

→ KEVIN KUBOTA'S ←
LIGHTING
NOTEBOOK

101 LIGHTING STYLES AND SETUPS
FOR DIGITAL PHOTOGRAPHERS



Kevin Kubota's Lighting Notebook

101 Lighting Styles and Setups
for Digital Photographers

Praise For Kevin Kubota's Lighting Notebook

"I've been writing about photography on the Internet since 1998. I've seen and reviewed a plethora of books on the subject of photography.

Kevin Kubota's is one of the best. He has the rare talent of combining useful knowledge, beautiful imagery, inspiration, and digestible education—all in an entertaining read! I highly recommended this book to photographers of all levels."

~Scott Bourne
Publisher Photofocus

"Kevin Kubota's Lighting Notebook is the kind of resource you simply need to have. Not only does it take the complexities of situational lighting and make it accessible for the rest of us, it's also comprehensively rich, insightfully organized and will empower you to command light like you never have before. It's genius in a bottle. Highly recommended!"

~Dane Sanders
Photographer, Author of Fast Track Photographer, The Fast Track Photographer Business Plan

"Most photographers are like great cooks. They can create a masterpiece in the kitchen as long as they've got a good recipe to follow. In the Lighting Notebook, Kevin Kubota takes you through the process of not just providing you with outstanding recipes, but he'll turn you in a great Chef! This is a book about ideas and helping you build diversity in your skill set. Anybody can take a picture, but the Lighting Notebook will help you stand out and create images to help you expand your client base. All the marketing in the world can't help you if you can't deliver a consistently outstanding product to every client! As only Kevin, one of the finest teachers and writers in professional photography, can do, he takes you through easy to understand steps to creating the ultimate image every time."

~Skip Cohen
President, Marketing Essentials International

"Kevin Kubota's Lighting Notebook: 101 Lighting Styles and Setups for Digital Photographers is a must-read for anyone wanting to beef up their technical lighting skills! I just loved the simple no nonsense approach. Kevin really took the mystery, and fear, out of photography lighting."

~Bambi Cantrell —"Empress of Imaging"
Cantrell Portrait Design, Inc.

"Kevin Kubota has pulled off a terrific trifecta in Kevin Kubota's Lighting Notebook: it's beautiful to look at, it's genuinely fun to read, and it also just happens to be a very practical, hands-on guide o learning some wonderful detail about lighting. I actually laughed out loud a few times while stepping through this - and I can honestly say that's the first time I've ever done that while reading any sort of useful guide about lighting. Kevin's writing flows so well, you get the feeling you're in an ongoing conversation with him page after page. My favorite part, though, is how Kevin's enthusiasm for his work and for delivering top-tier education really shines through in each chapter of this excellent book."

~Tamara Lackey
*Author: Envisioning Family: A Photographer's Guide to Making Meaningful Portraits of the Modern Family,
Tamara Lackey's Capturing Life Through (Better) Photography,
The Art of Children's Portrait Photography*

“Take a fun and exciting journey with Kevin Kubota through the history, theory and real world techniques used to create today’s top lighting styles. *Kevin Kubota’s Lighting Notebook: 101 Lighting Styles and Setups for Digital Photographers* takes you behind the scenes with one of the world’s top photographers and teaches you the must have techniques you need to light like a pro. Photographers of all levels and budgets have a lot to gain from this complete, easy to understand, and inspiring step-by-step guide to one of photography’s most important topics.”

~Michael Corsentino
Photographer, Author, Workshop Leader

“I’ve known Kevin Kubota for many years. He has always had the deserved reputation of being a true professional—well regarded, thorough and very, very talented. After reading the first draft of his new book, the *Lighting Notebook*, I am sure this will be yet another home run.”

~Bill Hurter
*Author, Editor of Rangefinder and After Capture Magazines
Wedding & Portrait Photographers International*

Kevin Kubota's Lighting Notebook

101 Lighting Styles and Setups
for Digital Photographers

Kevin Kubota



John Wiley & Sons, Inc.

Kevin Kubota's Lighting Notebook: 101 Lighting Styles and Setups for Digital Photographers

Published by
John Wiley & Sons, Inc.
10475 Crosspoint Boulevard
Indianapolis, IN 46256
www.wiley.com

Copyright © 2011 by John Wiley & Sons, Inc., Indianapolis, Indiana

Published simultaneously in Canada

ISBN: 978-1-1180-3510-8

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, 201-748-6011, fax 201-748-6008, or online at <http://www.wiley.com/go/permissions>.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: THE PUBLISHER AND THE AUTHOR MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS WORK AND SPECIFICALLY DISCLAIM ALL WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES OR PROMOTIONAL MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR EVERY SITUATION. THIS WORK IS SOLD WITH THE UNDERSTANDING THAT THE PUBLISHER IS NOT ENGAGED IN RENDERING LEGAL, ACCOUNTING, OR OTHER PROFESSIONAL SERVICES. IF PROFESSIONAL ASSISTANCE IS REQUIRED, THE SERVICES OF A COMPETENT PROFESSIONAL PERSON SHOULD BE SOUGHT. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. THE FACT THAT AN ORGANIZATION OR WEB SITE IS REFERRED TO IN THIS WORK AS A CITATION AND/OR A POTENTIAL SOURCE OF FURTHER INFORMATION DOES NOT MEAN THAT THE AUTHOR OR THE PUBLISHER ENDORSES THE INFORMATION THE ORGANIZATION OR WEB SITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEB SITES LISTED IN THIS WORK MAY HAVE CHANGED OR DISAPPEARED BETWEEN WHEN THIS WORK WAS WRITTEN AND WHEN IT IS READ.

For general information on our other products and services or to obtain technical support, please contact our Customer Care Department within the U.S. at (877) 762-2974, outside the U.S. at (317) 572-3993 or fax (317) 572-4002.

