

# LOOKING AT PHOTOGRAPHS

A GUIDE TO TECHNICAL TERMS

Gordon Baldwin



# LOOKING AT PHOTOGRAPHS

A GUIDE TO TECHNICAL TERMS

---

Gordon Baldwin

THE J. PAUL GETTY MUSEUM  
in association with  
BRITISH MUSEUM PRESS

© 1991 The J. Paul Getty Museum

Published by the  
J. Paul Getty Museum  
17985 Pacific Coast Highway  
Malibu, California 90265-5799  
in association with  
British Museum Press  
A division of British Museum  
Publications Ltd  
46 Bloomsbury Street, London  
WC1B 3QQ

At the J. Paul Getty Museum:  
Christopher Hudson, Head of Publications  
Cynthia Newman Helms, Managing Editor  
Andrea P.A. Belloli, Consulting Editor  
Deenie Yudell, Design Manager  
Karen Schmidt, Production Manager  
Leslee Holderness, Sales and  
Distribution Manager

Copyright of the illustrations is  
indicated in the captions by  
the initials JPGM (J. Paul Getty  
Museum) and BM (British  
Museum). The illustrations on  
pp. 24, 38, 40, 42, 43, and 70 are  
© Stephen Shore, Nancy Burson,  
Frederick Sommer, Eileen Cowin,  
William Wegman, Jo Ann Callis,  
and Ruth Thorne-Thomsen,  
respectively. The illustrations on  
p. 25 and p. 77 are © Man Ray  
Trust/ADAGP-Paris/ARS-USA,  
1917 and 1932, respectively; p. 72,  
© 1981 Arizona Board of Regents,  
Center for Creative Photography;  
p. 83, © 1960 The Ralston Craw-  
ford Estate.

Library of Congress Cataloging-in-Publication Data  
Baldwin, Gordon.

Looking at photographs : a guide to technical terms / Gordon Baldwin.  
p. cm.

Includes bibliographical references.

ISBN 0-89236-192-1

1. Photography—Terminology. I. Title.

TR9.B35 1991

770'.3—dc20

90-28861

CIP

British Library Cataloguing in Publication Data  
Baldwin, Gordon

Looking at photographs : a guide to technical terms.

1. Photography

I. Title II. British Museum III. J. Paul Getty Museum  
770

ISBN 0-7141-1720-X (British Museum Publications)

The publishers would like to acknowledge that the title *Looking at Photographs* was first used by the Museum of Modern Art, New York, in 1974, for a book by John Szarkowski. Mr. Szarkowski's invaluable guide to the aesthetics of photography is wholly different from the present glossary of technical terms.

Cover: Eugène Atget (French, 1857–1927). *Au Petit Dunkerque*, 3 *quai Conti*, 1900. Albumen print showing ghost figure. 20.9 × 17.7 cm (8 1/8 × 7 in.). JPGM, 90.XM.45.1.

Frontispiece: Louis Pierson (French, 1818–1913). *Napoleon III and the Prince Imperial*, c. 1859. Albumen print. 20.4 × 15.6 cm (8 1/16 × 6 1/8 in.). JPGM, 84.XM.705.

LOOKING AT  
PHOTOGRAPHS





LOOKING AT  
**PHOTOGRAPHS**

A GUIDE TO TECHNICAL TERMS

---

Gordon Baldwin

THE J. PAUL GETTY MUSEUM  
in association with  
BRITISH MUSEUM PRESS

© 1991 The J. Paul Getty Museum

Published by the  
J. Paul Getty Museum  
17985 Pacific Coast Highway  
Malibu, California 90265-5799  
in association with  
British Museum Press  
A division of British Museum  
Publications Ltd  
46 Bloomsbury Street, London  
WC1B 3QQ

At the J. Paul Getty Museum:  
Christopher Hudson, Head of Publications  
Cynthia Newman Helms, Managing Editor  
Andrea P.A. Belloli, Consulting Editor  
Deenie Yudell, Design Manager  
Karen Schmidt, Production Manager  
Leslee Holderness, Sales and  
Distribution Manager

Copyright of the illustrations is  
indicated in the captions by  
the initials JPGM (J. Paul Getty  
Museum) and BM (British  
Museum). The illustrations on  
pp. 24, 38, 40, 42, 43, and 70 are  
© Stephen Shore, Nancy Burson,  
Frederick Sommer, Eileen Cowin,  
William Wegman, Jo Ann Callis,  
and Ruth Thorne-Thomsen,  
respectively. The illustrations on  
p. 25 and p. 77 are © Man Ray  
Trust/ADAGP-Paris/ARS-USA,  
1917 and 1932, respectively; p. 72,  
© 1981 Arizona Board of Regents,  
Center for Creative Photography;  
p. 83, © 1960 The Ralston Craw-  
ford Estate.

