CD-ROM Included!

- Full-color images from the book
- Tutorials on specific features, and more

Laurie Ulrich Fuller & Robert C. Fuller

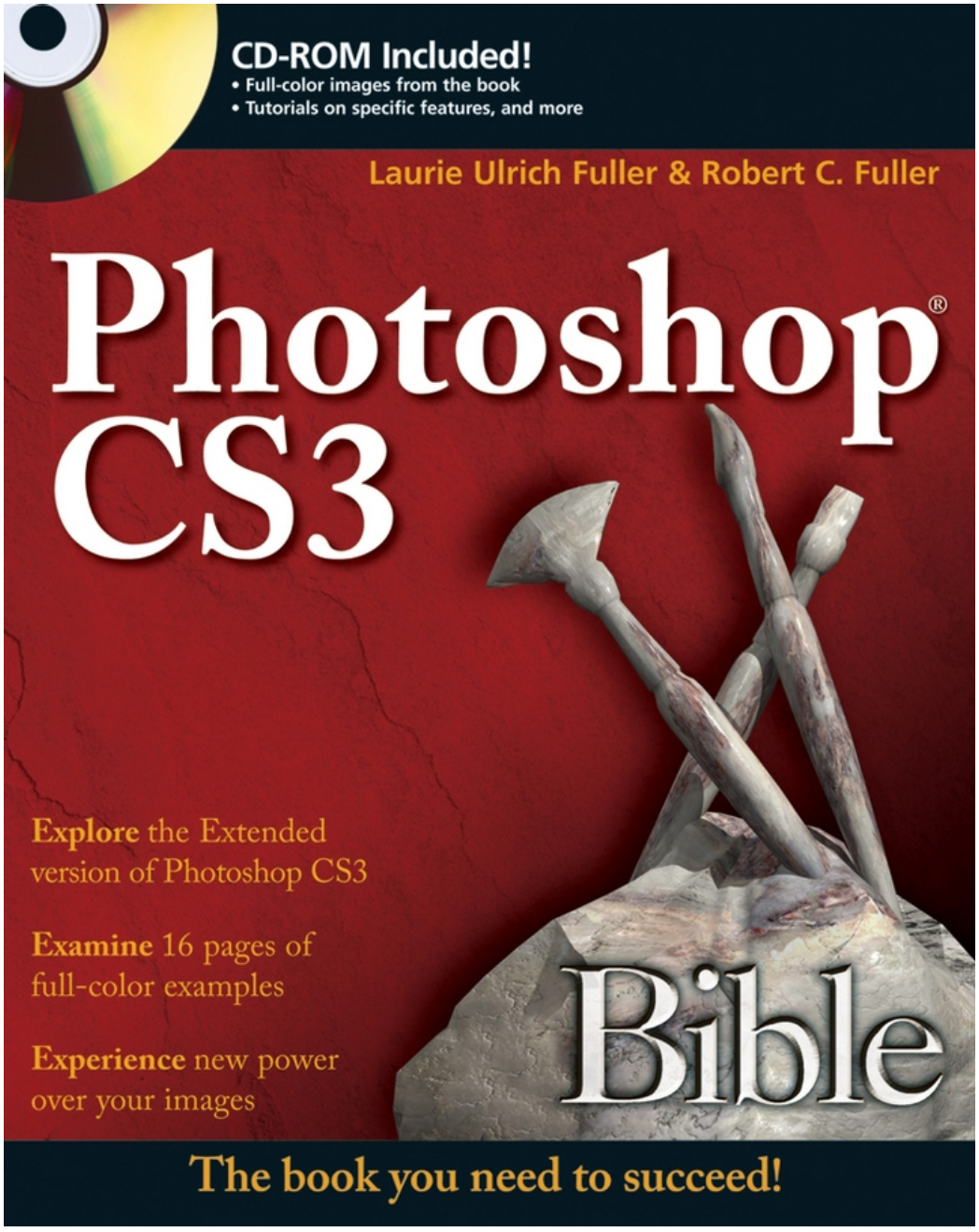
Photoshop® CS3 Bible

Explore the Extended version of Photoshop CS3

Examine 16 pages of full-color examples

Experience new power over your images

The book you need to succeed!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Wiley Publishing, Inc.