Library of Congress Control Number: 2011930286

Trademarks: Wiley and the John Wiley & Sons, Inc. logo are trademarks or registered trademarks of John Wiley and Sons, Inc. and/or its affiliates. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

About the Author

American Photo Magazine named Kevin Kubota one of the “Top 10 Wedding Photographers in the world.” Kevin’s wedding and portrait images speak to the heart—filled with emotion, joy, intimacy, and impact. His photos have been featured on the covers and within the pages of many popular magazines and photography books. Kevin has been sponsored by Nikon and Adobe, and his work with the Nikon digital camera earned him a spot as a Nikon “Legend Behind the Lens.” Kevin is also a PPA Photographic Craftsman.

Kubota is an internationally recognized speaker, having presented for every major photographic convention in the United States. He created the popular *Digital Photography Bootcamp*® workshop, which has been running successfully since 2002. He authored the book under the same name, now in its second edition, published by Amherst Media. *Kubota Image Tools* products have won multiple *Hot One* awards as well as the *Readers Choice Award*. Kevin was personally awarded the *2009 Monte Zucker Memorial Humanitarian Award* for social service through photography.

Kevin lives with his Queen Bee, Clare, and two young boys in Bend, Oregon.



Life in the Kubota household is full of light! Photo by Benjamin Edwards.

Credits

Senior Acquisitions Editor

Stephanie McComb

**Production Editor, Copy Editing, Layout,
Proofreading, and Indexing**

Abshier House

Design

Kubota Image Tools

Editorial Director

Robyn Siesky

Business Manager

Amy Knies

Senior Marketing Manager

Sandy Smith

Vice President and Executive Group Publisher

Richard Swadley

Vice President and Executive Publisher

Barry Pruett

Acknowledgments

“You can’t create in a vacuum, unless you want to suck.” I created this e-mail tagline years ago in one of my attempts at being witty, but it actually resonated with me as one of the real truths of my existence. I’m completely grateful to the many people who have inspired, supported, and put up with me. I could never do it alone, and even if I did, I probably wouldn’t be writing this because I wouldn’t be very good at what I did, and nobody would care to read about it. I truly believe that creativity is a collaborative effort—whether we choose to admit it publicly or not. Ideas come from everywhere and are built on the conscious and subconscious contributions of millions of daily bits of outside influence. Very, very few are completely unique and born of the fires of a divine creative spark—at least not for me. I depend on surrounding myself with creative and supportive people, and it’s satisfying, fun, and infinitely more productive than trying to do it all myself.

The most important influence in my life is my wife, Clare. This will come as no surprise to anyone who knows me or her. She is a creative, intelligent, strong, opinionated, conscientious, caring, fair, gentle, and fearless leader of a woman. Clare gave me my two amazing boys, Kai and Nikko, for whom I strive to set a good example.

My father instilled in me my love of photography—with his marvelous and intimate black-and-white photographs of our family growing up. He loved to teach and share his creative vision, and I soaked it all in as a kid—fascinated by his seemingly limitless knowledge and stream of ideas. He would patiently explain and immerse us in his multitude of artistic passions. My mother was a music teacher and a creative bundle of energy that flows to this day. Her patience and compassion goes beyond extraordinary and borders on super-human. She found a way to believe in, and support, every wild idea I had—from being a pilot, to a fashion designer, to a shoe salesman, to a rock star, to a multilevel marketing mogul, to a photographer. She never gave up on me or discouraged an idea, which gave me the courage to believe I could do anything I set my mind to.

My younger sister, Kecia, has been the backbone—well, let’s say a major artery, of our business for many years. She is incredibly intelligent, sensitive, creative, and dedicated. She may have bigger fish to fry someday, but I’ll always be thankful for her creative contributions and belief in me.

Many photographers shaped who I am, illuminating me with their talent and knowledge. The first one to take me under his wing and believe in me, was George Carranza¹, a wedding, portrait, and fashion photographer in Southern California. George shot my wedding, and we quickly became friends. He let me tag along on jobs and taught me everything he could—inspiring me to start my own wedding business. Even though I was forming a competing business in the same town, he never stopped sharing and being a great friend. We continued to learn and grow together for many years until I moved out of the area. George taught me the value of openness and mentoring.

A great deal of the technical lighting skills I acquired came from working for a commercial photographer, Chuck Shahood, in Southern California. For years I assisted him while simultaneously working to grow my own business. I constantly marveled at his depth of knowledge, experience, and attention to detail. In fact, it made me feel quite inadequate, until the day I left to attend to my own business full-time and realized how much I had learned.

Today, there are photographers who inspire me daily or who have planted a seed at some point—growing inside me to a juicy creative fruit, or an alien being, depending on how you look at it. I wish I could acknowledge them all here, but I’m certain I’d miss someone very important and thoroughly embarrass myself. I do, however, need to spotlight

¹ www.carranzafoto.com

*Benjamin Edwards*², one of my dearest friends and a collaborator on this *Lighting Notebook* project. Ben is an amazingly creative photographer, in a way that is so humble and soft-spoken that you never realize you're in the presence of such inspiring talent. He encourages me with his grace, vision, and generosity almost daily, and I'm fortunate that we were able to work together in this creative endeavor. I love you, man!

I had some really amazing interns who signed on to help me with this project, too: Marina Koslow, Derek Oldham, Cindy Girroir, and Alycia Miller-White. They all kicked butt by volunteering time, talent, and creative ideas. They were there at every shoot to learn and help make things happen smoothly. It would have never happened without them; I'm quite sure of that. Alycia became my lead on the project and quickly earned the title of *Dynamic Details Diva*. She is a talented photographer and a go-getter like it's nobody's business. What would I have done without her!? We also created an educational DVD from all of our photo sessions, and my in-house video production expert, Craig, was literally thrown in to the project without a lifeboat. His natural editing abilities and creativity captured the essence of what we were trying to share in a fun and approachable way, contributing greatly to its success.