Library of Congress Cataloging-in-Publication Data  
Baldwin, Gordon.

Looking at photographs : a guide to technical terms / Gordon Baldwin.  
p. cm.

Includes bibliographical references.

ISBN 0-89236-192-1

1. Photography—Terminology. I. Title.

TR9.B35 1991

770'.3—dc20

90-28861

CIP

British Library Cataloguing in Publication Data  
Baldwin, Gordon

Looking at photographs : a guide to technical terms.

1. Photography

I. Title II. British Museum III. J. Paul Getty Museum  
770

ISBN 0-7141-1720-X (British Museum Publications)

The publishers would like to acknowledge that the title *Looking at Photographs* was first used by the Museum of Modern Art, New York, in 1974, for a book by John Szarkowski. Mr. Szarkowski's invaluable guide to the aesthetics of photography is wholly different from the present glossary of technical terms.

Cover: Eugène Atget (French, 1857–1927). *Au Petit Dunkerque*, 3 *quai Conti*, 1900. Albumen print showing ghost figure. 20.9 × 17.7 cm (8 1/8 × 7 in.). JPGM, 90.XM.45.1.

Frontispiece: Louis Pierson (French, 1818–1913). *Napoleon III and the Prince Imperial*, c. 1859. Albumen print. 20.4 × 15.6 cm (8 1/16 × 6 1/8 in.). JPGM, 84.XM.705.

## Foreword

The purpose of this book is to provide a series of concise explanations of the terms most frequently used by curators, collectors, and historians to deal with the phenomenon called photography. As this book is intended for someone actually looking at photographs, the list of terms has been limited to those likely to appear on descriptive labels in exhibitions or in catalogue entries.

From its origins at the end of the 1830s, photography has never ceased to evolve both aesthetically and technologically. For example, judging by their letters to the periodicals of the 1850s, individual photographers consistently modified both the chemical formulae and the physical manipulations required to produce negatives and prints. They also redesigned and altered their cameras and lenses. Early photographers introduced these modifications for a variety of reasons, but principally to improve the efficacy of the chemical reactions involved or to produce a variety of visual results that were governed by aesthetic choices. Today the changes occurring in photographic materials and equipment are far more likely to be the work of commercial manufacturers. In both periods, however, change has been constant. For this reason the descriptions of processes that follow are somewhat generic. When trade names have been introduced, they have been given as examples rather than recommendations.

In the writing of this book I have had the welcome advice of many friends and colleagues at the J. Paul Getty Museum, British Museum, and other institutions. I am grateful to Andrea P. A. Belloli, Robin Clark, Sheryl Conkelton, Christopher Date, Alan Donnithorne, Joan Dooley, Teresa Francis, Andee Hales, Peggy Hanssen, Kurt Hauser, Debbie Hess Norris, Judith Keller, Hope Kingsley, Craig Klyver, Brita Mack, Julia Nelson-Gel, Arthur Ollman, Charles Passela, Sandra Phillips, Ellen M. Rosenbery, Larry Schaaf, Karen Schmidt, Louise Stover, John Szarkowski, and Jay Thompson. I am particularly indebted to Weston Naef for his encouragement, to John Harris for his patience, and to Jean Smeader for both patience and paleographic expertise.





**ALBUMEN PRINT**

Gustave Le Gray (French, 1820–1884). *Brig on the Water*, 1856.  
Albumen print, 32 × 40.8 cm (12<sup>3</sup>/<sub>8</sub> × 16<sup>1</sup>/<sub>16</sub> in.). JPM, 84.XM.637.2.

