

A BRIEF HISTORY OF PHOTOGRAPHY

part 1:

where did
photography come
from?



photography = light + writing
“drawing with light”

camera = room, or chamber - an
enclosed space

camera obscura = an enclosed
space that is dark

墨翟

(China, c. 470 - c. 391 BCE)

Mo Di, or “Mozi”

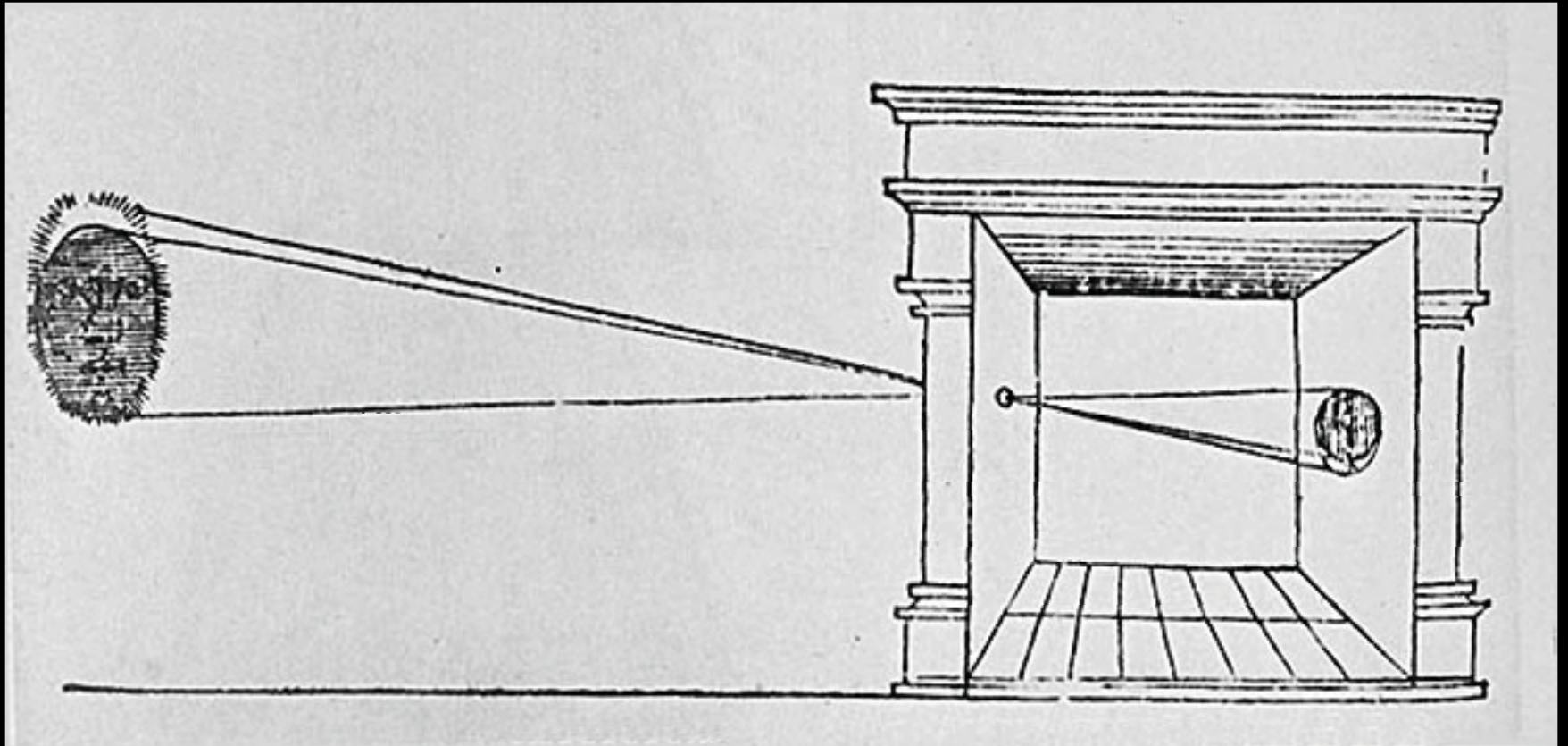
earliest known mention of basic
photography concepts:

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.”