Photoshop® CS3 Bible

Published by
Wiley Publishing, Inc.
111 River Street
Hoboken, NJ 07030
www.wiley.com

Copyright © 2007 by Wiley Publishing, Inc., Indianapolis, Indiana

Published simultaneously in Canada

ISBN-13: 978-0-470-11541-1

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2

1O/SX/RS/QW/IN

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Library of Congress Control Number: 2007926393

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Dedication

We'd like to thank Peter Simon***, photographer and author, for his interest in our book — his artist's eye and technical perspective are greatly appreciated. Readers can check out Peter's work at*** www.petersimon.com***. His magnificent images of everything from Martha's Vineyard to the Mets are a must-see, as is his book,*** I and EYE: Pictures of My Generation, ***which you can order through his Web site.***

We'd also like to thank the artists who contributed images for this book:

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A special thank you is also extended to Grant Stokke ***of The Pennsylvania State University, whose wonderful photo of a crow being fitted with a radio collar was used in this book. We're grateful to Grant for this image and for his work — along with his colleague, David Burkett — in helping study Lancaster, Pennsylvania's migratory crow population and the impact of humane, non-lethal wildlife management techniques. For more information, visit*** www.lancastercrows.org.

About the Authors

Laurie Ulrich Fuller. Drawing and writing since she could pick up a crayon, and telling people what to do (and how to do it) since she was able to speak, Laurie Ulrich Fuller is a graphic artist, computer trainer, and the author and co-author of more than 25 books on computers, software, and the Web. Laurie has written hundreds of training manuals for universities and corporate training centers, and in the past 16 years, she's personally trained thousands of people to make more creative and effective use of their computers. Her classroom has expanded in recent years to include total strangers around the world — through CD-based training products and online courses.

In the early 1990s, after spending way too many years working for other people, Laurie started her own firm, Limehat & Company. This venture allowed her to put her experience, ideas, and contacts to good use, providing consulting, training, Web development, and Web hosting services with a focus on the special needs of growing companies and non-profit organizations. If you're wondering where the name "Limehat" came from, it's a long story, but suffice to say it goes back to a childhood taunt, regarding a plaid hat she involuntarily wore to school. She still gets flashbacks.

When not writing about or teaching people to use computers, Laurie can be found working for a variety of animal and environmental advocacy groups, including the League of Humane Voters (www.lohvpa.org). You can find out more about Laurie's work, experiences, and both personal and professional interests at www.planetlaurie.com. You can find out more about Photoshop and the Photoshop Bibles and check out online Photoshop tutorials, tips, tricks, and expert advice at www.photoshopbible.com. Laurie welcomes reader mail at authors@photoshopbible.com. She can't promise an immediate response, but all mail will be answered.

Robert C. Fuller. Another year, another Photoshop update. True to form, Mr. Fuller still shuns the daylight, but just like the last time around, it took only a shiny new iMac to bring him up from the basement. While the

rejuvenating effects of last year's run-in with the eMac did not have longstanding positive effects on his mental health, at least this year he's been speaking in complete sentences. "I really like this iMac" is all we've heard out of him, but at least he's smiling and the faceless apparitions don't seem to plague him as much.

Robert is the author of the ***Dreamweaver 4*** and ***HTML Virtual Classroom*** books (McGraw-Hill/Osborne), as well as ***HTML in 10 Steps or Less*** (Wiley Publishing, Inc.). He has contributed to ***The Photoshop 7 Complete Reference*** (McGraw-Hill/Osborne), ***The Photoshop 2 Elements Bible,*** and ***Restoration and Retouching with Photoshop Elements 2*** (both Wiley Publishing, Inc.), as well as last year's ***Photoshop CS2 Bible Professional Edition.*** Robert also teaches computer topics at colleges and through online courses. You can write to him at authors@photoshopbible.com.

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Preface

Welcome to the ***Photoshop CS3 Bible***, the latest edition of the bestselling book on Photoshop in publishing history. We've done our best to cover everything thoroughly, accurately, and whenever we could, in such a way as to remind you that even though Photoshop is a powerful tool, it's also fun to use. Of course, we hope you learn lots of good stuff, but we also hope you have a wonderful time while you're at it, because if you're not having a good time, what's the point?

