

..... NEWS

Special Report

The camera obscura



WELCOME

This is the first edition of the restyled Bramhall Photographic Society Newsletter.

Our thanks are extended to David Hempstock for his many years of dedication for preparing the previous newsletters, an often thankless task, or would that be chore?

Nic Hohne
EDITOR

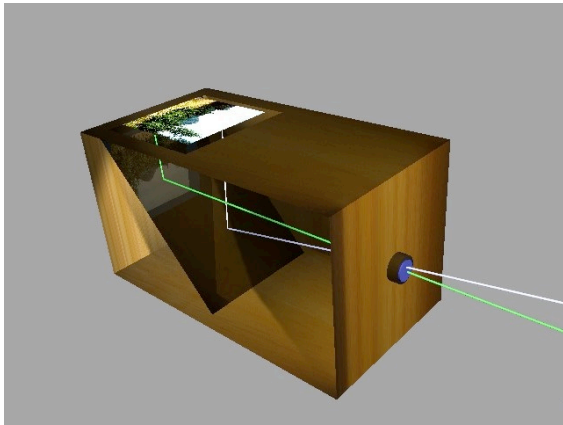


YOUR NEWSLETTER, YOUR NEWS

Without the input from fellow members of the society there will be nothing to put in future newsletters. If you have some news that you feel your fellow members would be interested in then please let me have it. Initially the newsletter will be published quarterly and will be distributed via email. A few "hard copies" will produced for those members who have yet to welcome the digital age into their home.

In future this space will be filled with "Rant of the Day" where pertinent comment will be raised.

A **camera** is a device that records/ stores images. These images may be still photographs or moving images such as videos or movies. The term camera comes from the camera obscura (Latin for "dark chamber"), an early mechanism for projecting images. The modern



camera evolved from **The CAMERA OBSCURA** (Latin; "camera" is a "vaulted chamber/room" + "obscura" means "dark"= "darkened chamber/room") is an optical device that projects an image of its surroundings on a screen. It is used in drawing and for entertainment, and was one of the inventions that led to photography. The device consists of a box or room with a hole in one side. Light from an external scene passes through the hole and strikes a surface inside where it is reproduced, upside-down, but with color and perspective preserved. The image can be projected onto paper, and can then be traced to produce a highly accurate representation.

Using mirrors, as in the 18th century overhead version, it is possible to project a

right-side-up image. Another more portable type is a box with an angled mirror projecting onto tracing paper placed on the glass top, the image being upright as



viewed from the back.

As a pinhole is made smaller, the image gets sharper, but the projected image becomes dimmer. With too small a pinhole the sharpness again becomes worse due to diffraction. Some practical camera obscuras use a lens rather than a pinhole because it allows a larger aperture, giving a usable brightness while maintaining focus.