墨翟

(China, c. 470 - c. 391 BCE)

Mo Di, or “Mozi”



Aristotle

(Greece, 384 - 322 BCE)

was sitting under a tree during a solar eclipse, and noticed that each gap in the leaves projected a “mini-eclipse” onto the ground

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

Aristotle

(Greece, 384 - 322 BCE)

was sitting under a tree during a solar eclipse,
and noticed that each gap in the leaves
projected a “mini-eclipse” onto the ground





Aristotle

(Greece, 384 - 322 BCE)

afterwards, he experimented letting light shine through different shapes of holes, but noticed that it always projected the sun as a circle (like it is in real life)

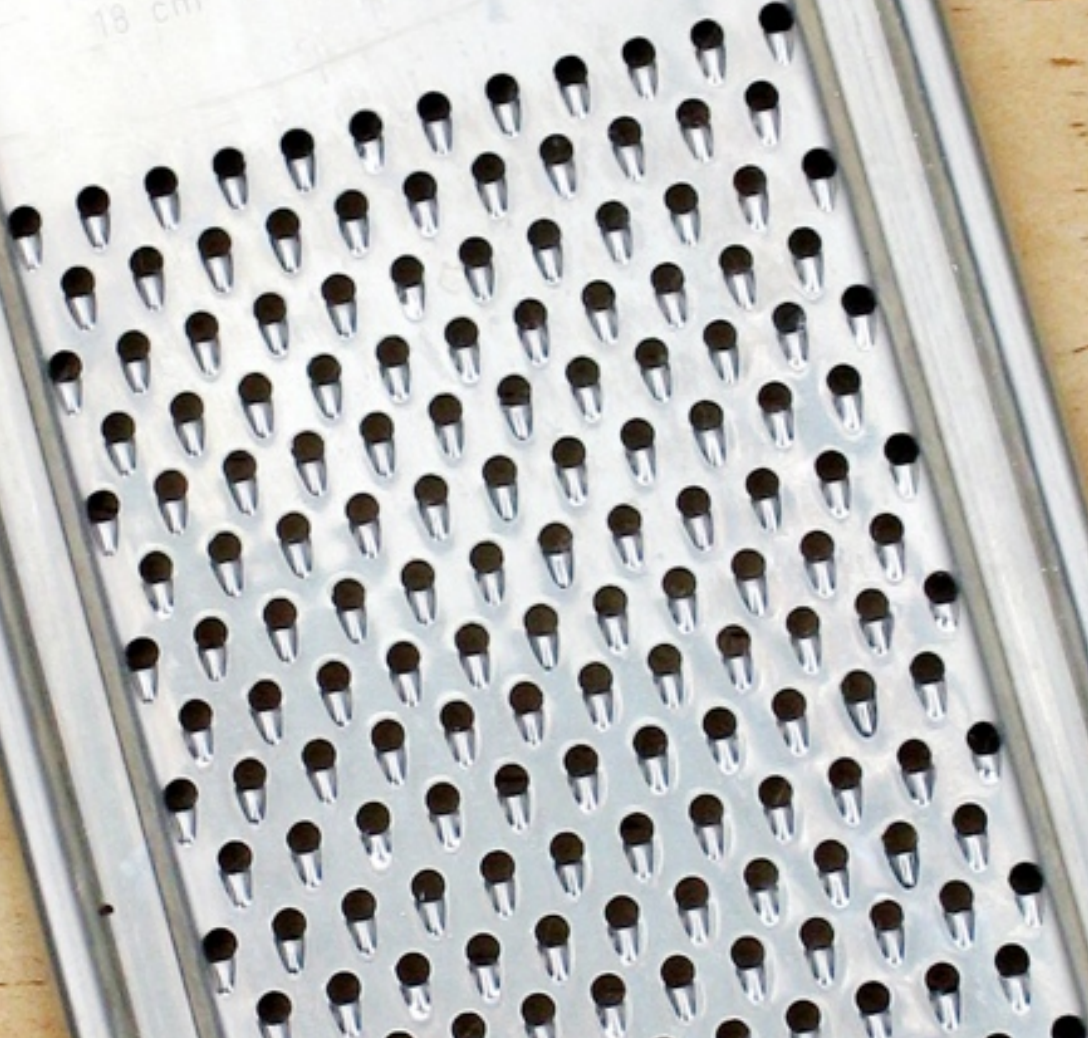
just like how during a solar eclipse, even circular holes will project eclipse-shaped light

