

# A PROFESSIONAL PHOTOGRAPHER'S WORKFLOW

USING ADOBE LIGHTROOM & PHOTOSHOP

**MICHAEL CLARK**





**MICHAEL CLARK**  
PHOTOGRAPHY

# A PROFESSIONAL PHOTOGRAPHER'S WORKFLOW

USING ADOBE LIGHTROOM & PHOTOSHOP

**MICHAEL CLARK**

# **ADOBE PHOTOSHOP LIGHTROOM: A PROFESSIONAL PHOTOGRAPHER'S WORKFLOW**

Michael Clark

*7th Edition*

Michael Clark Photography  
Santa Fe, New Mexico  
info@michaelclarkphoto.com  
+1 (505) 310-4571

Find me on the web at: [www.michaelclarkphoto.com](http://www.michaelclarkphoto.com)

To report errors, please send a note to [info@michaelclarkphoto.com](mailto:info@michaelclarkphoto.com)

All Material Copyright © 2020 Michael Clark

All Photography Copyright © Michael Clark Photography and all gear images used with permission.

Layout and Design: Michael Clark

Cover Image: Michael Clark

## **Notice of Rights**

All rights reserved. No part of this book may be reproduced or transmitted in any form by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission by the author. For information on getting permission, reprints or excerpts please contact Michael Clark at info@michaelclarkphoto.com.

## **Notice of Liability**

The information in this book is distributed on an "As Is" basis without warranty. While every precaution has been taken in the preparation of the book, the author shall not have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the instructions contained in this book or by the computer software and hardware products described in it.

## **Trademarks**

Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and Michael Clark was not aware of a trademark claim, the designations appear as requested by the owner of the trademark. All other product names and services identified throughout this book are used in an editorial fashion only and for the benefit of the trademark. No such use, or the use of any trade name, is intended to convey endorsement or any other affiliation with this book.

Manufactured in the United States of America.

ISBN 978-1-7348493-0-1

*To my parents,  
who fostered my creativity from a young age  
and allowed me to dream.*

---

*And to all those who have supported this e-book  
over the last sixteen years, my sincere thanks as  
your patronage has made this seventh edition  
possible and better than ever before.*

## ACKNOWLEDGMENTS

In my life, I know that I wouldn't be where I am today without the help of those who have mentored me along the way. There have been numerous people including my family, teachers and professors, photo editors, art buyers, other pro photographers and close friends, not to mention all of the incredible athletes I have worked with over the years, who have given their time and talents to help me get this far and have helped foster my career. Because I have received so much from so many I am a firm believer in passing on that which is given to me. This book is a manifestation of that philosophy. On that note, I would be remiss if I did not give credit to those kind and generous folks who have helped me build my workflow and have helped me with this book.

First and foremost to my dear friend Leslie Alsheimer, who more than fifteen years ago encouraged me to create the first version of this e-book. Also, a big thank you to George Jardine, formerly Adobe's Lightroom Evangelist, who hired me to shoot demo images for Adobe Lightroom way back in 2006 and was kind enough to demonstrate the software to me personally. A huge debt of gratitude to Katherine Mast, who kindly took on the gargantuan effort to edit this e-book, and in doing so, made it much better than it would have been without her help.

As a former physicist, I also have to credit all of my mentors and professors at the University of Texas at Austin who spurred on my sense of curiosity that has carried over into my career as a professional photographer. Optics, light and general relativity were a large part of my studies and as such give me a depth of understanding far beyond the average photographer. That curiosity may also explain why I have spent so many late nights fiddling with the latest software to see if I can make my workflow faster and more efficient.

I would also be remiss if I didn't thank those who have had a profound effect on

my photography career. My many thanks to Marc Romanelli, who took the time to check out my work and foster me into this wild profession when I was just a pup. Nevada Wier, who through her book *[Adventure Travel Photography](#)*, gave me reason to dream about being a pro photographer and later on became a close friend, with whom I have taught workshops. Joe McNally, Andrew Eccles and Albert Watson whose knowledge and insight have helped me move my lighting skills and photography forward in leaps and bounds. And finally, a whole slew of folks that have been there as good friends and colleagues to bounce ideas off and support me over the years: Jamey Stillings, Robert Reck, Reid Callanan, Rob Haggart, Peter Dennen, Marv Watson, Barry Tannenbaum, Mike Tittel, Katie Mast, Sara Stathas and so many others. And to all the photo editors, art directors and art buyers who edited and critiqued my work and commissioned me to shoot assignments for them—I wouldn't be in this profession without your input and trust. Last but not least, I must give thanks to the Creator, for the talents he has imbued me with, for the dreams and passion he gave me and without whom I would have never made it so far.