CAMERA OBSCURA - HISTORY

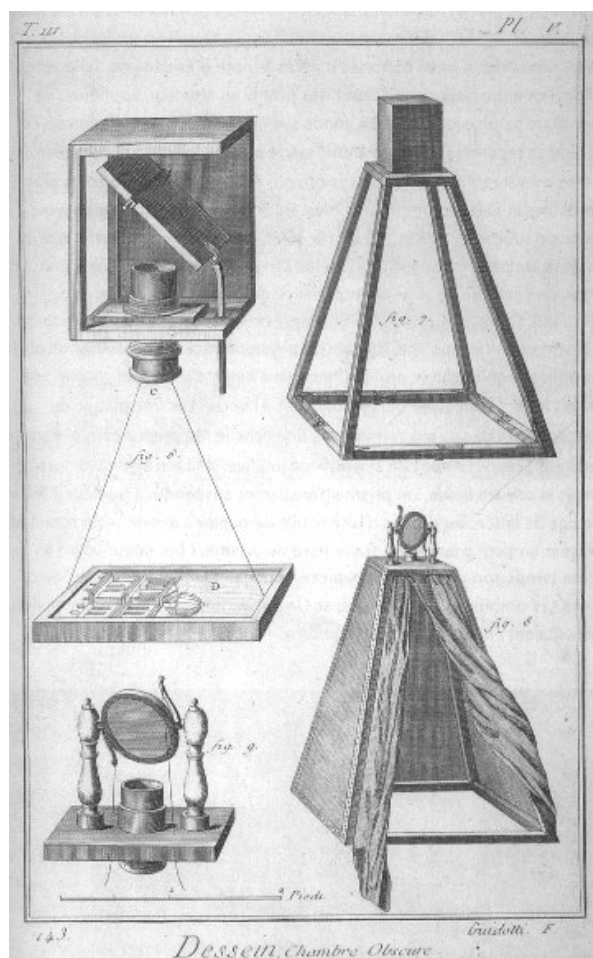
The first mention of the principles behind the pinhole camera, a precursor to the camera obscura, belongs to Mo-Ti (470 BCE to 390 BCE), a Chinese philosopher and the founder of Mohism. Mo-Ti referred to this camera as a "collecting plate" or "locked treasure room". The Mohist tradition is unusual in Chinese thought because it is concerned with developing principles of logic. The Greek philosopher Aristotle (384 to 322 BCE) understood the optical principle of the pinhole camera. He viewed the crescent shape of a partially eclipsed sun projected on the ground through the holes in a sieve, and the gaps between leaves of a plane tree.

The camera obscura was known to earlier scholars since the time of Mozi and Aristotle. Euclid's *Optics* (ca 300 BC), presupposed the camera obscura as a demonstration that light travels in straight lines.

In the 4th century BC, Aristotle noted that "sunlight travelling through small openings between the leaves of a tree, the holes of a sieve, the openings wickerwork, and even interlaced fingers will create circular patches of light on the ground." In the 4th century AD, Theon of Alexandria observed how "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." In the 9th century, Al-Kindi (Alkindus) demonstrated that "light from the right side of the

flame will pass through the aperture and end up on the left side of the screen, while light from the left side of the flame will pass through the aperture and end up on the right side of the screen."

In the 6th century, Byzantine mathematician and architect Anthemius of Tralles (most famous for designing the Hagia Sophia), used a type of camera obscura in his experiments.



The Song Dynasty Chinese scientist Shen Kuo (1031–1095) experimented with a camera obscura, and was the first to apply geometrical and quantitative attributes to it in his book of 1088 AD, the *Dream Pool Essays*. However, Shen Kuo alluded to the

fact that the Miscellaneous Morsels from Youyang written in about 840 AD by Duan Chengshi (d. 863) during the Tang Dynasty (618–907) mentioned inverting the image of a Chinese pagoda tower beside a sea-shore. In fact, Shen makes no assertion that he was the first to experiment with such a device. Shen wrote of Cheng's book: "[Miscellaneous Morsels from Youyang] said that the image of the pagoda is inverted because it is beside the sea, and that the sea has that effect. This is nonsense. It is a normal principle that the image is inverted after passing through the small hole."

In 13th-century England Roger Bacon described the use of a camera obscura for the safe observation of solar eclipses. Its potential as a drawing aid may have been familiar to artists by as early as the 15th century; Leonardo da Vinci (1452–1519 AD) described camera obscura in Codex Atlanticus. Johann Zahn's *Oculus Artificialis Teledioptricus Sive Telescopium* was published in 1685. This work contains many descriptions and diagrams, illustrations and sketches of both the camera obscura and of the magic lantern.

The Dutch Masters, such as Johannes Vermeer, who were hired as painters in the 17th century, were known for their magnificent attention to detail. It has been widely speculated that they made use of such a camera, but the extent of their use by artists at this period remains a matter

of considerable controversy, recently revived by the Hockney-Falco thesis.



Camera obscura, from a manuscript of military designs. Seventeenth century, possibly Italian.

