

# Bibliography

There is a wealth of photographic information available today, and many of these technical publications were an invaluable resource for our own studies and led to the preparation for this book. Unfortunately, some of these books are out of print with no plans for additional publication. However, you should have no problem finding them in good libraries or through out-of-print book searches. This bibliography is an inventory listing of the most valued pieces in our private libraries, and our recommendation for further reading in selected technical subject areas. Nevertheless, do not underestimate the value of non-technical 'picture books', because studying the work of other photographers is a great source of inspiration. Art is not created by technical skill alone, and imagination and creativity without proficient craftsmanship may leave the creation of an aesthetic photograph to pure chance. When the craft becomes second nature, we are free to concentrate on imagination and creativity.

## General Photography

Michael R. Peres, *The Focal Encyclopedia of Photography*, Focal Press, 2007

This 4th edition of the well-known classic, first published in 1956, is a thought-provoking and dynamic series of essays, chronicling the evolution of silver-halide photography, the birth of digital technologies, the contemporary issues in the world of image making, and the people who have made it happen.

Ralph E. Jacobson, *The (Ilford) Manual of Photography*, Focal Press, 2000

The 1st edition of this book was published in 1890. Starting with the 6th edition in 1970, the name 'Ilford' was dropped from the title. Now in its 9th edition, the book is a thoroughly reliable resource, offering a most comprehensive explanation of the essential principles of silver-based photography.

Michael Langford, *Basic Photography*, Focal Press, 1997

This is a recommended textbook for photography courses in Europe and assumes no prior knowledge of photography. It has sold millions of copies and has been updated regularly to account for improvements in cameras and film.

Michael Langford, *Advanced Photography*, Focal Press, 1998

This is the companion volume to the previous book, covering color and digital photography. It also provides information to the more advanced student or serious amateur, while still being practical and easy to understand.

Barbara London & John Upton, *Photography*, Addison-Wesley, 1989

This is a recommended textbook for photography courses in the USA and also assumes little prior knowledge of photography. It is comprehensive, well-illustrated and easy to read, covering all aspects of photography.

Marvin J. Rosen & David L. DeVries, *Photography*, Wadsworth, 1993

Complete and comprehensive, this classic guide is written for beginners as well as for more advanced photographers. In addition to the fundamentals, the book also covers the history of photography.

## Camera Techniques

Ansel Adams, *The Camera*, Little, Brown & Company, 1980

This is the first book of a three-volume set, written by an undisputed master of B&W. He has produced some truly memorable images and taught us how to get the most from negative and print, but here, he explains the fundamentals of image recording equipment.

Eastman Kodak Company, *Large-Format Photography*, Kodak Publication O-18e, 1995

This book is a beautiful introduction into the world of large-format photographs, which are often admired for their superior clarity, sharpness, exquisite tonal range and richness of detail.

Leslie D. Stroebel, *View Camera Techniques, 6th Edition*, Focal Press, 1993

This is a unique and comprehensive book, specializing in exploring the features, operation and application of view cameras. It also provides invaluable insight into view camera movement and general image formation, which are also useful to users of smaller film formats. A feature comparison of available view cameras is included.

W. F. Berg, *Exposure*, Focal Press, 1971

This out-of-print and slightly dated book is the 4th edition and a key volume of the highly respected 'Focal Manuals of Photo Technique' series. The book provides an understanding of the theory as well as the practice of exposure and is essential to all who use photography as a purposeful tool, rather than casual occupation. It will very adequately serve as a unique compendium of essential information to all those who prefer a single volume to a whole shelf of books.

J. F. Dunn and G. L. Wakefield, *Exposure Manual*, Fountain Press, 1981

This is the 4th edition of a book recognized as a standard text on the subject of camera exposure determination. It is an invaluable reference to all photographers, from keen beginner to advanced amateur, and embraces solutions to almost any exposure problem arising in practical photography. This book is also a great guide for complex lighting situations when straightforward metering alone is not good enough.