Before you begin delving into the actual Photoshop portion of this book, let us tell you a little something about this book overall. Now in its 13th year, the ***Photoshop Bible*** is the longest continuously published title on Adobe Photoshop. Not coincidentally, it also happens to be the best-selling reference guide on the topic, with more than 15 U.S. editions, dozens of localized translations around the globe, and more than a million copies in print worldwide. This makes it not only the most successful book of its kind, but also one of the most successful books on any electronic publishing topic ever printed.

We've made it our mission to address every topic directly, and we haven't always spared you our personal opinions and experience, even if they're not entirely flattering to the software. We believe this is a good thing, because you're not buying a brochure or some marketing piece from Adobe here — you're buying a book about Photoshop from people who use it, teach it, and dive into all its features, every day. If something works well and is a great feature, we say so. If it doesn't do what you'd expect or it's not the most elegant tool in the toolbox, we say that, too. We share workarounds, tips, tricks, and give you the benefit of our experience wherever we feel it will be helpful.

About This Edition of the Book

This particular edition has undergone a design overhaul, including new front and back covers, new interior design, and new graphics throughout the book. Couple this with the large-scale update that Photoshop has undergone with the release of CS3, and you've got a book that's in many ways nothing like its predecessors. Of course, legacy material remains, for areas of the software that haven't changed in years — and the quality, scope, and depth of the coverage remains a positive constant. And good news for more advanced users — we've also brought in much of the content found in the CS2 ***Professional Edition***, which means that more of the specialized and in-depth coverage deemed "for professionals only" last year is now found within this enlarged, enhanced, "***for everyone***" edition for Photoshop CS3.

We've also added a CD that contains many of the images used in the book, as well as tutorials for a wide variety of Photoshop's tools and features. You don't need to use the CD to learn Photoshop, but it's there as a visual backup for people who like to learn by doing, not just reading. To find out what's on the CD-ROM, check out Appendix B, where the individual tutorials and the tools, features, and skills they cover are discussed in detail.

Conventions

Every computer book conforms to its own special brand of logic, and this one is no exception. While we generally find conformity and convention to be annoying and well, conventional, the book does have some features that we figured you'd want to find and be able to count on — so here they are:

Vocabulary

Call it ***computerese***, call it ***technobabble***, call it the indecipherable gibberish of incorrigible propeller head geeks. Whatever you call it, we can't explain Photoshop in graphic (pardon the pun) detail without occasionally reverting to the specialized language of the trade. However, to help you keep up, we can and have italicized vocabulary words (such as ***bit depth***) with which you may not be familiar or which are used in an unusual context. An italicized term is followed by a definition.

If you come across a strange word that is ***not*** italicized (***that*** bit of italics was for emphasis), look it up in the index to find the first reference to the word in the book.

Commands and options

To distinguish the literal names of commands, dialog boxes, buttons, and so on, we capitalize the first letter in each word (for example, ***click the Cancel button***). The only exceptions are option names, which can be six or seven words long and filled with prepositions such as ***to*** and ***of.*** Traditionally, prepositions and articles (***a, an, the***) don't appear in initial caps, and this book follows that time-honored rule, too.

When discussing menus and commands, we use an arrow symbol to indicate hierarchy. For example, ***Choose File***Í***Open*** means to choose the Open command from the File menu. If you have to display a submenu to reach a command, we list the command used to display the submenu between the menu name and the final command. ***Choose Image***Í***Adjustments***Í***Invert*** means to choose the Adjustments command from the Image menu and then choose the Invert command from the Adjustments submenu.

The whole platform thing

This is a cross-platform book, which means it's written for both Windows and Macintosh users. Photoshop is virtually identical on the two platforms, so it makes little difference. However, the PC and Mac keyboards are different. The Ctrl key on the PC translates to the Command key (Ô) on the Mac. Alt translates to Option, and because Apple's mice do not always include right mouse buttons, right-clicking on the PC becomes Control-clicking on the Mac. Throughout this book, we try to make things as unambiguous as possible by mentioning the Windows keystroke first with the Macintosh equivalent second, usually in parentheses. You'll also find that select figures of dialog boxes and other parts of the Photoshop workspace were shot in both operating systems; there are Mac figures and

Windows figures where the two differ greatly. We don't want anyone to feel left out, unrepresented, unloved, or unappreciated.

