

## Photography Glossary of Terms

### Explanation of Terms Used in Camera Art.

#### **Glossary of Terms**

Here is a short list of the more common terms used in the art of photography, including technical, historical and stylistic terminology.

#### **35mm**

Introduced originally for motion picture use, 35mm film's format, frame and sprockets were standardized in 1909. It was adopted for still picture use and became the most popular film format producing a standard negative or transparency of 24 x 36 mm. The format and size have been retained in 'full frame' digital cameras.

#### **Albumen Print**

The use of albumen derived from egg whites was first used in 1848 for dry plates, before being superseded by the wet-collodion process from 1851. Albumen had far greater success for coating on to paper where it provided a smooth surface for the photographic emulsion. This was described by Louis Desire Blanquart-Evrard in 1850 and albumen paper remained popular until the 1890s.

#### **Aperture**

The opening through which light passes to expose sensitized material or a sensor. It is usually located behind or within a lens mount, originally as removable 'stops' and later as an iris diaphragm. The size of the aperture is defined in f-numbers.

#### **Aperture Priority**

A metering system in the camera that allows the photographer to choose the aperture while the camera selects the shutter speed.

#### **Aspect Ratio**

The ratio of an image's height to its width.

#### **Autochrome**

Patented in 1904 by Auguste and Louis Lumiere and manufactured from 1907, the Autochrome process was the first practical system of colour photography using dyed starch grains and a panchromatic emulsion to produce colour transparencies with a distinctive colour palette. Production ceased in the 1930s.

#### **Autofocus**

A facility in which a camera or camcorder automatically finds the best possible focus for the image.

#### **Backlighting**

Describes lighting from a source behind the subject. It is usually used in conjunction with other lights, but by itself it can separate the subject from a dark background or create a halo effect around it.

#### **Barn Doors**

Attachment that fits on the front of a studio light and allows the photographer to control the spread of light.

#### **Bitmap/Bmp**

An image format popular in the early days of PCs, but still used as the native format by the *Windows* operating system.

#### **Blur Filters**

There are seven blur filters in *Photoshop*: Blur, Blur More, Lens Blur, Gaussian Blur, Motion Blur, Radial Blur and Smart Blur. All work by merging the colours of adjoining pixels together to give the visual impression of un-sharpness.

**Bracketing**

Method of exposing one or more exposures on either side of the predicted exposure to obtain the best result.

**Cable Release**

Cable which allows the shutter to be fired with minimum vibration or camera shake; useful for long exposures.

**Calotype**

A photographic process patented by William Henry Fox Talbot in England and Wales on 8 February 1841, also known as Calotype. The process was a significant enhancement of Talbot's photogenic drawing process and used silver iodide combined with gallic acid to enhance its sensitivity. After exposure the paper was developed to produce a negative and then chemically fixed to make it permanent. The Calotype was the first negative/positive process and it provided the basis of modern photography.

**Camera Angle**

Describes the position of the camera relative to the subject. Where the camera is placed and the type of lens being used will determine how the viewer perceives the subject.

**Camera Lucida**

An optical device used by artists that employs a prism to superimpose a virtual scene or subject image onto a drawing board so that an outline can be traced on to paper. It was invented by William Hyde Wollaston in 1807.

**Camera Obscura**

An optical device that came into use during the Renaissance. It consists of a box or a darkened room with an opening on one side projecting an image on to the facing side. It was used by [Old Masters](#) as a [drawing](#) aid because it preserved perspective. By the 18th century the use of lenses and a mirror set at 45 degrees made for smaller, portable camera obscurae.

**Carbon Print**

A number of carbon processes were described before Sir Joseph Swan patented a process in 1864. Swan's was introduced the following year and found commercial success by providing the photographer with ready-made materials. His patents were bought out by the Autotype Company. The process produced a print using carbon, which made it permanent and not susceptible to fading. Carbon prints typically have a matt finish from black, grey to sepia and other tones.

**CCD**

This is an image sensor; CCD stands for 'charge-coupled device'.

**Chromogenic Print**

A print made by the chromogenic development process and also known as a dye-coupler print. The process was developed in the mid 1930s and is the basis of the majority of modern colour silver-based photographic materials, such as *Kodachrome*, *Ektachrome*, *Kodacolor* and *Agfacolor* producing both negatives and direct positives. The prints are often incorrectly referred to as C-[Type] prints, which refers, precisely, to a negative-positive chromogenic paper called Kodak Colour Print Material Type C available from 1955 to 1959.

