

Camera Obscura

If a small hole is made in the window blind of a darkened room, an inverted image of the scene outside the window is produced on the opposite wall of the room. (The name Camera Obscura comes from the latin and means 'dark room'). This ability of a pinhole to form an image appears to have been known to the Ancient Chinese as early as the 4th century BC and was first described outside China by the Arabian scholar, Alhazen in about 1030.

A clear description of the formation of images by a small hole in a darkened room is contained in the manuscripts of Leonardo da Vinci in the fifteenth century and by the mid-sixteenth century, lenses had begun to be used to increase the brightness and sharpness of the image.

At first, camera obscuras were always a room in a house. By the seventeenth century, however, smaller, portable versions had appeared. Various forms evolved, including tents, sedan chairs and pocket models. Portable camera obscuras were used widely by artists as aids for sketching. For this purpose the most popular form was the reflex box camera obscura in which the lens formed an upright image on a sheet of translucent paper after reflection by an inclined mirror.

At the beginning of the nineteenth century, when the first photographic experiments were taking place, the camera obscura had evolved into three distinct forms; One form was a darkened room with a lens and mirror in the roof, producing an image on a table within the room. Such camera obscura were a common sight at seaside resorts and pleasure parks. A few examples survive today. A second type was in the form of a portable tent. A lens and mirror at the apex of the tent produced an image on a horizontal desk inside the tent. The third form was the portable box-form camera obscura which produced an image on translucent paper. It was this type of camera obscura that eventually lead to the development of the photographic camera when it was used by the inventors of photography, Wedgwood, Niepce, Daguerre and Talbot.

Select bibliography

Coe, Brian,
Cameras - From Daguerreotypes to Instant Pictures, Marshall Cavendish Editions, London, 1978, ISBN 0 85685 448 4
Hammond, John H,
The Camera Obscura - A Chronicle
Adam Hilger Ltd, Bristol, 1981. ISBN 0-85274-451-X
Scott, Peter, 'What Came First, Camera or Photograph?' in The Photographic Collector Vol 4 No 1, Spring, 1983 pp 90-105.

Camera Obscuras Today

Camera Obscuras were at their most popular during the nineteenth century. Today, only a few survive. As well as original Victorian examples, however, there are some modern camera obscura. For example, in 1990 the Department of the Environment sponsored the building of a camera obscura for the Gateshead Garden Festival. When the festival closed the camera obscura was bought by Hove Borough Council and installed as a visitor attraction at Foredown Tower Countryside Centre. The following is a list of British camera obscuras. Please note that some of them are not in working order and not all of them are open to the public.

Foredown Tower
Countryside Centre , Foredown Road , Portslade
East Sussex BN41 2EW
Tel: 01273 422540

The Camera Obscura
Castlehill, Edinburgh EH1 2LZ
Tel: 0131 2263709

Great Aberystwyth Camera Obscura
Constitution Hill, Aberystwyth
Contact: Mr Griffin, Cliff Railway House, Cliff Terrace
Aberystwyth, Dyfed SY23 2DN
Tel: 01970 617642
(open from the weekend before Easter
until the end of October)

The Observatory
Dumfries Museum, Church Street, Dumfries DG2 7SW
Tel: 01387 253374

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www.nationalmediamuseum.org.uk

The Clifton Observatory
Litfield Place, Clifton Down, Bristol
Tel 01272 741242

The Old Royal Observatory
Greenwich, London SE10 9NF
Tel: 0181 312 6774

The Camera Obscura
The Water Tower, City Walls, Chester
Contact: The Grosvenor Museum
27 Grosvenor Street, Chester CH1 2DD
Tel: 01244 311610
(open from April - October)

The Camera Obscura
Portmerion Village, Penrhyndeudraeth
Gwynedd LL48 6ET
Contact Mr Llewellyn: 01766 770228
Visitors by appointment only

The Barrie Pavilion
Kirriemuir Hill, Kirriemuir, Forfar, Scotland
The Camera Obscura is inside a cricket pavilion built as a gift
to the town by the author J.M.Barrie. It is looked after by
Kirriemuir Community Council:
Contact: Robert Berry, 44 Cortachy Crescent
NorthmuirKirriemuir, Forfar
Visitors by appointment only.

The Camera Obscura
Douglas, Isle Of Man
This has been purchased by the Manx government and is
closed to the public pending renovation. Access can be
arranged for serious researchers.
Contact: Mr M.E.Fargher
Chief Executive, Department of Local Government
Murray House, Mt Havelock, Isle of Man, IM1 2SF
Tel: 01624 685685

The following contacts may be helpful:

Sinden Optical Company
Helen and David Sinden
Stella Haigh Lane, Addison Industria Estate
Wryton, Tyne & Wear NE21 ITE
Tel: 0191 499 0122.
The Sinden's actually construct and build Camera Obscura

Broadhurst, Clarkson & Fuller
Telescope House, 63 Farringdon Road, London EC1 M3JB
Tel: 0171 405 2156
Fullerscopes

Mike Feast
Foredown Tower, Countryside Centre, Foredown Road
Portslade, E Sussex BN41 2EW
Tel: 01273 422 540

Edmund Scientific
9066 Edscorp Building, Dept 15, Barrington,
New Jersey 08007 USA
Tel: 001 609 573 6280
Suppliers of optical equipment and devices.

Peter Drew
Tel: 01706 815 816
Maker of Camera Obscura, not lenses

www.nationalmediamuseum.org.uk
Collections Department
tel: 0870 70 10 200