BOOK REVIEW

An Introduction to Electronic Imaging for Photographers

Adrian Davies and Phil Fennessy, 131 pages + CD-ROM. ISBN: 0-240-51384-3. Focal Press, Butterworth Heinemann Ltd., England (1994) £19.95 UK (approx. $32 US).

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Many image processing professionals have from time to time tried to explain the complexities of their subject to a less than knowledgeable audience, whose questions cover a wide span of interests. Many of the books reviewed in this journal are usually highly technical and of special interest to practicing engineers; alternatively, this little volume has some very interesting snippets of information, buried in a simplistic presentation of the whole field of electronic imaging.

Although written for an English audience, there is much here of practical value for anyone interested in imaging—not least a CD-ROM containing some extremely high-quality images, both in content and presentation. The authors are both practicing photographers who have found themselves working increasingly in the field of digital imaging. One is a college lecturer in electronic imaging, and the other works as a support executive at Kodak. In an attempt to present their experiences and knowledge to others, they have targeted the book not at the imaging specialist, but at the photographer, many of whom need a substantial amount of convincing that the low-grade imaging efforts they have seen distort their work are likely to dominate it in the future.

Although a critic could find many examples of text to take issue with, the grounding is still a very solid base for someone new to this field, and any imaging specialist should find the photographer's perspective, which is held throughout, at least food for thought. Having opened the book in a break at an international standards meeting on electronic imaging, it was several hours before I could rescue it, and only then by promising to review it!

The book starts by putting the subject into perspective as a natural stepping stone from currently practiced photography, as electronics plays an increasing role in delivering the image to its consumers. It then looks at the variety of input devices available to create the digital image, concentrating on the issue of how quality, in terms of resolution and accuracy, is developing. It does take into account the practical limitations implied, as anyone who has had to use the range of heavy and relatively slow existing high-quality electronic cameras will testify.

The authors then consider the use of scanning equipment, both amateur and professional, before putting it into the context of the range of computers and software likely to be used for imaging applications. Although the book was published in 1994, the use of a computer capable of expansion to 40 Mbytes of RAM and a 750-Mbyte hard disk is given as an absolute minimum specification, giving some indication of the professional view the authors take of imaging stations. Storage is considered next, with a reasonable review of different storage systems, and some of the CD-ROM variants and CD-ROM publishing in particular are considered.

Chapter 6 looks at the image processing software available, with particular reference to Adobe Photoshop. The practical uses of this tool to carry out a range of retouching and other modifications are discussed, particularly in the context of the kinds of operation that a photographer would traditionally have covered by hand. The illustration of some of the effects of high-quality color plates is a welcome addition to this type of book. File formats are covered briefly, although unfortunately the authors seem to believe some of the claims made for their effectiveness, rather than applying practical tests on the range of high-quality images they include in the CD-ROM.

A whole chapter on Kodak's PhotoCD follows, based on the claim that it offers the cheapest method of scanning images currently available. Given the lack of information generally provided on this format, and its relevance to the professional photographer, this does seem a sensible choice, although even here the expert is left wishing for more detail and some references to further information. However, the following chapters on printing technology and the relative merits of different types of printers are at just the right level of detail for anyone with a casual interest and contains a few pointers that most readers would find useful.

Closing chapters on ethics and copyright, and on the future of this field, inevitably must show some nationalistic and author bias, but they are thought provoking and certainly not too hard going for any level of reader with interest in the subject.

All in all, this is a reasonable review of a complex subject area, covering a wide range of information in relatively few pages. The icing on the cake, in my view, is tucked into the back cover. The CD-ROM contains a range of well-documented high-quality images, provided copyright free. These include TIFF files from Arca Swiss, Canon Ion, Crosfield Celcis, Kodak DCS200 and DCS420 and Photophase cameras/digital backs—anyone thinking of a shopping list or wondering how good these cameras are is going to be very happy to see such a range. The higher resolution images are also available at lower resolution and as part areas for users with limited RAM.

In addition, examples of PhotoCD and Pro-PhotoCD images from a plate camera show what is attainable in this format, and these knock spots off most images in my collection. Finally a range of trial software is included that will, of course, date, but this does include Photoshop 2.5 for the Mac and Photostyler for the IBM PC. Fortunately, having checked with the publisher, I understand a second edition of the book will be released shortly, updating the CD-ROM to include later versions of the software and some of the most recent digital cameras.

At a UK street price of £19.95 (approximately $32 US), the CD alone is an excellent value. The book itself serves as a wide ranging, if brief, introduction to digital imaging for the trainee technician or interested manager. Although it would be possible to criticize the technical content, my feeling is that this would be a churlish attitude to take toward a book that delivers what it sets out to do—to introduce photographers to all aspects of electronic imaging technology.

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