**Clone Brush**

This is a tool used by graphics programs to retouch images.

**Close-up Lens**

A supplementary lens fitted to a camera lens that changes the focal length. For close-up work, a positive lens effectively shortens the focal length so that with a given lens-to-subject distance the near focusing limit is reduced.

**CMYK Image Mode**

Cyan, Magenta, Yellow and Black (called K to prevent confusion with Blue) is an image mode used for litho reproduction. All magazines are printed with CMYK inks.

### **Collodion Process**

A dry - or more commonly - a wet process using collodion as a medium to support a light sensitive emulsion. The wet-collodion process was described by Frederick Scott Archer in 1851 and, after refinement, was used by numerous [19th-century photographers](#) from c.1854 onwards. It remained dominant until the mid-1870s. Collodion was also used to produce direct positives on glass (ambrotypes) and tin (tintypes).

### **Collotype**

A screenless printing process invented by Alphonse Poitevin in 1856 and commercially popular from the 1870s to 1920s.

### **Colour Depth**

The number of colours in an image factor. This governs the quality of your images.

### **Colour Temperature**

A scale for measuring the quality of light in values of kelvin.

### **Combination Printing**

A technique using two or more photographic negatives or prints to make a single image. It was suggested by Hippolyte Bayard in 1852 for improving the appearance of skies. It was first shown by William Lake Price in 1855. O.G. Rejlander's *Two Ways of Life* of 1857 and Henry Peach Robinson's *Fading Away* of 1858 are the best-known examples. The technique was revived in the 1920s and 1930s often to produce surreal work. Digital techniques have made it obsolete.

### **Compact Flash**

A popular sort of memory card used in some digital cameras.

### **Compound Lens**

A lens combining two or more individual elements, usually cemented together.

### **Contact Sheet**

Method for printing negatives the same size as the film so that the photographer can choose the images to be enlarged.

### **Copper Plate**

A printing plate used by any method of intaglio printing, etched or engraved to take ink for transferring on to paper. Although the term copper plate is widely used, plates are commonly made from copper or zinc.

### **Cropping**

Altering the boundaries of a photograph, negative or digital image to improve the composition, remove unwanted elements, or to fit a method of display.

### **Cyan**

Blue-green light; the complementary colour to red.

### **Cyanotype**

A process invented by **Sir John Herschel** and reported in 1842. The prints are also known as blue-prints. The process is simple and produces a characteristic blue image on paper or cloth. It was popular in the 1840s and the 1880s. Its main use has been for the reproduction of architectural or technical drawings.

### **Daguerreotype**

Announced on 7 January 1839 and presented to the world in August 1839 (except in England and Wales where it was patented), the daguerreotype produced a unique image on a silver-coated copper plate. The process was popular until the mid 1850s, although for longer in the United States, until it was superseded by the more sensitive wet-collodion process.

### **Darkroom**

A space in which there is total darkness or limited illumination by red or orange safelights so that light-sensitive materials such as film or paper can be handled, processed or printed without being affected by unwanted light.

**Depth of Field**

The distance in front of the point of focus and the distance beyond that is acceptably sharp. Manipulation of this zone by extending or reducing it can be an important aspect of creative control and view cameras have evolved to facilitate this.

**Digital Print**

In photography this refers to a photograph produced from either a conventional negative or a digital file by a digital printer. This includes various fine art digital printing techniques, Inkjet and laser printing. See also: [Computer Art](#).

**Digital Zoom**

A way of magnifying an image using software techniques. Instead of pulling your subject closer, a small patch of pixels is enlarged or interpolated to make a detail look bigger than it really is.

**Dithering**

A method of simulating complex colours or tones of grey using few colour ingredients. Close together, dots of ink can give the illusion of a new colour.

**Double Exposure**

The recording of two superimposed images on the same piece of photo-sensitive material. This may be through error or as part of the creative process.

**DPI**

Dots per inch - it is a measure of the quality of a printed image.

**Dry Plate Negative**

Although produced from the late 1850s, they were more successfully introduced from the early 1870s and quickly supplanted wet-collodion plates. Dry plates matched and surpassed the sensitivity of wet-plates and were more convenient to use.

**Dusseldorf School**

A group of students who studied at the Kunst Akademie Dusseldorf in the mid 1970s under the influential photographers [Bernd and Hilla Becher](#), producing clear, objective, black-and-white images of industrial structures and architecture. Among the best-known students at this innovative centre of [postmodernist art](#) are **Thomas Struth** and [Andreas Gursky](#) (b.1955).