95080
18 cm

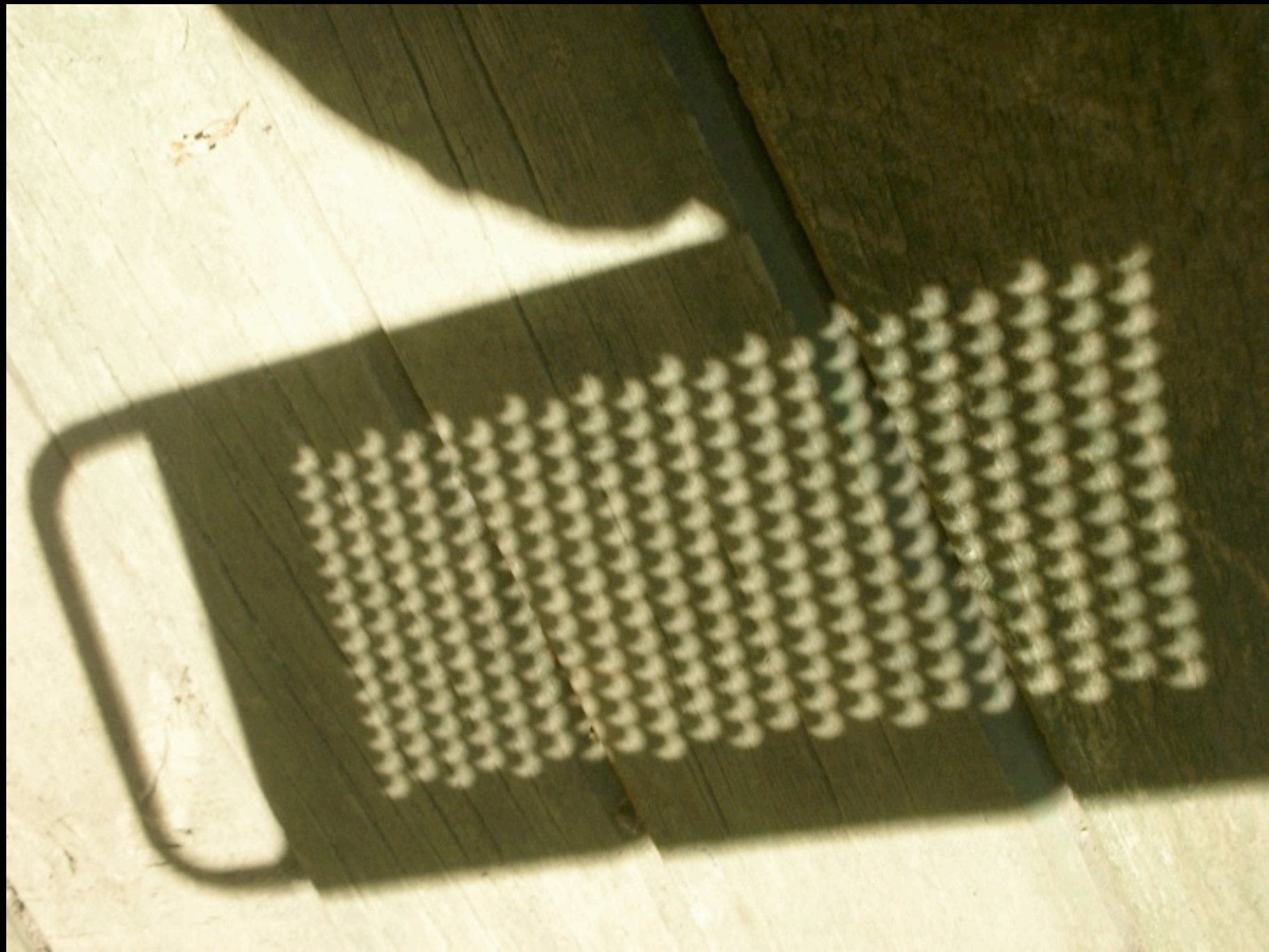


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أبو علي، الحسن بن الحسن بن الهيثم

Abu Ali al-Hasan Ibn al-Haitham

“Alhazen” (Iraq, 965 - c. 1040 CE)

extensively studied light & optics, built the first (official) camera obscura, & scientifically proved that light travels in straight lines -

