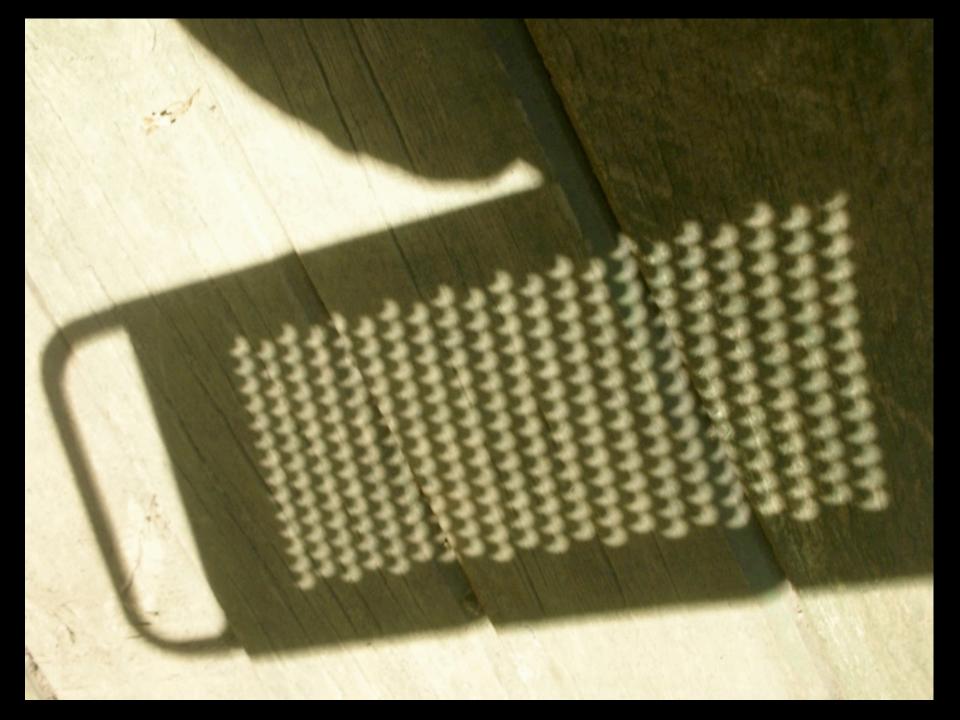
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just like how during a solar eclipse, even circular holes will project eclipse-shaped light







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"Alhazen" (Iraq, 965 - c. 1040 CE)

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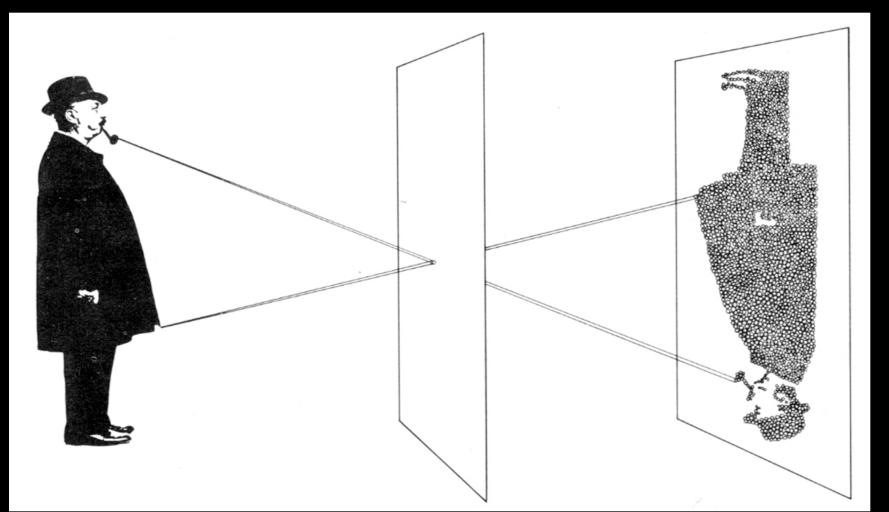
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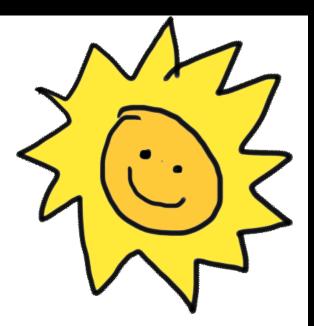
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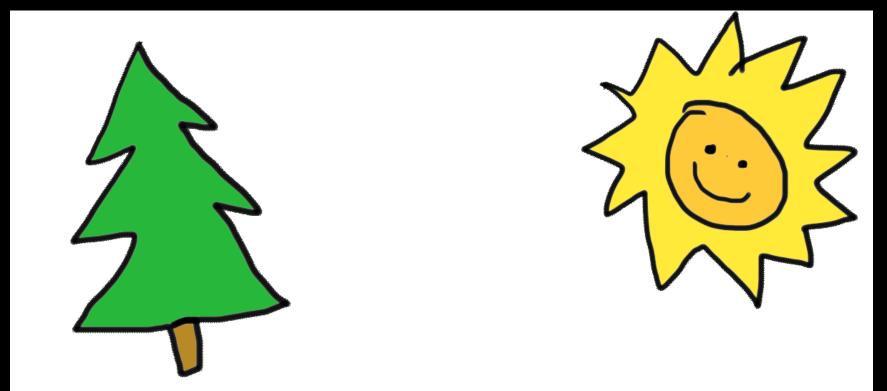
which is why projected images are upside down