My gratitude would not be complete without thanking Stephanie and the kind folks at Wiley Publishing for believing in me and this project. Of course, the wonderful people on my team here at Kubota PhotoDesign and Kubota Image Tools deserve special kudos for having patience with me, my wild ideas, and the enormous amount of time it took to complete this project

² www.benjaminimages.com

*This book is dedicated to my mother and father. Thank you, Mom,
for your blind faith and support throughout my life, and thank you,
Dad, for your love—and for instilling in me the insatiable thirst for
knowledge. I love you both!*

Table of Contents

Acknowledgments	v
Foreword	xv
Introduction	xvii
Chapter 1 A Brief History of the World (of Lighting)	2
Photographic Lighting Styles of the 1930s and 1940s	4
The au Naturel 1960s and 1970s	5
Bold and Edgy 1980s	5
The New Retro 2000s	5
The Importance of Lighting to Photography	6
The Emotional Response to Light	6
Light Shapes and Defines the Subject	7
Chapter 2 The Lingo of Lighting	8
General Lighting Styles	8
Single-Point Lighting	9
2-Point Lighting	9
3-Point Lighting	9
4-Point Lighting	10
Rembrandt Lighting	11
Broad Lighting	11
Short Lighting	11
Split Lighting	12
Butterfly Lighting	12
Backlighting	13
Flare	13
Shadowless Lighting	14
Lighting Terminology To Throw Out at Dinner Parties	14
Chapter 3 Essential Lighting Skills	18
Learning to Feel Light	18
Metering Light	20
Quality, Quantity, and Ratios: The Basic Rules	22
Balancing Natural and Artificial Light	23
High-Speed Sync	26
Rear Curtain Sync	27
The Color of Light	29
The ABCs of White Balance and Color Temperatures	29
Matching Supplemental Light Color to Existing Light Color	30

Chapter 4 An Overview of Essential Lighting Tools

	32
Choose Your Tools Wisely	32
Flash Lighting Equipment	34
Speedlights versus Speedlites	34
Monolights	34
Power Pack and Head Systems	35
Continuous Lighting Equipment	35
Tungsten Bulb Lighting	35
LED Lighting	36
HMI Lighting	36
Fluorescent Lighting	36
Flashlights	36
Video Lights	37
Diffusing Tools	37
Scrims	37
Softboxes	40
Beauty Dishes	42
Umbrellas	42
Light Focusing Tools	43
Triggering Tools	44
Light Powering Tools	45
Rechargeable Batteries versus Alkalines	46
Helping Hands, Holding Tools, and Other Gadgets	46

Chapter 5 Build Your Lighting Kit 50

The Key Components of a Lighting Kit	51
The DIY Lighting Kit	51
A Good Basic Purchased Lighting Kit	52
An “I Can Light Almost Anything Anywhere” Lighting Kit	53
The Studio Kit	53

Chapter 6 Post-Processing: Making Your Images Really Sing 56

The Story of the Manipulator	56
Why Do You Photograph?	57
Getting the Most from Your Images	57
Seeing the Light in Lightroom	58
Digital Lighting Techniques	60
Lighting in Lightroom	61
Digital Lighting in Adobe Bridge	64
Digital Lighting In Photoshop	65
Digital Lighting in Apple Aperture	68
Selective Color Lighting	68
Borders and Textures Enrich the Image	70

The Notebook	76
Lily and Ruby Shopping	78
Aspen Sunset	80
Mermaid Mother To Be	82
Secret Silhouette	84
Fountain Diva	86
Lazy Afternoon	88
Tandem In The Grass	90
Baby In A Basket	92
Beauty And The Bag	94
Bride In A Mustang	96
Urban Doorway	98
Up, Up, And Away	100
River Song	102
Singing Senior	104
Lounge Leopard	106
Hollywood In Portland	108
Boudoir On A Balcony	110
Beautiful Bride, Ugly Hallway	112
Breezy	114
Going To School	116
I'm On Track	118
Baby In The Window	120
Kid In A Candystore	122
Angel Bride	124
Studio Senior	126
Beauty Light Beauty	128
Lord Of The Ringlight	130
Lyible. The Band	132
Hot and Steamy	134
Blue Steel, Eat Your Heart Out	136
Smokeless Marlboro Man	138
Dream Bride	140
Bride With A View	142
Business As Usual	144
Shaken, Not Stirred	146
Sassy Like Sunday Morning	148
Ruby Red	150

It's Curtain Time	152
Pretty In Punk	154
Twilight	156
The Best Balloon Ever	158
We're On A Dock	160
Time-Traveling Senior	162
Baby With A Lensbaby	164
Bookstore Chic Geek	166
She's On Fire	168
I Thought I Saw A Bride	170
A Bicycle Built For Two	172
For The Love Of Golf	174
Fore!	176
Family Riverside	178
Picnic Party	180
Quick Bridal Portrait	182
After The Guests Are Gone	184
Sleeping Beauty	186
This Could Be A Shampoo Ad	188
Black And White And Red All Over	190
Shop 'Til You Drop	192
Runaway Love	194
No Time Like The Present	196
That Pickup Line Worked	198
Hop A Train	200
Ballerina	202
Sunshine In The Rain	204
Goddess of Motherhood	206
Special Delivery	208
A Girl And Her Dog	210
Headshot And Shadows	212
Vintage Hollywood	214
Surfer Girl	216
Date Night	218
What Was In That Drink?	220
iSpy Love	222
Meet Me In The Romance Section	224
Burning Boudoir	226
Wild Mustang Ride	228

Girls Day Out	230
Dos Sisters	232
Feeling Dirty	234
Big Air	236
The Dance	238
Star Of The Show	240
Senior On A Red Truck	242
Love In A Lanudromat	244
I Could Dance All Night	246
Roller Derby Queen	248
Coffee Guru	250
Ascending	252
Babies And Strawberries	254
Queen Of The Universe	256
Hold It Like This	258
Keep Your Eye On The Ball	260
What's In The Bag?	262
The Lensdaddy	264
A Bride And Her Man-sion	266
Lyible Rocks	268
Face Your Fears	270
Releasing From The Thoughts That Tie Her Down	274
The Aviator	276
Once In A Lifetime	278
Energy Fighters	280
Appendix	283
Index	286

Foreword

Light can be many things. It can evoke emotion; it can be warm and inviting; it can be hard and cutting. However, in the photographic world, what it has to do and what it can do are two very different things. What it has to do is provide sufficient illumination to adequately light the film or digital sensor to create an image; it has to illuminate the subject in such a way as to build a photograph with highlights and shadows with depth and dimension, and it has to provide the look of three dimensions on a two-dimensional media or plane. What it can do when applied correctly in a photograph is create drama, make the viewer feel cold, give the impression of a specific era, or add excitement to an otherwise average image. What is of major significance is the control we have over light. Artificial or natural, we are individually responsible for the quality AND quantity of light. Understanding this aspect of our craft will serve us all well in creating images that have lasting power, tell the appropriate story for the situation, and offer up emotion and impact for the viewers of our work.