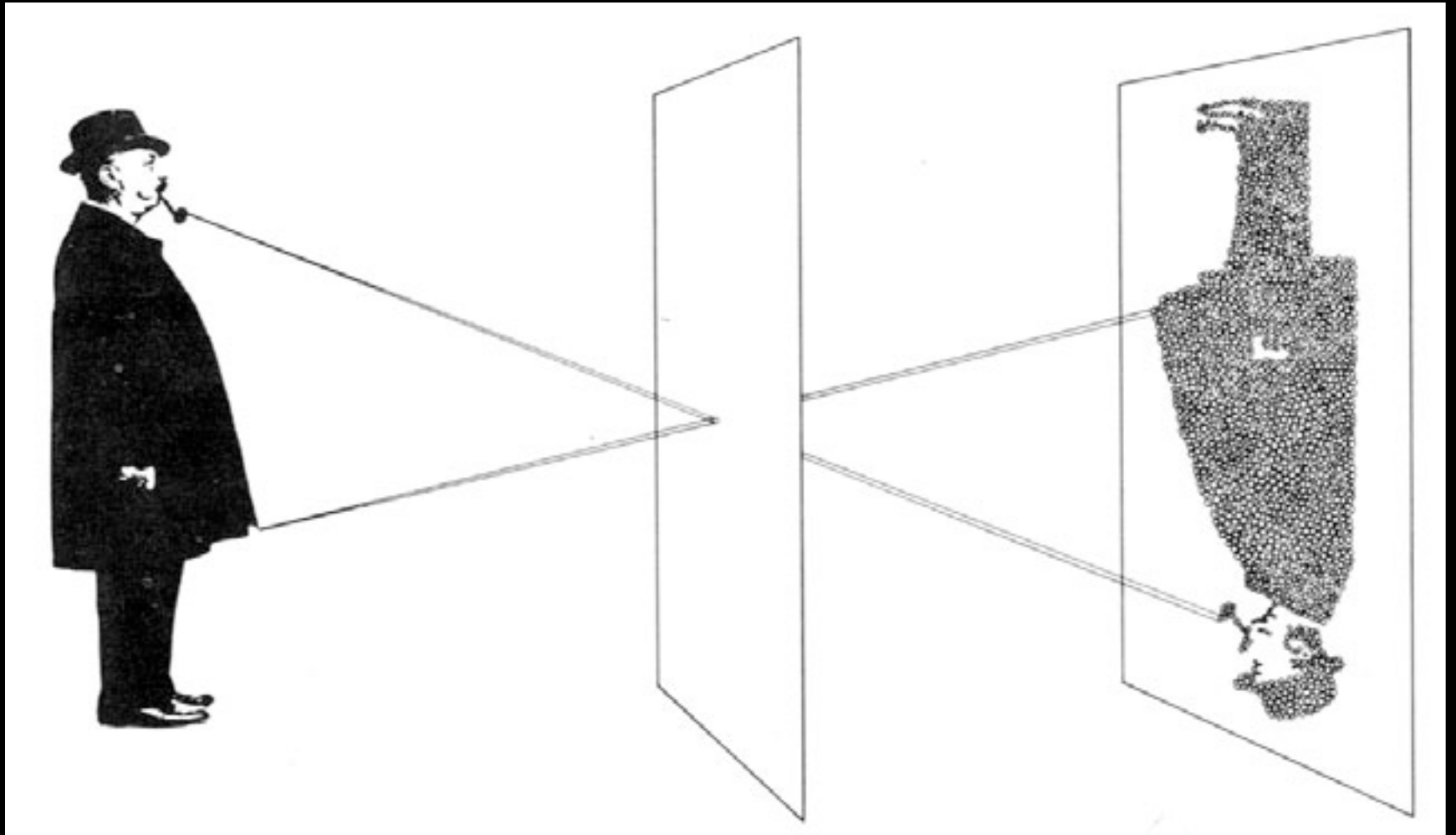
which is why projected images are upside down