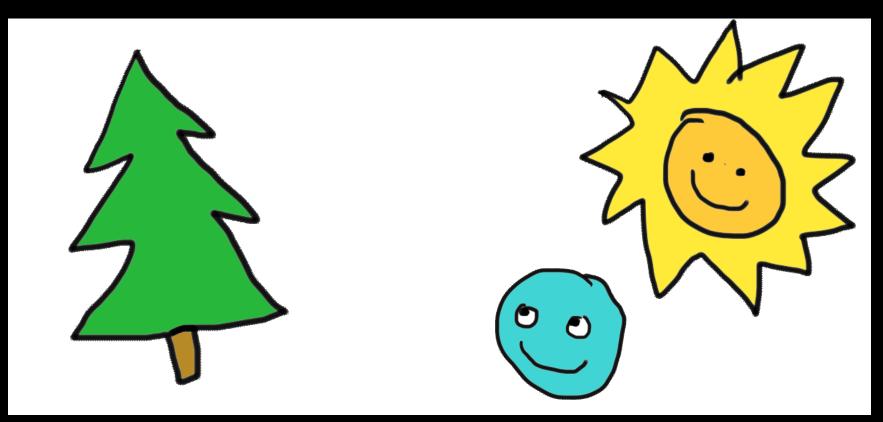
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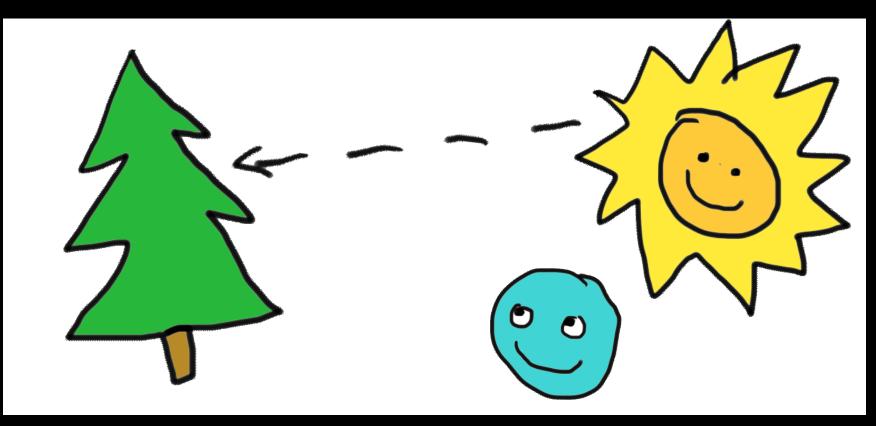