## ALBUMEN PRINT

The albumen print was invented in 1850 by Louis-Desiré Blanquart-Evrard (1802–1872), and until about 1890 it was the most prevalent type of print. Normally made from a COLLODION negative on glass, it yielded a clearer image than the SALTED-PAPER print that preceded it in general use. An albumen print was made by floating a sheet of thin paper on a bath of egg white containing salt, which had been whisked, allowed to subside, and filtered. This produced a smooth surface, the pores of the paper having been filled by the albumen. After drying, the albumenized paper was sensitized by floating it on a bath of silver nitrate solution or by brushing on the same solution. The paper was again dried, but this time in the dark. (The salt and silver nitrate combined to form light-sensitive SILVER SALTS.) This doubly coated paper was put into a wooden, hinged-back frame, in contact with a negative, usually made of glass but occasionally of WAXED PAPER; it was then placed in the sun to print (see PRINTING-OUT). The progress of the printing could be checked by carefully opening the back of the frame. After printing, which sometimes required only a few minutes but could take an hour or more, the resultant proof, still unstable, was fixed by immersing it in a solution of hyposulfite of soda (“hypo”) and water and then thoroughly washed to prevent further chemical reactions. The print was then dried. Variations in tone and hue were achieved by stopping the processes described above at different stages and times or, more usually, by additional TONING. (After 1855, albumen prints were almost always toned with gold chloride, which enriched their color and increased their permanence.) The finished print ranges in color from reddish to purplish brown and is usually glossy, although some early photographers preferred to reduce surface sheen by diluting the albumen with water. If an albumen print has deteriorated, its highlights are yellowish.

*Note* Words printed in SMALL CAPITALS refer to other entries in the book. Synonymous terms appear in parentheses; related terms are separated by a slash mark.

**AMBROTYPE**  
(COLLODION POSITIVE)

Ambrotypes, as they are called in America, were named, it seems, after their popularizer, James Ambrose Cutting (1814–1867), who patented a specific variety of them. They are often confused with the earlier **DAGUERREOTYPES**, but they were made by an entirely different process, as their British name, **COLLODION** positives on glass, indicates. Both ambrotypes and daguerreotypes were similar in their size (small), in their packaging format (under glass in hinged cases), and in their superficial appearance (both having sharply defined images). Both were primarily used for portraiture and were unique images. An ambrotype, however, does not have the troublesome surface reflections of the daguerreotype, and its highlights are soft and pearly in tone rather than clear and crisp.

The basic process for producing an ambrotype was first published in 1851. It is an underexposed and then developed collodion negative on glass, whitish in tone, which when backed with an opaque coating (black lacquer, for example) appears as a positive image. (Where a highlight is juxtaposed to a black area, there can be a surprising discontinuity of surface caused by the dimensional difference between the image on the face of the glass plate and the black backing.)

As ambrotypes were easier to tint and faster and cheaper to make and sell than daguerreotypes, they rapidly replaced daguerreotypes in the late 1850s, only to be largely replaced in turn by **TINTYPES** and **CARTES-DE-VISITE** in the 1860s.

**AMBROTYPE**  
(**COLLODION POSITIVE**)  
Mathew Brady  
(American, c. 1823–1896)  
*Portrait of a Woman  
and Child, 1851*  
Half-plate ambrotype  
with hand-coloring  
12.3 × 9.1 cm  
(4<sup>7</sup>/<sub>8</sub> × 3<sup>5</sup>/<sub>8</sub> in.)  
JPGM  
84.XP.447.10







**APERTURE/EXPOSURE/SHUTTER**

Alma Lavenson (American, 1897–1989). *Self-Portrait*, 1932.  
Gelatin silver print, 20.3 × 25.2 cm (8 × 9 <sup>5</sup>/<sub>16</sub> in.). JPMG, 85.XM.283.5.

**APERTURE**  
**/EXPOSURE**  
**/SHUTTER**

Exposure refers to the quantity of light that falls on a negative material. In a camera, exposure is governed by the length of time the negative receives light and the size of the opening (aperture) through which the light passes. Exposure length is determined by the speed with which the shutter opens and closes, allowing light to pass through the aperture. The speed can be varied, as can the diameter of the aperture. It is the coordination of these two factors that determines optimum exposure, as both intervene between the film material and the natural or artificial light illuminating the subject.

