The Digital Photography Workflow Handbook

From Import to Output

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Contents

Foreword xi

1 Introducing the Digital Photo Workflow 1
1.1 The Basic Digital Photo Workflow 2
1.2 Computer Equipment 3
1.3 What are RAW Files? 5
1.4 JPEG Instead of RAW? 11
1.5 Camera Settings 12
1.5.1 Using Histograms as an Exposure Aid 12
1.5.2 Clipping in Individual Color Channels 13
1.5.3 Using White Balance Settings to Produce Optimum Color Quality 14
1.5.4 Objective and Subjective White Balance 15
1.5.5 Choosing the Right ISO Sensitivity Setting 15
1.6 From the Camera to the Computer 16
1.6.1 Downloading and Organizing Your Images 17
1.6.2 Renaming Your Files 19
1.6.3 Backup 20
1.6.4 Handling Your Digital Originals 21
1.7 The Digital Light Box 22
1.8 Adobe Bridge 23
1.8.1 The Bridge "Review" Mode 25
1.9 Metadata 28
1.10 Views 30
1.11 Buzzwords You Should Know 33

2 The Basic Workflow 37
2.1 The Five Phases of the Workflow 38
2.2 Phase 1: Shooting 38
2.3 Phase 2: Image Transfer and Management 43
2.3.1 Transferring Image Files from a Memory Card to a Computer 43
2.3.2 Saving Your Image Files Safely 44
2.3.3 Image Inspection 44
2.4 Phase 3: Image File Conversion and Optimization 46
2.4.1 Which Steps are Better Performed with a RAW Editor, and Which Using Photoshop? 47
2.5 Phase 4: Output 49
2.6 Phase 5: Digital Asset Management 50
2.7 The Influence of Individual Tools on the Workflow 51
2.8 Increasing Efficiency 53
2.9 Develop Your Own Approach to the Workflow 54

3 Color Management Know-How 57
3.1 Understanding Different Color Models 58
3.2 Understanding Color Management 61
3.2.1 ICC Profiles 62
3.2.2 What is a Color Management System? 62
3.2.3 Working Color Spaces 63
3.2.4 Visualizing Color Spaces 65
3.3 Mapping Color Spaces 68
3.3.1 Assigning and Converting Color Profiles 69
3.4 Creating Device Profiles 70
3.4.1 Camera Profiles 71
3.4.2 Printer Profiles 71
3.4.3 Scanner Profiles 72
3.5 Profiling Your Monitor 72
3.5.1 Hardware-Based Calibration 72
3.6 Photoshop Color Management Settings 76
3.7 Printer Profiles 79
3.8 Installing and Uninstalling Profiles 81
3.9 Soft-Proofing and Gamut Warning 82
3.10 Color Temperature and Hue 84
3.11 Complementary Colors 85
3.12 Working Spaces II 86

4 Image Processing Basics 89
4.1 Don't be Afraid of Photoshop 90
4.1.1 Simple Image Rotation 90
4.1.2 Image Inspection Using Photoshop 91
4.2 8-bit or 16-bit Color Depth? 92
4.3 Image Size and Resolution 93
4.4 Choosing a File Format 96
4.5 File Information and Logs 99
4.6 Image Alignment 101
4.7 Simple Corrections 103
4.7.1 Optimizing Tonal Range 103
4.7.2 Flexibility through Curves 105
4.7.3 The Shadows/Highlights Tool 108
4.8 The Art of Sharpening 110
4.8.1 The Three Most Common Types of Sharpening 111
4.8.2 Unsharp Mask 111
4.8.3 Unsharp Mask Filter (USM) 112
4.8.4 Enhanced Sharpening Using Smart Sharpen 113
4.8.5 Additional Sharpening Tools 114
4.9 Color Corrections 115
4.9.1 Correct White Balance 115
4.9.2 Making Corrections to Color Temperature 117
4.9.3 Software Filters for Warmer or Cooler Colors 118
4.9.4 Adjustments Using Hue/Saturation 119
4.9.5 Color Adjustments Using Photo Filter 121
4.10 Selection Tools 122
4.10.1 The Marquee Tools 123
4.10.2 The Lasso Tools 124
4.10.3 The Magic Wand 125
4.10.4 The Quick Selection Tool 125
4.10.5 Selection Using a Color Range 125
4.10.6 Saving and Loading Selections 127
4.11 Retouching and Repairing Images 127
4.12 Speed Up Your Workflow with Photoshop Actions 130
4.13 Photoshop's History Panel 133
4.14 Additional Information and Overviews 134