## LINKS

For up to date information on my whereabouts, my latest adventures and images, which I hope will help foster more learning and inspiration, check out my [Blog](#), [Website](#), and [Newsletter](#).

## VIDEO COMPONENTS

Along with this book are three Full HD video clips showing how I worked up three images from start to finish in Lightroom Classic CC and Photoshop CC. These videos are a bonus for this 7th Edition of the e-book. Please note that these videos are for your personal use only and should not be shared. The videos are available on Vimeo from the links posted in the Table of Contents.

## ABOUT THE AUTHOR

Michael Clark is an internationally published outdoor photographer specializing in adventure sports, travel, and landscape photography. He produces intense, raw images of athletes pushing their sports to the limit and has risked life and limb on a variety of assignments to bring back stunning images of rock climbers, mountaineers, kayakers, big-wave surfers, B.A.S.E. jumpers and mountain bikers in remote locations around the world. He uses unique angles, bold colors, strong graphics and dramatic lighting to capture fleeting moments of passion, gusto, flair and bravado in the outdoors. Balancing extreme action with subtle details, striking portraits and wild landscapes, he creates images for the editorial and advertising markets worldwide.



As a former physicist Michael has worked on both sides of the technical revolution—helping refine the technology and using it for his current profession. Michael has worked as a professional photographer since 1996 and added digital photography to his repertoire in 2003. While Michael still shoots some film, mostly medium format, the lion's share of his images are now produced with high-resolution digital cameras. He has been featured in *Digital Photo Pro* (December 2011), *Outdoor Photographer* (September 2001), *Nikon World Magazine* (Summer 2006), *Digital Photographer (UK)*, 2010), *Rangefinder Magazine* (May 2010), and *New Mexico Magazine* (2007) for his work with extreme sports.

Digital Photo Pro proclaimed Michael a “Master of Adventure” Photography in their 2011 Masters issue.



He contributes to *National Geographic*, *Sports Illustrated*, *Outside*, *Men's Journal*, *Backpacker*, *Outdoor Photographer*, *Digital Photo Pro*, *Climbing*, *Bike Magazine*, *Surfer* and *The New York Times* among many others. A sampling of Michael's advertising clients include Apple, Bayer, Nike, Nikon, Nokia, Microsoft, Fujifilm, Adobe, Red Bull, Propel/Gatorade, Patagonia, Black Diamond, Prana, Arc'teryx, Camelbak, and La Sportiva.

### TESTIMONIALS ABOUT HIS WORK:

"You have some fine images, no doubt about it. I especially like the way you portray the climber's on the face of the wall—the angles really give a feel for what it is like to be there. You have some fine work!" – Kent Kobersteen, Renowned National Geographic Photo Editor

"Michael is an excellent example of a photographer who is not only amazingly talented, but one who also has the vision and foresight to embrace new technologies and apply them to his daily business workings. If I had to describe Michael in one sentence, it might be: "Michael Clark is the Indiana Jones of photography, that is, if Indiana Jones had been an Internet savvy marketer, and a talented photographer." – Frederick Van Johnson, Adobe Systems, Inc.

---

Disclaimer: In the spirit of full disclosure I feel that I must tell the reader I shot a major assignment for Adobe Photoshop Lightroom in the Spring of 2006. Processing my images after that assignment was my first real world introduction to Lightroom. I am not an employee of Adobe nor do I have any affiliation with Adobe but I still have a close professional relationship with Adobe. I currently pay full price for the Adobe Creative Cloud. This workflow is a result of my own efforts to speed up my workflow so that I can spend less time in front of a computer processing images and more time behind the camera creating images.

# TABLE OF CONTENTS

Acknowledgments . . . . .	vi
Links . . . . .	vii
Video Components . . . . .	vii
About the Author . . . . .	viii

## **PREAMBLE: INTRODUCTION AND OVERVIEW**

Introduction . . . . .	16
Macintosh and PC Key Codes . . . . .	23
Overview . . . . .	24
Workflow Outline . . . . .	27