Much like in my own seminars and workshops, I've noticed over the years that Kubota will often quote Leonardo da Vinci on the topic of light. One of my favorite da Vinci quotes, is "He who avoids the shadows may be said to avoid the glory in art." Kevin Kubota has done a masterful job in understanding that light and shadow go hand in hand and understands the controls of each.

Kevin has established himself for more two decades as one of the best at understanding and creating light qualities that enhance his work. In fact, the work in this book is of such wide variety that some will question if the same person did the pictures. This has to be one of his strongest attributes and the primary reason for studying under this great master. His skills have taken him all over the globe teaching technique and theory to help photographers simply be better. He has changed the way many photographers see and think. Following the styles, examples, and teachings of Kevin Kubota will enhance any photographer's career. Not following his styles, techniques, and teachings just might make your clients run screaming into the night.

~Tony L. Corbell
*Professional Photographer,
Internationally recognized Lighting Specialist,
and Nik Software Senior Manager*

Introduction



It's well-known that some of the very first words ever muttered were, "Let there be light." If these words were so fundamentally important that they warranted pre-empting "Somebody create a wheel." and "Slice the bread, don't break it," then we have to assume it was pretty significant to have light—beautiful light.

Entire books have been dedicated to the science of photographic lighting. It's fascinating stuff—if you're a geek. Yes, I've read them. Yes, I'm a geek. Most photographers that I've met, however, really just want to know the good stuff. You know, like when your friend starts to tell you a story, "OMG! You'll never guess what happened to Daisy Mae..." OK, get this, so it all started a few years ago when I was in college and..." Just get to the point already! What happened to Daisy Mae? That's me, anyway; I just want the important details. Maybe it's a guy thing. I believe that most of you will appreciate it if I just get to the point and tell you what you really need to know to be a successful lighting guru on a daily basis. The science behind lighting really is fascinating, so if you are feeling informationally deprived, I can recommend a few other books that go into much more detail.¹

This is *The Lighting Notebook*, however, and it's a field guide, not a lengthy technical manual. It's like being there with me on the shoot; seeing what I was seeing, knowing what I was thinking, why I chose the equipment I did, and witnessing how I overcame the unavoidable obstacles that inevitably present themselves. It is 20 years of photography and lighting experience in practical use. I have been successful as a commercial, portrait, and wedding photographer

¹See appendix on resources.

and have been able to use and apply the lighting skills developed for each genre to the others. This book covers a broad range of styles and techniques for portrait photography—giving you a jumping-off point for your own jobs and creative projects.

This book will help you see the light, use the light, and create light better as a photographer. My hope is that it will function as an invaluable reference guide that you can take with you in to the field, on a shoot, and into bed for a little “light” reading. It should become tattered around the edges from frequent page flipping and use. In fact, you should probably order another backup copy right now so it will be there for you when you need it most—or better yet, check out the companion video and iApp² to round out your lighting resource kit. You may want to check out TheLightingNotebook.com for our latest adventures in lighting and continued educational resources.

The Lighting Notebook is uniquely, and thoughtfully, indexed to allow you to quickly find a solution to whatever lighting dilemma is flummoxing you at the moment. You can search by lighting type, subject type, equipment at your disposal, budget restraints, or time required to prepare. (You might be able to whip up a quick dinner using it, too, but I haven’t verified that yet.) The focus of the book is on portrait lighting, but you’ll find the lighting techniques are broadly universal, applicable to most anything you’ll need to light. After you begin to understand lighting techniques, and to *feel* light, you’ll feel the confidence to tackle just about any lighting challenge that presents itself.