Early cameras did not have shutters. Exposure times were so long that the photographer could manually remove and replace a cap over the lens. Today's cameras typically have electronically operated, accurate, high-speed shutters. Early aperture control was by means of a set of circular brass plates with holes of various sizes, one of which was positioned in front of, behind, or between the elements of the lens. Modern aperture controls, known as diaphragms, are highly sophisticated and are built into the lens. Aperture settings today are referred to by a numbering system

known as f-stops, a ratio of the diameter of the aperture to the focal length of the lens.

#### **ATTRIBUTION**

An attribution is an authoritative statement that an unsigned photograph can be said confidently, but not definitely, to have been made by a specified photographer on the grounds of close stylistic affinity to signed works by that maker and/or other compelling circumstantial evidence.

#### **AUTOCHROME**

An autochrome is a colored transparent image on glass, similar to a slide, ranging in size from less than 2 inches (5.1 cm) square to 15 by 18 inches (38.1 by 45.7 cm). It is meant to be viewed by being held up to the light or projected onto a surface. Deeply luminous in color if unfaded, and with soft image outlines, each autochrome is a unique object.

Autochromes were the first really practicable photographs in color and were made by a process invented and patented in 1904 by Louis Lumière (1864–1948), the younger of the two brothers who figured so prominently in the invention of the motion picture. The process consisted of coating a glass plate with sticky varnish, then with a thin pressed layer of minuscule grains of translucent potato starch. The grains had been separated into three equal lots and each lot separately dyed red-orange, blue-violet, or green. Mixed together in random distribution, they formed a dense mosaic color filter on the plate. Over this layer of grains was added another coating of varnish and, finally, a gelatin-bromide emulsion that was sensitive to the entire spectrum of light, i.e., was ORTHOCHROMATIC. (The starch grain mosaic served to filter the light so that the underlying bromide emulsion was selectively exposed by color.)

Plates thus coated, which were manufactured in large quantities between 1907 and about 1940 by the Lumière brothers' company, were exposed in a camera, glass side forward, so that light entering the lens would pass through the color mosaic filter before reaching the emulsion. The plates were then developed and washed.

The resulting negatives were then placed in a chemical bath in order to bleach out the negative impression. After exposure to white light the plates were redeveloped, bringing forward a residual positive colored impression that was fixed, washed a final time, and varnished.



**AUTOCHROME**  
 Alfred Stieglitz  
 (American, 1864–1946)  
*Kitty Stieglitz*, 1907  
 Autochrome  
 14.2 × 9.8 cm  
 (5 5/8 × 3 7/8 in.)  
 JPGM  
 85.XH.151.5



**BLINDSTAMP**  
 (DRYSTAMP)

This kind of stamp is an identification mark embossed onto the MOUNT to which a photograph has been attached. Less frequently, the blindstamp appears on the photograph itself. The stamp's raised or depressed letters usually spell the name or the address of the photographer. As no ink is used, the stamp is less visible than a WETSTAMP. Blindstamps were commonly used during the nineteenth century and are sometimes employed in modern commercial portraiture. (Illustration on page 13.)

**BROMOIL PRINT**  
 /OIL-PIGMENT PRINT

The bromoil process for making prints, which originated in England in 1907 and remained popular into the 1930s, was an

outgrowth of earlier oil-pigment processes and was related to the GUM BICHROMATE process. It depended on the underlying principle of lithography, namely, that oil and water repel each other.

The process for producing a bromoil print began with a gelatin silver-bromide print, usually an enlargement from a smaller negative. This print was bleached in a solution of copper sulfate, potassium bromide, and potassium bichromate and then fixed in a solution of hyposulfite of soda ("hypo") and water. The visible image had disappeared and the gelatin had been hardened by the potassium bichromate in proportion to the amount of silver that comprised the image. The sheet, called a matrix, was soaked so that the gelatin would absorb water and was left damp. Lithographic ink or another greasy ink was then carefully and repeatedly dabbed onto the surface of the matrix with a special brush or gently applied with a rubber roller called a brayer. Where the gelatin had absorbed water (in the highlights and, to a lesser degree, in the midtones), it repelled the oil-based ink. Repeated applications of pigment gradually built up the matrix to whatever density was desired. The print thus created was either slowly dried or was used once in a press, while still wet, as a kind of printing plate to transfer the inked image to another surface. It is the combination of the original *bromide* print and the *oil* pigment that gives the bromoil print its name.