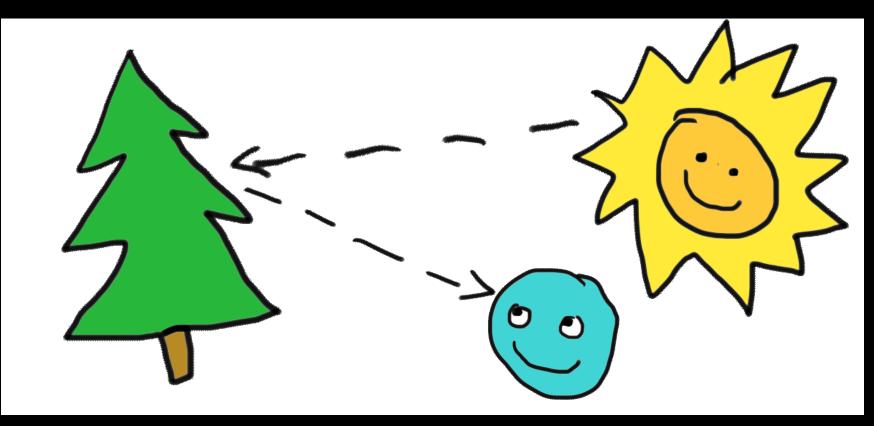
interestingly, Alhazen was also the first to realize the modern understanding of vision:

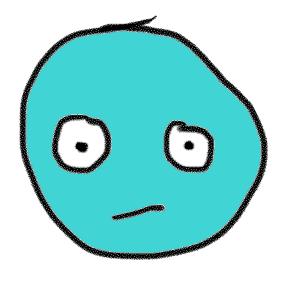
light (for example, from the sun) reflects off of things, our eyes interpret that reflected light, and that's how we are able to see them