5 RAW Editing and Conversion 137
5.1 Some Initial Thoughts 138
5.1.1 How Much Editing in the RAW Converter? 139
5.1.2 Integrating RAW Editors/Converters into the Workflow 139
5.1.3 Choosing the Right RAW Converter 141
5.1.4 RAW Conversion Workflow 142
5.2 Important Aspects of RAW Processing 143
5.2.1 Which Processing Steps are Performed Where? 143
5.2.2 What to Look for When Choosing a RAW Converter 144
5.2.3 Other Features of RAW Converters 149
5.2.4 Other Useful Features 153
5.3 Adobe Camera Raw (ACR) 156
5.3.1 Sample of a Real World ACR Adjustments Workflow 159
5.3.2 Synchronizing Image Adjustments 162
5.3.3 Optimizing Dynamic Range 162
5.3.4 Image Optimization Using Tone Curves 164
5.3.5 Selective Tonal Corrections 165
5.3.6 Saving and Discarding Changes 166
5.3.7 An Overview of the ACR Interface 167
5.3.8 ACR Image Adjustments Panel 172
5.3.9 Effects Tab 183
5.3.10 ACR Presets 185
5.3.11 Batch Conversion 188
5.4 Other RAW Converters 190
5.4.1 Capture One Pro 190
5.4.2 DxO Optics Pro 192
5.4.3 RAW Developer 194
5.4.4 Canon Digital Photo Professional (DPP) 195
5.4.5 Nikon Capture NX (CNX) 196
5.4.6 Silkypix Developer Studio (SDS) 198
5.4.7 LightZone 199
5.5 Even More RAW Converters 201

6 All-in-One Workflow Tools 205
6.1 What We Expect of an All-in-One Tool 206
6.2 Apple Aperture 208
6.2.1 The Aperture Workflow 211
6.2.2 Editing Photos in Aperture 212
6.2.3 Output 214
6.2.4 Printing in Aperture 216
6.2.5 Searching and Filtering 216
6.3 Adobe Lightroom 218
6.3.1 The Lightroom Workflow 219
6.3.2 Correcting Images Using Lightroom 222
6.3.3 Lightroom Output Modules 230
6.3.4 Organizing Your Images Using Lightroom 236
6.4 Bibble 5 238

7 Photoshop Layers 245
7.1 Layers Panel 246
7.2 Your First Layer 249
7.2.1 Changing Layer Opacity 250
7.2.2 Blending Modes 250
7.3 Using Adjustment Layers 251
7.4 Making Selective Adjustments Using Layer Masks 254
7.4.1 Understanding Layer Masks 256
7.4.2 Paths and Vector Masks 261
7.5 Flattening and Merging Layers 264
7.6 Smart Cropping 265
7.7 Removing Moiré Effects 267
7.8 Auto Color Correction for Better Contrast 268
7.9 Blending Layers Using Layer Styles 270
7.10 Dodge and Burn Using Layers 271
7.11 Loading Image Files into a Stack and Aligning Layers 272
7.12 Smart Objects and Smart Filters 274
7.13 Organizing Layers 277
7.13.1 Layers Panel Options 277
7.13.2 Naming Layers 277
7.13.3 Layer Groups 278
7.13.4 Restricting Layer Effects to a Single Lower Layer 279
7.13.5 Merging and Flattening Layers 280
7.14 Other Aspects of Working with Layers 280
7.15 Getting a "Layer Feeling" without Using Layers 282
7.16 Selective Adjustment Using U Point Control Points 282
7.17 More Tips for Working with Layers 286