Version names and numbers

A new piece of software comes out every 15 minutes. That's not a real statistic, mind you, but it's probably not far off. When it comes to Photoshop, it started (surprisingly enough) with version 1.0, and the numbering of versions ended with Photoshop 7. With the release of Photoshop CS in 2003, Adobe abandoned numbering, but has gone back to it now (sort of) by calling last year's model Photoshop CS2, and this year's CS3. This book refers to older versions, but without being overly specific. While there were multiple releases of the major versions, when we write ***Photoshop 7***, we mean versions 7.0 and 7.0.1, and so on.

It's important to note that Photoshop CS3 comes in two flavors — an Extended version, which is what is documented in this book, and a Standard version, which sells for a slightly lower price than the Extended. The Extended version has a few "bells and whistles" that the Standard version does not, and these include:

- Enhanced cloning and healing with overlay preview
- Enhanced 32-bit HDR support
- Enhanced Vanishing Point (basic Vanishing Point features are included in the Standard version)
- 3D editing
- Motion graphics and video layers
- Enhanced animation (basic animation is in the Standard version)
- Measurement and data
- DICOM support
- MATLAB support
- Enhanced Image Stack processing (basic stack processing is present in the Standard version)

If you have purchased the Standard version of CS3, you'll find this book completely useful and appropriate — very few core features vary between the two versions, and many of the things that exist only or are enhanced in the Extended version are highly specialized — the video and 3D features, for example. If you must have those features, you'll want to buy the Extended version of Photoshop CS3. If you don't care about those things, or have other software to deal with your need to edit video layers or create movies, then you'll be perfectly happy with the Standard version ***and*** this book.

Icons

Like just about every computer book currently, this one includes compelling and visually arresting icons that focus your peepers on important information. The icons make it easy for people who like to just skim books to figure out what the heck's going on, to "cut to the chase" in some cases, or to just provide "the highlights." Icons exist not only for those with short attention spans, but for people who are just so darn busy that reading an entire page is just unimaginable. On the whole, the icons are self-explanatory, but here's an explanation of them anyway.

The Caution icon warns you that a step you're about to take may produce disastrous results. Well, perhaps "disastrous" is an exaggeration. Inconvenient, then. Uncomfortable. For heaven's sake, be careful.

The Note icon highlights some little tidbit of information we've decided to share with you that seemed at the time to be at least remotely related to the topic at hand. You might learn how an option came into existence, why a feature is implemented the way it is, or how you might use the feature in an unconventional way or skip its use altogether.

The New Feature icon explains an option, a command, or a feature that is either bright, shiny, and new to this latest revision, or it's something that's been changed more than slightly. If you're already familiar with previous versions of Photoshop, you might just want to plow through the book looking for Photoshop CS3 icons and see what new stuff is out there. A description of what's new also can be found at the beginning of Chapter 2, if you're interested in a quick tour. Again, those in search of instant gratification need not be put off by the girth of this book; we've accommodated both the cover-to-cover reader and those of you who'll hardly crack the binding, but will want to know that when they need us, we're there.

This book is bursting with tips and techniques. If we were to highlight every one of them, entire pages would be gray with light bulbs popping out all over the place. The Tip icon calls attention to shortcuts that are specifically applicable to the Photoshop application. For the bigger, more useful power tips, you'll have to — gasp — actually read the text.

The Cross-Ref icon tells you where to go for information related to the current topic. It's about as straightforward as an icon can get, so you won't have any trouble with this one.

Contact

Even in its millionth edition, scanned by the eyes of hundreds of thousands of readers and scrutinized intensely for months at a time by the authors and our editors, we bet someone, somewhere, will still manage to locate errors and oversights. If you notice those kinds of things and have a few spare moments, please let us know what you think. We always appreciate readers' comments. Really, we do.

If you want to share your insights, comments, or corrections, send a note to `authors@photoshopbible.com`. Don't worry if you don't get a response immediately. While every letter does get read and every constructive idea is considered, it would be impossible, due to volume, to respond immediately or at great length. We will endeavor to respond to all emails, however, and thank you in advance for your patience.

Please, do not write to ask why your copy of Photoshop is misbehaving on your specific computer. Neither of the authors of this book was involved in developing Photoshop, we are not employed by Adobe, and we cannot possibly provide product support via email or phone. Adobe can answer your technical support questions way better than anyone can, so leave it to the experts.