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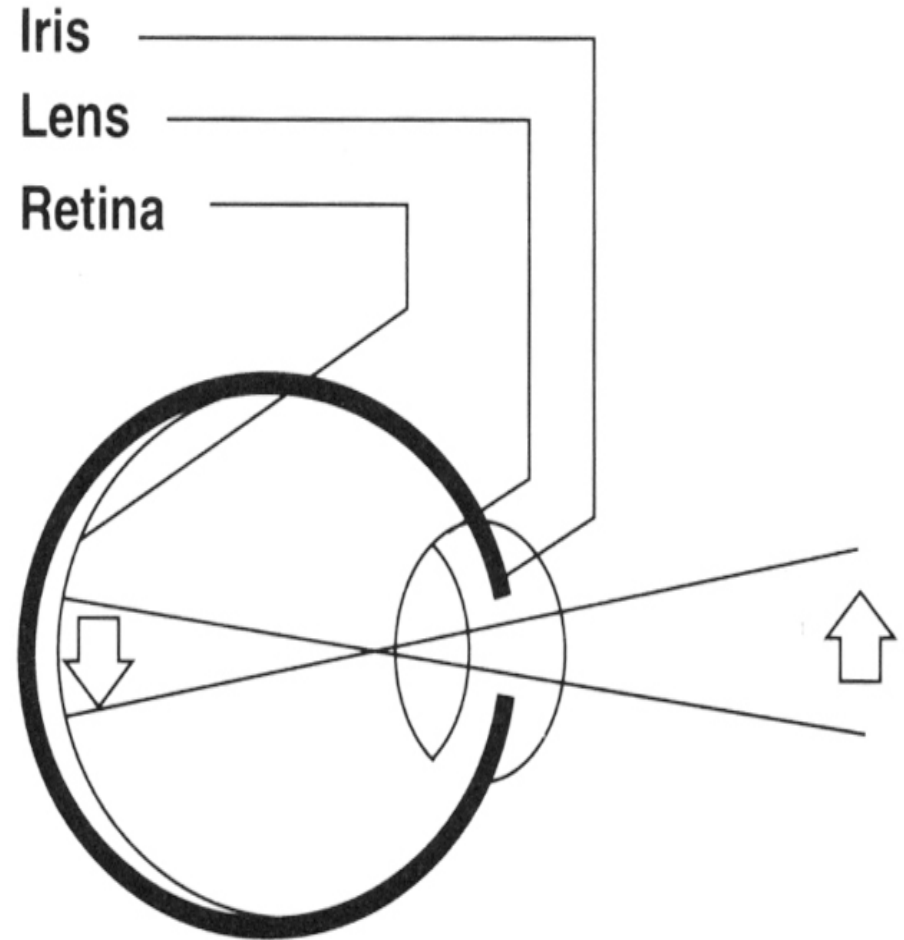
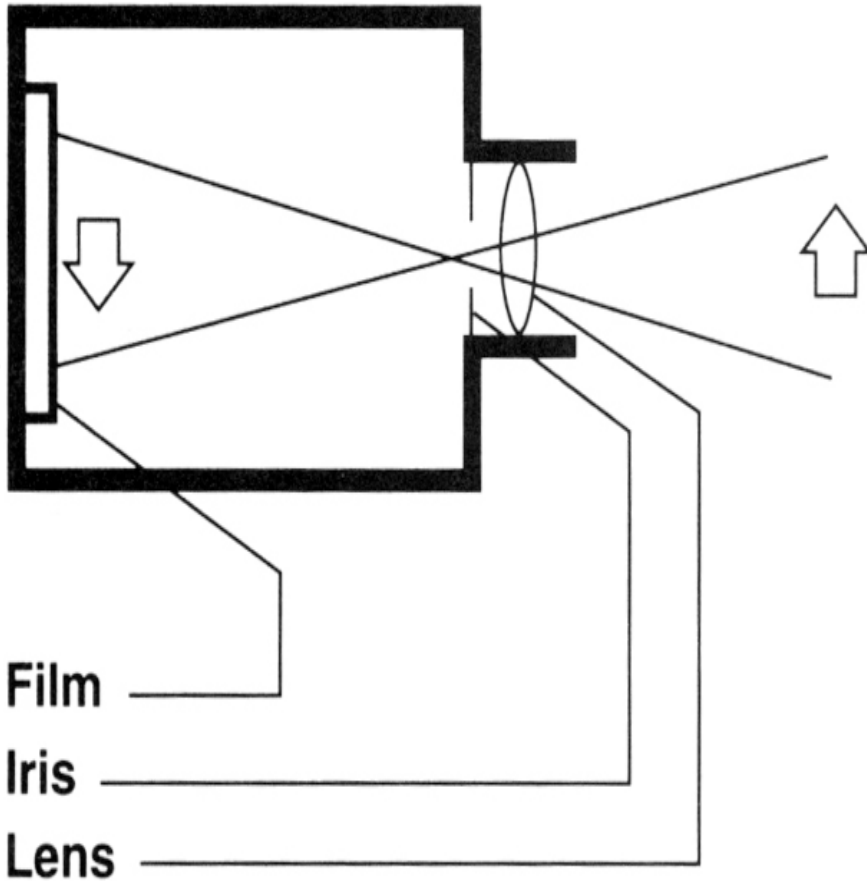