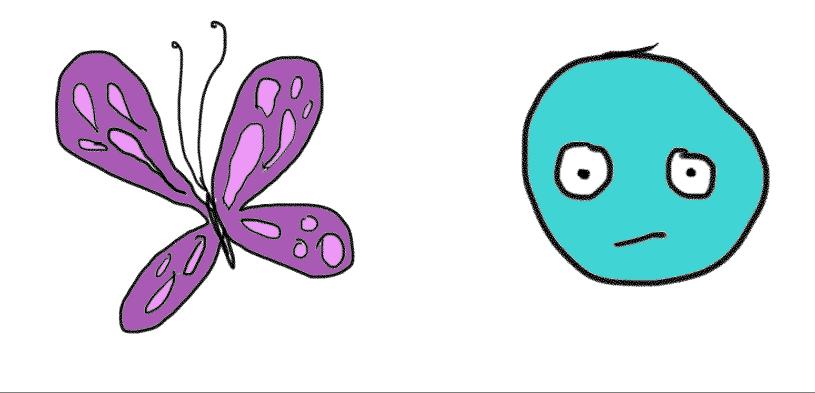


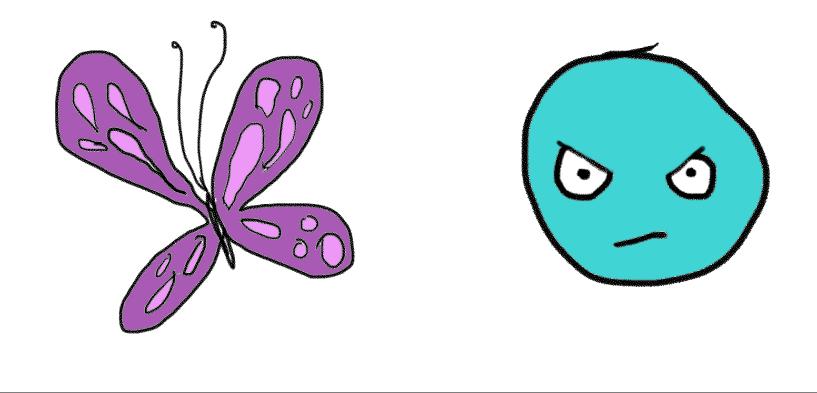
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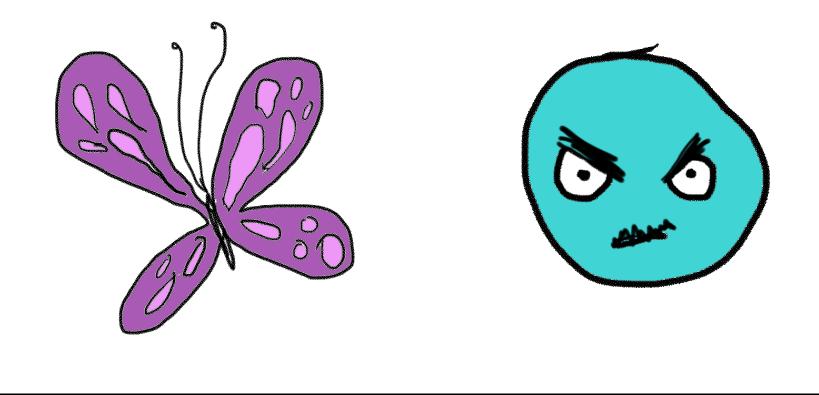
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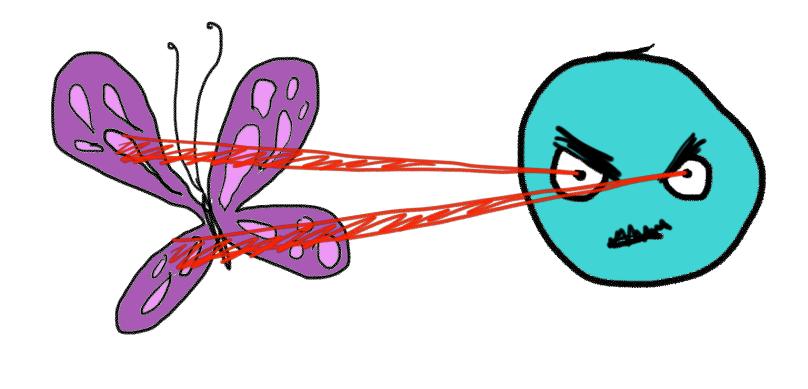


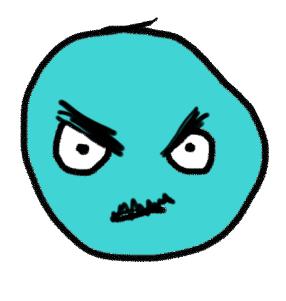












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(also, he was the first to guess that it was the BRAIN that "flipped" our vision right-side up - rather than lenses/ mirrors that are used in a camera or camera obscura)