8 Advanced Photoshop Techniques 291
8.1 Correcting Saturation Selectively 292
8.2 Some Tricks for Improving Saturation and Contrast 294
8.3 Correcting Perspective Distortion 297
8.3.1 Simple Perspective Corrections 298
8.3.2 Fine-Tuning Perspective Corrections 299
8.4 Correcting Lens Errors 302
8.4.1 Correcting Distortion 304
8.4.2 Correcting Lens Errors Using Photoshop 305
8.5 Correcting Color Casts in Shadows 308
8.5.1 Using Photoshop Tools 308
8.5.2 Color Correction Using Color Mechanic Pro 309
8.6 Using Masks to Increase Luminance 311
8.7 Correcting Images Using Brush Techniques 315
8.8 Advanced Sharpening Using Photoshop Layers 317
8.8.1 Sharpening Using Enlarged Images 318
8.8.2 Correcting Sharpening Halos 319
8.8.3 Sharpening Edges 320
8.8.4 Uwe's DOP Sharpening Frame Action 322
8.8.5 Sharpening and Defocusing Using the Same Filter 323
8.9 Adding Digital Sunshine to Your Photos 326
8.10 Brush Off Noise 328
8.11 Enhancing Midtone Contrast 331
8.12 Enhancing Local Contrast 334
8.13 Content-Aware Fill 340
8.14 Fine-Tuning After Upsizing or Downsizing Images 341

9 Multishot Techniques 343
9.1 Common Steps in a Multishot Workflow 344
9.1.1 Shooting the Image Sequence 344
9.1.2 Image Preprocessing 345
9.2 Increase Your Angle of View Using Stitching Techniques 349
9.2.1 Panorama Shooting Techniques 349
9.2.2 Merging Images Using the Photoshop Photomerge Command 351
9.2.3 Stitching Using Autopano Pro 2 355
9.3 Maximizing Depth of Field Using Focus Stacking 360
9.3.1 Shooting for Focus Stacking Applications 360
9.3.2 Preparing Your Images for Stacking 361
9.3.3 Merging Images Using Helicon Focus 361
9.4 Increasing Dynamic Range Using HDRI Techniques 364
9.4.1 HDRI Shooting Techniques 364
9.4.2 HDRI Image Preparation 365
9.4.3 Creating HDR Images Using Photoshop CS5 367
9.4.4 HDR Imaging Using Photomatix Pro 375
9.4.5 Photomatix Pro "Exposure Fusion" Function 382

10 Turning Color into Black-and-White 391
10.1 From Color to Black-and-White 392
10.2 Black-and-White Conversion Using the Channel Mixer 393
10.3 Enhanced Black-and-White Conversion 395
10.4 Black-and-White à la Russell Brown 397
10.5 Black-and-White Conversion Using the Black & White Command 399
10.6 Black-and-White Conversion Using Photoshop Plug-ins 402
10.7 Black-and-White Conversion Using a RAW Editor 406
10.8 Colorizing Images 408

11 Printing and Image Presentation 411
11.1 Publishing Images and Image Data 412
11.2 Printing Images on Paper 412
11.2.1 The Journey from Pixel to Printed Dot 413
11.3 Printing on Photo Paper 419
11.4 Printing Using Inkjet Printers 423
11.4.1 Choosing a Fine Art Printer 423
11.4.2 Printing Strategies 426
11.4.3 Printer Profiles 427
11.4.4 Paper Types 428
11.5 The Print Workflow 431
11.5.1 Preparing Your Printer 433
11.6 Printing Your Image 435
11.6.1 Basic Print Settings 435
11.6.2 Photoshop CS5 Print Dialog 437
11.6.3 Printing Under Windows with the Epson R3880 440
11.6.4 Color Printing with the Canon iPF6100 under Mac OS X 443
11.6.5 Black-and-White Printing 447
11.6.6 Finding a Printer's Black and White Point 449
11.7 Specialty Printing Software and RIPs 451
11.7.1 Print Software 452
11.7.2 RIPs (Raster Image Processors) 452
11.8 Creating Contact Sheets 453
11.9 Printed Frames 455
11.10 Publishing Images on the Web 457
11.11 Creating Digital Slideshows 460
11.12 Other Ways to Present Your Images 462