## **CHAPTER ONE: SHOOTING WORKFLOW**

Equipment Overview . . . . .	30
Pre Shoot Camera Check . . . . .	35
Image Comment . . . . .	37
Date and Time . . . . .	38
File Numbering . . . . .	38
Memory Cards . . . . .	39
8-bit vs. 16-bit Histograms . . . . .	42
Focusing Accuracy . . . . .	43
Raw vs. Jpeg . . . . .	47
Double Check Camera Settings. . . . .	48
Specific Camera Settings. . . . .	49
Camera Maintenance. . . . .	49
Sensor Cleaning . . . . .	51
White Balance . . . . .	59
Noise & ISO sensitivity. . . . .	67
14-Bit vs. 12-Bit Image Capture. . . . .	71
Exposure and Histograms . . . . .	74
Using Your Histogram. . . . .	79
Simple Way of Exposing . . . . .	80
The Complicated Reality . . . . .	83
Wrapping up . . . . .	85

**CHAPTER TWO: EQUIPMENT SELECTION**

Digital Camera Technology..... 90

Mirrorless vs. DSLRs ..... 94

    Debunking the Mirrorless Hype .....96

Advantages of Mirrorless Cameras ..... 99

Digital Camera Formats..... 107

14 bit vs. 16 bit ..... 109

Medium Format Digital Cameras..... 112

The Future of Digital Photography ..... 118

**CHAPTER THREE: COLOR MANAGEMENT**

Color Spaces..... 126

What is Color Management ..... 130

Color Management Overview ..... 132

The Monitor..... 133

The Workspace..... 139

Monitor Calibration ..... 142

Photoshop Color Settings..... 156

Visual Confirmation ..... 161

    Adjusting your Monitor Calibration ..... 162

Print Proofing ..... 164

Do I really need all this?..... 182

**CHAPTER FOUR: IMPORTING & EDITING IMAGES IN LIGHTROOM**

Why I use Adobe Lightroom..... 188

Downloading Images ..... 191

Introduction to Lightroom..... 193

Lightroom Preferences..... 200

Lightroom Catalogs ..... 213

Digital Asset Management ..... 217

Six ways to speed up Lightroom ..... 219

Importing Images into Lightroom ..... 227

To DNG or not to DNG?..... 236

Editing in Lightroom ..... 239

A Logical Editing Process ..... 259

Batch Rename . . . . .	261
File and Folder Naming . . . . .	264
Entering Metadata . . . . .	266
Library Filter . . . . .	271
Managing Your Images . . . . .	274
Shooting Tethered . . . . .	281

## **CHAPTER FIVE: PROCESSING RAW IMAGES IN LIGHTROOM**

The Develop Module . . . . .	286
The Filmstrip . . . . .	287
Left Panel: Navigator, Presets, and History Panels . . . . .	290
The Main Image Window . . . . .	292
The Toolbar . . . . .	293
Soft Proofing . . . . .	295
Loupe View: Grids and Guides . . . . .	299
Right Panel: The Image Editing Panel . . . . .	301
Histogram . . . . .	302
Basic . . . . .	305
Tone Curve . . . . .	321
Crop and Straighten . . . . .	222
Color Adjustments: HSL & Color . . . . .	324
Color Adjustments: Black & White . . . . .	325
Split Toning . . . . .	325
Detail - Sharpening . . . . .	327
Detail - Noise Reduction . . . . .	332
Lens Corrections . . . . .	336
Transform . . . . .	343
Effects . . . . .	346
Camera Calibration . . . . .	349
Targeted Adjustment Tools . . . . .	350
Localized Adjustment Tools - Spot Removal Tool . . . . .	351
Localized Adjustment Tools - Red Eye . . . . .	356
Localized Adjustment Tools - Graduated Filter . . . . .	357
Localized Adjustment Tools - Radial Filter . . . . .	361

Localized Adjustment Tools - Adjustment Brush . . . . .	363
LAB Color Values Readout . . . . .	370
Black and White Conversions . . . . .	370
Creating Panoramas . . . . .	373
Creating HDR Images . . . . .	380
Open as Layers in Photoshop . . . . .	385
Open as Smart Object . . . . .	386
Exporting Images to Photoshop . . . . .	387
Exporting Images . . . . .	388

## **CHAPTER SIX: FINALIZING IMAGES IN PHOTOSHOP**

Spotting Images . . . . .	396
Photoshop Workflow . . . . .	399
Adjusting Levels with a Levels Adjustment layer . . . . .	400
Brightness and Contrast . . . . .	406
Vibrance and Saturation Adjustments . . . . .	407
Dodging and Burning . . . . .	408
Retouching . . . . .	412
Color Spaces for submitting Images to Clients . . . . .	415
Master Files . . . . .	416
CMYK Conversions . . . . .	416
Creating Actions in Photoshop . . . . .	418
Running a Batch Action . . . . .	422