Harold M. Merklinger, *The Ins and Outs of Focus*, 1992

Mastery of the imaging process is the subject of this self-published book. It is not easy to read or understand but gives an interesting alternative point of view, supported by mathematical evidence.

Harold M. Merklinger, *Focusing the View Camera*, 1993

This is another book specializing on large format view camera movements. It contains the best explanation of the well-known 'Scheimpflug Principle' we have seen, and the author rediscovered Scheimpflug's 'Hinge Rule', giving the technique a more solid foundation.

## Art, Perception, Composition and Lighting

David Bayles and Ted Orland, *Art & Fear*, Capra Press, 1993

This book is a light but serious exploration of the way art gets made, the reasons it often doesn't get made, and the nature of the difficulties that cause so many artists to give up along the way. This book is about finding your own work and putting choice over chance.

Susan Sontag, *On Photography*, Farrar, Straus and Giroux, 1977

The book is a critical analysis of the profound changes photography has made to the way we look at the world since its invention. It raises important questions about photography and the people who practice it and establishes a much-needed consciousness about image making.

Nicolas Wade and Michael Swanson, *Visual Perception*, Routledge, 1991

The authors start from the basis of what function vision serves with object recognition being at the core of the book, while trying to answer the following questions: Does the world appear the same to everyone? Does what we know determine what we see?

Richard L. Gregory, *Eye and Brain*, Princeton University Press, 1997

Since its 1st edition in 1966, this book has established itself worldwide as an essential introduction to the basic phenomena of visual perception. It offers a clear description of how we see brightness and objects, and explores the area of visual illusion to explain how perception works and why it sometimes fails.

William Mortensen, *The Command to Look*, Jacques de Langre, 1967

This is an extremely valuable, but unfortunately also a very expensive, out-of-print book. In it, the author shares his unique and effective way of composing successful and powerful images. If you looked for solid advice on composition, you will find it in this book.

Eastman Kodak Company, *Professional Photographic Illustrations*, Kodak Publication O-16, 1989

This book is a beautiful introduction into successful lighting techniques for product and tabletop photography.

William Mortensen, *The Model*, Camera Craft Publishing, 1948

There are a number of books available illustrating how to pose a model, but you will struggle to find one approaching the subject in such an organized manner. Also covered is appropriate clothing, make-up and how to provide proper direction to the model. This book is highly recommended for all model and portrait photographers.

Roger Hicks and Chris Nisperos, *Hollywood Portraits*, Amphoto, 2000

Effective portrait lighting is learned by studying successful examples. In this book, the authors explore how the 'Hollywood Look' was created

and how it can be recreated today, by analyzing the actual lighting plans and techniques of the original portraits. Over fifty photographs are examined, revealing information on film, camera, props and poses.

Mark A. Vieira, *Hurrell's Hollywood Portraits*, Harry N. Abrams, 1997

This book presents in depth the work of George Hurrell, the photographer who, more than anyone else, was responsible for developing the 'Hollywood Glamour Portrait'. The author explains in detail Hurrell's approach to 'beauty' lighting and other lighting techniques.

## Monochrome Photography

Henry Horenstein, *Black & White Photography*, Little, Brown and Co, 1983

This is a very sound book for beginning B&W photographers from a teaching professional who has the talent to concentrate on the basics and produce a clear and concise book, which many consider to be one of the best manuals of its kind.

Henry Horenstein, *Beyond Basic Photography*, Little, Brown and Co, 1977

This book answers the more technical questions of photographers who are already familiar with the basics. It provides the reader with control over the entire photographic process from exposure to final print.

David Vestal, *The Craft of Photography*, Harper & Row, 1974

This is the most comprehensive guide to B&W photography on our shelves. It is a complete overview on equipment, materials, exposure, development and printing, with practical advice on darkroom setup.