**DX Code**

Bar code on a 35 mm cassette that contains information such as film speed. This is read inside the camera which adjusts itself automatically.

**Dye Transfer Print**

This is a subtractive process for making colour prints from colour positives or negatives. There were processes from 1875 but Eastman Kodak's wash-off relief process of 1935, which was improved and reintroduced in 1946 as the dye transfer process, was the most successful. Although complex it produced attractive permanent prints with strong colours.

**Dynamic Range**

A measure of how a sensor records the bright and dark areas in a digital photographic image.

**Emulsion**

A light sensitive colloid usually of silver halide grains in a thin gelatin layer, and coated on to glass, film or paper base.

**exposure**

The amount of light that is allowed to reach the image sensor which is controlled by the shutter speed and aperture setting.

**exposure meter**

Instrument for measuring the amount of light available that can be read to indicate shutter speed and aperture.

**Extension Bellows**

Extendable device that fits between the lens and the camera body that enables the photographer to take close-up shot with a variable degree of magnification.

**Extension Tubes**

Tubular device that fits between the lens and the camera body to enable the photographer to take close-up pictures. The degree of close-up available varies with the length of the tube used.

**Field Camera**

Usually refers to a large-format camera that can be folded to reduce its size making it easier to transport.

**Filter**

An optical coloured or neutral glass or plastic usually mounted in front of the camera lens. Most remove or reduce particular parts of the light spectrum; others such as neutral density or polarizing filters affect light absorption in other ways.

**Fixed Focus**

Camera that has no means of altering the focus of the lens; usually only found on the cheapest cameras.

**Focal Plane Shutter**

Shutter method that exposes the film to light by using a moving blind in the camera body.

**Focus**

The adjustment of the lens to make a subject or scene appear crisp in an image.

**Format Conversion**

A method of changing the manner in which a digital photo image is stored.

**Frame**

A term that has a number of meanings within photography. It can refer to a single image within a series on a length of film or a single digital image; a border made from one of a number of materials to enclose and protect a photograph; or the boundaries of a subject seen through a camera viewfinder.

**Gamut**

A description of the extent of a colour palette used for the creation, display or output of a digital image.

**Giclee Prints**

The best type of fine art prints, used by artists and photographers to make high quality reproductions of two-dimensional paintings, photographs, or other computer-generated graphics.

**GIF**

An image format popular with website developers. It stands for 'Graphics Interchange File'.

**Hot Shoe**

Electrical contact usually found on the top of 35 mm SLR cameras; forms part of the camera's flash synchronization.

**ICC**

The International Colour Consortium was founded by the major manufacturers in order to develop colour standards and cross-platform systems.

**Incident Light Reading**

Method of taking an exposure meter reading by recording the amount of light falling on the subject.

**Ink-jet Print**

A print made up from tiny droplets of ink being expelled on to paper using electromagnetic fields to guide charged ink streams. The technology was developed commercially from the 1950s and for digital photographic printing from the 1970s.

**Interpolation**

A process to improve the optical resolution of a digital image using software.

**ISO (Speed)**

A number that specifies the speed (sensitivity) of a silver-based film. Photographic film and digital sensors are graded by their sensitivity to light. This is sometimes called film speed or ISO speed. ISO means International Organisation for Standardization.

**JPEG or JPG**

The most commonly used computer image format used to store photographs.

**Kodachrome**

A colour transparency film invented in 1933 by Leopold Mannes and Leopold Godowsky, Jr and introduced by Eastman Kodak in 1935 in 35mm, sheet and motion picture film formats. For many photographers it was the standard by which all other films were judged. Manufacture ceased in 2009.

**Light Box**

An illuminated box used for viewing transparencies or negatives.

**Light Temperature**

This is a measure used by photographers to describe an image's colour bias.

**Low Sharpening**

A digital camera setting used to change the sharpness of an object's outline.

**Macro Lens**

Lens that enables the photographer to take close-up pictures without the need for extension tubes or bellows.

**Macro Mode**

A digital camera setting for taking close-up photographs.

**Mammoth Plate**

An outsize plate format approximately 18 x 21 inches and used by some 19th-century outdoor photographers, notably Carleton E. Watkins and William Henry Jackson working in the American West. Some contemporary photographers continue to use very large formats.