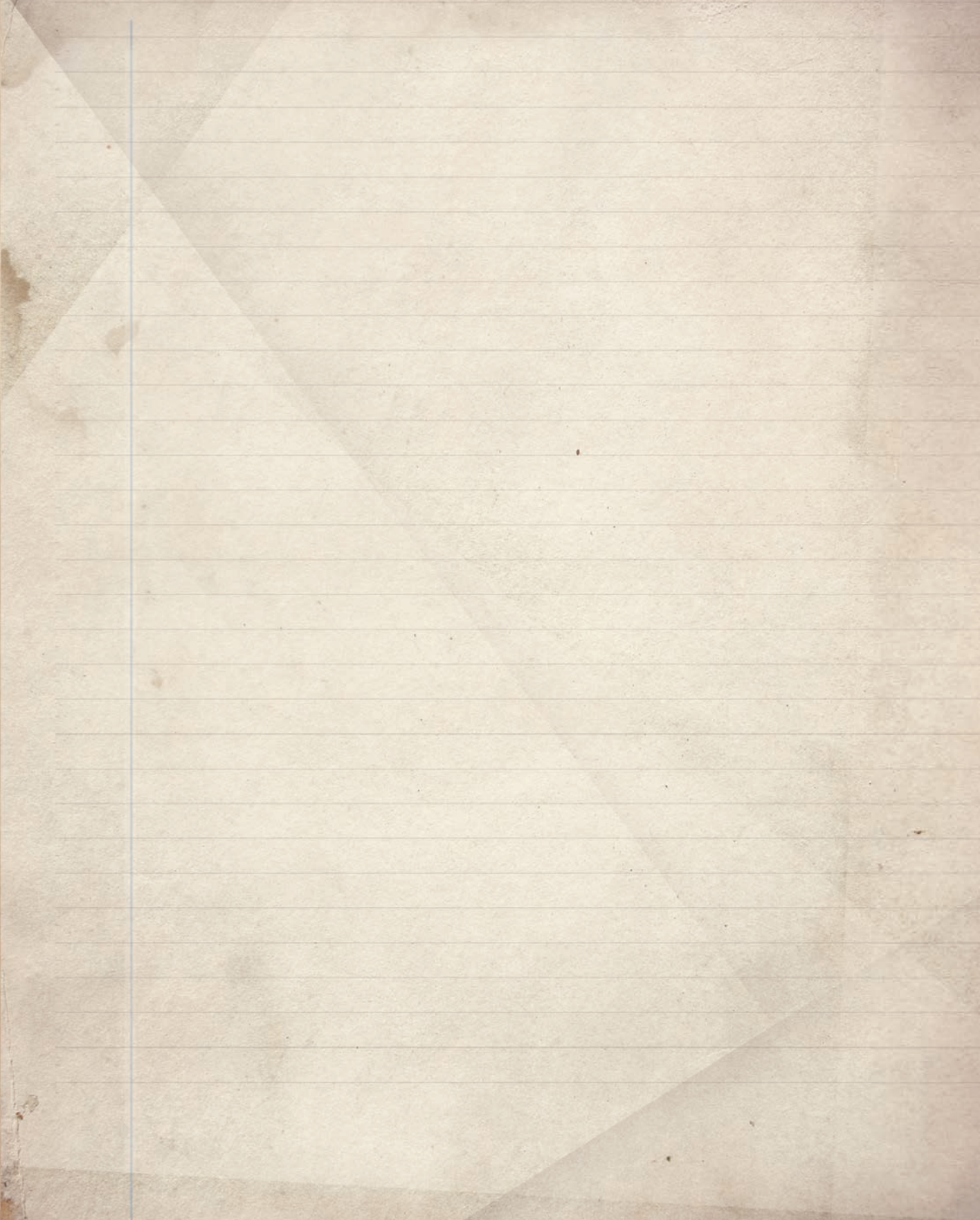
My goal is to make you a wiz with lighting, to give you a wide variety of tips and tools. When you are at a loss for ideas, flip through the book and drop a finger anywhere; this might be the place to start. I’ll give you just the right amount of technical information, so you can make educated decisions and impress your friends at parties. I also hope to inspire you with the images, which are not merely textbook style examples of a particular lighting setup, but thought-out, and professional images that are typical of real-world projects or assignments.³

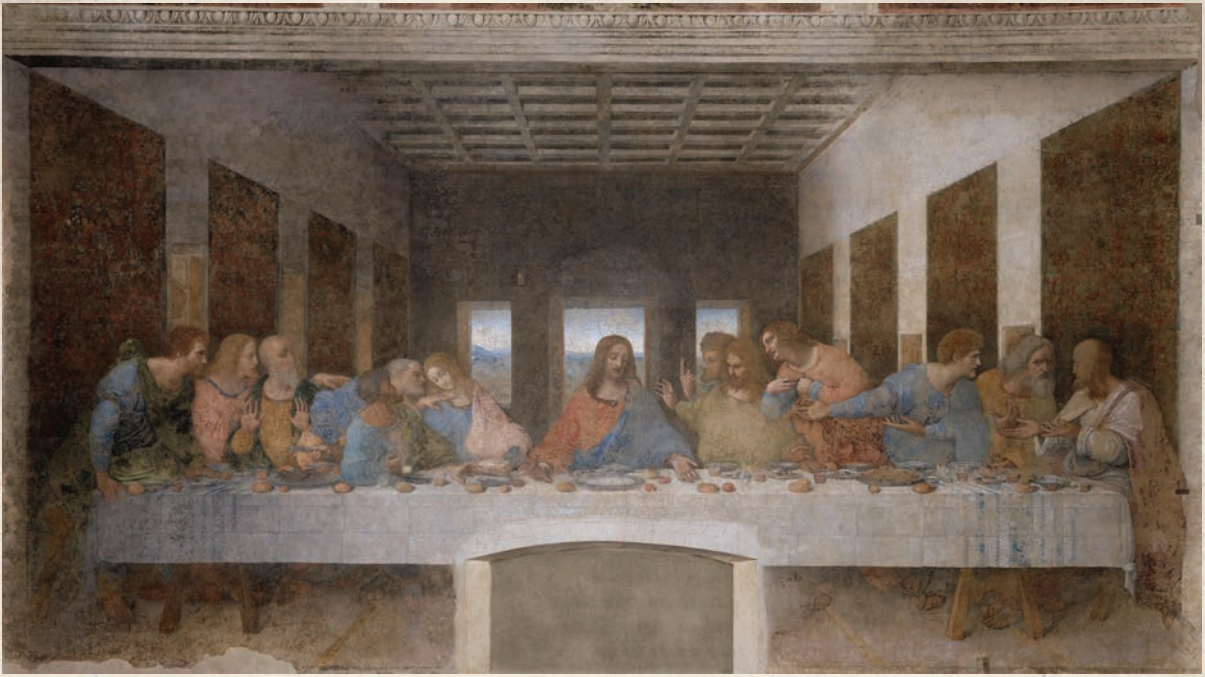
I have to admit that I didn’t know everything I included in the book before I wrote the book (no surprise there). I learned a tremendous amount via experimentation, trial and error, and assigning myself projects and challenges to be able to include in the book. *Herein lies the value of personal projects*—whether for a book, or your own personal growth. You just can’t help but learn something new when you plan the time to create and challenge yourself beyond your current abilities. The key here is *planning* the time—put it on your calendar. Personal projects are every bit as important to your business growth (and motivation) as paying jobs. It took me many years to realize and acknowledge this, and now I find it vital to my happiness and business growth. Besides, learning is fun.