C. I. Jacobson and R. E. Jacobson, *Developing*, Focal Press, 1972

This out-of-print and slightly outdated book is the 18th edition and another key volume of the highly respected 'Focal Manuals of Photo Technique' series. The book deals in detail with the action of the various components of the developer, which will produce the required results. It lists nearly three hundred recommended formulae and gives fifty compact comparative tables.

Jack H. Coote, *Ilford Monochrome Darkroom Practice*, Focal Press, 1996

This book covers the breadth of monochrome work, including professional applications and equipment. Although it centers on Ilford products, it discusses many aspects of technique during exposure, development and printing. It contains many useful hints and tips for getting the most from film and chemistry.

Barry Thornton, *Elements*, Creative Monochrome, 1993

Subtle pictures together with a non-technical explanation of the Zone System and the author's emotional response to picture taking make this book one of the few that can be read like a novel. It uses a trail of pictures to map the author's quest for the ultimate in equipment and materials.

Barry Thornton, *Edge of Darkness*, Argentum, 2000

This is a unique monochrome photography book. While most counsel the virtues of image manipulation, the author argues for the virtue of image sharpness. It takes the reader step-by-step through the process of releasing the power and satisfaction of high definition photography.

Arnold Gassan and A. J. Meek, *Exploring Black and White Photography*, Wm. C. Brown Communications, 1993

In its 2nd edition, this text deals exclusively with B&W photography. The authors illustrate how B&W offers more creative freedom than color, separating us from reality and letting our eyes explore the abstraction of form, while discovering visual analogies all too easily hidden by color.

Stu Williamson, *Concept to Print*, Argentum, 1998

The backbone of this book is the experience and the skill of this author. He explains his reasons for choosing a specific technique and provides a unique insight into his approach for the making of twenty photographs. This includes the source of the inspiration, the initial plan for creating the image and the lighting, camera and darkroom techniques used.

George E. Todd, *From Seeing to Showing*, Argentum, 2001

In this book, the author discusses the inspiration for twenty photographs and how they were produced. The reader is guided through the camera and darkroom techniques used with a series of illustrated instructions. The importance of composition, highlights and shadows, and dealing with difficult negatives are clearly explained.

Hugh Milsom, *Infra-Red Photography*, Fountain Press, 2001

There is an air of mystique surrounding infrared photography. Its special effects offer the creative photographer a great number of possibilities. This book covers all aspects of infrared photography and contains a step-by-step guide for the beginner, starting with exposing and developing the very first roll of film.

## Sensitometry and Zone System

Eastman Kodak Company, *Basic Photographic Sensitometry Workbook*, Kodak Publication H-740, 2006

This highly recommended introduction to sensitometry is provided for free on the company's website. It is a valuable publication and was written in a programmed instruction format, which allows students of sensitometry to study, learn and verify at their own pace.

Jack Eggleston, *Sensitometry for Photographers*, Focal Press, 1984

This well-organized book is addressed at experimentally minded photographers who wish to achieve superb image quality through careful technique. It deals with the principles and application of sensitometry, progressing gradually from the basic to the more advanced.

Hollis N. Todd and Richard D. Zakia, *Photographic Sensitometry*, Morgan & Morgan, 1969

This book has a scientific approach to sensitometry and is over our heads in many areas, but it has clarified and simplified many things for us. It gave us a better understanding of the underlying principle of the Zone System and has an excellent chapter on reciprocity failure.

Ansel Adams, *The Negative*, Little, Brown & Company, 1981

This is the definitive text on the Zone System and a must-read for monochrome photographers. Apart from the technical aspects of the Zone System, this book also explores the seminal concept of visualization in B&W photography using many examples of his work.

Chris Johnson, *The Practical Zone System*, Focal Press, 1994

This pleasantly simplified guide to Ansel Adams's Zone System does not miss the point. You will not become a Zone-System expert from reading this text, but you will gain a solid understanding of fundamental principles. Included are the author's test results for many film/developer combinations as a starting point for your own work.