this is "Kepler" (a crater on the moon) which was named after him

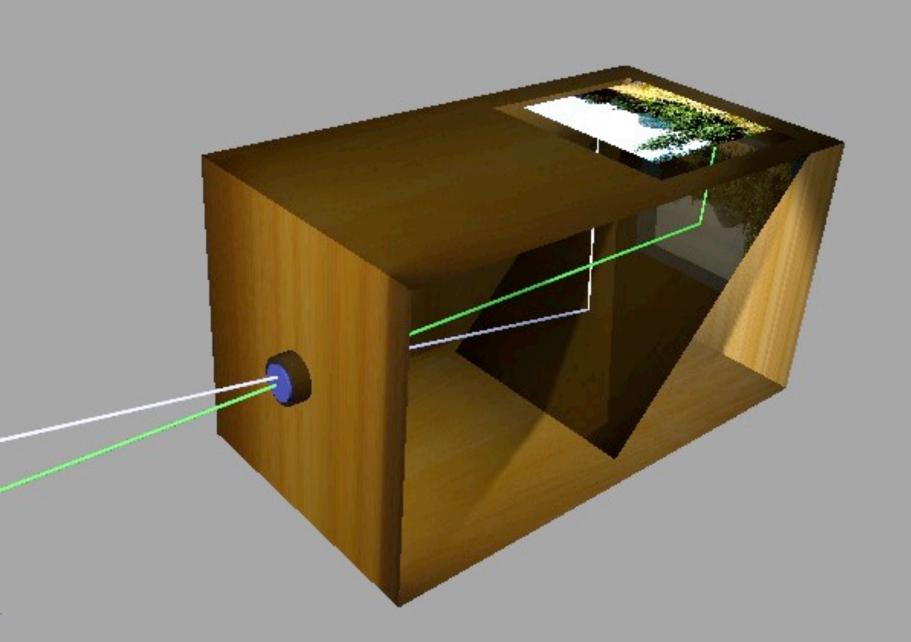
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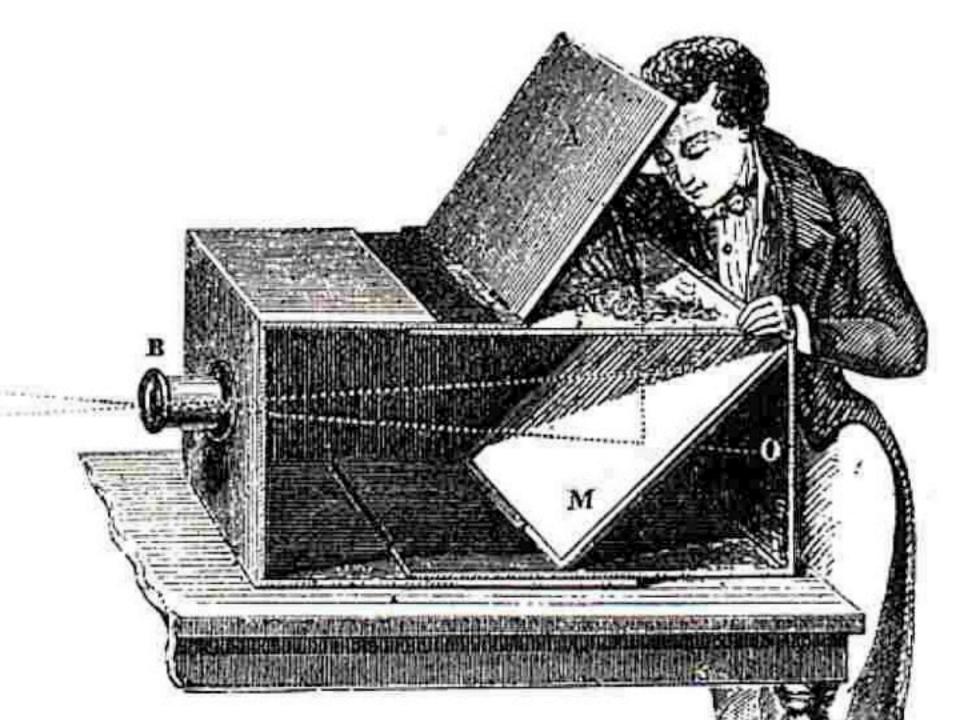
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"Close all the shutters and doors until no light enters the camera obscura except through the lens, and opposite hold a piece of paper which can move forward and backward until the scene appears in sharpest detail. There on the paper you will see the whole view as it really is, with its distances, its colours and shadows and motion, the clouds, the water twinkling, the birds flying. By holding the paper steady you can trace the whole perspective with a pen, shade it and delicately colour it from nature."





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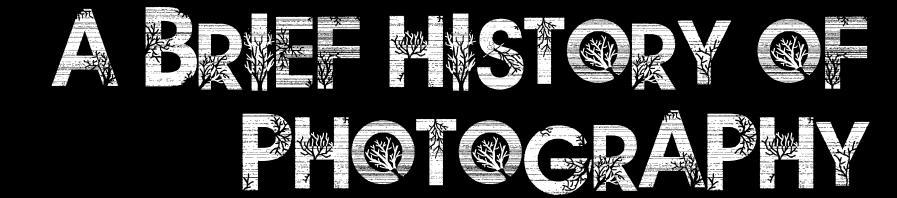
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wrote that the camera obscura made it "possible for anyone ignorant in the art of painting to draw with a pencil or pen the image of any object whatsoever". many famous artists such as Johannes Vermeer (Netherlands, 1632 - 1675) likely used the camera obscura to compose paintings

