

# **DISASTER SALVAGE TEAM**

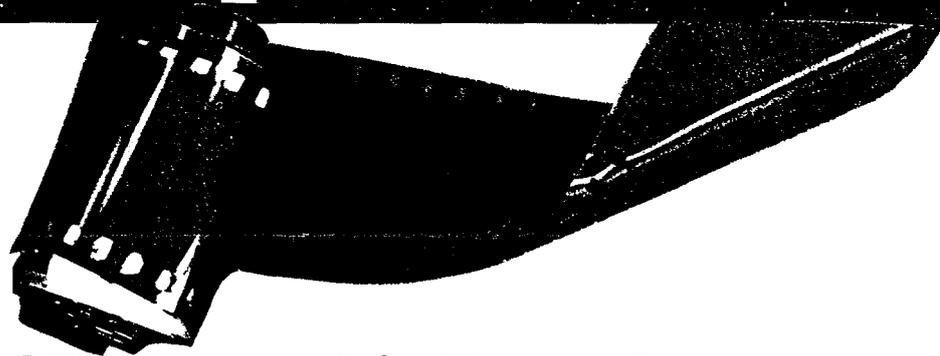
Working Towards Saving Cultural Collections

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# **NEWS LETTER**

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## **Glossary of Photographic Terms from the Care and Conservation of Photographs Workshop**

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**A Glossary of Photographic Processes**  
**from the Care and Conservation of Photographs**  
**Workshop March 1999**  
**Tutored by Mark Strange**

**Albumen Negative**

This process was invented by Niepce St Victor in Paris. The glass was coated with albumen containing Potassium Iodide and sensitised in a silver nitrate bath.

**Identification:** On transparent material. Negative on Glass. Creamy image by reflection.

**Albumen Print**

Introduced by Blanquart Evarard in 1850.

This became almost the only printing process used until the 1880s. Paper of good writing quality was floated on a bath of albumen and salt solution and dried. This meant it could be stored.

**Identification** Colour ranges from a faint yellow to a rich chocolate brown. Prone to fading. The surface varies between a slight sheen and a high gloss. When unmounted they are on thin paper but they were often mounted on card as cartes de visite, cabinet photographs or stereo pairs.

**Cabinet Photograph**

Portrait Albumen Prints mounted on thick card mounts. Introduced in 1866 by F. R. Window

**Calotype Negative**

In 1840 W. H Fox. Talbot discovered that an image not sufficiently exposed to be visible could still be brought out by a development process. This discovery of the latent image was fundamental to the modern photography process. Talbot called this process calotype from the Greek Kalos meaning beautiful. To increase the transparency of the paper negatives and reduce printing time they were often impregnated with wax.

**Carbon Print**

The Carbon printing process was perfected by Joseph Watson Swan in 1864. A tissue of carbon or pigment loaded gelatine was sensitized in a bath of potassium bichromate and exposed behind a negative to daylight. **Identification** May be of any colour. In appearance a slight relief image may be apparent.

**Carbon Transfer Print**

This is the result of transferring a carbon print on to a final support which may be paper, card, wood, metal, etc. See Carbon print.

**Carbro Print**

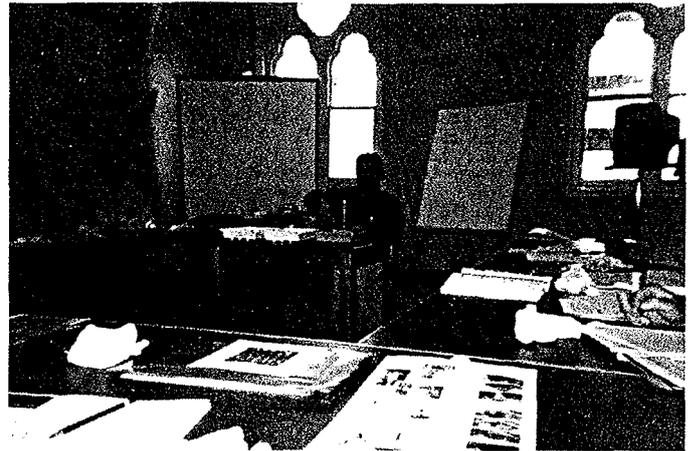
In 1905 Thomas Manly devised a method of producing a carbon image from a bromide print. Known as the Ozobrome, it later reappeared, in improved form, as the Carbro print. The same wide range of colours was available for carbro as for carbon printing.

**Cartes de visite**

Introduced in the late 1850s these were usually albumen prints, occasionally carbon or bromide, on card mounts. Popular with photographic portraits.

**Cellulose acetate film negative**

See safety film negative.



**Cellulose nitrate film negative (and positive)**

Invented by Alexander Parkes in 1861, cellulose nitrate had poor keeping qualities, destroying both the image it carried and itself. It was highly inflammable and on disintegration reached a stage of spontaneous combustion. All film up to c.1939 should be treated as suspect.