I’ve always been inspired by the notebooks of *Leonardo da Vinci*, often indecipherable scribbling of a mad scientist, but fascinating insight to his mind at work and the underpinnings of ideas that very often came to light as world-changing inventions. I highly suggest you start your own lighting notebook; scribble down ideas that come to your mind, plan a new photo shoot, make a lighting diagram for a setup you really like. Although I can’t claim to be a Leonardo, I want my notebook to provide similar inspiration, albeit with a bit more attention paid to the education of the end reader, and I promise not to write backwards like Leonardo, so you won’t have to read it in a mirror.

²Available at www.TheLightingNotebook.com

³OK, there are some “textbook” images in the beginning chapters, but not so much in the actual Notebook.





Chapter 1

A Brief History of the World (of Lighting)

I was having lunch with Leonardo daVinci one day; this was quite some time ago, and he was sharing his sentiment on the quality of the paintings that he'd seen from historical artists. "They are quite flat, you see." He explained to me as he wiped some olive oil from his beard, "People are not flat. They are vibrant in form and shape, alive with light and shadow—that which constantly evolves to evoke a visceral impression of the prevailing mood or emotion."

I had no idea what he was talking about, but I played along, "Um, yah, I was just thinking that myself." I took a larger than normal bite from my bruschetta and pretended to chew laboriously, giving him time to fill in the blanks in my stead. "I know, right?!" he said after a few moments. "Nobody is really capturing the depth and realism of the human form. And do you know why?" I was still chewing, so he answered himself, "Because they lack chiaroscuro baby!" His eyes were ablaze with excitement as he leaned over the table toward me, fully dousing his beard in the olive oil now. "Without chiaroscuro, there is NO emotion! Viewers are psychologically moved by a painting when the realism of the image allows them to draw upon, and relate, their own experiences deep within their psyche—they become sympathetic!"

"So wait...you mean that Spanish comedienne, flamenco guitar playing, 'cuchi-cuchi' girl has something to do with the realism of paintings?" I couldn't hide my confusion any longer at this point. "No!" he belly laughed, almost choking on his Chianti, "that's Charo, and she's definitely not flat, but that's not what I'm talking about." He continued slowly, "Key-are-oh-skyoo-ro is the beautiful contrast of light and shadow that shapes a subject, adds realism, and, most importantly, mood!" He slammed his fist triumphantly on the tiny wooden dining table, causing my fresh mozzarella ball to jump to its death on the floor. "Nobody is doing that! Nobody is using chiaroscuro in their paintings! I'm going to start doing

it. In fact, I've got a painting due for the pope in only 9 months and I need to get started on it now if I'm going to change the world with this concept."

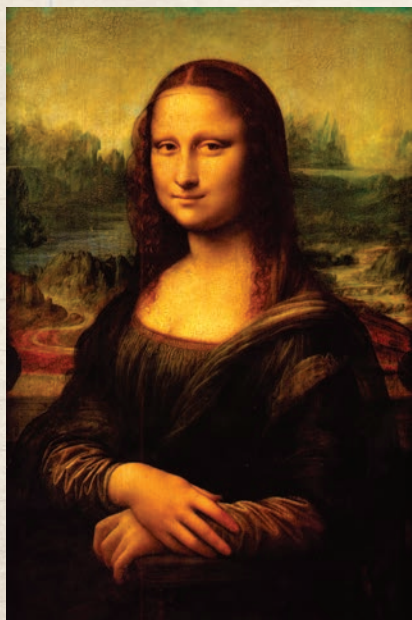
"Why don't you just use a digital camera?" I offered up as he gathered himself to leave. "Because I haven't invented that yet!" He winked and headed for the door and then turned to me one last time, "Oh, can you spot me for lunch? I don't get paid for my helicopter idea 'til Tuesday."

And that's approximately when it started. I can't say for sure that Leonardo himself initiated the change in how chiaroscuro was used in paintings to depict depth, mood, and realism. But, I'm quite sure he was one of the first to fully embrace and promote it through his art. Of course, the most famous painting of all time, the *Mona Lisa*, is a perfect example of beautifully executed chiaroscuro.

By modern definition, chiaroscuro means "contrasting effects of light and shade in a work of art"¹ Prior to the

Renaissance, most paintings were rather flat, lacking in realistic shading and perspective. When Leonardo and his contemporaries brought this technique into the mainstream, it was really the first hint at photorealism in art. In fact, if you squint your eyes while looking at some of these classic paintings, you'd swear you were looking at a photographic portrait. Then again, I see unicorns and rainbows in the clouds when I squint my eyes, so I guess that doesn't really prove anything. But you get the idea.

Another classic lighting technique born of the renaissance is the method of light *over* dark. In a sense, this could be another expression of chiaroscuro, but rather than expressing it as shading on the human form, it is represented as the main subject being lighter than the background. In effect, light objects appear to come forward to the viewer and darker objects recede. Knowing this, artists could make the subject of the artwork appear more three-dimensional and to have more impact as it literally "jumped" from the canvas in visual priority.



¹Leonardo da Vinci brought the technique to its full potential, but it is usually associated with such 17th-century artists as Caravaggio and Rembrandt, who used it to outstanding effect.—*Encyclopedia Britannica Concise*.



A classic renaissance image by Leonardo da Vinci shows light over dark, and where to find enlightenment.