Minor White, Richard Zakia and Peter Lorenz, *The New Zone System Manual*, Morgan & Morgan, 1976

This booklet continues where Ansel Adams left off the Zone System explanation. It is the most extensive book on the system as far as we know, while still understandable for anyone seriously exploring B&W photography. However, we much prefer Phil Davis's method of film testing to the one proposed here.

Phil Davis, *Beyond the Zone System*, Focal Press, 1993

Now in its 4th edition, this valuable book is filled with material and equipment tests to obtain the best results in B&W work. Starting with the basics, it moves on to complex sensitometry and material evaluation. We don't agree with the Zone System mathematics introduced by this book, but to understand the science behind the Zone System, you can't avoid this highly recommended book.

William Mortensen, *Mortensen on the Negative*, Simon and Schuster, 1940

This out-of-print and slightly out-of-date book still makes for a very interesting read. It was written around the same time Ansel Adams developed his Zone System, and this explains why one finds amazing parallels between the two techniques.

## Photographic Optics, Chemistry and Processing

Henry Dreyfuss, *The Measure of Man*, Whitney Library of Design, 1967

The author conducted ergonomic studies, and the results are used by product designers in all fields. The studies concerned with the limits of human vision are valuable to the discriminating printer.

Graham Saxby, *The Science of Imaging*, IOP Publishing, 2002

This introduction is essential reading if image science plays an important part in your photography, or if you are wishing to know more about the underlying principles of image making. The author's approach is friendly and direct, with numerous marginal notes that illuminate particular aspects of the subject or give brief biographical backgrounds of the pioneers of various techniques who may otherwise remain only names.

John B. Williams, *Image Clarity*, Focal Press, 1990

This is an exhaustive investigation into the subject of high-resolution photography and image definition. This book appeals first to the more technical-minded photographer, but its careful explanations and helpful illustrations provide fundamental knowledge for all.

Arthur Hardy and Fred Perrin, *The Principles of Optics*, McGraw-Hill, 1932

This reference book is the result of extensive experience in teaching optical principles at MIT. It is written for optical engineers, but the chapter covering the function of the human eye will be of great interest to all serious photographers and printers.

Eastman Kodak Company, *Kodak Filters*, Kodak Publication B-3, 1981

This book is for scientists whose use of filters requires extensive spectrophotometric data. However, the graphical representation of light transmission clearly illustrates filter functionality to all.

George T. Eaton, *Photographic Chemistry*, Morgan & Morgan, 1988

This is the 4th edition of a photographic chemistry book that was exclusively written for the non-chemist. It is not a source for chemical formulae but a must-read for everyone who wants to understand them.

Steven G. Anchell, *The Darkroom Cookbook*, Focal Press, 2008

For those who wish to experiment with self-made chemistry, or understand how it works and can be improved, this is the reference book. Now in its 3rd edition, it contains many useful tips, formulae and hints on photochemistry and unravels the black art of making your own.

Steven G. Anchell, *The Film Developing Cookbook*, Focal Press, 1998

This book will help photographers to acquire a working knowledge of photographic chemistry, relevant to B&W film developing, and it will serve as a reference and refresher for photographers at all skill levels.

E. J. Wall, Franklin I. Jordan and John S. Carrol, *Photographic Facts and Formulas*, Amphoto, 1975

This out-of-print book is probably one of the oldest photographic compendiums in active use. First published in 1903, it has been revised several times since, and with minor exceptions, the information and chemical formulae provided are still up to date. The book covers

photographic processing to a level of detail typically not found in other books.

Grant Haist, *Modern Photographic Processing*, John Wiley & Sons, 1979

This rare two-volume book was reprinted by the author in 2000. It was part of the publisher's 'photographic science and technology series' and contains everything one needs to know about photographic chemistry, emulsions and processing. The entire photographic process is explained, in unparalleled detail, from the atomic basis of photography to making the image permanent. For the practicing photographer, the text is supported by chemical formulae throughout the book.