12 Useful Photoshop Plug-ins 465
12.1 Photoshop Extensions 466
12.1.1 Filter Plug-ins 468
12.1.2 Automation Plug-ins 469
12.1.3 Automation Scripts 469
12.1.4 Installing Photoshop Plug-ins, Filters, and Scripts 470
12.2 White Balance and Color Corrections 471

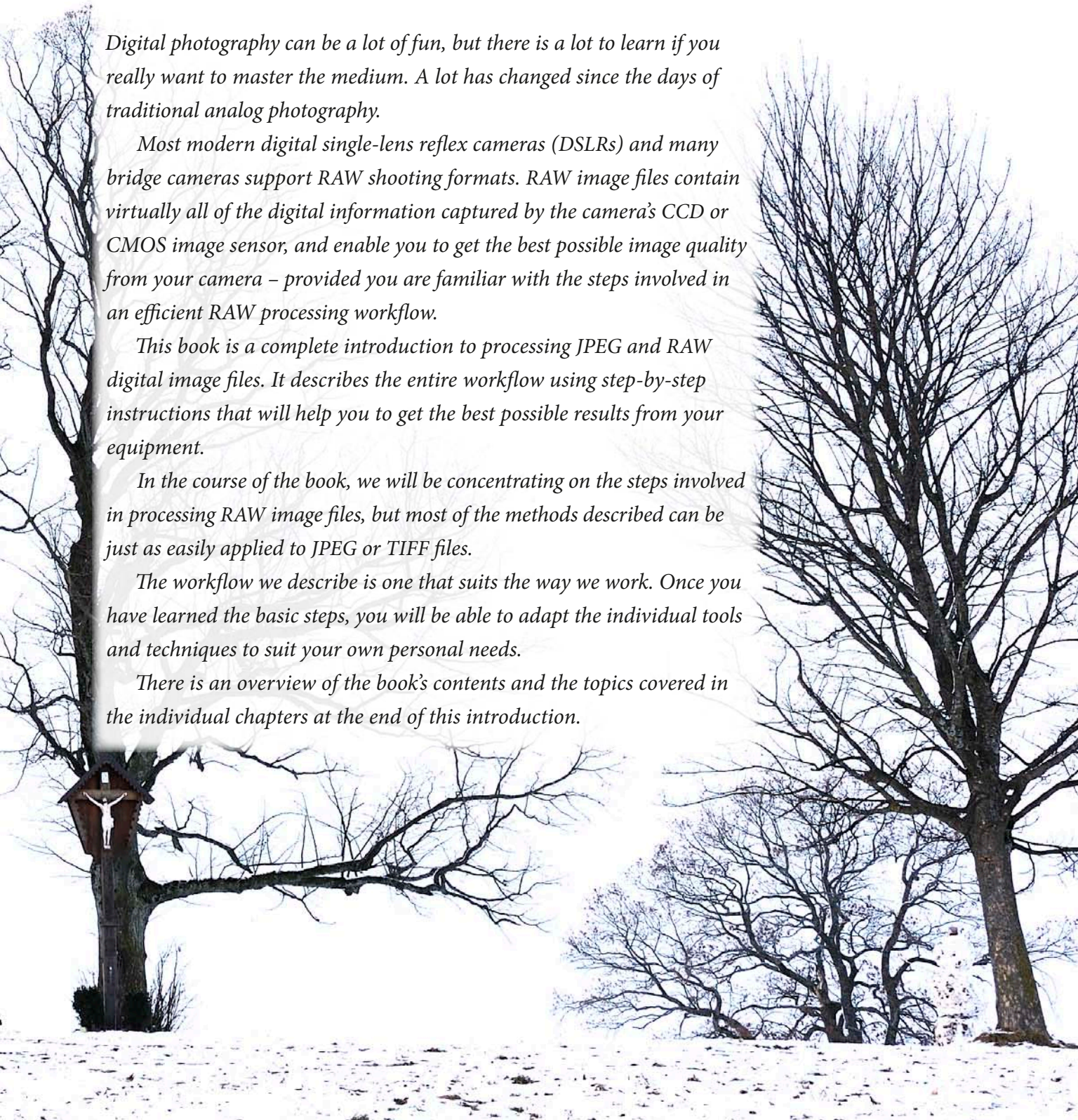
12.3 Reducing Noise Without Losing Detail 475
12.4 Third-Party Sharpening Tools 477
12.5 Correcting Perspective and Other Optical Anomalies 478
12.6 Tone Mapping and HDR Images 480
12.7 More Useful Tools 483