**Memory Card**

A small removable data storage card used by most digital cameras.

**Monochromatic**

An image presented in black and white; also known as greyscale.

**Optical Zoom**

True image magnification achieved by repositioning the elements in a lens.

**Over Exposure**

The exposure of light sensitive material with too much light. With negative film this has the effect of increasing shadow contrast and the total density range. They require longer printing times and appear grainier.

**PaintShop Pro**

A graphics and photo editor, developed by Jasc Software, later bought out by Corel Corporation. Program functionality can be extended by using Photoshop-compatible plugins.

**Palette**

An array of colours or tools used in graphics programs.

**Panning**

Method of moving the camera in line with a moving subject such as a racing car. This produces a blurred background but keeps the subject sharp, thereby giving a greater effect of movement in the final image.

**Pantone**

The *Pantone* colour library is an internationally established system for describing colour with pin-number-like codes. Used in the lithographic printing industry for mixing colour by the weights of ink.

**Parallax**

The difference between what the camera viewfinder sees and what the lens sees. This difference is eliminated in SLR cameras.

**Perspective Control Lens**

Lens that can be adjusted at right angles to its axis. This enables the photographer to alter the field of view without moving the camera. Also known as a shift lens.

**Photobook**

Traditionally referred to as photographically illustrated books and then illustrated books, the term photobook has become popular since the 1980s to refer to a book in which the photographs make a significant contribution to the content. Important examples include *The Decisive Moment* (1952) by Henri Cartier-Bresson (1908-2004) and Martin Parr's *The Last Resort* (1986). The term is also a commercial one applied to single or very short run digitally printed books.

**Photogravure**

A photomechanical intaglio ink printing process capable of rapid, high-quality reproduction of photographs preserving detail and tone on paper.

**Photo-Secession**

Progressive group of American camera artists, founded in 1902 by [Alfred Steiglitz](#) (1864-1946). It focused firmly on the [aesthetics](#) and craftsmanship of photography.

**Photoshop**

A graphics and photo editing program created by *Adobe Systems*.

**Pictrography**

A type of high-resolution digital print made by *Fuji*, that images directly onto special donor paper without the need for processing chemistry.

**pixels**

The individual elements that go to make up a digital image - short for 'picture element'.

**Plagiarism**

One who takes the images, or parts of images or background textures of others and passes them off as their own. It is visual theft.

**polarizing filter**

Filter that enables the photographer to darken blue skies and cut out unwanted reflections.

**Polaroid**

The Polaroid Corporation was founded by Edwin Land in 1937 to produce polarizing glasses for three-dimensional applications. In 1948 Land launched the Polaroid Model 95 camera, which offered almost instant photography. In 1963 instant colour film was introduced and in 1972 the iconic Polaroid SX70 camera was introduced, which gave true instant photographs that developed without the need for peeling or the subsequent coating of the photograph. The 1978 launch of Polavision instant movies system failed as video proved more attractive to consumers. In 2001 the company filed for Chapter 11 bankruptcy protection as digital photography eroded its traditional markets.

### **Post-processing**

A term that refers to the work traditionally done on a negative or print after the normal process has been completed. With the digital era the term is more usually associated with adjustments made to the raw image file using software such as *Photoshop*.

### **Rangefinder Camera**

System that allows sharp focusing on a subject by aligning two images in the camera viewfinder.

### **Red-eye**

Red eyes in images caused by the response of the human eye to electronic flashes.

### **Resin-coated (RC) Paper**

A paper that has been sealed on both sides with a pigmented polyethylene resin and has the light sensitive emulsion coated on to one side. RC paper does not absorb water or chemicals making it quick to process and dry. It was widely introduced from 1968. With traditional fibre-based papers the emulsion is absorbed into the paper, which gives more depth to the image. It is considered more archivally stable than RC paper. Fibre papers are generally preferred by lens-based artists.

### **Retouching**

With film and paper this referred to work done with a brush or knife to the emulsion of a negative or print to remove parts or add to it. The advent of digital working has added these and other tools via software of which *Photoshop* is the best known. *Photoshop* has become a verb in its own right.

### **RGB Image Mode**

The red, green and blue mode is used for digital colour images. Each separate colour has its own channel of 256 steps and pixel colour is derived from a mixture of these three ingredients.

