

Books reviewed 2: recent Quekett publications

L Woolnough – *Understanding and using the stereomicroscope*. London: Quekett Microscopical Club, 2010. Pbk, pp.88. ISBN 978-0-9564591-0-7. Subsidised list price £6.

[Club members should purchase from the Sales Officer].



This is an attractively-produced small (A5) book, fully illustrated in colour, and clearly set out in colour-coded sections. An introduction on how objects are actually seen is followed by a section on how microscopes work, and the kinds of instrument available – all relatively non-technical and easily followed. Following this, working with stereo instruments is described and discussed to just about the right depth for the beginner. The informative illustrations are printed in large sizes, and the diagrams are clear. Some ‘exercises’ are included, and if these were to be followed by absolute beginners in microscopy, progress would have been made.

There are some imperfections – such as using ‘depth of vision’ (p.30) for what is properly to be called depth of field: and a few commas are scattered about a bit, as on p.48. ‘Some of the light given off by an object or reflected from it’ as written by the author has the capacity to confuse, and so has the use of ‘top lighting’ where reflected illumination should properly be used. The shorter phrase has of course been current in the Quekett for years, but is nonetheless not to be perpetuated in print.

All that said, this is a useful book sold at a low price: it may remind the more experienced reader of things known but not properly formulated, while it will help the tyro to get the most out of an instrument especially suited to the needs of a beginner. At its price manufacturers might helpfully include a copy with a stereo instrument when they sell one, especially if supplied to a primary school.

When it is reprinted (as it is very likely it will be), if the points mentioned above are taken care of, it will be even better.

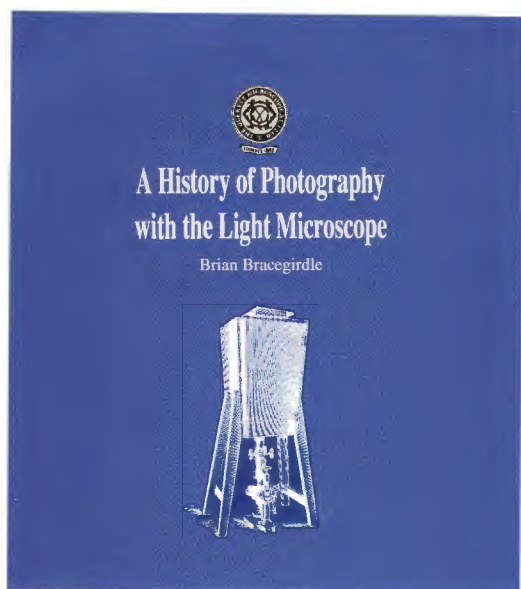
Brian Bracegirdle
Steve Gill

B. Bracegirdle – *A History of Photography with the Light Microscope*. London: Quekett Microscopical Club, 2010. Hbk, pp.221. ISBN 978-0-9564591-1-4. Subsidised list price £24.50.

Available only from the Quekett sole sales agent – Savona Books (www.savonabooks@savonabooks.free-online.co.uk).

[Club members should order from the Sales Officer].

It would be impossible to calculate how many photomicrographs have been published to support the communication of scientific results, or to under-estimate the importance of the technique in validating what was reported. It is therefore perhaps surprising that the history of photomicrography has not previously been documented to any full extent; *A History of Photography with the Light Microscope* corrects



this, and will be the definitive work on the subject for many years to come.

This is the third book on the history of microscopy written by Dr. Brian Bracegirdle and published on a not-for-profit basis by the Quekett Microscopical Club. His previous two works in this series, *Microscopical Mounts and Mounters*, and *Notes on Modern Microscope Manufacturers*, remain the only books on their respective subjects and have become standard reference works in the history of microscopy. *A History of Photography with the Light Microscope* continues this, but what sets this book apart is the format and style of the book. It is not simply an inventory of instruments but a descriptive account of developments from 1839 to the modern day. Dr. Bracegirdle, one of (if not the) leading authorities on the history of microscopy has, with this book, skillfully made a textbook account into a thoroughly readable book, designed to be read from cover to cover rather than merely 'dipped into' for reference.

The book is printed in an attractive hardback cover measuring 9¾ inches (25cm) square (like the Quekett Journal but with an extra column), and offers over 500 references: it is profusely illustrated throughout with approximately 350 illustrations, in monochrome and colour, all digitized from the original sources by the author. Dr. Bracegirdle has drawn for some of these on the Science Museum's collections, the

largest such in the world and the only one to preserve several examples of early photomicrographic stands. The author had unique access to these collections in his position as Chief Curator at the Museum, and personal experiences of evaluating and using these stands at the bench is evident throughout the book.

The first three chapters set the context for the history of photomicrography. Chapter 1 covers the early development of photographic processes, including Daguerreotypes, Calotypes, collodion, albumen and gelatine plates. Much of this information is available elsewhere in more detail, but this chapter provides a superb summary of these early developments. Chapter 2 describes the advances in illumination sources and systems which are so critical to photomicrography, and Chapter 3 covers developments in microscope optics. Chapters 4 to 7 then detail advances made from the earliest application of photographic processes in 1839 to 1980, when film techniques began to be replaced by digital image capture systems. These chapters not only detail the advances in photomicrographic equipment, the author also provides accounts of some of the scientific work being illustrated at the time by photomicrography, and reviews of books and other literature on photomicrographic techniques.

Chapter 8 focuses on a unique organization, The Photomicrographic Society which was formed in 1911 and survived for 40 years; the author provides a definitive account of its demise and closure, correcting some long-standing misconceptions about its 'incorporation' in to the Quekett Club (which never happened). Chapter 9 looks at another very important aspect of photomicrography, the technique of microphotography – whereby normal-sized images were optically reduced to be recorded as microscopic images; this technique was to have important application during the siege of Paris, and was later developed into the manufacture of microcircuits, for example. Chapter 10 provides an account of the development of photomacrography; this technique has a surprisingly long history with early commercial apparatus being provided by Nachet in 1863, through to the very specialist apparatus of Leitz, Zeiss, Nikon and Olympus post-WW2. The final chapter brings development up to date from 1980 to the present

day; this period has seen the most significant advances with video-microscopy and digital recording systems.

Much of the material in this book is simply not available anywhere else, and it is clear that the author has had practical use of much of the apparatus described. His wide knowledge of the subject makes for entertaining reading with some surprising facts. The chapter on microphotography for example, commences with an account of micro-writing by the ancient Assyrians and modern Galileans, and J. B. Dancer's use of the eyes of freshly-killed animals

to record minute photographic plates! As has been said above, the book provides full references for those who wish to take the subject further, and two helpful indexes.

In summary, this book is thoroughly recommended and provides both entertaining and informative reading. The only disappointment is that the author states this is to be his last book; if so it is a fitting tribute to someone whose career in photomicrography spans over 50 years, but we can only hope that he may be persuaded to write more!

Philip Greaves