Okay, that's enough out of us. Now you need to get on with things and start reading the actual book part of this book. Soon, you'll know much more about Photoshop CS3 than you did before, and you'll feel more like you can become a real expert — at least in terms of the features that are most important and useful to you. We thank you for your time and your confidence in us by purchasing this book, and we wish you all the best. Enjoy the book!

Part I

Welcome to Photoshop

In This Part

Chapter 1 Welcome to Photoshop CS3
Chapter 2 Photoshop Inside Out
Chapter 3 Image Management

Chapter 1: Welcome to Photoshop CS3

In This Chapter

Introducing Photoshop
Understanding how image editing works
Knowing the difference between pixels and vectors
Touring the new features in Photoshop CS3
Getting to know the enhancements and changes

Photoshop has been around long enough that the name has become a verb in our cultural lexicon ("You can tell THAT'S been Photoshopped!"). But simply because a term gets bandied about in general parlance doesn't mean everyone knows what Photoshop truly is or does. Granted, you may be one of the many graphics professionals who have been using this program for years. But you may just as likely be one of the greater majority who, while having a general idea of Photoshop's capabilities, has little or no experience using it—and with this book have decided to change all that.

As you move forward and get to "What's New in Photoshop CS3," the playing field should level out, and as you move through the rest of the book, no matter what level of user you are now, you'll find a great deal of new and useful information throughout.

So what exactly is Photoshop and what does it do? Adobe Photoshop—Photoshop is the name of the software, Adobe Systems is the name of the company that develops and sells it—is a professional-level image-editing application. It allows you to create images from whole cloth or, more likely, modify scanned artwork and digital photographs. Photoshop is available for use on computers equipped with either Microsoft Windows or Apple's Macintosh operating system.

Of course, Photoshop isn't just an image-editing application. It's the most powerful, most ubiquitous image-editing application in the world. Despite hefty competition, where professional image editing is concerned, Photoshop's not just the market leader—it's the only game in town—and as you'll discover (or you may already know), that status is well deserved.

Such a lack of competition is rarely a good thing, because stagnation can often result. But in Photoshop's case, the historically lopsided sales advantage has provided Adobe with a clear incentive to reinvest in Photoshop and regularly enhance, and even overhaul, its capabilities. Photoshop CS3 is no exception, and in fact, it may be one of the most significant upgrades in the past few years.

It's as if each new version of Photoshop is competing with its own previous versions for the hearts and minds of the digital art community. Meanwhile, other vendors have had to devote smaller resources to playing catch-up. Some, such as Jasc Software, with its Windows-only Paint Shop Pro, have hung in there and remained commercially viable. But such success stories are few and far between. Although competitors have provided some interesting and sometimes amazing capabilities, the sums of their parts have —more often than not—fallen well short of Photoshop's.

As a result, Photoshop rides a self-perpetuating wave of market leadership. It wasn't always the best image editor, nor was it the first. But its deceptively straightforward interface combined with a few terrific core functions made it a hit from the moment of its first release. More than a dozen years later—thanks to substantial capital injections from Adobe and highly creative programming on the parts of Photoshop's engineering staff and its originator, Thomas Knoll—Photoshop has evolved into the most popular program of its kind.

Image-Editing Concepts

Like any ***image editor***, Photoshop enables you to alter photographs and other scanned artwork. You can retouch an image, apply special effects, swap details between photos, introduce text and logos, adjust color balance,

and sharpen the details—to name just a few of your options. Photoshop also provides everything you need to create artwork from scratch. These tools are fully compatible with pressure-sensitive tablets, so you are not limited to creating only those images that you can successfully draw with a mouse.

Raster versus vector

Graphics programs tend to fall into two broad categories: painting programs and drawing programs. While these terms are nice, it's better to think of graphics programs in terms of the type of images they produce: raster images or vector images.

Raster images

A raster image creates a picture on your screen by mapping color values to a rectangular grid of pixels (short for picture elements). As with all computer data, the color or grayscale values are stored in bits. The bits correspond to the grid of pixels, and this is where the term ***bitmap*** comes from. If you look at the code behind an image, it represents a map of all the bits devoted to the individual pixels—left to right, top to bottom.

For example, JPEG, GIF, and PNG files are all raster (bitmap) graphic filetypes. By dragging one of these filetypes to a text editor capable or rendering hex code, you get a window into what that map of bits looks like, as shown in Figure 1.1.

FIGURE 1.1

The code underlying a GIF file shows you the map of the bits that make up the image.