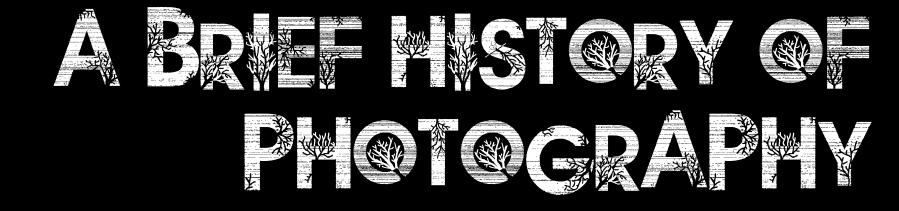
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intermission







part 2:

how did we get images to STAY?

discovery of photosensitive chemicals

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in 1802, Thomas Wedgwood & Humphry Davy were able to temporarily capture images - but they wouldn't stay

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- polished pewter
- covered in bitumen of Judea (related to asphalt; hardens and BLEACHES when exposed to light)
- afterwards, "rinsed" the plate with oil of lavender & white petroleum

he set up his camera obscura, put the asphaltcovered pewter plate inside, pointed it so it was looking out his window, and opened the shutter he set up his camera obscura, put the asphaltcovered pewter plate inside, pointed it so it was looking out his window, and opened the shutter

EIGHT HOURS LATER...





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- this process shortened exposure time from over 8 hours down to 20 -30 minutes

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- develop the plate over mercury heated to about 170°F (heating creates vapors)
- fix the image in warm salt water
- rinse with hot distilled water