The chosen color of the ink determined the color of the final bromoil print. (Full color was also possible by the use of three separate bromide prints for bromoil transfer, made from three negatives, each exposed through a different color filter, and three successive applications of primary colors.) The range of tones of a bromoil print is broad; its surface is not flat if it has not been transferred. Bromoil prints do not have high detail resolution, but selective brushwork permits a wide latitude of manipulation of the image.

## **BURNING-IN**

Burning-in is a technique by which a photographer can darken the tones of a specific area of a photograph. It is used to alter highlight areas that show too little detail, i.e., are too light in tone, or for dark areas that are too light. The photographer usually decides to employ burning-in after examining the negative, a contact sheet, or, more likely, an enlarged trial print from the negative. The technique is most often used during enlargement and consists of interposing for part of the exposure a piece of cardboard, plastic, or the like, with a hole cut out in its center, between the beam of light coming through the negative via the

**BLINDSTAMP  
(DRYSTAMP)**

Blindstamp on the mount  
of a photograph by Nadar  
(Gaspard-Félix  
Tournachon)  
(French, 1820–1910)  
Diam 4.2 cm (1⅝ in.)  
JPGM  
84.XM.436.485



**BROMOIL PRINT/OIL-PIGMENT PRINT**

Heinrich Kühn (German, 1866–1944). *Still Life with Flowers, Lamp, and Urn*, c. 1905.  
Bromoil transfer print, 33.5 × 45.8 cm (13⅜ × 18¼ in.). JPGM, 84.XM.829.5.



**CABINET CARD**

Gagen and Fraser  
(Canadian, active 1880s)

*Portrait of a Canadian*

*Couple, c. 1885*

Albumen print

cabinet card

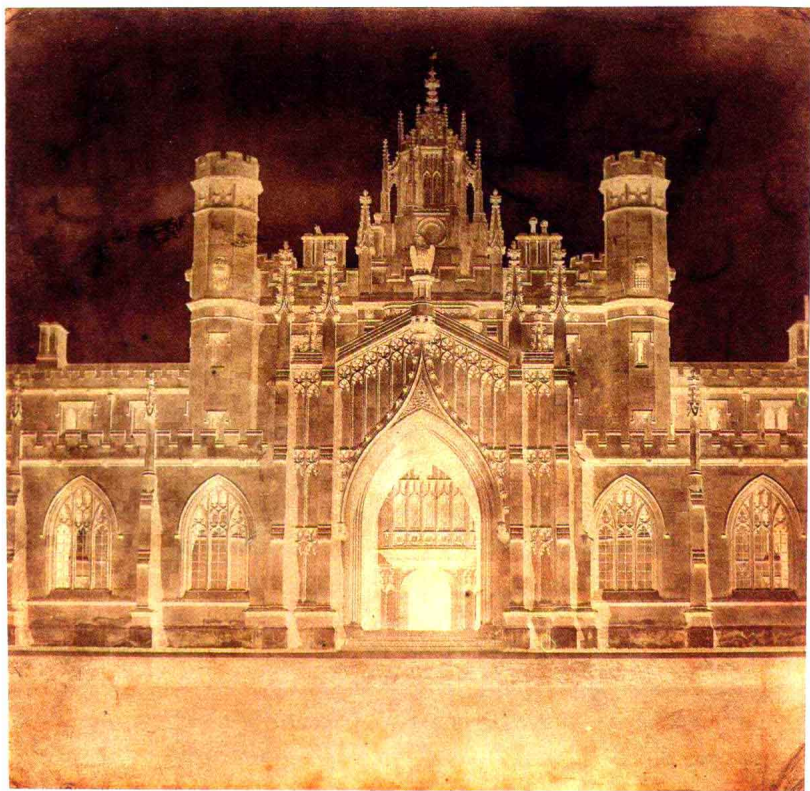
recto and verso

16.5 × 10.7 cm

(6½ × 4¼ in.)

JPGM

84.XB.879.0149



**CALOTYPE  
(TALBOTYPE)**

William Henry Fox Talbot (British, 1800–1877). *New Court, St. John's College, Cambridge*, c. 1845.  
Waxed calotype negative, 16.8 × 16.9 cm (6⅜ × 6⅞ in.). JPGM, 84.XM.1002.5.