C.E. Kenneth Mees and T. H. James, *The Theory of the Photographic Process*, The Macmillan Company, 1966

This classic reference book is a collection of technical articles, providing a general handbook of photographic processes. The bibliographies at the end of each chapter allow for extensive research. It is not an easy read, but you will always find clear and useful information in it.

T. H. James and George C. Higgins, *Fundamentals of Photographic Theory*, Morgan & Morgan, 1968

This highly technical book gives a general account of the theory of the photographic process based on fundamental chemical and physical concepts. It is for those interested in advanced treatment of subjects not covered to this level of detail in other publications.

Thomas Woodlief, Jr., *SPSE Handbook of Photographic Science and Engineering*, John Wiley & Sons, Inc., 1973

This reference book reminds us of many things previously learned but not regularly used. In 1,400 pages, compiled by over 100 contributors, it provides very technical information about any possible aspect of photography. The book is directed at the experienced, practicing engineer and scientist. Almost every section of the book contains tutorial material but not enough for the beginner to learn an unfamiliar field.

## General Printing

Ansel Adams, *The Print*, Little, Brown & Company, 1983

This is the third book in the famous series. Many value this book to define printing techniques, standard print finishing and presentation practice. Discusses darkroom design, equipment, print processing and sensitometry. This book proves that the 'perfect negative' is only the starting point for the 'perfect print'.

C. I. Jacobson and L. A. Mannheim, *Enlarging*, Focal Press, 1975

This out-of-print but mostly up-to-date book is the 22nd edition and another key volume of the highly respected 'Focal Manuals of Photo Technique' series. It covers the entire spectrum of enlarging and ranges

from fundamental considerations, negative quality and principles of enlarging and darkroom equipment to different systems of exposure measurement and special processing.

Eastman Kodak Company, *Quality Enlarging*, Kodak Publication G-1, 1995

This book is a beautiful introduction to darkroom design, and concentrates on quality print making, retouching and getting the final print ready for presentation and display.

David Vestal, *The Art of Black-and-White Enlarging*, Harper & Row, 1984

This is a book no B&W worker should be without. The author works through advanced techniques and subjects with a no-nonsense approach, while presenting difficult material in palatable form. It is filled with the author's experience and practical test proposals to gain your own.

Carson Graves, *Black-and-White Printing*, Focal Press, 2001

This is an easy to understand book for beginning to intermediate darkroom workers. It introduces the reader to darkroom exposures and proper paper-contrast selection. In addition to explaining the procedures, this valuable book contains exercises that help the reader to learn with his own equipment and materials.

Steve Anchell, *The Variable Contrast Printing Manual*, Focal Press, 1997

This book is a comprehensive resource for photographers printing with variable-contrast papers. The author provides a wealth of information about a medium that now dominates B&W printing.

Richard J. Henry, *Controls in Black and White Photography*, Focal Press, 1986

The author uses his scientific training as a medical doctor to expose a few photographic myths. The book concentrates on B&W printing and kills many dubious doctrines supported by other photographic writers. His exhaustive tests save us all many laborious tasks. Visit your local library, because it is unfortunately out of print.

Howard Bond, *Numerous Articles on Quality Black and White Camera, Zone System and Printing Technique*, *Photo Techniques* magazine, 1985 - 2001

This collection of articles would make a fabulous book by itself. The author, an excellent photographer, printer and educator, shares decades of experience and valuable advice in easy-to-understand chunks.

John Sexton, 'The Expressive Black and White Print', *Apogee Photo* magazine, 1990

In this electronic magazine article, a well-respected photographer, who was darkroom assistant to Ansel Adams, uses one negative to show a basic but systematic and sophisticated approach to B&W printing.

Larry Bartlett and Jon Tarrant, *Black and White*, Fountain Press, 1996



Larry Bartlett was a professional printer. The book explains how he produced involving, expressive prints from other people's negatives. The preliminary chapters look at the basics of darkroom design and equipment and the book then moves on to explain how each of the featured prints was coaxed from the negative.