10 - 15 minutes of exposure





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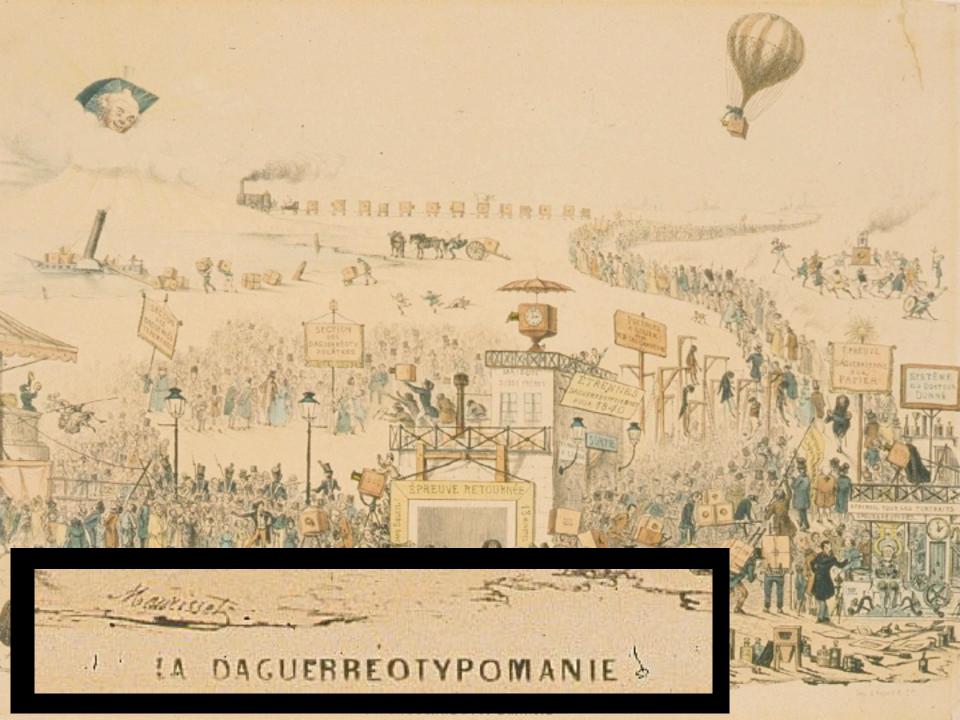
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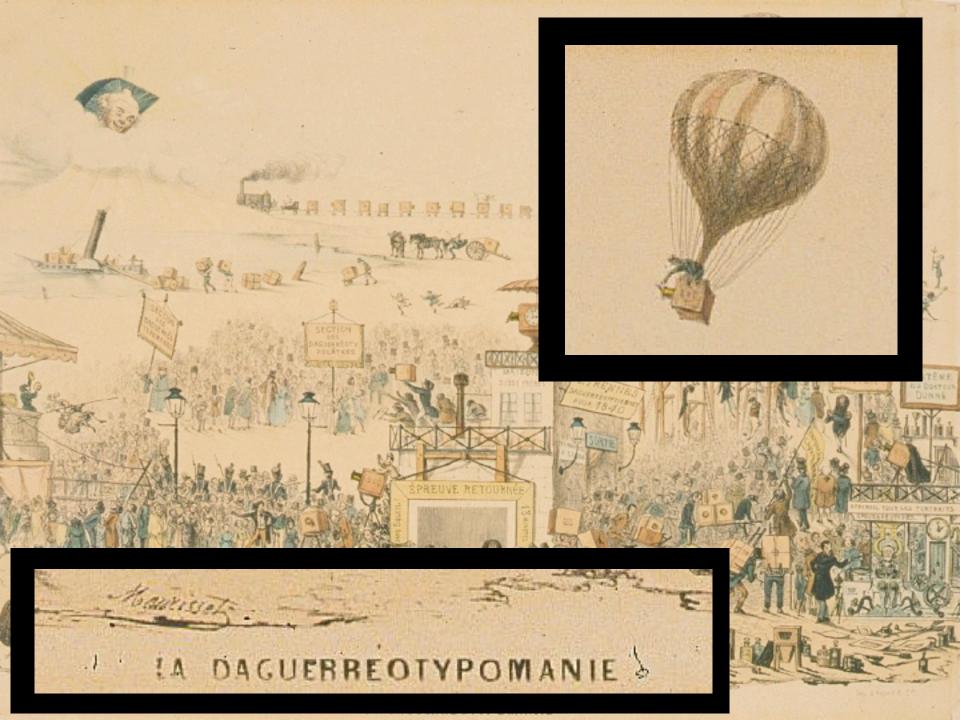
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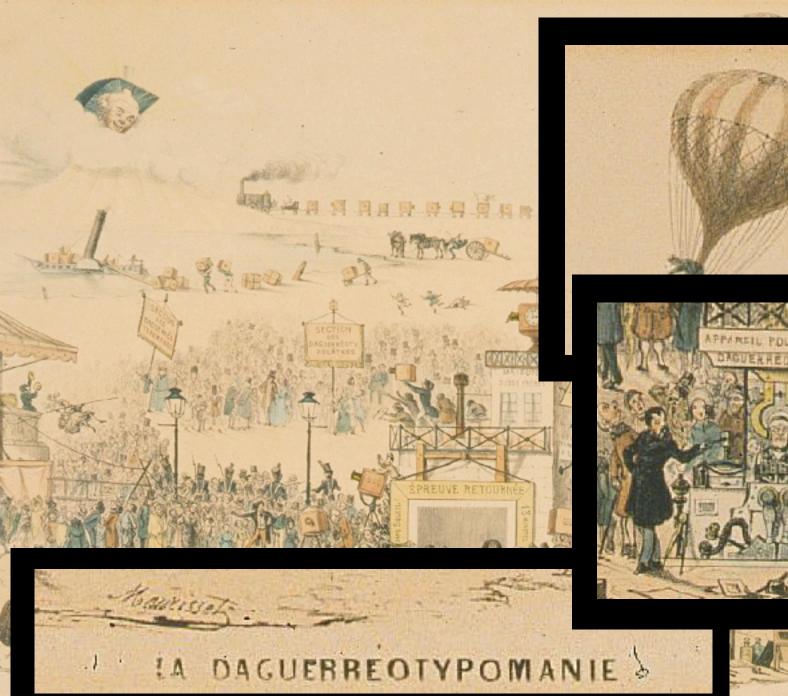
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the fact that the process was free from copyright meant that it spread quickly, causing "Daguerreotypomania"