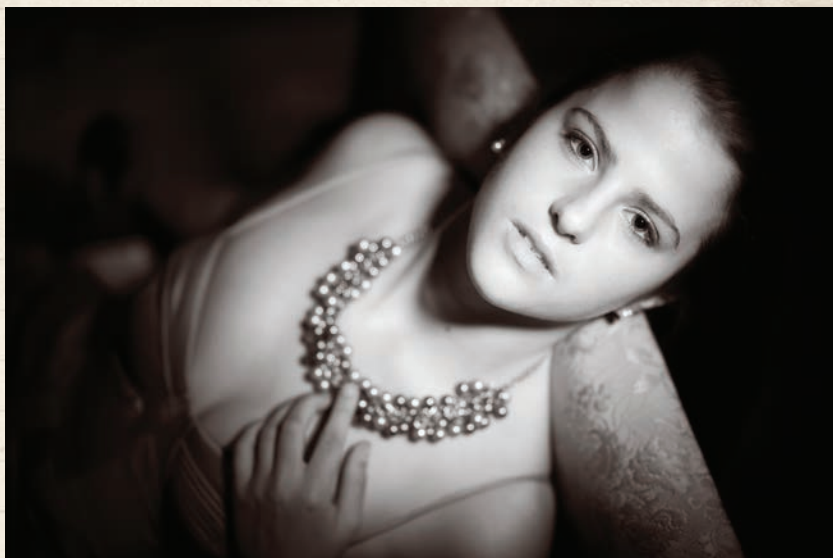
Photographers have used the technique of vignetting to darken the edges of the image, essentially emulating the classic artists' technique, since the earliest days of portraiture. The goal is the same: make the subject the brightest part of the image so it has the most visual weight. Did you ever notice that when a person with fair skin is wearing black, you more readily look to the face? Today, it's virtually a given that any photographer with access to a computer will have enhanced his or her images in some fashion by selectively darkening the edges, or parts of an image that are distracting. The same theory can be applied to your photographic lighting, *before* it moves to the domain of software. By carefully crafting your light, you can create beautiful chiaroscuro—both on the form of the subject and between subject and the background.

Photographic Lighting Styles of the 1930s and 1940s

Let's move forward in time just a little bit to the 1930s. During this Golden Age of Hollywood, photography began to display a distinct style from the quirky reportage photography of Weegee, to the dramatic and moody film style of George Hurrell. The lighting was crisp and directional. Reporters used flash bulbs to illuminate their subjects, and Hollywood style photographers were using hot lights, or Fresnel lights², to focus the illumination into deep, shaping, shadow-casting beams. This single, hard-light style was somewhat dictated by the limitations of the portable lighting equipment available at the time, as in the case of reportage photography. A single flash bulb was the primary light source, and it was usually positioned just above and slightly to the side of the lens or held in one hand slightly farther away, but in the same configuration. This positioning gave the subjects their distinct dark shadow slightly below and to the side of their features.

Hurrell exaggerated this effect and positioned his crisp lights for Rembrandt-style and butterfly-style

lighting³—as well as many other creative variations of these techniques. Although the signature style of his images suggested the use of only one light source, he occasionally used other lights to enhance the background or to add some shadow fill. While the Hurrell style of photography fell out of favor for a period after his heyday, it has received a resurgence of interest and remains one of the most influential styles of photographic lighting to this day. Although George Hurrell didn't invent this particular style of lighting, he certainly put his signature on it.



My rendition of a Hurrell-style portrait. See another version of this image in the Notebook section.

The 1930s also began the Golden Age of Photojournalism—and with that, the ubiquitous use of smaller 35mm cameras and the inconspicuousness of natural-light photography. This was very different than the “in-your-face” style of the gritty street reporter and opened the door to an almost “anything goes” style of candid imagery that continued through the 1960s and ’70s and on to this day. With natural-light “journalistic” photography, if the light creates or enhances the mood the photographer is seeking, then it's good. It was no longer all about perfectly controlled and exposed imagery, it was about freezing a moment in time and connecting the viewer to the image by its sheer realism, which was often *enhanced* by the imperfection of the exposure or lighting.

²Fresnel lights will be explained in Chapter 2.

³Lighting styles will be discussed in Chapter 2.

The au Naturel 1960s and 1970s

In the 1960s and '70s (as in most cinematic eras), photographic lighting was heavily influenced by cinematography, and one specific influence was Raoul Coutard, a French cinematographer who used primarily natural light in his films. This was a departure from most previous filmmaking that relied on extensive artificial lighting. Coutard's desire to shoot with handheld cameras and to use or emulate natural light also led him to use bounced light, which was very soft and even in illumination. The photographer would "bounce" artificial lights into the ceiling or wall of a room to emulate or enhance the light that was already there. This natural light style became very prevalent among American cinematographers and photographers of the era as well—and continues to this day.



This image captures the fun, fresh, and natural style of the era.

Although the natural style of lighting became more prevalent in the '60s and '70s this was also an era of "anything goes"—in more ways than just photographic lighting! Photographers really began to experiment with composition, light, color, and challenging what was "normal." Rock-and-roll and fashion photography became a major influence on other photographic genres, and the work of icons like Annie Liebowitz and David Bailey influenced countless other photographers through the following years. Liebowitz, in particular, had a trademark style of using a very large, yet directional light source, which allowed for rich chiaroscuro even in her environmental portraits where the subject is a smaller part of a larger scene. In Chapter 3, we'll discuss how the relative size of the light source to the subject can affect the quality and depth of the shading.

Bold and Edgy 1980s

Not only were many of our favorite songs born in the '80s but also that fashion-centric, blown-out, cross-processed high-contrast look in photos, which has recycled itself—unlike mullets and shoulder pads. Nick Knight is arguably one of the best-known "fashionable cross-processors" of the era, and his work is still cutting edge and influential. Lighting was bold. Faces were overexposed. Colors were wacky. It sounds like one of those late nights in an '80s disco, doesn't it? Just like music and fashion, '80s photography was in-your-face and anything but subtle.



I enhanced this image in Photoshop using my cross-processing software to achieve that 80s look.

The New Retro 2000s

Today, it seems, old is new again. Photography trends pull from the past—with Holga, sloppy borders, Diana, and vintage being the buzzwords. Digital photography is no longer new and experimental, but a well-understood and established method for capturing images. It has earned its respect, and the goal is no longer to get the cleanest image possible from digital, but to actually make it look less perfect, and more *analog*—just like in the early days of photography.