The term "camera obscura" was first used by the German astronomer Johannes Kepler in 1604. The English physician and author Sir Thomas Browne speculated upon the inter-related workings of optics and the camera obscura in his 1658 *Discourse The Garden of Cyrus* thus-

"For at the eye the Pyramidal rayes from the object, receive a decussation, and so strike a second base upon the Retina or hinder coat, the proper organ of Vision; wherein the pictures from objects are represented, answerable to the paper, or wall in the dark chamber; after the decussation of the rayes at the hole of the hornycoat, and their refraction upon the Christalline humour, answering the foramen of the window, and the convex or burning-glasses, which refract the rayes that enter it."



4 drawings by Canaletto, representing Campo San Giovanni e Paolo in Venice, obtained with a Camera obscura. (Venice, Gallerie dell'Accademia)

Early models were large; comprising either a whole darkened room or a tent (as employed by Johannes Kepler). By the 18th century, following developments by Robert Boyle and Robert Hooke, more easily portable models became available. These were extensively used by amateur artists while on their travels, but they were also employed by professionals, including Paul Sandby, Canaletto and Joshua Reynolds, whose camera (disguised as a book) is now in the Science Museum (London). Such cameras were later adapted by Joseph Nicéphore Niépce, Louis Daguerre and William Fox Talbot for creating the first photographs.

FOCUS on

the image Appreciation Group

The purpose of the group is for members, who do not necessarily want to enter competitions, to showcase images to other members and in return receive constructive comments for improvement. The group is open to all current Bramhall



Photographic Society Members. Gerald initiated many excellent ideas when he got the group off the ground but had a continual battle to get members to submit images suitable for emailing. His decision to hand over responsibility being

I had a vision that in order to try and make life easier for members to submit images and comment upon other images technology should be used.

Email while being almost universal has limitations when trying to co-ordinate images, in particular image size and finding formats that all email clients would read, and as we do not all use a "windows" machine (there are other operating systems available) and specifying the best format for comments. The first season used .txt files for compatibility and the second to comments within the email itself. Surely the web would be easier, especially since if it is on the web and standard coding is used, little did I know !

I know, I thought, I will make a quick web site, using software available to me on my iMAC. The easy bit was opening the software, after this it became stage by stage more and more of a challenge. At this point I will point out that this is my first attempt at creating a web site, so it is a testament to Apple's ingenuity and the ease of use of their programs that I have got as far as I have.

You always read that you should plan what you want before starting, that is a great comment provided you know what you want and know what you are doing.

What, I thought would only take a couple of hours, in fact took several months of evening work and many comments such as "What, again ?"

Anyway eventually the site that you can currently use was completed and I must thank those members who tested the site in its earlier forms, their comments were taken on board and considered and mostly implemented in an attempt to make the site easier to use. This does not infer that improvement can not or will not be made, suggestions are always welcome and will be considered in conjunction with the limitations of my knowledge and the software I use.

The following pages are extracts from the help manual.

PLEASE SUPPORT THE GROUP. YOU WILL BENEFIT FROM THE CONSTRUCTIVE COMMENTS GIVEN.

Introduction:

The purpose of these notes is to assist members to join in with the monthly iAG's.

Gerald initiated many excellent ideas when he got the group off the ground but had a continual battle to get members to submit images suitable for emailing. The new format uses the web for all aspects of the image commenting process, even email can still be used for delivery of the image.

There are several sections to the web site that can be used, these include:

- an area for adding your comments to the images
- a "Gallery" to which you upload your images, this has 12 monthly folders for your images (some themed)
- an area to add additional helpful files - suggested "improved" images, narrative for improvements and details you feel are appropriate for your image.
- member profiles
- member portfolios of past images
- image guidelines
- latest news

Since the site is still in the process of semi completion the images in the manual may not be up to date. Currently there is only one portfolio being worked on, all member links are to this one portfolio. Once complete each member will have their own portfolio.