## **CHAPTER SEVEN: MAKING FINE ART PRINTS**

Why even bother making Prints? . . . . .	429
The Cost of Printing . . . . .	431
Revisiting Printer Options . . . . .	435
Color Management for Printing . . . . .	436
Choosing Papers . . . . .	441
Print Permanence . . . . .	449
Preparing Image Files for Printing . . . . .	451
Printing: Lightroom vs. Photoshop . . . . .	451
Printing from the Adobe RGB Color Space . . . . .	454



Downsizing and Upsizing images for Printing . . . . .	454
How large can you print your image? . . . . .	458
Print Resolution . . . . .	460
Soft Proofing . . . . .	462
Rendering Intent . . . . .	467
Gamut Warnings . . . . .	470
Working with RIP Software. . . . .	472
Sharpening for Printing . . . . .	473
Sharpening in Adobe Lightroom . . . . .	474
Sharpening in Adobe Photoshop. . . . .	476
Evaluating Output Sharpening . . . . .	482
Print Settings . . . . .	484
Printer Profile . . . . .	487
Making Custom Printing Profiles. . . . .	489
Black and White Printing . . . . .	492
Evaluating Prints . . . . .	495
Storing Prints . . . . .	496
In Summary . . . . .	498

## **CHAPTER EIGHT: EXTENDED WORKFLOW**

Backing Up Images . . . . .	502
3-2-1 Rule. . . . .	504
Storage Options and Recommendations . . . . .	505
Archiving . . . . .	526
Cataloging. . . . .	529
Registering the Copyright. . . . .	530
Alternate Software Options. . . . .	531
Alternate Workflows. . . . .	541
The Never Ending Process . . . . .	545

## **RESOURCES & REFERENCE**

Lightroom Keyboard Shortcuts. . . . .	548
Appendix . . . . .	550
Resource List . . . . .	562

## LINKS TO VIDEO CONTENT

These three videos are available online as password protected videos on Vimeo. The links to each video and the passwords are listed below. Note that if you sign into Vimeo, you can also download these three videos. Please do not share these links or passwords. As an overview of the video content, here is a brief synopsis of what techniques each of these videos show:

### SEA KAYAKER

Topics: White Balance, Color Toning, Post-Crop Vignetting, Levels, Brightness and Contrast, and Vibrance and Saturation, and Dodging and Burning.

*Purchase e-book for links and passwords to videos*

### THE WAVE

Topics: White Balance, Color Toning, Noise Reduction, Graduated Filters, Levels, Brightness and Contrast, and Vibrance and Saturation, and Dodging and Burning.

*Purchase e-book for links and passwords to videos*

### CARSON STORCH - PORTRAIT

Topics: Color Toning, Graduated Filter, Post-Crop Vignetting, Levels, Brightness and Contrast, Vibrance and Saturation, and Black and White conversion.

*Purchase e-book for links and passwords to videos*







PREAMBLE

## INTRODUCTION & OVERVIEW

*'If you are out there shooting, things will happen for you. If you're not out there, you'll only hear about it.'*

-- JAY MAISEL

## INTRODUCTION

Thank you for purchasing the seventh edition of *Adobe Photoshop Lightroom: A Professional Photographer's Workflow*. We appreciate your support! This workflow covers a large part of the digital experience—at least how I deal with digital imaging. It is not an exhaustive work, nor is it meant to be. I am sure some of you may have different methods and experiences than those laid out in this workflow. Your methods are just as valid as mine. For some of you this might be a workflow that you incorporate into your digital photography exactly as it is presented, which is great. At the very least, I hope you can find some techniques and tips that can be integrated into your workflow to suit your specific imaging needs. There is no one workflow that works perfectly for everyone and I hope you can learn from my workflow to help perfect your own. Please note that all references to “Lightroom” in this book are referring to Lightroom Classic CC.

This e-book has been completely updated for the latest version of Adobe Photoshop Lightroom Classic CC and Photoshop CC and includes a whole host of new features, tips and techniques to help you improve your digital workflow. I have gone in and updated each and every chapter in this e-book so that everything is up to date and the latest gear and techniques are discussed in detail.

In addition to updating all of the chapters in this e-book, I have added an entirely new chapter, Chapter 2: Equipment Selection, which covers a wide range of topics related the latest camera equipment and how it can affect the final image quality. This e-book also comes with links to three videos where you can watch me work up three separate images in Lightroom Classic CC and Photoshop CC. These videos are Full HD screencasts that show my normal workflow and processing while explaining how and why I am adjusting each image. All in all, this edition represents a massive update and it is an incredible value for anyone wanting to take their digital workflow to the next level.