13 Data Management and Backup 489
13.1 Managing Your Image Library 490
13.1.1 Image Data Management Requirements 491
13.1.2 Metadata is the Key to Image Management 492
13.1.3 Assigning Keywords and Other Attributes 494
13.1.4 Other Image Management Functionality 496
13.1.5 Workflow Control 497
13.1.6 Where Are My Image Files Stored? 497
13.1.7 Image Management Software 499
13.2 Data Security 504
13.2.1 The Risks Involved 504
13.2.2 Some Practical Tips 506
13.2.3 Which Data Should I Back Up? 507
13.2.4 Backup Software 509
13.2.5 Backup Media 510
13.2.6 Storing Your Backup Media 510

A Resources 513
A.1 Recommended Books 513
A.2 Tools We Use Regularly 514
A.3 More Information on the Web 518
A.4 Inks and Inkjet Papers 520

Index 521

Foreword



Digital photography can be a lot of fun, but there is a lot to learn if you really want to master the medium. A lot has changed since the days of traditional analog photography.

Most modern digital single-lens reflex cameras (DSLRs) and many bridge cameras support RAW shooting formats. RAW image files contain virtually all of the digital information captured by the camera's CCD or CMOS image sensor, and enable you to get the best possible image quality from your camera – provided you are familiar with the steps involved in an efficient RAW processing workflow.

This book is a complete introduction to processing JPEG and RAW digital image files. It describes the entire workflow using step-by-step instructions that will help you to get the best possible results from your equipment.

In the course of the book, we will be concentrating on the steps involved in processing RAW image files, but most of the methods described can be just as easily applied to JPEG or TIFF files.

The workflow we describe is one that suits the way we work. Once you have learned the basic steps, you will be able to adapt the individual tools and techniques to suit your own personal needs.

There is an overview of the book's contents and the topics covered in the individual chapters at the end of this introduction.

The Basic Tools

The choice of tools available for processing digital images is huge and can be confusing, even for experts. In order to keep things as simple as possible, we will be using two main tools in the course of the book. The first is Adobe Photoshop CS5* (with Bridge), and the second is Photoshop Lightroom, also by Adobe. The workflow sometimes involves both tools, while some aspects of the work only involve one or the other.

* The "CS" in "Photoshop CS" stands for the "Creative Suite" of programs of which *Photoshop* is a part. The CS4 version of the program is also known as "*Photoshop 11*", and the CS5 version is also called "Photoshop 12".

Most of the techniques we describe also apply to the CS4, CS3 and CS2 versions of Photoshop and while the user interface has changed visually from version to version (especially from version 3 to version 4), the handling remains largely unchanged. The current Photoshop CS5 and Lightroom 3.0 versions don't change the fundamental workflow, but rather simplify some of the processes involved while reducing the need for additional software plug-ins.

We will be introducing a number of other tools in the course of the book, but these are only recommendations. The additional tools are either more detailed or easier to use than the equivalent functions in the current version of Photoshop, and they are usually available as free trial versions that you can "try before you buy".

Digital photography is an art (and a craft) with enormous potential, and is rapidly replacing analog photography all over the world. Digital camera and image processing technology have also been developing at lightning speed, and this book offers you a comprehensive introduction to the techniques involved in producing high quality digital images. We aim to introduce you to the joys of digital photography while simultaneously speeding up your learning process and helping you to avoid some common mistakes.

And why do we use Photoshop and Lightroom to get our message across? Because (nearly) everyone else does?

Wrong! We have used many programs over the years and we have found that Photoshop is simply the best program available for a majority of the tasks involved in our workflow. Photoshop's toolset is more extensive and its processing speed faster than most of its competitors. CS5 is the current Photoshop version, but the steps described here also apply to CS4, CS3 and CS2. We have deliberately avoided covering earlier versions in order to keep the text clear and straightforward.