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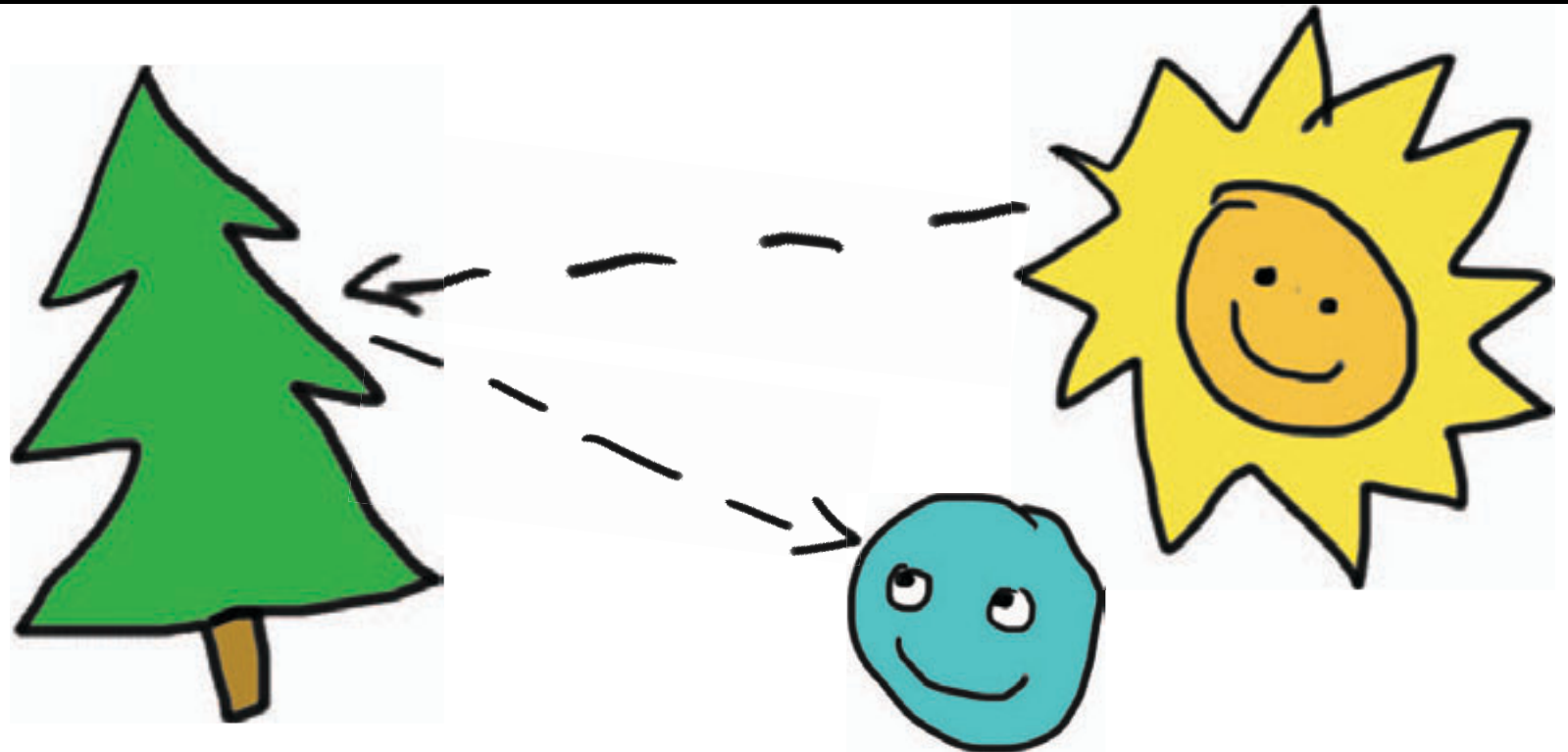
“Alhazen”

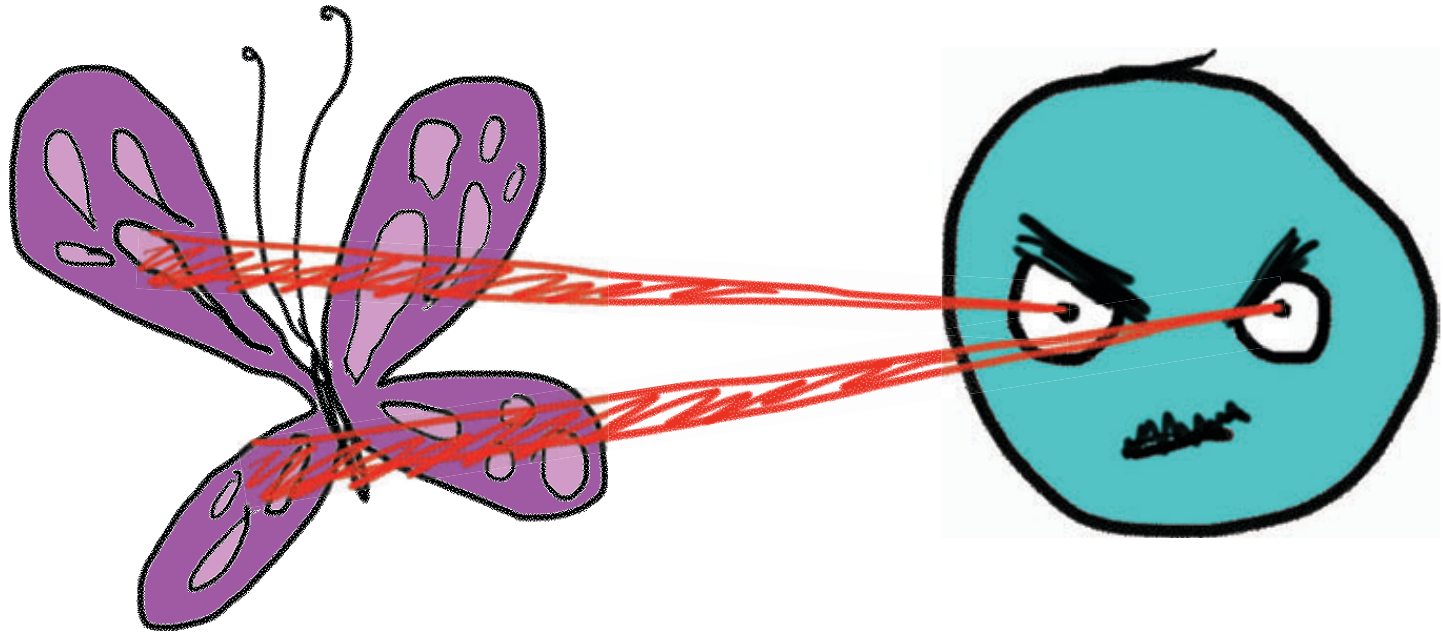
(Iraq, 965 - c. 1040 CE)