**Chloro bromide paper**

See Gelatine paper print.

**Cloth print**

Prints on cloth pre-date photography, Joseph Mercer in 1828 found that iron pernitrate, nowadays ferric nitrate, spotted onto white cotton, then exposed to light and treated with potassium ferrocyanide, produced blue colour.

**Collodio-chloride emulsion**

George Wharleton Simpson introduced a collodio-chloride emulsion in 1864. It was used on paper for print making, on glass for transparencies (see Collodion transparency) and on opal glass for opatypes.

**Collodian negative**

See Wet Collodion negative.

**Collodion positive**

The positive collodion was introduced by Frederick Scott Archer in 1852. The process consisted of making an underexposed wet collodion negative. This, when dried and mounted on a black surface appeared as a positive.

**Collodion transparency**

This is the result of printing a negative on to a plate by one of the dry collodion processes (see Dry plate processes, Collodion positive, Collodio-chloride emulsion).

**Crystoleum**

This was made by sticking an albumen print to the inner face of a curved glass and rubbing off most of the paper support with glass paper. It was waxed to increase its transparency. Brightly coloured painted landscapes were then added to the backboard. Further research is required to identify the originator.

**Cyanotype**

Sir John Herschel invented and named this process in 1842. It came into popular use as the blue print

process. Paper was coated with a mixture of ferric ammonium citrate and potassium ferricyanide, dried in the dark and printed by exposure to sunlight in contact with a drawing on tracing paper. The action of the light is to convert the ferric ferricyanide to ferrous ferricyanide, giving the lines of the drawing white on a deep blue ground.

#### **Daguerreotype**

The details of Daguerre's process were released in August 1839. A silvered copper plate was sensitized over iodine, exposed in the camera and the picture brought out over warm mercury, forming a light image on the silver surface. A Daguerreotype is a photograph on a silver plate; its mirror-like surface, seen when viewed at an angle, makes it easily recognisable.

#### **Diazo print**

This process was introduced to America in 1890 by Green, Cross and Bevan. Exposure to light produced a reaction between the diazo compound and a dye substance in the paper, which is brought out by ammonia vapour or solution. It was used chiefly for the reproduction of engineers, drawings, etc, replacing the cyanotype blue print process.

#### **Dry plate process**

In the 1850s many different dry plate processes were developed using hygroscopic agents, such as honey or gum, to replace the cumbersome wet collodion process. The eventual successor to wet collodion was the gelatine dry plate. Being a dull tan colour, there is little in the final appearance of dry collodion plates to distinguish them from wet collodions apart from their more even coating.

#### **Eastman negative paper**

A rapid bromide paper was introduced in 1883 by the Eastman Company. This paper was used in place of the photographic plate. It was a short lived process, lasting only two or three years, as the advent of light transparent support reduced the need for negative paper.

#### **Eburneum print**

This process was invented by J M Burgess of Norwich, in 1865. A collodion or a carbon print was made on a waxed sheet of glass. Whitened gelatine was then poured onto the back of the glass, which produced the effect of a print on ivory when peeled off.

#### **Enamels**

Introduced to England by Joubert c1867, this process produced photographs by transferring a collodion image to a white-enamel copper plate and refiring it in a furnace. They were then made up as brooches, lockets or watches.

#### **Ferrotypes**

Also known as Tin types, this process was patented in England by Kloen and in the USA by Hamilton Smith, in 1856. Instead of using glass as a support, black or chocolate enamel was used. They were often presented in thin card folding case.

#### **Gelatine dry plate**

This is the process which is the basis of almost all modern photography. The earliest attempts were made by W. H. Harrison in 1868. Gelatine dry plates are distinguished from collodion plates by the colour of the image; the gelatine dry plate is dark to reflected light and with time a silver tarnishing can appear on the surface.

#### **Gelatine Paper Print**

This has been the main black and white printing process from its introduction in the late 1880s to the present time. Paper is coated with an emulsion of silver halide in gelatine.

Variations in halides have different applications:

Gelatine Chloride Paper (P.O.P)-

1. Introduced by Abney in 1882. Gold Chloride prints were introduced in 1903. This print will look chocolate brown in appearance. Some self toning papers on tinted paper bases could be pink, mauve, blue, green, cream, or grey.

Gaslight paper

2. Introduced from 1881 by Eder and Pizzighelli, this was an emulsion from which the free silver nitrate had been washed. It produced a latent image when exposed to artificial light hence the name. The image colour was blue black.

Gelatine Bromide Paper

3. Introduced by Mawdsley for the Liverpool Dry Plate Company. Image colours are black with variations towards the warm black. Toning to other colours is possible. It can have a wide range of surfaces and a range of contrasts. Photographs of this type can exhibit a bloom or bronzing appearance due to the slow action of hydrogen sulphide.