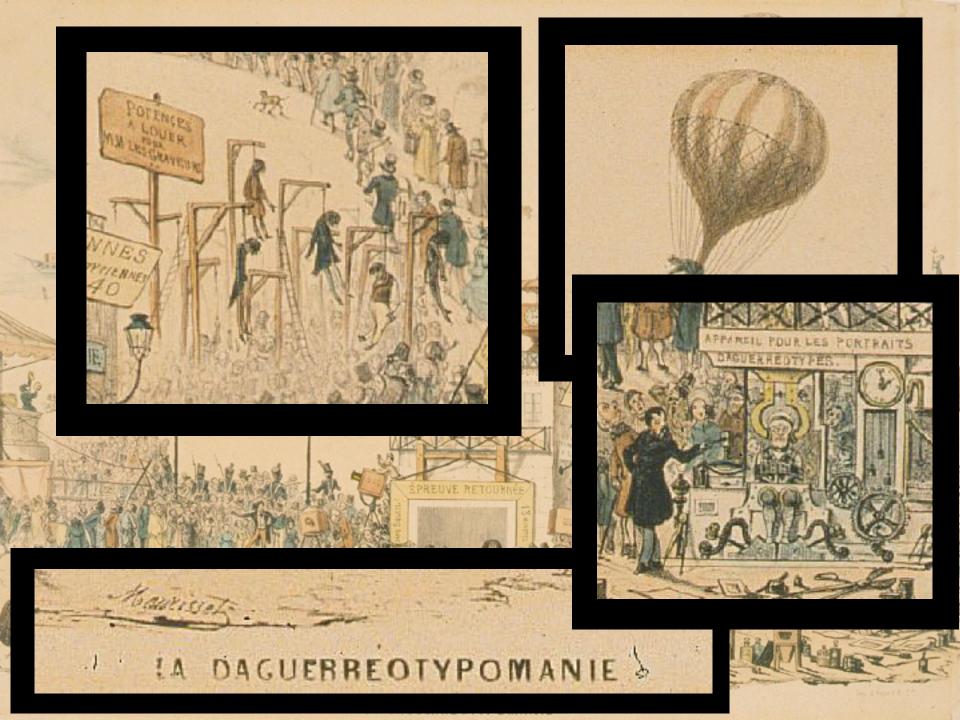








FR



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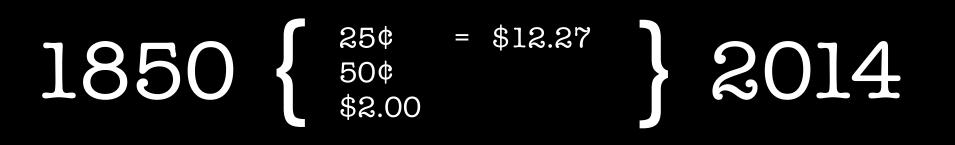
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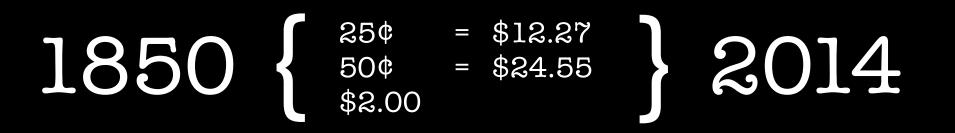
1850 { 25¢ 50¢

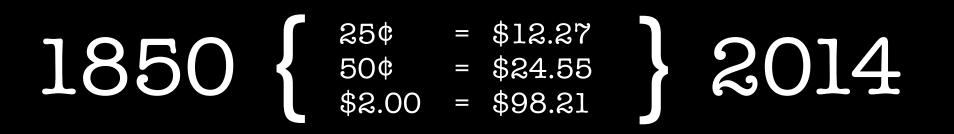












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maybe most importantly:

• no "negative" is produced - it's is a direct positive - and therefore no way to make more than one

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negative to positive



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