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





before this, it was actually the accepted belief that the human eye sent out “rays” which “scanned” objects

Leonardo da Vinci

(Italy, 1452-1519)

regarded the camera obscura as an “artificial eye”

was the first to realize that since the image seen in the camera obscura was upside-down, the HUMAN eye might see that way as well

da Vinci thought that maybe the human eye used le
to “flip” our vision right side up

at this time, lenses (from the Latin word for “lentil”) were already being widely used as magnifiers and vision-correcting spectacles



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lens



lentils

from 1550 through 1569, other Italian scientists followed da Vinci's lead, adding lenses - as well as mirrors - to both FOCUS the image, and CORRECT the image (make it right-side up)

Johannes Kepler (Germany, 1571-1630)

came up with the name "camera obscura" and also was the first to invent one that was portable and could be taken from place to place

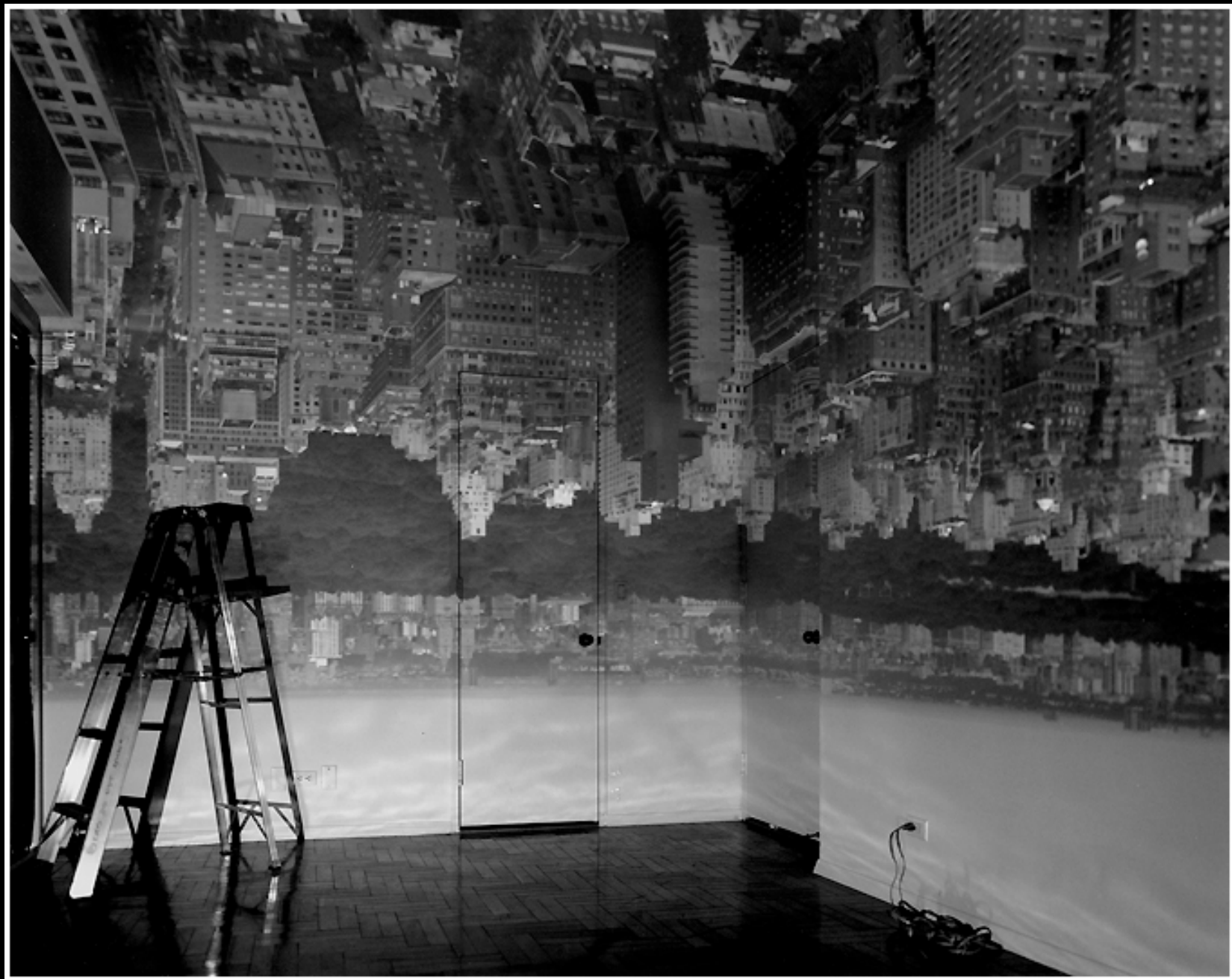
(also, he was the first to guess that it was the BRAIN that "flipped" our vision right-side up - rather than lenses/ mirrors that are used in a camera or camera obscura)