Digital Photography has matured greatly since the first cameras appeared in the mid-90s. But with that said, there is still some room for improvement. There is still a lot of work to be done to make the workflow and capture process easier, higher quality and more consistent. Nevertheless, I have to say I am still very excited about Lightroom and its capabilities. It makes many complex Photoshop adjustments (like masking, layer adjustments, burning and dodging and so many others) a very simple and non-destructive task that can be taken care of within Lightroom. Lightroom has certainly helped myself, and many other photographers, take their images to a new level—and with less time in front of the computer than it would take to do the same adjustments in Photoshop.

As I continue to learn more and more about the intricacies of digital workflow and image processing my knowledge base expands and my workflow changes. Over the last few decades using Lightroom and Photoshop I have come to realize that perfecting a digital image involves far more work than most people want to think about, myself included. But as a pro, I want my images to look their best and as such I have found that I have to use Photoshop in addition to Lightroom to really dial in my images.

As Photoshop in its entirety is far beyond the scope of this workflow, we will discuss some basic Photoshop adjustments that I use and leave the rest to more advanced books and training. A certain level of Photoshop skill is assumed for this workflow but even so the examples in this book are very clearly laid out so that you can follow the workflow easily. I want to state clearly that I continue working on my images in Photoshop after they are processed in Lightroom. For the photographer seeking the best image quality I do not think it can be achieved using only Lightroom. My workflow uses Lightroom for about 70% of the image processing and then images are finalized in Photoshop. For many photographers, they might be able to get their images finalized in Lightroom but I'll let you decide if that is the case for your work. I use Photoshop to final-



*This image of trials rider Danny MacAskill doing a back flip off a sculpture in downtown San Diego, California was shot on assignment for Red Bull. During that assignment we shot for fifteen hours straight and the client needed images in Europe that evening. Because my workflow was dialed in I was able to deliver high resolution images to the client that evening and meet their deadline.*

ize my images for many reasons, chief among them is the fact that it can still do things Lightroom cannot, which includes setting the white and black points very accurately, extending the dynamic range of the images via layer masking and adjustment layers, converting images to CMYK for clients, converting the images to certain color profiles, compositing images and much, much more.

Another reason I finalize my images in Photoshop is that the color spaces are standard color spaces whereas Lightroom's default ProPhoto RGB hybrid color space is not. Because of this, when you export an image into Photoshop, the color can sometimes look a little muted, or even quite different, when compared to the same image viewed in Lightroom. Hence, my approach when using Lightroom is to take the image as far as I can go within that software and then continue the post-processing in Photoshop.

In addition, this seventh edition of the e-book delves even further than the last edition, which was already exhaustive, into Monitors and Monitor Calibration. Choosing the right monitor and making sure it is calibrated properly is much more complex than most photographers realize. I have learned a lot about monitor calibration, and how that relates to printing your images, in the last fourteen years and it isn't as easy as just profiling your monitor. I'll talk at length about dialing in your working environment and using an inkjet printer to confirm that your monitor calibration is indeed accurate. I am here to dispel all myths and give you some solid advice and a step-by-step process to calibrating your monitor and making the right choice about which monitor will work for your needs. I will boldly state right here and now that there is no other resource, be it a book, website or anything else, that has such a thorough and complete discussion on real-world color management issues as does this e-book.

With every new version of the e-book it is my hope to make it an even more detailed and useful resource so that your knowledge of digital workflow can

grow along with mine and so that you can adapt your workflow to the latest tools and technology. I have added significant information and detail to almost every section of this book and I have also refined the layout and look of this e-book as well. It is easier to read for those of you that don't print it out. And since it is a high-resolution PDF it should load very nicely on an iPad or similar tablet device.

There are many links to online resources and equipment throughout the book. Please note that a link is designated with underlined text. Also, if you plan to print out this book I would recommend that you print each double-page spread as one page on your inkjet printer. This book is loaded with high resolution images and they should print very well.

I would very much appreciate it if you do not distribute this workflow to any one else without my permission—this took many years to put together and represents over twenty years worth of hard work learning the digital game. I appreciate your honesty and integrity regarding this e-book. This book is copyrighted and you can read the Notice of Rights in the opening pages of the book. With that said, this is an e-book and as long as it is for your personal use please feel free to print it out and put it on as many devices as you want to.

As I am not perfect I apologize up front if there are any spelling or grammatical errors. If you have any corrections, comments or suggestions please e-mail me at [info@michaelclarkphoto.com](mailto:info@michaelclarkphoto.com).

It is my sincere hope that this workflow will allow you to spend less time in front of your computer and more time out in the world exploring and having adventures that you will not soon forget! Thanks again for your support!