Tim Rudman, *The Photographer's Master Printing Course*, Mitchell Beazley, 1994

This book is a great reference for down-to-earth printing techniques. Starting with the basics, it also covers numerous methods of creative print manipulation and toning, amply illustrated.

Les McLean, *Creative Black & White Photography*, David & Charles, 2002

The author combines his technical expertise with inspiring images to take the reader step by step through the thought processes and technical procedures involved in producing high-quality images. At the core of this comprehensive guide is the belief that it is impossible to separate picture-taking from print-making.

Eddie Ephraums, *Gradient Light*, Working Books, 1994

This book is recommended as a refreshing alternative for the all-too-serious Zone System worker. The images presented are all made with trade-processed chromogenic film, but the author combines it with creative printing techniques and common VC papers to stunning effect.

Ctein, *Post Exposure*, Focal Press, 2000

Distilled from over 30 years of experience, this practical how-to book is filled with valuable technical analysis. The experiments and results discussed are of importance to serious B&W and color darkroom enthusiasts.

Veronica Cass, *Retouching*, VC Publishing, 1992

This book covers retouching from start to finish. It begins with retouching the negative and following through to the print. Sometimes, this means restoring a photograph, airbrushing a background or applying any number of techniques to achieve a professionally finished print.

William Mortensen, *Print Finishing*, Camera Craft Publishing, 1938

This old, out-of-print but extremely valuable book covers the unique abrasion-tone technique, developed by the author. More importantly, though, it also gives up-to-date advice on how to position and orient a print aesthetically on the mount-board.

## Specialist Printing

Tim Rudman, *The Master Photographer's Toning Book*, Argentum, 2002

This book describes entry-level and advanced toning techniques for archival processing and creative image manipulation, with a chapter devoted to each toner. It also covers negative toning, selective toning

and less conventional materials, such as tea and coffee. This book is an invaluable reference for anybody toning their negatives and prints.

Eddie Ephraums, *Creative Elements*, Fountain Press, 2000

This book shows the transformation of some seemingly ordinary negatives into wonderfully moody images. It provides excellent examples of print manipulation and toning. While the images cover a breadth of techniques, they all clearly reflect the author's personal style. For this book, he has selected a series of prints to demonstrate his techniques.

Tim Rudman, *The Master Photographer's Lith Printing Course*, Argentum, 1998

The book is an in-depth guide, filled with many practical examples and tips on making lith prints. It covers the subject fully and at every level and quickly developed into a standard text. It is hard to see why anyone else would have to write another book on this subject.

Tony Worobiec and Ray Spence, *Beyond Monochrome*, Fountain Press, 1999

The book explores the use of alternative processes to create unique, evocative images of those two photographic magnets, the human form and dereliction. It is a practical book, explaining hand tinting, toning and airbrushing, as well as some historic techniques.

Randall Webb and Martin Reed, *Spirits of Salt*, Argentum, 1999

The book gives detailed introductions to alternative photographic processes while featuring the work of established artists. It is a practical darkroom manual, convincingly examining each process in its own right, giving a historical overview of each process, and supplying a shopping list to identify the key materials needed, before taking the reader, step-by-step, through the process.

## Digital and Hybrid Imaging

Dan Burkholder, *Making Digital Negatives*, Bladed Iris Press, 1999

This is a highly recommended, must-have book for photographers who want to combine the beauty and permanence of traditional fine-art printing processes with the power and precision of digital imaging. To our knowledge, the 1st edition of this book was the first to introduce digital negative technology. In this 2nd edition of the book, the author has improved his fine-art and digital expertise to bridge the worlds of traditional and digital image making.

Ron Reeder and Brad Hinkel, *Digital Negatives*, Focal Press, 2007

This book bridges the world between digital photography and alternative analog printing. It introduces a simplified method to create effective transfer functions and uses digital inkjet negatives to get you from the monitor, through an inkjet negative to alternative processes like palladium printing, for which inkjet negatives provide sufficient quality.