Photographers seem to be rediscovering lighting styles and processing techniques (or their digital equivalents) from the early days of photography. In the 1990s, digital imaging was still proving itself. Photographers either strived for the cleanest, sharpest images possible—eager to emulate what they could do with film, or they went crazy overprocessing their images with the plethora of software options. Why? Because they could! "I'll just fix it in Photoshop" became the jargon of the decade, and many photographers forgot to be, well, photographers.

THE IMPORTANCE OF LIGHTING TO PHOTOGRAPHY

In 2010 and beyond, photographers who are over the novelty of digital imaging are returning to the basics of good photography: subject matter, composition, impact, and *lighting*. Good lighting is not a trend in photography, it is the backbone. While lighting styles may shift and evolve, understanding how to light your subject for mood and flattery never loses importance.

The Emotional Response to Light

It is no secret, and it is well documented that the quality, quantity, and color spectrum of light can significantly affect our moods and even our health. People who live in northern parts of the country and are exposed to less natural daylight in the winter months are more likely to feel depressed. They can even be diagnosed with Seasonal Affective Disorder (SAD), which results in feelings of depression, gloom, or fear. Brighter, full-color-spectrum lights elevate our moods, creating a sense of happiness, well being, and trust. Dark shadows and contrast can be mysterious, threatening, or maybe even exciting. Softer, lower-intensity, and warm-colored lighting can relax us and calm our minds. It can also make us feel quiet and more intimate. It's no wonder that nightclubs and romantic restaurants have glowing amber lights and soft diffusers on their lighting fixtures. They would quickly lose their customers if the room was filled with bright, even illumination, or they'd attract the bingo crowd instead of the romantic interlude crowd.

Other light colors also have general effects on us. Red can stimulate and excite. Light blue calms and assures. Yellow can be cheerful and energetic. Green is relaxing and peaceful. Pink is comforting and friendly. Purple is unique and special, indicating you want to be noticed. Orange is energetic and creative. White is pure and innocent, and black might say, "I don't really want to be noticed" or "I'm a really sloppy spaghetti eater, and this hides it well." Although individual cultures can associate different emotions to colors, it is universally accepted that color does indeed affect our moods in a noticeable way. Healing arts are based around chromotherapy, or using light and color to improve health and mood.

Armed with this colorful knowledge, how can we affect the mood of a photograph by the strategic use of color and light? When planning a photograph, start with

considering the three primary attributes of your lighting: *quality*, *quantity*, and *color*. I generally think about the concept for the photo, the theme, and the general *feeling* that I want to convey. Will it be fun and playful? Soft and romantic? Mysterious? Edgy? Steeped in metamorphic transfiguration (yah, I used the dictionary for that one)? When I have the generally feeling, I start to build a lighting plan in my head, or even on the well-lit pages of my notebook.

The general term, "quality of light" is usually referred to as a combination of contrast, softness, quantity, and color. However, I prefer to break it down to the three most distinct components. The *quality* of the light is defined by the hardness or softness of the shadow transition areas. The *quantity* of light equates to the overall brightness or darkness of the scene—for example in a high-key or low-key image. The *color* of the light could be an overall predominant color, or colorcast, in the image—or a mixture of colored lights in the same image. Even when there is a mixture of colored light in an image, usually a predominant color influences the mood of the photo.

So, back to my plan. Decide on the concept and then build the light to match. For a child's portrait, I may want something bright, soft, and warmer to enhance that embraceable cuddly feeling kids give us (generally speaking, of course). Brighter lighting, with open shadows, creates a feeling of trust and comfort—exactly what we want when portraying children. If I were creating an executive portrait for a man, I'd choose bolder lighting, with more contrast and more blue tones on the background to enhance the masculinity and "trust-ability" that blue, as a color, creates. For a female boudoir-type photo, I might use soft, shadowy light with darker luscious red tones to create mystery, passion, and romance. If only it were that easy in real life, sigh.

Every rule is made to be broken, of course, and many wonderful portraits have surely been made of children with harsh, moody, blue light, too (although I haven't personally seen them). The key is to match your lighting to the feeling, whatever it may be, that *you* want to convey or enhance in your photograph. A common mistake of beginning photographers is to use the same basic lighting setups that they are familiar or comfortable with, on almost every subject—whether it's appropriate or not. They go with what's safe for them rather than what's best

for the image. One of the goals of this book is to give photographers enough tools and ideas so they can pull a few more tricks out of their proverbial hats—lighting their way to more beautiful and poignant imagery.

Light Shapes and Defines the Subject

I suggested earlier that people often wear black when they really don't want to be noticed—when they want to blend in. But, what is one of the most common reasons people wear black clothing? You got it, because it's visually slimming. Nero is your hero, baby, when it comes to hiding the extra pizza. Wearing black clothing is like wearing shadows on your whole body. Shadows hide things, like burglars and cellulose.

Remember how renaissance painters would use light over dark to make parts of an image visually pop or recede? When you want to hide something, put it in shadow or wear black. By creating shadows on your subject, you can

hide parts of the body that prefer to stay anonymous. You can make round shapes, like faces, arms, legs, and bodies, look rounder or thinner, by creating more or less shadow areas. This is extremely useful information when you consider that many people feel their face (or another body part) is too round or too thin, or too lumpy, and you can be the heroine and make it look juuuuust right—with the right light.

In the next chapter, we'll talk in detail about different styles of lighting and how they can shape and enhance your subject, but for now, scribble this in your own lighting notebook, "What kind of light will best flatter this subject?" It's an important thing to remember when building your lighting plan and should always be the first question you ask yourself before making portraits that you want clients to actually purchase. They won't buy it if they don't like how they look. So make them look good.



Chapter 2

The Lingo of Lighting

GENERAL LIGHTING STYLES

You can light your subject in countless ways—any of which could be completely awesome or completely awful. That’s daunting! Most lighting styles, fortunately, stem from a few basic foundational ways of lighting the face and form. After you are familiar with these, you can use them for starting points to your own fabulous, trend-setting lighting style. The first few techniques I’ll cover are not really styles, per se, but refer to the number of lights used and their standard placements. It is important to understand these placements, however, as they form the basis of most classic lighting styles.