Books are static and are difficult to update regularly. We also have to keep an eye on costs when deciding what to include, which is why we often refer to material that is available (for free) at our website: www.outbackphoto.com.*

* The URLs and sitemaps of our websites are listed in appendix A on page 513.

You can find additional files and information, along with corrections and updates for the book at: ebooks.outbackphoto.com/resources/DWF/.

We manage our website on a long-term basis, so you are guaranteed to find the listed content even when this book is no longer in print.

Additional Books

A detailed look at the individual phases of the workflow would make this book even bigger and probably less easy to follow, which is why we often refer to our other, more specialized books:

1. *The Art of Raw Conversion* Dedicated to the use of RAW image editing software. Various professional-grade tools are described and compared. Also includes a chapter on generating color profiles for digital cameras. This book [25] is a detailed approach to the first stage of professional image processing.

2. *Fine Art Printing for Photographers* Dedicated to techniques for producing gallery-grade digital prints. Addresses choice of printer, types of paper and ink (and their compatibility), as well as printer profiling. Print preparation and actual printing are covered using various printers as examples. The book [16] also looks at how to frame prints.

The Fine Art Printing book is reproduced in heavily abridged form in chapter 12.

3. *Photographic Multishot Techniques* This book [18] looks at various ways to combine multiple exposures in a single image in order to extend dynamic range, depth of focus, resolution, or angle of view.

The Multishot Techniques book is reproduced in abridged form in chapter 9.

We try to make our individual books as comprehensive as possible, so there will always be some duplication of content. Almost every book we write contains a section on basic color management and color management in relation to the specific theme of the book. For example, the RAW book explains how to profile your camera, while the Fine Art Printing book tells you where to find printer profiles and how to generate your own. Image optimization is a subject covered by all three books, albeit with differing emphasis and differing degrees of detail.

➜ We often refer to external resources, most of which can be found at our website. This helps to keep the book clear, concise, and affordable. Internet content is easier to update than the contents of a book.

Conventions Used in this Book

The majority of the usages in this book should be self-explanatory. The combination Filter ▸ Sharpening ▸ Unsharp Mask, for example, represents the menu sequence Filter followed by Sharpening and the menu item Unsharp Mask. Keystroke combinations are designated using the Ctrl-A notation. The hyphen means both keys should be pressed simultaneously. Menu entries and action buttons are written using the File or *OK* typefaces, and list elements to be selected and new terms are written in *italics*.

The Windows and Mac OS X versions of the programs referenced in this book almost always use the same keystroke combinations, although the Windows Alt key is replaced by the ⌥ (option)* key in the Mac OS. The Windows Ctrl key is replaced by the ⌘ key in the Mac.** ⇧ means shift in both systems (⇧-A represents a capital A). ↵ represents the return or enter key. The Ctrl/⌘ combination signifies use of Ctrl in the case of a PC, and ⌘ for a Mac. The same logic applies to the Alt/⌥ notation.

We will occasionally mention functions that require a right click to activate a context menu. Macintosh users who use a single-button mouse

Windows key:	Mac OS X key:
Ctrl	⌘
Alt	⌥

⇧ represents the Shift key.
↵ represents the Enter key.
Ctrl/⌘ indicates a press of the Windows Ctrl or the Mac OS ⌘ key.

* The ⌥ key is also often labeled alt.
** This is also called the Command key and is labeled either cmd or ⌘ (or both).

need to hold down the ctrl key and left click once to simulate a right click of a multi-button mouse. We recommend that Mac users invest in a two- or three-button mouse with a scroll wheel. This (not necessarily large) investment will help you a great deal when using this book.

We have cropped some of the screenshots in order to keep them down to a manageable size, and we have reduced the use of whitespace in some places to keep things clear.

The numbers in square brackets (e.g., [2]) refer to information listed in appendix A.

What We Expect from our Readers

We assume that you are a serious amateur, or even professional, photographer and that you use either a DSLR or a bridge camera. We also assume that you are skilled in the use of your camera (and, if necessary, the camera manual). You should be familiar with your computer and how to handle programs and dialog boxes. You should also be familiar with the basic principles of Photoshop.