Chloro Bromide Paper

4. From 1883 emulsions containing both chloride and bromide were available. They were suggested by J.M.Elder. The image colour is a warm black which could be varied to brown by adjustment to exposure and development. There was also a variety of surface textures.

#### **Gelatine Transparency**

This was produced in the same variety of emulsions as the gelatine paper prints, (except P.O.P). It was used for lantern slides and the later stereo transparencies.

#### **Ivorytype Print**

This process, an imitation of miniatures painted on ivory was introduced by J E Mayall in 1855. A silver print was stuck face up on glass, hand coloured and then warmed as it was rubbed with wax. The print was detached from the glass and placed face down on a clean piece of glass, still warmed so the wax soaked through the glass and the print adhered to the new glass. When cool the print was backed with white card, bound and framed.

**Metal Print**

Niepce made successful contact prints on pewter plate in 1826, camera pictures also on pewter, in 1827. Daguerreotypes are on silvered copper plates. Ferrotypes were another process carried out on a metal surface.

**Opalines**

This was a hand coloured print mounted under glass and present in a frame which was often oval in shape. They were popular in the first decade of this century.

**Opaltype**

They were produced by printing on to the plate of a collodion negative by the collodio-chloride process, or by the transfer of an image by the carbon or transferotype processes. In the period of popularity of the platinum process it was possible to obtain opal glasses sensitised for that purpose. They were recognizable by the silver grey image and the tone range typical of a platinum print. They are susceptible to mechanical damage.

**Ozotype Print**

Another of Thomas Manly's processes, this was devised in 1899. A variation of a carbon print, this process involves a sheet of bichromated paper which was exposed under the negative and then applied to the gelatine pigment tissue.

**Photoceramics**

J. A. Forrest produced collodions fired into opal glass in 1857. Jourbert, 1860, printed pictures on glass coated with bichromated albumen and honey; the effect of exposure to light was to retain stickiness in the exposed areas of the image. A ceramic powder was brushed on which adhered to the still sticky parts. The glass was then fired and a burnt-in image produced.

**Photogenic drawing**

This was Fox Talbot's original process, c1834. By forming silver chloride in the texture of the paper such paper became sufficiently sensitive to produce visible prints of leaves, lace, etc, held in contact with the paper and exposed to sunlight.

**Pigment Process**

These are the processes in which the image is formed by brushing or dabbing an oily pigment on a support in which the retention of the pigment varies according to the amount of water retained by a bichromated gelatine or gum surface.

**Platinum Print**

Dating from 1880 this is a contact printing process using the light-sensitive property of ferric oxalate which, on exposure to light, becomes ferrous oxalate. Platinum prints have a silvery-grey colour.

**Polyester film negative**

In the later 1950s polyester was used as a film base for its durability as opposed to cellulite acetate base.

**Reflection printing negative**

Introduced in the 1920s this was paper or thin card coated with comparatively high speed emulsions.

Positives were produced by either re photographing the negative onto a new sheet of sensitive paper or card or the negative being illuminated by a powerful reflected light, in the manner of an episcopo.

**Relievo**

This was a variation of the collodion positive in which the main image is hand-coloured, the background is scraped away and a painted scenic background is introduced on a paper behind the photograph.

**Safety film negative**

The inflammable nature of cellulose nitrate film caused the introduction, from about 1920, of cellulose acetate base which burned only with difficulty; nor was it subject to self-disintegration.

**Stripping film**

Introduced by Kodak in 1886. It consisted of a paper based coated with a gelatine layer, collodion and then sensitised emulsion. When treated with hot water, the gelatine melted and the image layer could be transferred to a glass sheet and then back to gelatine.

**Transferotype print**

This was a specially-prepared printing paper of the bromide type which had an undercoating of soluble gelatine. The print was made in the usual way and then squeegeed on to any smooth surface. It was then washed with warm water, the gelatine melted and the paper could then be peeled off leaving the image on the support.

**Wet Collodion negative**

Introduced by F. S. Archer in 1851. Photographic collodion was a solution of gun cotton in acidified ether to which an iodide had been added. The collodion was poured on to glass scrupulously cleaned, which was hand manipulated to produce an even surface over the whole plate. After a short wait to allow the ether to evaporate the plate was dipped into a bath of silver nitrate solution for a minute or two. This was done in a dark room. The plate still wet was loaded into the camera darkslide and could then be carried to the camera. Exposure was made while the plate was still wet and in this condition it was returned to the dark room for development.

**Woodbury type**

Invented by W. B. Woodbury in 1865, it is strictly a printing process using photography only in its preparation. A carbon print was placed in contact with a soft lead sheet and submitted to great pressure in a hydraulic press. The lead took up the contours of the carbon image and was used as a mould from which casts of pigmented gelatine were made which could be mounted on paper or glass.

**Wood print**

Photography on wood was practised as early as 1839 when photogenic drawings were made on box wood, which was then engraved and used to print 'facsimiles' of the drawings.