Important Site Information:

The web site is currently in the process of being completed so is not the finished item, the current addresses for the site are:

Main Site:

<http://web.me.com/enhoh/iAG>

Gallery for Uploading images:

<http://gallery.me.com/enhoh>

Area for uploading supporting images and documentation:

<http://public.me.com/enhoh>

The password for the public data area is:

will be provided on application to secretary

email address is:

enhoh@me.com

Image Requirements:

Club competition rules do not apply to any image you submit.

While there are no restrictions on image size please remember that the larger the image the longer it will take to load.

It is recommended that the image be at a resolution of 72 - 100 dpi and be no larger than 1mb. To ensure that everyone can easily see it the image must be a jpeg.

Please ensure that the image is named in the following format, which will provide brief details for the image:

My Image - Joe Bloggs - 0510.jpeg

Additional information concerning the image can be uploaded to the public portion of the site. A password is required to enter this section, see site details above.

Welcome Page:

Enter the web address into the browser of your choice, this will take you to the welcome page which provides links to:

- News
- Albums
- Members
- Guidelines
- Submit images
- Submit Data
- Bramhall Photographic Society web site link
- Current Member portfolios
- Links to other useful sites
- Guestbook

COMPETITION RESULTS

The 4th Competition held on 11 April, with the set topic of "Small" attracted many entries. The judging was ably carried out by **Andy Banks** from Congleton. His comments on all images were very informative and thought provoking. In a few cases he raised the question "Is this really a competition image?" Perhaps this should be a topic in a future edition of this newsletter.

The results of the 4th Competition are as follows:

INTRO

COLOUR PRINTS:

1 - Peter Renwick with **Into a Flower**

MONO PRINTS:

1 - Peter Renwick - **Facets**

DIGITAL IMAGES:

- 1 - Louise Pickford - **Liverpool Looms**
- 2 - Louise Pickford - **Kayak, Derwentwater**
- 3 - Hannah Roach - **Claw**

OPEN

COLOUR PRINTS:

- 1 - Lawrence Devaney - **Going Home**
- 2 - Sylvia Hempstock - **Thousands of lenses on the Compound Eye of a Dragonfly**
- 3 - Pam Greenland - **Lesser Celandine**

MONO PRINTS:

- 1 - Lawrence Devaney - **Everything Big Round Here Except Me**
- 2 - Andrew Brochwicz-Lewinski - **Baby White Rhino - 12 Weeks**

DIGITAL IMAGES:

- 1 - Bill Newton - **Sheild Bug**
- 2 - Pam Greenland - **Juvenile Snail**
- 3 - Harry Besnard - **Ice Crystals in Ivy Leaves. Approx 2mm dia.**

CURRENT LEAGUE RESULTS

MEMBER	POINTS	POSITION
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OPEN

LAWRENCE DEVANEY	25	1
GORDON ROBSON	22	2
HARRY BESNARD	18	3
MARGARET DAVISON	17	4
ANDREW BROCHWICZ-LEWINSKI	16	=5
BILL NEWTON	16	=5
PAM GREENLAND	14	=7
SYLVIA HEMPSTOCK	14	=7
JOHN SMITH	11	=9
GERALD THOMPSON	11	=9

INTRODUCTORY

LOUISE PICKFORD	27	1
NIC HOHNE	26	2
SEBASTIAN SIWKO	21	3
PETER RENWICK	14	4
SUE KIME	13	5
HANNAH ROACH	8	6
SANDY RUSHTON	5	7
CHRIS HEPPLER	4	8

YOUR OFFICERS AND COMMITTEE MEMBERS

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Terry Robson -

2011 Calendar

May 2nd

No meeting

May 9th

Audio Visual Evening

Hand in 5th Competition

May 16th

Phil Riley - "Catching the moment"

May 23rd

Fifth Competition

May 30th

No Meeting

June 6th

Members Evening

Hand In Print Panel

June 13th

Projected Image Sequence.

Print Panel Competition

Hand in Photographer of the Year

June 20th

Photographer of the Year
competition