The Contents of this Book

➜ This book is not intended as a substitute for any user manuals, and you will sometimes have to refer to your camera's manual or the online help for Photoshop, Lightroom, or whatever other program we might be using. The procedures, the relationships between the individual steps, and the overall workflow are what this book is all about!

Chapter 1 describes the general workflow, split into sections covering *what*, *how*, and *how to do things better*. It includes descriptions of the RAW format and what it actually is, as well as efficient data transfer, file naming, and cataloging. There is also a glossary of buzzwords that will crop up throughout the book.

Chapter 2 addresses the five main phases of the workflow and the individual tasks involved in each phase. Alternative methods and tools for some tasks are described.

Because digital photography is largely a color-based medium, chapter 3 introduces you to photographic color and color management. The material is sometimes heavy going, and you don't have to read it all before you proceed to the other chapters, but you will need to refer to it a fair amount later on.

Chapter 4 discusses the basic steps involved in processing digital images – in this case, basic Photoshop CS4/CS5 techniques. The methods described here are the basis of our digital workflow and are essential in helping you to understand the following chapters.

Chapter 5 concerns itself with converting RAW image files to suitable image processing formats. We will use either Lightroom or the Adobe Camera Raw 5.x component of Photoshop, but we will also discuss alternative software.

Chapter 6 addresses the new generation of all-in-one RAW editing, image processing, and image management programs.

The use of Photoshop Layers is an extremely versatile image processing technique that we will cover in chapter 7. Thereafter, our workflow will be based exclusively on Layers techniques. Chapter 8 then delves further into

advanced image processing, and includes a discussion of masking techniques and correcting perspective distortion.

Digital technology allows us to merge multiple images in ways that were either impossible or at least extremely complicated in the analog world. Chapter 9 is all about such multishot techniques, some of which will be new even to "old hands".

Although digital exposures take place almost exclusively in color, monochrome photos are still an important part of a contemporary photographer's repertoire. In chapter 10, we will show you some of the many different ways to convert your color material to black-and-white.

Chapter 11 describes how to print your photos or publish them on the Internet. Producing a presentable image is, after all, what the previous chapters are all about.

Chapter 12 summarizes some of the additional plug-ins and add-ons available for enhancing and automating existing Photoshop tools.

Chapter 13 winds up the book and tells you how best to save, manage, and archive your images.

We have used a large number of our own images throughout the book. They are intended to remind you that the book is not only about the purely technical side of digital photography, but also about producing great images. We have tried to communicate an overall vision rather than attempt to produce perfect (but probably dull) images. There is no "right" or "wrong" way to process an image; the goal is to produce an image that pleases you and anyone else who views it, regardless of the technical processes involved.

➜ In the interest of clarity, and also to save space, we have cropped some screenshots and reduced whitespace in others. This means that some of the illustrated screenshots and dialog boxes will look slightly different than your own.

Keep your vision fresh!

➜ You can find a number of free scripts and other information mentioned in this book at: http://books.outbackphoto.com/DOP2010_03/. However, not all of the scripts will run with the 64-bit version of Photoshop.

Thanks to …

… everyone who has supported us, but also to all those who have influenced and encouraged us with ideas, information, constructive criticism, and suggestions for improvements. These people include Bill Atkinson, Paul Caldwell, Jim Collum, Charles Cramer, Antonio Dias, Katrin Eismann, Martin Evening, Rainer Gulbins, Mac Holbert, Brad Hinkel, Harald Johnsen, Michael Jonsson, Ed Jourdenais, Thomas Knoll, Phil Lindsay, Dr. Ellen Rudolph, and Ben Willmore. We would also like to thank the companies who lent us product photos and those who gave us trial software, especially Adobe, Apple, Microsoft, and Lightcraft as well as Bibble Labs, Phase One, Nikon, and the many others mentioned in the course of the book.

Very special thanks are also due to our publisher, Gerhard Rossbach, whose love of photography made this book (and its German counterpart) possible.

Uwe Steinmüller, Hollister (California) August 2010
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