
The Camera Obscura and the Pinhole Camera.

The camera obscura, from the Latin meaning 'dark chamber', was one of the inventions that led to photography. The camera obscura has been a source of fascination to people for hundreds of years; originally used to observe solar eclipses safely, they were recognised as an aid to drawing in the 15th Century, and by the 19th Century they had become popular seaside attractions, much as binoculars are today. Some of these seaside camera obscura's still exist.



Famous Camera Obscura at Santa Monica, California, 1900 (Postcard)

The first camera obscura was simply a small hole in one wall of a darkened room or tent. Light passing through the hole formed an inverted (upside down) image of the outside scene on a white screen placed across the room from the hole. Artists made use of the camera obscura, realising that they could trace the outlines of buildings, trees, shadows and animals to aid in the creation of their paintings.

Visit a camera obscura

Edinburgh's Camera Obscura, Edinburgh
<http://www.camera-obscura.co.uk/>

Dumfries Museum and Camera Obscura, Dumfries
<http://www.dumfriesmuseum.demon.co.uk/dumfmuse.html>

Cairngorm Mountain Camera Obscura, Aviemore
<http://www.cairngormmountain.co.uk/see-do/camera-obscura>

Clifton Observatory, Camera Obscura and Cave, Bristol
<http://visitbristol.co.uk/site/things-to-do/clifton-observatory-camera-obscura-and-cave-p24651>

Royal Observatory, London
<http://www.nmm.ac.uk/places/royal-observatory/camera-obscura/>

The Pinhole Camera

The pinhole has played an important role in the evolution of the modern camera. Pinhole photography is lensless photography - a method of capturing images using a simple light-tight box with a single pinhole in one end. A piece of opaque tape or cardboard can serve as a shutter. Film or photo-paper is taped inside and the camera secured on a stable platform or tripod, exposure is calculated and the shutter opened. After the shutter is closed the camera is taken into a darkroom and the film removed for processing.

Pinhole cameras are made in an endless variety of shapes, styles, and materials. Any light-tight container will do such as a round or rectangular cardboard box or cookie tin. More elaborate cameras are constructed of hardwood. Some pinhole cameras employ the use of film holders so that multiple exposures can be made on location, other designs incorporate bellows to allow for a change in focal length (distance between film and pinhole).



Edinburgh's Camera Obscura

Further Resources

Camera Obscura: a video of a room as a large 'pin hole camera' in Venice, from BBC's 'Genius of Photography'

http://www.youtube.com/watch?v=RuJ_Jd6Qgyo

Iseult Timmermans makes an Obscura in Glasgow:

www.streetlevelphotoworks.org/streetlevel/archive/2009/multi-story-obscura/redrdobscura.html
