

100 Points Ancient Photography Study Guide 100 Points

Name _____ Date _____ Class _____

Standards: VA DPB S.2Ba Demonstrate knowledge about how technology and invention have historically influenced artists and offered new possibilities for expression. CTES 1 B2.2 Technical reading and citing specific details.

Evaluate the role of invention and technology on art, directly and indirectly.

Explain or theorize regarding the effects of the technology of the time on historic works of art.

Analyze the effects of current technologies on art, NM CTE C2 7-12 Benchmark 3:Sci.

PO Dine Hist I will create a timeline and understand the first peoples.

Citation: Adapted from Wikipedia and <http://paleo-camera.com/>

Paleolithic Cameras may be the oldest cameras. Scientists have begun to theorize that the camera obscura or the _____ affect may have been observed during _____ times as far back as _____. Prehistoric cave paintings are drawn on the ceilings or walls of caves are sometimes _____ or at odd angles similar to a camera obscura image. The small mouth of the cave may act as a pin hole.

The Camera Obscura in ancient times did not produce a fixed or permanent image. The image was an upside down reflection on the back of the box from a _____ hole in the front. This law of optics was known in **ancient times**. The earliest mention of this type of device was by the Chinese philosopher _____ (5th century BC). He formally recorded the creation of an inverted image formed by light rays passing through a pinhole into a _____ room. In his 1088 book Dream Pool Essays the Song Dynasty _____ scientist Shen Kuo (1031–1095) compared the focal point of a concave burning-mirror and the "collecting" hole of camera obscura phenomena to an oar in a rowlock to explain how the images were inverted:

In its most ancient basic form it is, quite simply, a dark room with a small hole in one wall. On the wall opposite the hole, an image is formed of whatever is outside. This image is _____ (inverted) and back to front (laterally transposed) or _____.

The Greek philosopher Aristotle in _____, touched upon the subject in the work Problems - Book XV, asking: "Why is it that when the sun passes through quadrilaterals, as for instance in _____, it does not produce a figure rectangular in shape but circular?" In the 4th century, Greek scholar _____ observed that "candlelight passing through a pinhole will create an illuminated spot on a screen that is directly in line with the aperture and the center of the candle."

The oldest known correct answer was given more than 1,800 years later in Francesco Maurolico Photismi de lumine et umbra _____ AD. He concluded that the circular shapes on the ground were pinhole images of the sun and thus became crescent-shaped during an eclipse.

_____ mentioned the camera obscura phenomenon as a demonstration that light travels in _____ in his very influential Optics circa 300 BCE.

English philosopher and Franciscan friar _____ 1240 AD used a camera obscura projection in combination with mirrors. Leonardo da Vinci 1519, familiar with the work of Alhazen in Latin made an extensive study of optics and human vision during the _____. He wrote the oldest known clear description of the camera obscura in mirror writing in a notebook in 1502 in his book called the _____. 1637 French philosopher, mathematician and scientist René Descartes suggested placing an _____ of a rox into an opening in a darkened room and scraping away the flesh at the back until one could see the inverted image formed on the retina.

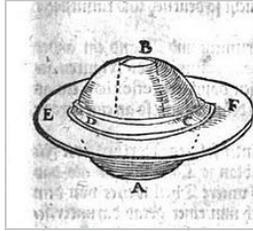


Illustration of a scioptic ball with a lens from Daniel Schwenter's *Deliciae Physico-Mathematicae* (1636)

Roger Bacon
Chinese
lines
Renaissance
lines
straight
Eye
30,000 BC
darkened
Theon of Alexandria
small
Codex Atlanticus
pin-hole camera
paleolithic
384-322 BCE
upside down
Euclid
1521.
Wickerwork
Mo-Ti
Upside-down
Reversed

25 Points Draw a camera obscura above.

50 Points

Dine Hist. 1 research the first people.

Draw a timeline from 30.000 BC to 2018 AD. Label three facts from the study guide and add 3 facts to illustrate Dine History.