### **Roll Film**

A length of light sensitive film rolled on a spool usually with a backing paper and able to be loaded into a camera in daylight. Cellulose nitrate roll film was commercially introduced in 1889, daylight loading film cartridges in 1891 and paper backed film, which remains in production today, in 1892. A large number of roll film formats and lengths have appeared since 1889 with the most common being 120, 620 and 127 sizes. The safer film base cellulose acetate was increasingly used from 1934; in the late 1940s, cellulose triacetate was introduced, and in the 1980s polyester bases became the norm.

### **Salted Paper Prints**

The earliest form of silver halide printing paper developed by William Henry Fox Talbot around 1834. Talbot used paper soaked in salt; this was dried and then brushed with silver nitrate before being exposed and subsequently fixed with a concentrated salt solution or, later, sodium thiosulphate ('hypo').

### **Saturation**

A setting on a digital camera or in image editing software that adjusts the intensity of colour relative to its own brightness. A desaturated image will appear with grey tones.

### **Shift Lens**

Alternative name for perspective control lens.

### **Shutter**

Means of controlling the amount of time light is allowed to pass through the lens onto the film.

### **Shutter Speed**

The speed at which the shutter opens and closes.

### **Silver Print**

Also known as gelatin silver print, this refers to photographs mainly produced since the early 1870s using gelatin as a colloid. More recently the term has been applied within the photographic art market to differentiate photographs produced using traditional silver-based techniques from digital printing.

### **SLR**

Single lens reflex; type of camera that allows the photographer to view the subject through the actual lens, via a mirror that moves out of the way when the picture is taken.

### **Solarization**

A photographic effect achieved in the darkroom or digitally where an image on a negative or photographic print is wholly or partially reversed in tone. Dark areas appear light or light areas appear dark. It can be created in error but is also used for creative effect.

### **Stereograph**

A pair of photographs mounted together that are designed to be viewed with a stereoscope. The term applies to any medium used to create the pair of images, but can be refined to be process specific, for example, stereo-daguerreotype.

### **Stereoscope**

An optical instrument with two viewing lenses that fuses two images so that a single three-dimensional image is perceived. The three principal designs have been the Wheatstone (1838); the Brewster lenticular (1838, but popular from 1849) and the Holmes-pattern (1895).

### **TIFF**

An image format that is widespread in publishing - TIFF stands for Tagged Image File Format.

### **TTL**

A feature of SLR cameras, the viewfinder looks 'Through The Lens'.

### **Under Exposed**

The exposure of light sensitive materials with too little light. In negative film this reduces density with a resultant loss of contrast and detail in the darker subject areas. In transparency film it results in an increase in density.

### **View Camera**

Also known as a technical camera. The term refers to a large-format camera usually with lateral and vertical movements plus swing or tilt adjustment on the camera back and/or front lens standard. Traditionally the image was viewed on a ground glass screen on the camera back. Increasingly this has been replaced with a digital back with the subject viewed on a monitor.

### **Viewfinder**

A device used to see where the camera lens is pointing - it can be optical or LCD.

### **Viewing Distance**

The general guideline for **viewing distance to provide correct perspective** and to some extent as a check upon focus/sharpness is for the photograph to be seen from the distance of twice the diagonal of the print.

### **Waxed-paper Negative**

The waxing - usually with beeswax - or oiling of negatives that was undertaken by William Henry Fox Talbot to calotype negatives aimed to improve their translucency and minimize a lack of sharpness. In 1851 Gustave Le Gray's waxed paper process proposed waxing the paper base of the negative before it was sensitized. The finished negatives secured better detail and tonal range comparable with the wet-collodion negative, which used glass as its base.

### **Wide-angle Lens**

A lens of shorter than normal focal length to give a larger angle of view.

**Woodburytype**

Refers to both the process and print. The process is a photo-mechanical intaglio ink process. It was developed by Walter B. Woodbury in 1864 and was used for [book illustration](#) from 1866 until around 1900. It was commercially successful and capable of reproducing detail and the tonal range in a photograph.

**Zone System**

A system designed to bridge the gap between sensitometry and creative photography. It was developed by **Ansel Adams** and **Fred Archer** in 1939-40. It relied on empirical testing by the photographer of film and paper to provide information about the characteristics of the materials to support the photographer in defining the relationship between the way a subject was visualized and the end result.

**Zoom**

A facility that adjusts the lens of the camera to make an image seem closer than it is in reality.

**REFERENCES**

We gratefully acknowledge the use of material from *Photography: The Whole Story* (Thames & Hudson 2012): an essential reference work for any student of photography.