Martin Evening, *Adobe Photoshop for Photographers*, Focal Press, 2001

Many regard this frequently updated book as the most useful Photoshop text for practical photographers. It includes many examples, hints, tips and tutorials on CD, going far beyond the standard Photoshop handbook, covering all the most-useful features in understandable terms.

Katrin Eismann, *Photoshop Restoration & Retouching*, Que, 2001

This book is an ideal manual to guide the modern photographer in making subtle and meaningful improvements to digital images. While it concentrates on restoring aged or damaged photographs, the presented techniques are equally applicable to optimize contemporary prints.

## Archival Processing

Laurence E. Keefe Jr. and Dennis Inch, *The Life of a Photograph*, Focal Press, 1984

This book covers the complete subject of image permanence from archival processing to film and print storage. It also discussed the differences between RC and FB prints, and explores the benefits and disadvantages of several print mounting materials and techniques. Valuable advice is given to plan and design professional exhibitions, and practical storage options for current film and print materials are covered in detail.

Archival processing is a changing and ever-expanding area of knowledge. Consequently, good books, such as the one above, which cover the entire subject are rare and difficult to keep up-to-date. What follows is a list of technical papers and electronic articles, which we feel have the best-researched and most-current information.

James M. Reilly, Douglas W. Nishimura, Kaspars M. Cupriks and Peter Z. Adelstein, 'Stability of Black and White Photographic Images', *The Abbey Newsletter*, Jul/1988

Douglas W. Nishimura, 'How Stable are Photos on RC Papers?', *The Abbey Newsletter*, Nov/1997

Michael J. Gudzinowicz, 'Post Development Processing', 1998

Martin Reed, 'Mystery of the Vortex', *Photo Techniques* magazine, Jul/Aug & Nov/Dec 1996

Richard Knoppow, *pure-silver@tundraware.com mailing list and rec.photo.darkroom newsgroup, additional private correspondence*, 1999-2001

## Historic Papers

At the end of the 19th century, Ferdinand Hurter and Vero Charles Driffield published the results of their photographic research. The importance of their findings was soon recognized, and their sensitometry methods became an industry standard. The following book is a collection of their most important papers, which are largely out-of-date and not applicable to modern emulsions, but they demonstrate the significance of their contribution to photographic science. The book also contains entertaining correspondence between the two scientists and one of their strongest critics, Captain W. Abney, which makes for a very interesting read.

W. B. Ferguson, *The Photographic Researches of Ferdinand Hurter & Vero C. Drieffield*, Morgan & Morgan, Facsimile Edition, 1974

In the first half of the 20th century further valuable in-depth photographic research was conducted. Among others, Loyd A. Jones and his colleagues at the research laboratories of the Eastman Kodak Company in Rochester, New York deserve major credit and respect for their contribution. He and his team published several historic papers of which a few are most important to this book. Despite its age, this research is largely up-to-date and still a milestone in the evolution of photographic science. Contact your local library to obtain copies of these most valuable papers.

Loyd A. Jones, 'The Evolution of Negative Film Speeds in Terms of Print Quality', *Journal of the Franklin Institute*, Mar/1939, Page 297 - 354

Loyd A. Jones and C. N. Nelson, 'A Study of Various Sensitometric Criteria of Negative Film Speeds', *Journal of the Optical Society of America*, Mar/1940, Page 93 - 109

Loyd A. Jones and H. R. Condit, 'The Brightness Scale of Exterior Scenes and the Computation of Correct Photographic Exposure', *Journal of the Optical Society of America*, Nov/1941, Page 651 - 678

Loyd A. Jones and C. N. Nelson, 'The Control of Photographic Printing by Measured Characteristics of the Negative', *Journal of the Optical Society of America*, Aug/1942, Page 558 - 619

Loyd A. Jones and C. N. Nelson, 'Control of Photographic Printing: Improvement in Terminology and Further Analysis of Results', *Journal of the Optical Society of America*, Nov/1948, Page 897 - 920