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

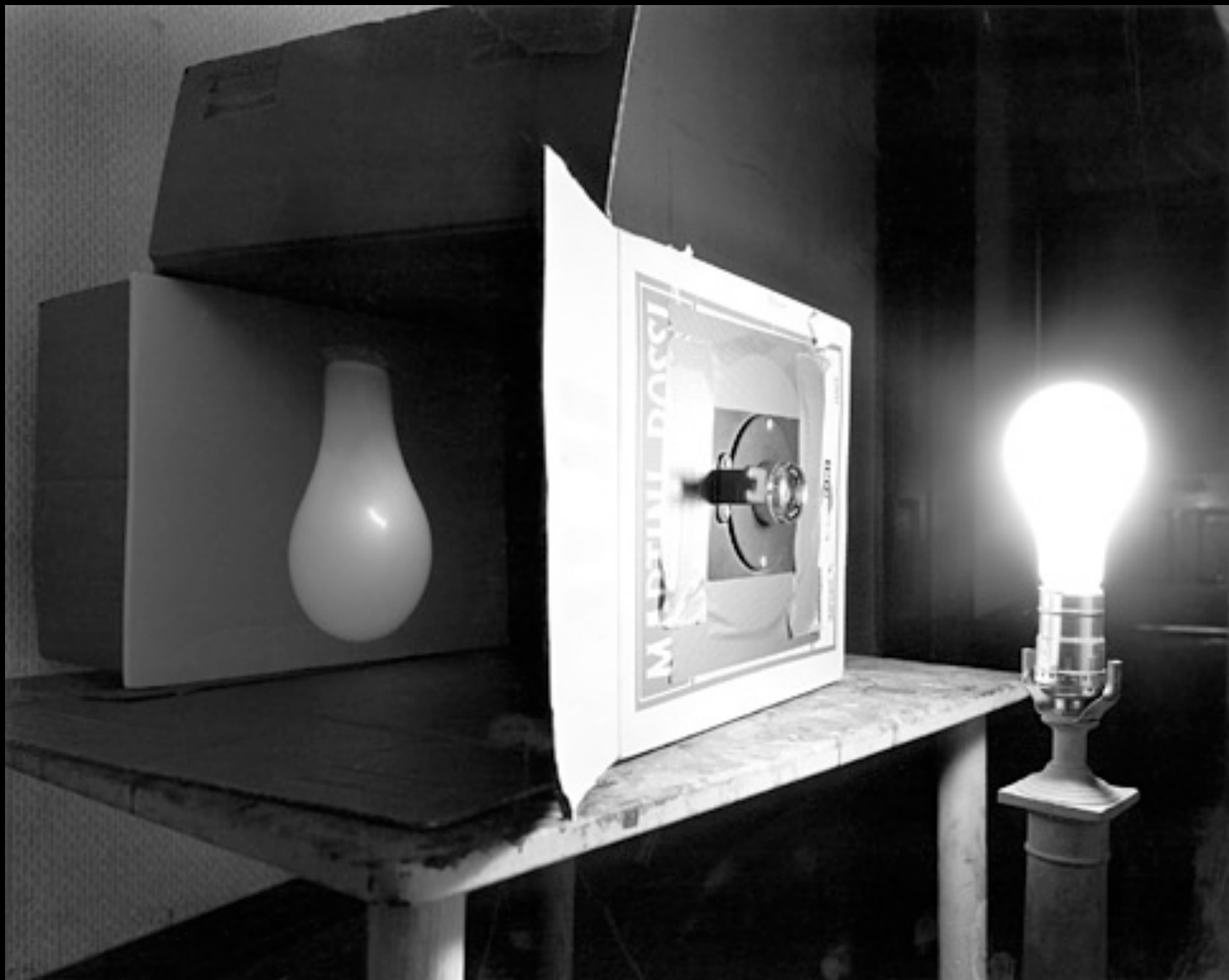












so at this point, what are people using this
“camera obscura” thing FOR?

